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FIELD MAINTENANCE PRINT SET

TABLE OF CONTENTS

DRAWING NUMBER	DESCRIPTION
K-TC-KA785-0-DBF	CPU ASSY (KA785)
B-DD-KA785-AA	DRAWING DIRECTORY (KA785)
B-DD-KA785-AB	DRAWING DIRECTORY (KA785)
E-UA-KA785-0-0	CPU ASSY (KA785)
K-PL-KA785-0-DBP	CPU ASSY (KA785)
D-MU-KA785-0-2	MODULE UTILIZATION CPU
D-BD-KA785-0-3	CPU SYSTEM BLOCK DIAGRAM
D-FD-KA785-0-4	VAX AND CM MODE ENTRY POINTS
E-IA-7020579-0-0	BACKPLANE ASSY (CPU)
E-UA-5412870-YA-0	BOARD, DRILL AND ETCH CPU - 1
E-UA-5412872-YA-0	BOARD, DRILL AND ETCH CPU - 2
D-IC-11785-A-3	S.B.I. INTERCONNECT 11785-A
E-AD-7014956-0-0	SUPPLY, UBA OPTION
E-UA-M7460-0-0	S.B.L.
K-PL-M7460-0-DBP	S.B.L.
K-CS-M7460-0 (COMPLETE SET)	S.B.L.
B-DD-M7460-0-0	S.B.L.
E-EC-5016069-0-0	S.B.L. (ETCH CUT)
E-UA-M7461-0-0	S.B.H.
K-PL-M7461-0-DBP	S.B.H.
K-CS-M7461-0 (COMPLETE SET)	S.B.H.
B-DD-M7461-0-0	S.B.H.
E-EC-5016078-0-0	S.B.H. (ETCH CUT)
E-UA-M7462-0-0	C.A.M.
K-PL-M7462-0-DBP	C.A.M.
K-CS-M7462-0 (COMPLETE SET)	C.A.M.
B-DD-M7462-0-0	C.A.M.
E-EC-5016077-0-0	C.A.M. (ETCH CUT)
E-UA-M7463-0-0	C.D.M.
K-PL-M7463-0-DBP	C.D.M.
K-CS-M7463-0 (COMPLETE SET)	C.D.M.
B-DD-M7463-0-0	C.D.M.

UNIT VARIATIONS COVERED BY THIS PRINT SET
KA785-AA
KA785-AB

FIELD MAINTENANCE PRINT SET

KA785

DIGITAL EQUIPMENT CORPORATION

PRINT SET ORDER NO. MP01749

REVISION HISTORY

REV	ECO NUMBER	DATE
A	INITIAL	1/11/33
B	KA785-TU002	11/29/34

CONT. REVISION HISTORY

REV	ECO NUMBER	DATE

MADE BY: D. HERTZ
DATE: 10-OCT-83

CHECKED BY: D. CIRKA
DATE: 10-OCT-83

PROJECT ENGR: D. CIRKA
DATE: 10-OCT-83

RSPSLE ENGR: R. CASABONA
DATE: 10-OCT-83

FIELD SERVICE: F. RAMADAN
DATE: 10-OCT-83

d i s i t a l

TITLE: FIELD MAINTENANCE PRINT SET

CPU ASSY KA785

SIZE	CODE	DOCUMENT NUMBER	REV.
K	TC	KA785-0-DBF	B

SHEET 1 OF 3

TU

***** FIELD MAINTENANCE PRINT SET *****

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TABLE OF CONTENTS

DRAWING NUMBER	DESCRIPTION
E-EC-5016076-0-0	C.D.M. (ETCH CUT)
E-UA-M7464-0-0	T.B.M.
K-PL-M7464-0-DBP	T.B.M.
K-CS-M7464-0 (COMPLETE SET)	T.B.M.
B-DD-M7464-0-0	T.B.M.
E-EC-5016075-0-0	T.B.M. (ETCH CUT)
E-UA-M7465-0-0	I.D.P.
K-PL-M7465-0-DBP	I.D.P.
D-CS-M7465-0 (COMPLETE SET)	I.D.P.
B-DD-M7465-0-0	I.D.P.
E-UA-M7466-0-0	I.R.C.
K-PL-M7466-0-DBP	I.R.C.
K-CS-M7466-0 (COMPLETE SET)	I.R.C.
B-DD-M7466-0-0	I.R.C.
E-EC-5016073-0-0	I.R.C. (ETCH CUT)
E-UA-M7467-0-0	D.B.P.
K-PL-M7467-0-DBP	D.B.P.
K-CS-M7467-0 (COMPLETE SET)	D.B.P.
B-DD-M7467-0-0	D.B.P.
E-EC-5016072-0-0	D.B.P. (ETCH CUT)
E-UA-M7468-0-0	D.E.P.
K-PL-M7468-0-DBP	D.E.P.
D-CS-M7468-0 (COMPLETE SET)	D.E.P.
B-DD-M7468-0-0	D.E.P.
E-UA-M7469-0-0	D.D.P.
K-PL-M7469-0-DBP	D.D.P.
D-CS-M7469-0 (COMPLETE SET)	D.D.P.
B-DD-M7469-0-0	D.D.P.
E-UA-M7470-0-0	D.C.P.
K-PL-M7470-0-DBP	D.C.P.
D-CS-M7470-0 (COMPLETE SET)	D.C.P.
B-DD-M7470-0-0	D.C.P.
E-UA-M7471-0-0	D.A.P.
K-PL-M7471-0-DBP	D.A.P.
D-CS-M7471-0 (COMPLETE SET)	D.A.P.
B-DD-M7471-0-0	D.A.P.
E-UA-M7472-0-0	C.E.H.
K-PL-M7472-0-DBP	C.E.H.
K-CS-M7472-0 (COMPLETE SET)	C.E.H.
B-DD-M7472-0-0	C.E.H.
E-EC-5016099-0-0	C.E.H. (ETCH CUT)

d	i	s	i	t	a	l	TITLE		DOCUMENT NUMBER			
							TABLE OF CONTENTS KA7??	SHEET 2 OF 3	SIZE K	CODE TC	NUMBER KA785-0-D3F	REV. B

TW

***** FIELD MAINTENANCE PRINT SET *****

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TABLE OF CONTENTS

DRAWING NUMBER	DESCRIPTION
E-UA-M7473-0-0	I.C.L.
K-PL-M7473-0-DBP	I.C.L.
K-CS-M7473-0 (COMPLETE SET)	I.C.L.
B-DD-M7473-0-0	I.C.L.
E-EC-5016100-0-0	I.C.L. (ETCH CUT)
E-UA-M7474-0-0	C.L.K.
K-PL-M7474-0-DBP	C.L.K.
K-CS-M7474-0 (COMPLETE SET)	C.L.K.
B-DD-M7474-0-0	C.L.K.
E-EC-5016101-0-0	C.L.K. (ETCH CUT)
E-UA-M7475-0-0	J.C.S.
K-PL-M7475-0-DBP	J.C.S.
K-CS-M7475-0 (COMPLETE SET)	J.C.S.
B-DD-M7475-0-0	J.C.S.
E-EC-5016102-0-0	J.C.S. (ETCH CUT)
E-UA-M7476-0-0	U.S.C.
K-PL-M7476-0-DBP	U.S.C.
K-CS-M7476-0 (COMPLETE SET)	U.S.C.
B-DD-M7476-0-0	U.S.C.
E-EC-5016103-0-0	U.S.C. (ETCH CUT)
E-UA-M7477-0-0	C.I.B.
K-PL-M7477-0-DBP	C.I.B.
D-CS-M7477-0 (COMPLETE SET)	C.I.B.
B-DD-M7477-0-0	C.I.B.
E-UA-M7459-0-0	T.R.S.
K-PL-M7459-0-DBP	T.R.S.
D-CS-M7459-0 (COMPLETE SET)	T.R.S.
B-DD-M7459-0-0	T.R.S.
E-EC-5016067-0-0	T.R.S. (ETCH CUT)

d	i	g	i	t	a	l	TITLE	SHEET 3 OF 3
							TABLE OF CONTENTS KA795	

DOCUMENT NUMBER			
SIZE	CODE	NUMBER	REV.
K	TC	KA795-0-DBF	B

TW

SIZE	CODE	NUMBER	REV
B	DD	KA785-AA	B

DRAWING NO.	NO OF SHTS	PART NO.	DESCRIPTION	REVISIONS *														
			OPTION REV	00	B													
K-TC-KA785-0-DBF		MP01749	TABLE OF CONTENTS MP01749	A	B													
K-PL-KA785-0-DBP			PARTS LIST 11785-A	B	B													
E-UA-KA785-0-0			UNIT ASSEMBLY 11785-A	A	A													
D-IC-11785-A-1			POWER INTERCONNECT 11785-A	A	A													
D-IC-11785-A-2			BACKPLANE INTERCONNECT 11785-A	A	A													
D-IC-11785-A-3			SBI INTERCONNECT 11785-A	A	A													
D-MU-KA785-0-2			KA785 MODULE UTILIZATION	A	A													
D-BD-KA785-0-3			BLOCK DIAGRAM	A	A													
D-FD-KA785-0-4			VAX AND CM MODE ENTRY POINTS	A	A													
K-RM-KA785-AA			REV MATRIX	A	B													

NOTES: * OPTION REVISION 00 IS EQUIVALENT TO A.

REVISION HISTORY																		
REV.	A	B																
ECO NO.	RELEASE	TW002																
DATE	9/84	11/84																

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USED ON OPTION/MODEL

DRN Barbara Pellicciа	DATE
CHK'D	DATE
DES. ENG.	DATE
RESP. ENG.	DATE
MFG. ENG.	DATE

TITLE: KA785-AA

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
B	DD	KA785-AA	B

SHEET 1 OF 1

TH

SIZE	CODE	NUMBER	REV
B	DD	KA785-AB	B

DRAWING NO.	NO OF SHTS.	PART NO.	DESCRIPTION	* REVISIONS	
			OPTION REV	00	B
K-TC-KA785-0-DBF		MP01749	TABLE OF CONTENTS MP01749	A	B
K-PL-KA785-0-DBP			PARTS LIST 11785-A	B	C
E-UA-KA785-0-0			UNIT ASSEMBLY 11785-A	A	A
D-IC-11785-A-1			POWER INTERCONNECT 11785-A	A	A
D-IC-11785-A-2			BACKPLANE INTERCONNECT 11785-A	A	A
D-IC-11785-A-3			SBI INTERCONNECT 11785-A	A	A
D-MU-KA785-0-2			KA785 MODULE UTILIZATION	A	A
D-BD-KA785-0-3			BLOCK DIAGRAM	A	A
D-FD-KA785-0-4			VAX & CM MODE ENTRY POINTS	A	A
K-RM-KA785-AB			REV MATRIX	A	B

NOTES: * OPTION REVISION 00 IS EQUIVALENT TO A.

REVISION HISTORY			
REV.	A	B	
ECO NO.	RELEASE	TW002	
DATE	9/84	11/84	

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USED ON OPTION/MODEL

DRN. D FOURNIER	DATE 13 Sept 84	TITLE KA785-AB
CHK'D T. MCCULLOUGH	DATE 13 Sept 84	DOCUMENT NUMBER
DES. ENG. J. BEATTY	DATE 13 Sept 84	SIZE B CODE DD NUMBER KA785-AB REV B
RESP. ENG. J. BEATTY	DATE 13 Sept 84	SHEET 1 OF 1
MFG. ENG. C. KEANEY	DATE 13 Sept 84	

DRB 1264

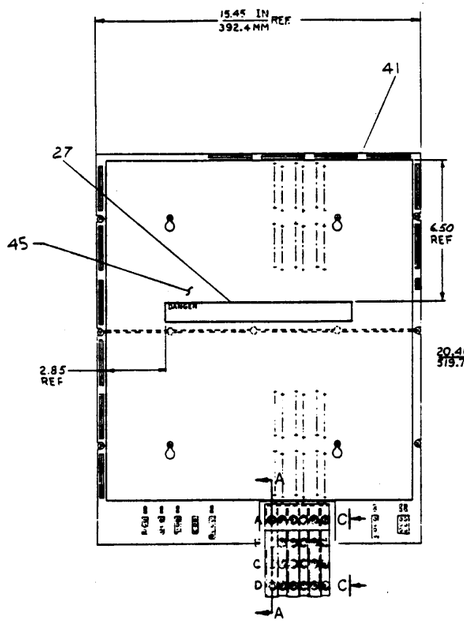
TW

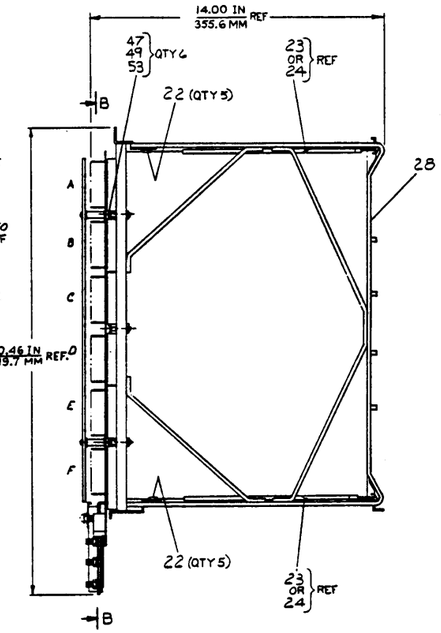
NOTES: (PERTAINS TO SHEET 1 ONLY.)

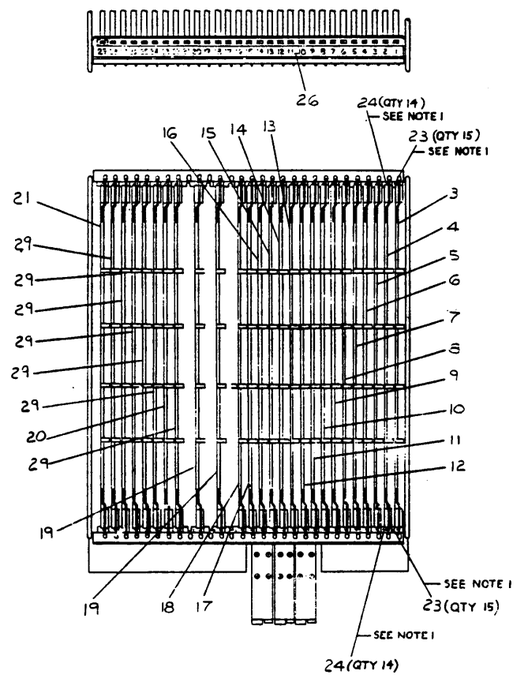
1. CARD GUIDES TO BE INSTALLED AS FOLLOWS
   ITEM 23 IN ODD ROWS 1,3,5 ETC.
   ITEM 24 IN EVEN ROWS 2,4,6 ETC.
2. FOR INSTALLATION OF ITEMS 30 THRU 37, AND 40 SEE THE FOLLOWING INTERCONNECT DRAWINGS.

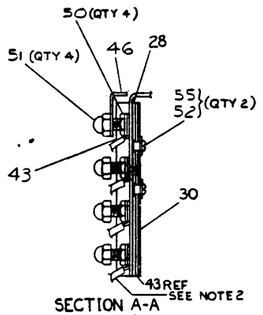
DRAWING NO.	DESCRIPTION
D-IC-11785-A-1	11785A PWR INTERC.
D-IC-11785-A-2	11785A BKPLN. INTERC.
D-IC-11785-A-3	11785A SBI INTERC.

3. FOR KA785 MODULE UTILIZATION SEE D-MU-KA785-0-0.

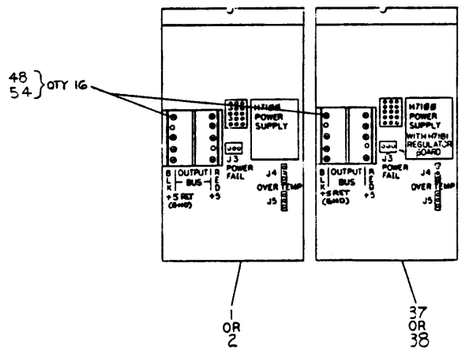


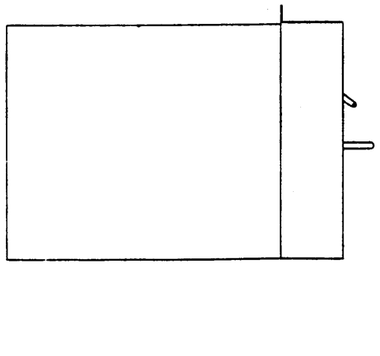


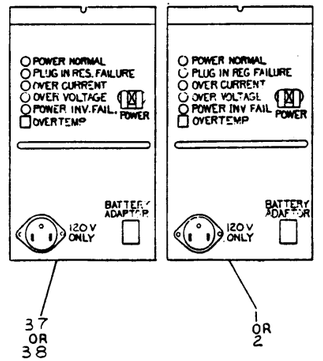


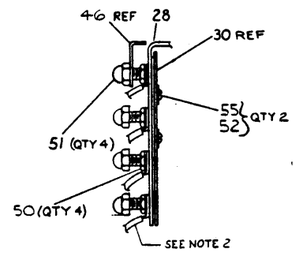


SECTION A-A
SCALE: 1/1
(TYP. 3 PLACES)







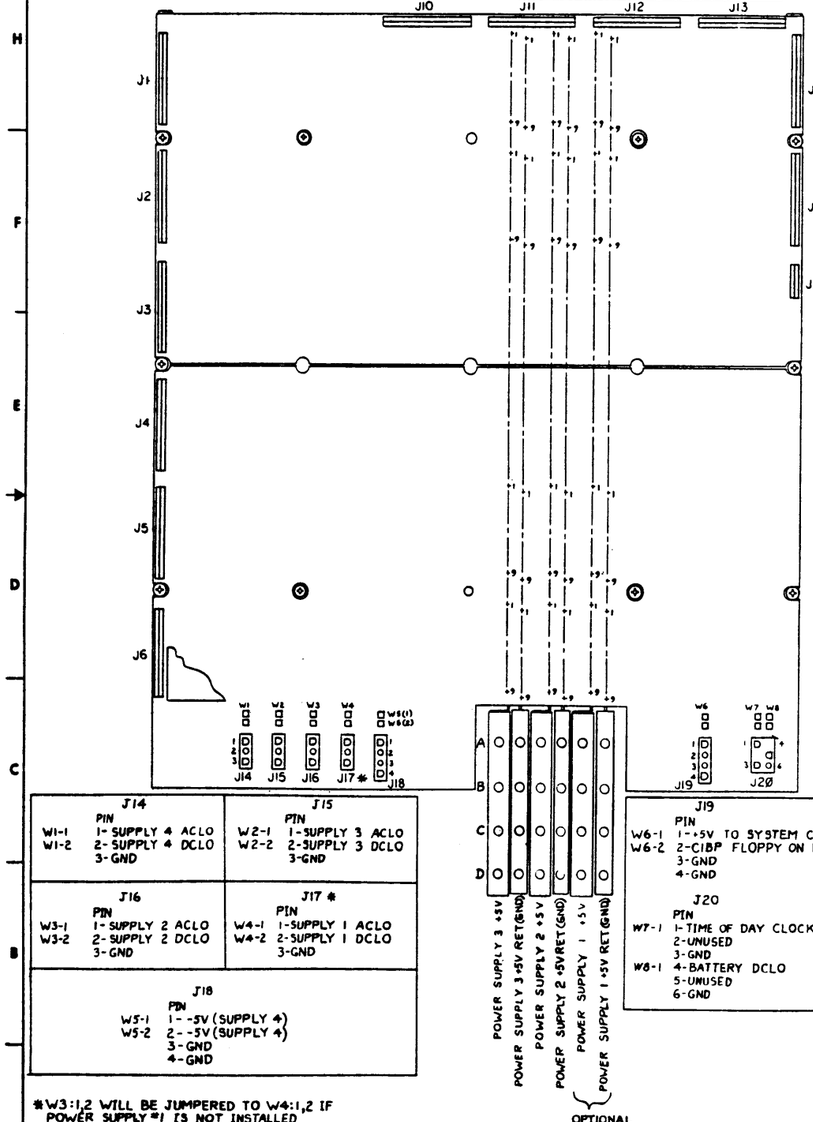


VIEW C-C
SCALE 1/1
(TYP 3 PLACES)

FOR PARTS LIST SEE A-PL-KA785-0-0 (Z5518A)

TITLE	CPU ASSY. (KA785)
MATERIAL	SEE PARTS LIST
SIZE	B
CODE	UA
NUMBER	KA785-0-0
REV.	A
SHEET	1/2

TW 1



CONNECTORS J1-J6 ARE SBI SIGNALS OUT AND CONNECT TO ANOTHER BACKPLANE (E.G. UBA, MBA) OR A TERMINATOR

FOR J10 USAGE SEE CPU TR ARBITRATION LEVEL SELECTION

J10	
PIN	SIGNAL NAME
B	TR SEL 1 L
D	TR SEL 2 L

FOR J11 & J12 USAGE SEE TABLE 2

J11		J12	
PIN	TO	PIN	TO
X	C18B1	B	C22B1
Z	C18L1	D	C22L1
BB	C18L2	F	C22L2
DD	C18M1	J	C22M1
FF	C18V2	L	C22V2
LL	C20B1		
NN	C20L1		
RR	C20L2		
TT	C20M1		
VV	C20V2		

J14

PIN	
W1-1	1-SUPPLY 4 ACLO
W1-2	2-SUPPLY 4 DCLO
	3-GND

J15

PIN	
W2-1	1-SUPPLY 3 ACLO
W2-2	2-SUPPLY 3 DCLO
	3-GND

J16

PIN	
W3-1	1-SUPPLY 2 ACLO
W3-2	2-SUPPLY 2 DCLO
	3-GND

J17 *

PIN	
W4-1	1-SUPPLY 1 ACLO
W4-2	2-SUPPLY 1 DCLO
	3-GND

J18

PIN	
W5-1	1--5V (SUPPLY 4)
W5-2	2--5V (SUPPLY 4)
	3-GND
	4-GND

J19

PIN	
W6-1	1-+5V TO SYSTEM CONTROL PANEL
W6-2	2-CIBP FLOPPY ON H
	3-GND
	4-GND

J20

PIN	
W7-1	1-TIME OF DAY CLOCK +5V
	2-UNUSED
	3-GND
W8-1	4-BATTERY DCLO
	5-UNUSED
	6-GND

* W3:1,2 WILL BE JUMPERED TO W4:1,2 IF POWER SUPPLY #1 IS NOT INSTALLED IN THE SYSTEM

LSI 11 BUS

(J7) PIN	TO	SIGNAL NAME
C	B29R1	BEVNT L
E	B29N1	BSACK L
K	B29B1	BPOK L
M	B29A1	BDCOK L
S	A29R1	BREF L
W	A29S1	BHALT L
Y	B29S1	BINIT L
CC	B29B2	BDMR L
EE	A29M2	BIAKI L
HH	A29L2	BIRQ L
KK	A29J2	BSYNC L
MM	A29D2	BDIN L
PP	B29D2	BRPLY L
SS	A29E2	BDOUT L
(J8) PIN		
C	B29P1	BBS7 L
E	A29K2	BWTBT L
H	B29V2	BDAL 15 L
K	B29U2	BDAL 14 L
M	B29T2	BDAL 13 L
P	B29S2	BDAL 12 L
S	B29R2	BDAL 11 L
U	B29P2	BDAL 10 L
W	B29M1	BDAL 09 L
Y	B29M2	BDAL 08 L
AA	B29L1	BDAL 07 L
CC	B29F1	BDAL 06 L
EE	B29E1	BDAL 05 L
HH	B29D1	BDAL 04 L
KK	B29C1	BDAL 03 L
MM	B29E2	BDAL 02 L
PP	A29V2	BDAL 01 L
SS	A29U2	BDAL 00 L

SCP SIGNAL

(J9) PIN	TO	SIGNAL NAME
B	A29A1	SCPA BOOT SW H
D	A29B2	SCPA AUTO RESTART H
F	A29F1	SCPA LOCK H
K	A29D1	CIBN RUN H
L	A29E1	CIBN ATTN H
J	A29K1	SCPA REMOTE H

SYSTEM IDENTITY (SYSID) REGISTER

BIT	WIRE WRAPPED CONNECTION (REMOVE JUMPER TO ASSERT BIT)	
31	J12-V — F29R2	JUMPER INSTALLED **
30	J12-X — F29U2	
29	J12-Z — F29V2	
28	J12-BB — F29T2	
27	J12-DD — F29L2	
26	J12-FF — F29P2	
25	J12-JJ — F29M2	
24	J12-LL — F29S2	JMPR OUT **
23	J12-NN — C29D2	SEE TABLE 1
22	J12-RR — C29D1	
21	J12-TT — F29K2	CURRENT SYSTEM REV LEVEL
20	J12-VV — F29B1	
19	J13-B — E29P1	
18	J13-D — E29N1	
17	J13-F — F29A1	
16	J13-J — E29R2	
15	J13-L — D29D1	
14	J13-N — D29P1	PLANT CODE
13	J13-R — E29H2	
12	J13-T — D29A1	
11	J13-V — D29N1	SYSTEM SERIAL NUMBER (DETERMINED AT TIME OF BUILD)
10	J13-X — D29B1	
9	J13-Z — C29S2	
8	J13-BB — C29T2	
7	J13-DD — C29U2	
6	J13-FF — C29U1	
5	J13-JJ — C29P2	
4	J13-LL — C29P1	
3	J13-NN — C29M1	
2	J13-RR — C29B1	
1	J13-TT — C29C1	
0	J13-VV — C29N1	

SYSID SW (J31:00) H

CPU TR ARBITRATION LEVEL SELECTION

TR ID LEVEL	J10 TR SEL JUMPER POINTS J10-D	J10-B	TR ARBITRATION LEVEL SELECT (WIRE WRAPPED JUMPER) FROM	TO
16	I	I	— **	
15	I	-	SBLU MY BUS TR L (F02M2)	F02U2 (BUS SBI TR15 L)
14	-	I		F02U1 TR14 L
13	-	-		F02T2 TR13 L

SEE NOTE 1 & 2 (SHEET 2)

** NORMAL PROCESSOR CONFIGURATION

NOTES: (PERTAINS TO SHEET #2 ONLY.)

1. CPU TR SELECTION
   A. SELECT DESIRED TR LEVEL
   B. SET THE TR SEL JUMPERS FOR DESIRED TR LEVEL FROM CHART
   C. ALL TR LEVELS OTHER THAN TR16 REQUIRE A TR JUMPER TO BE WIRE WRAPPED ON THE CPU BACK PANEL SLOT 2
   D. SELECT TR JUMPER FROM CHART. MAKE WIRE WRAP CONNECTION ON SLOT 2 (IF JUMPER IS REQUIRED)
2. JUMPER PART NUMBER 1214314-0-0 (ITEM 25)
3. A. PS #3 SOURCES SLOTS 4 THRU 16, AND 18.
   B. PS #2 SOURCES SLOTS 1 THRU 3, 20, 22, 23, AND 29.
   C. PS #1 SOURCES SLOTS 24 THRU 28.

TABLE 1
CPU TYPE FIELD

SYSID BIT: 23 (J12-NN)	22 (J12-RR)	CPU TYPE
IN	IN	11/780
OUT	IN	11/785 **
OUT	OUT	RESERVED

** = NORMAL CONFIGURATION

TABLE 2
JCS ADDRESS SELECT

M7475 SLOT 18	M7475 SLOT 20	CPU BACKPLANE CONNECTOR J11-LL	J11-X
0-4K	5-8K	IN	OUT **
5-8K	0-4K	OUT	IN

** = NORMAL CONFIGURATION

REVISIONS		
CHG	CHANGE NO.	DSN

TITLE: CPU ASSY (KA785)
SIZE: B | CODE: UA | NUMBER: KA-785-0-0 | REV: A
SCALE: 1/1 | SHEET 2 OF 2 | DIST:
TW

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION AA	AB
					VARIATION REVISION LEVEL:	00	00
1	1	B-DD-H7100-0-0	H7100-A		11780 500 WATT SUPPLY: 5V 100A,1	1	-
2	2	B-DD-H7100-0-0	H7100-B		11780 500-WATT SUPPLY: 5V 100A,2	-	1
3	3	E-UA-M7459-0-0	M7459-00		TRS,TERMINATOR & SILO,4-LAYER HE	1	1
4	4	E-UA-M7460-0-0	M7460-00		KA785,SBL,CPU SBI LOW BITS INTER	1	1
5	5	E-UA-M7461-0-0	M7461-00		KA785,SBH,SBI (SYNCHRONOUS BACK	1	1
6	6	E-UA-M7462-0-0	M7462-00		KA785,CAM,CACHE ADDRESS MATRIX,4	1	1
7	7	E-UA-M7463-0-0	M7463-00		KA785,CDM,CACHE DATA MATRIX,4-LA	1	1
8	8	E-UA-M7464-0-0	M7464-00		KA785,TBM,CPU TRANSLATION BUFFER	1	1
9	9	E-UA-M7465-0-0	M7465-00		KA785,IDP,CPU INSTRUCTION DATA P	1	1
10	10	E-UA-M7466-0-0	M7466-00		KA785,IRC,CPU INSTRUCTION DECODE	1	1
11	11	E-UA-M7467-0-0	M7467-00		KA785,DBP,CPU DATA PATH "B",4-LA	1	1
12	12	E-UA-M7468-0-0	M7468-00		KA785,DEP,CPU DATA PATH E,4-LAYE	1	1
13	13	E-UA-M7469-0-0	M7469-00		KA785,DDP,CPU DATA PATH D,4-LAYE	1	1
14	14	E-UA-M7470-0-0	M7470-00		KA785,DCP,CPU DATA PATH C,4-LAYE	1	1
15	15	E-UA-M7471-0-0	M7471-00		KA785,DAP,CPU DATA PATH A,4-LAYE	1	1
16	16	E-UA-M7472-0-0	M7472-00		KA785,CEH (CONDITION CODES,EXCEP	1	1
17	17	E-UA-M7473-0-0	M7473-00		KA785,ICL (INTERRUPT CONTROL,LOW	1	1
18	18	E-UA-M7474-0-0	M7474-00		KA785,CLK (CPU CLOCK),4-LAYER HE	1	1
19	19	E-UA-M7475-0-0	M7475-00		KA785,JCS,JOINT CONTROL STORE,4-	2	2
20	20	E-UA-M7476-0-0	M7476-00		KA785,USC,MICRO SEQUENCER CONTRO	1	1
21	21	E-UA-M7477-0-0	M7477-00		KA785,CIB,CPU CONSOLE INTERFACE,	1	1
22	22		1211630-00		GUIDE,CARD ,POLMIDE,NATURAL	10	10
23	23		1212405-00		GUIDE,CARD ,NYLON ,NATURAL	30	30
24	24		1212405-01		GUIDE,CARD ,NYLON ,MAGNETA	28	28
25	25		1214314-00		CONN,P+S 02SKT(1X02),100CC JUM	12	12
26	26		3613281-05		LABEL,ADHESIVE BACK FOR BA11-K	1	1
27	27		3615087-02		LABEL,"DANGER-HIGH CURRENT"	1	1
28	28	E-IA-7013713-0-0	7013713-00		CARD CAGE CPU	1	1
29	29	E-IA-7014103-0-DBU	7014103-00		BLANK MODULE ASSY	6	6
30	30	D-IA-7014212-0-0	7014212-0M		CABLE AC,DC,LOW	2	2

REVISION HISTORY			BASIC PART NO: KA785	DRN: D. HERTZ	DATE: 20-SEP-83	D I G I T A L
ENG	ECO NUMBER	REV	SECTION A OF A			TITLE PARTS LIST
---	INITIAL	A	SECTION,VARIATION INDEX	CHK'D: R. NELSON	DATE: 20-SEP-83	CPU ASSY. (KA785)
JB	KA785-TW001	B	[A]AA,AB			
			[B]	DES.ENG: D. CIRKA	DATE: 20-SEP-83	DOCUMENT NUMBER
			[C]			SIZE: K / CODE: PL / NUMBER: KA785-0-DBP / REV: B
			[D]	RESP.ENG.: R. CASABONA	DATE: 20-SEP-83	
			[E]	MFG.ENG.: M. KRYSAK	DATE: 20-SEP-83	RELEASE DATE: 27-SEP-84
			[F]	ASSEMBLY NUMBER: E-UA-KA785-0-0	TOP DOCUMENT NUMBER: K-DD-KA785-0-DBF	FILE NAME: Z5553B.PLS / EDIT #: 13

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AUTOMATED BY PRTLST.4Q(50) P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION AA	AB
					VARIATION REVISION LEVEL:	00	00
31	31	D-IA-7014212-0-0	7014212-2M		CABLE AC DC LOW	2	2
32	32	D-IA-7014249-0-0	7014249-0L		CABLE POWER BLACK	1	1
33	33	D-IA-7014249-0-0	7014249-1C		CABLE POWER	2	2
34	34	D-IA-7014249-0-0	7014249-1J		CABLE POWER	4	4
35	35	BLANK			*** THIS ITEM IS NOT USED ***	-	-
36	36	D-IA-7014530-0-0	7014530-1A		CABLE POWER RED	2	2
37	37	D-IA-7014530-0-0	7014530-1E		CABLE POWER RED	4	4
38	38	E-AD-7014956-0-0	7014956-00		UDA OPTION SUPPLY	1	-
39	39	E-AD-7014956-0-0	7014956-01		UBA OPTION SUPPLY 50HZ	-	1
40	40	E-IA-7015073-0-0	7015073-00		HARNESS MINUS 5V TERMINATOR	1	1
41	41	E-IA-7020579-0-0	7020579-01		BACKPLANE ASSY (CPU)	1	1
42	42	B-MD-7418902-0-0	7418902-00		STUD PLATE BUS BAR ADAPTER	6	6
43	43	B-MD-7418903-0-0	7418903-00		U-BAR	3	3
44	44	C-MD-7418904-0-0	7418904-00		PLATE, SLOTTED	1	1
45	45	C-MD-7419458-0-0	7419458-00		COVER, C.P.U. BACKPLANE	1	1
46	46	B-MD-7419483-0-0	7419483-00		COVER BUS BAR CPU	1	1
47	47		9006043-01		SCREW,MACH PAN PHIL 8-	6	6
48	48		9006073-01		SCREW,MACH PAN PHIL 10-	16	16
49	49		9006563-00		NUT,HEX EXT TOOTH LCKWSHR 8-32	6	6
50	50		9006565-00		NUT,HEX EXT TOOTH LCKWSHR 10-32	24	24
51	51		9006610-00		NUT,CAP,RELOCK 10-32X .438AF NYL	24	24
52	52		9006655-00		WASHER,FLAT SST	12	12
53	53		9006660-00		WASHER,FLAT SST	6	6
54	54		9007906-00		WASHER,HELICAL SPLIT STEEL	16	16
55	55		9008032-01		SCREW,MACH PAN PHIL 4-	12	12

	TITLE		SIZE	CODE	DOCUMENT NUMBER	REV
D I G I T A L	CPU ASSY. (KA785)	SECTION A OF A	K	PL	KA785-0-DBP	B

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NOTE * DESIGNATES OPTION
SLOT #22 IS UNUSED.
SLOTS 17, 19 & 21 RESERVED FOR POWER BUSSING

	1	2	3	4	5	6	7	8	9	..	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
	M7459	M7460	M7461	M7462	M7463	M7464	M7465	M7466	M7467		M7469	M7470	M7471	M7472	M7473	M7474		M7475		M7475			M7476	M7540	M7541	M7542	M7543	M7544	M7477
	TRS	SBL	SBH	CAM	CDM	TBM	IDP	IRC	DBP		DDP	DCP	DAP	CEH	ICL	CLK		JCS		JCS		UNUSED SLOT	USC	FNM *	FMH *	FML *	FAD *	FCT *	CIB
A																												
B																												
C																												
D																												
E																												
F																												

DRN.		FIRST USED ON
CHK'D	11-18-83	digital
ENG.	11-18-83	TITLE
PROJ. ENG.	11-23-83	MODULE UTILIZATION CPU
PROD.	11/29/83	
NEXT HIGHER ASSY.		
E-UA-KC785-F		SIZE D CODE MU NUMBER KA785-Ø-2 REV. A
SCALE	1/1	
SHEET 1 OF 1		DIST.

REVISIONS: DR | CHANGE NO. | REV.

TW 1

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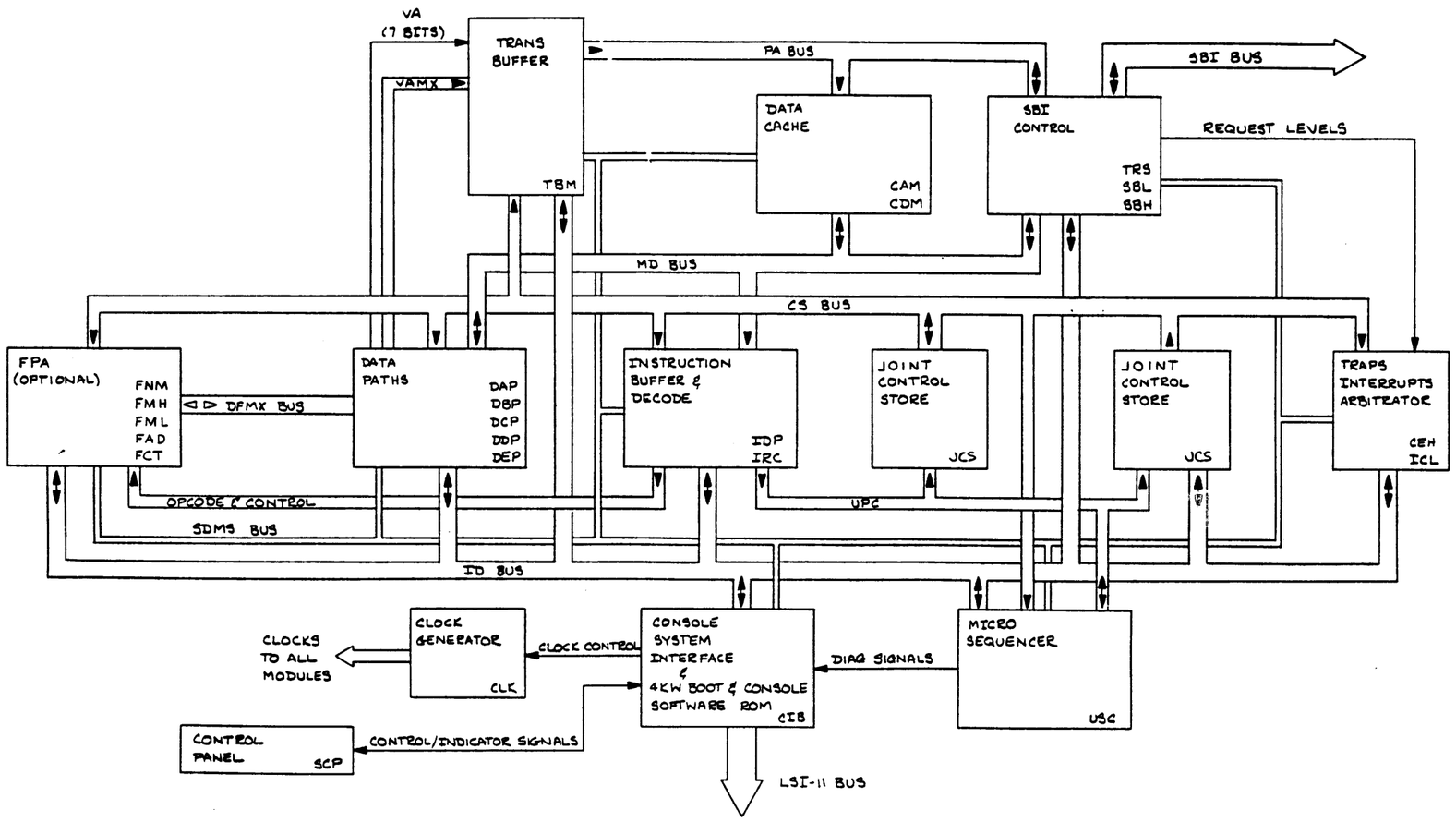

REVISIONS			
REV.	CHANGE NO.	DATE	APPROVED

DRN.		11-1-83
CHKD		11-18-83
ENG		11-22-83
PROJ. ENG		11-23-83
PROG		11-25-83
NEXT HIGHER ASSY.		
E-UA-KC785-F		
SCALE	FF	
SHEET 1 OF 1		

FIRST USED ON: 11785

digital

TITLE: CPU SYSTEM BLOCK DIAGRAM

SIZE	CODE	NUMBER	REV.
D	BD	KA785-Ø-3	A

DIST.

DBDKA785-Ø-3 A

TW 1

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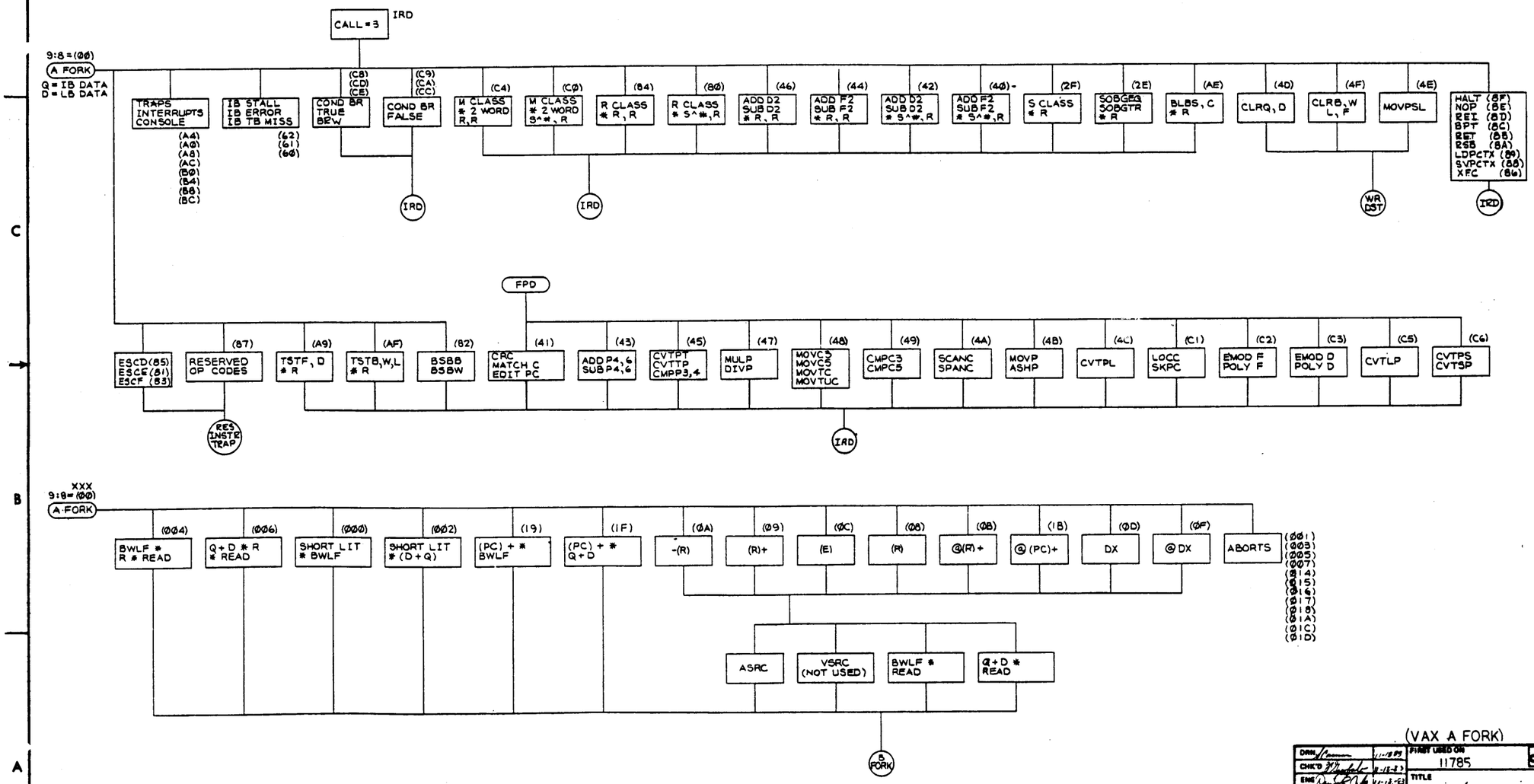
M CLASS = (ADDXX, SUBXX, BISXX, BICXX, XORXX, ADWC, SBWC, MOVX, MNEGX, MCOMX) BWL
R CLASS = (BITX, CMPX) BWL
FI CLASS = (ADDX2, ADDX3, SUBX2, SUBX3)
S CLASS = (INCX, DECX,) BWL
CF CLASS = (CVTFB, CVTFW, CVTFL, CVTRFL)
CD CLASS = (CVTDB, CVFDW, CVTDL, CVTRDL)



(VAX A FORK)

REVISIONS		
CHK	CHANGE NO.	REV.

DRN		11-18-82
CHK'D		11-18-82
ENG		11-28-82
PROJ. ENGR		11-29-82
PROD.		11-29-82
NEXT HIGHER ASSY.		
E-UA-KC785-F		
SCALE	1/1	
SHEET	1 OF 6	

FIRST USED ON: 11785

TITLE: VAX & CM MODE ENTRY POINTS

SIZE	CODE	NUMBER	REV.
D	FD	KA785-Ø-4	A

DIST.

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9:B = (10)

B FORK

(24E) INC (BNL) DEC (BNL) EXEC → STORE
(24D) TST (BNL) EXEC → IRD
(24B) PUSHAL PUSHAW PUSHAQ PUSHAB PUSHL → WR DST
(28F) JSB → IRD
(28E) JMP
(2CE) SOBGEQ SOBGTR # - R
(2CF) BLBS BLBC # - R
(28B) BIS PSW BIC PSW
(24A) MOVZ BW MOVZ BL MOVZ WL
(24C) CVTBW CVTBL CVTWL
(24B) CVTWB CVTLB CVTLW → WR DST
(249) MCOM (BNL) MNEG (BNL)
(29B) CMP (F,G,H) → IRD
(2A8) BBXX # DST = R
(2C4) MCLASS # 3 WORD # R,R
(2C0) MCLASS # 3 WORD # S^# R → IRD
(227) R CLASS # 2 WORD # DST = R
(2AF) R CLASS # DST = R
(223) AOBX # DST = R
(22E) ADD D2 SUB D2 DST = R
(22F) ADD F2 SUB F2 DST = R

(28D) TSTF → IRD
(28C) TSTD
(289) PUSHR
(28A) POPR
(240) ADD F3 SUB F3 # A,B,R
(244) ADD F3 SUB F3 R,R
(24Z) ADD D3 SUB D3 S^#,R
(24A) ADD D3 SUB D3 R,R
(287) B FORK ERROR → EM USER
(245) CF CLASS
(243) CD CLASS
(24F) CVTBF CVTWF CVTLF → WR DST
(2CC) CVTBD CVTWD CVTLD
(247) CVTFD
(2CD) CVTDF
(285) MNEGF MOVF
(241) MNEGD MOVD
(2C7) MFPR
(22C) DIV2 (WL) # R
(220) MULF2 # R → IRD

(224) BWLF # WRITE,R
(22A) Q+D # WRITE # R → IRD
(284) BWLF # READ # R
(286) Q+D # READ # R
(288) SHORT LIT # BWLF
(282) SHORT LIT # Q+D
(219) (PC) + # BWLF
(21F) (PC) + # Q+D
(28A) -(R)
(289) (R)+
(28C) (E)
(28B) (R)
(28B) @(R)+
(218) @(PC)+
(20D) DX
(28F) @DX
ABORTS (201) (203) (205) (207) (214) (215) (217) (218) (21A) (21C) (21D) (216)
IB STALL (27E)
IB ERROR (27D)
IB TB MISS (27C)

BWLF # READ
Q+D # READ
ASRC
VS RC (NOT USED)
BWLF # WRITE
Q+D # WRITE
ASRC (NOT USED)
VS RC (NOT USED)
→ WR DST
→ C FORK
→ IRD

(284) RESERVE
(221) DIVF2 # R
(28E) ADAWI
(228) MUL D2 # R
(229) DIV D2 # R
(22D) MUL2 (B+A) # R
(286) CVT WB CVT LB CVT LW → IRD
→ C FORK

REVISIONS
ECR | CHANGE NO. | REV.

(VAX B FORK)
TITLE VAX & CM MODE ENTRY POINTS
SIZE D | CODE FD | NUMBER KA785 - Ø - 4 | REV. A
SCALE | SHEET 2 OF 6 | DIST.
TW 1

8 7 6 5 4 3 2 1
A D-FD KA785-Ø-4 A

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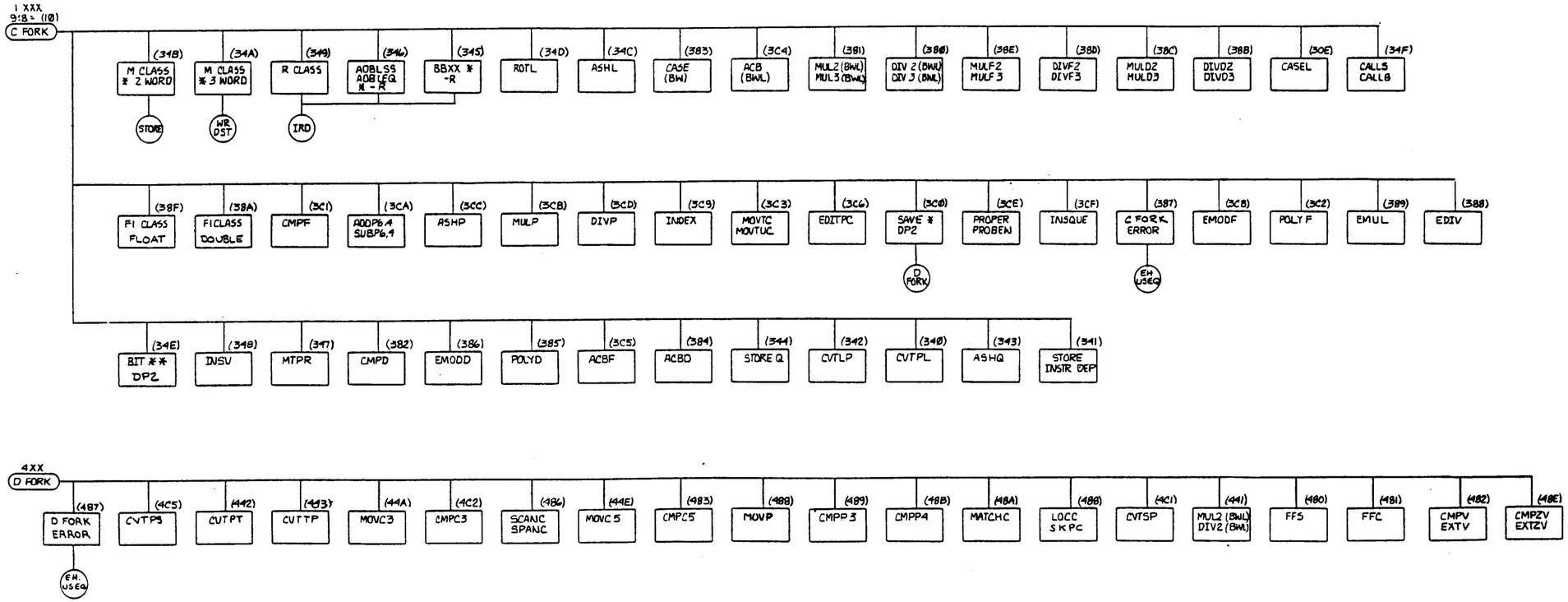
* SAVE DP2 = CVTPS, CVTSP, CVTPT, CVTTP, MOVC3, CMPC3, SCANC, MOVC5, CMPC5, MOVP, CMPP3, CMPP4, MATCHC, LOCC, SKPC, CRC, ASHP
** BIT DP2 = FFS, FFC, CMPV, CMPZV, EXTV, EXTZV



REVISIONS		
CHK	CHANGE NO.	REV.

(VAX C&D FORK)

TITLE	SIZE	CODE	NUMBER	REV.
VAX & CM MODE ENTRY POINTS	D	FD	KA785 -Ø-4	A
SCALE	SHEET 3 OF 6	DIST.		

TW 1

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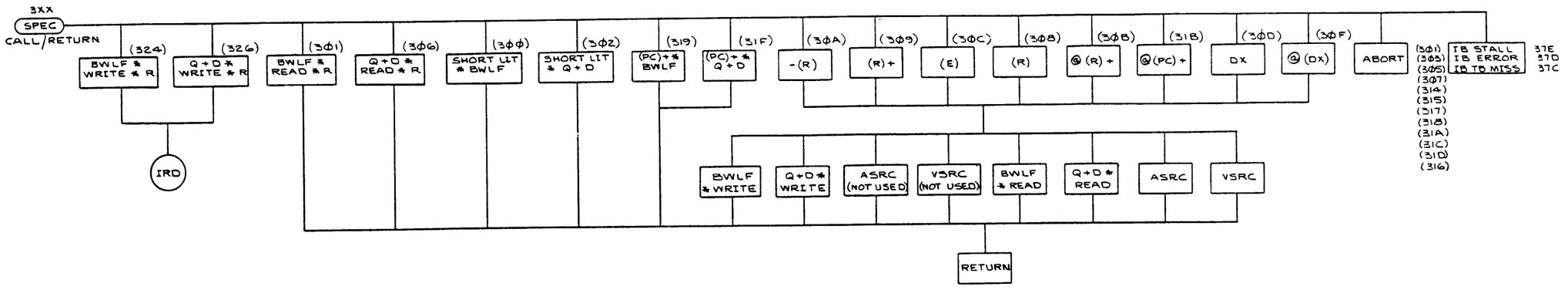

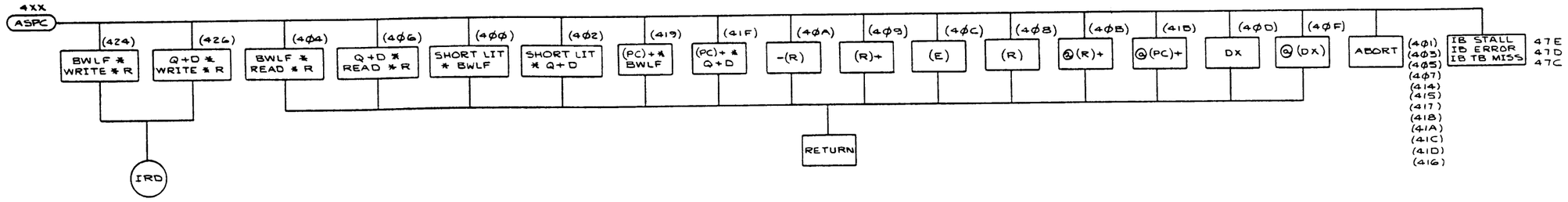

(VAX SPEC + ASPC)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
VAX & CM MODE ENTRY POINTS	D	FD	KA785-Ø-4	A
SCALE —/— SHEET 4 OF 6	DIST.			

TW 1

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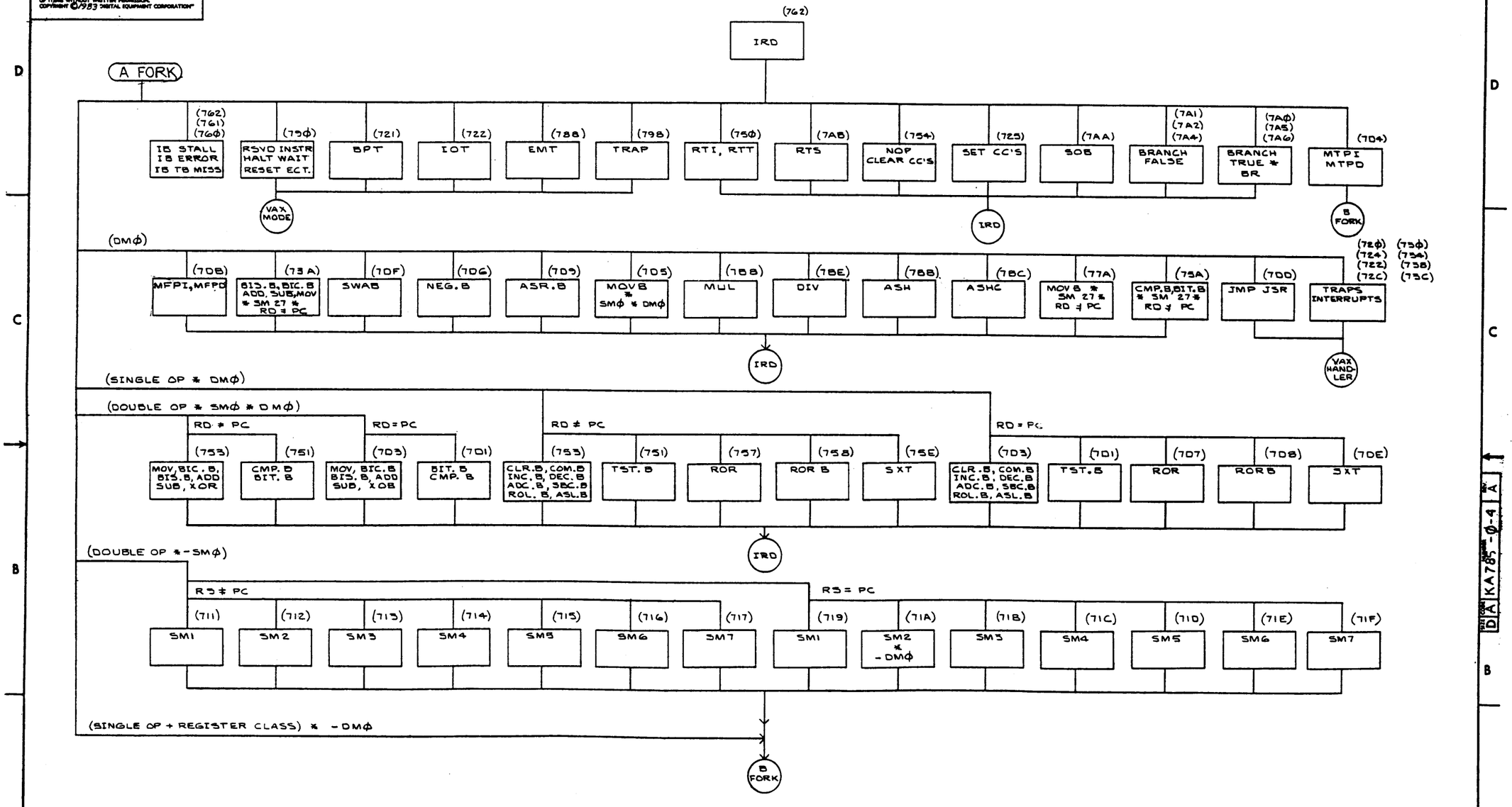

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
VAX & CM MODE ENTRY POINTS	D	FD	KA785 -0-4	A
SCALE —	SHEET 5 OF 6		DIST.	

TW 1

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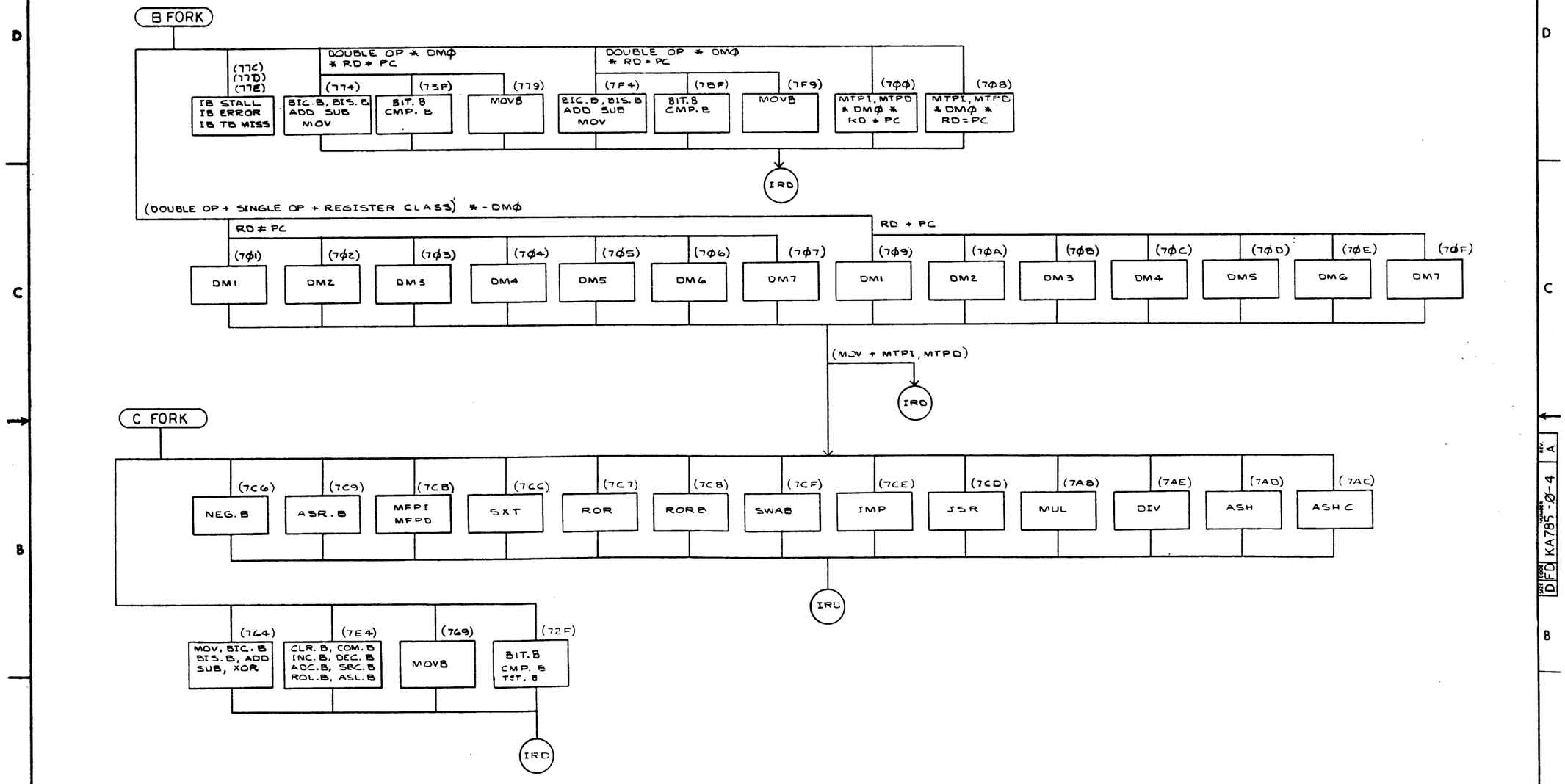


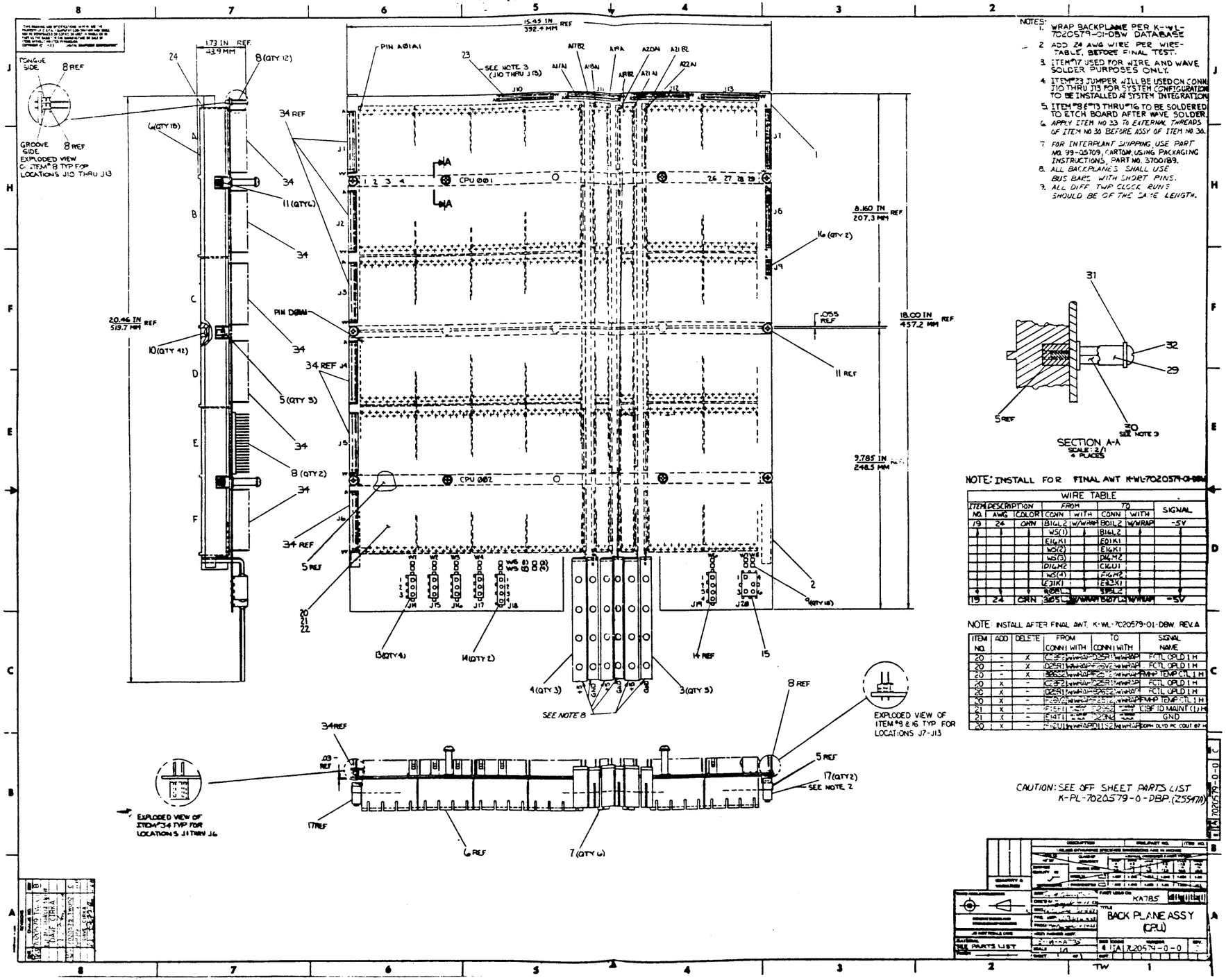
REVISIONS		
CHK	CHANGE NO.	REV

(CM B FORK & C FORK)

TITLE	SIZE	CODE	NUMBER	REV.
VAX & CM MODE ENTRY POINTS	D	FD	KA785-Ø-4	A
SCALE —	SHEET 6 OF 6	DIST.		

DEC FORM NO. DRD 130

TW 1



NOTES:

1. WRAP BACKPLANE PER K-WL-7020579-01-DBW DATABASE
2. ADD 24 AWG WIRE PER WIRE-TABLE, BEFORE FINAL TEST.
3. ITEM #17 USED FOR WIRE AND WAVE SOLDER PURPOSES ONLY.
4. ITEM #23 JUMPER WILL BE USED ON CONN. J10 THRU J13 FOR SYSTEM CONFIGURATION TO BE INSTALLED AT SYSTEM INTEGRATION.
5. ITEM #8 & #13 THRU #16 TO BE SOLDERED TO ETCH BOARD AFTER WAVE SOLDER.
6. APPLY ITEM NO 33 TO EXTERNAL THREADS OF ITEM NO 30 BEFORE ASSY OF ITEM NO 30.
7. FOR INTERPLANT SHIPPING, USE PART NO. 99-05709, CARTON, USING PACKAGING INSTRUCTIONS, PART NO. 3700189.
8. ALL BACKPLANES SHALL USE BUS BARS WITH SHORT PINS.
9. ALL DIFF TWP CLOCK RUNS SHOULD BE OF THE SAME LENGTH.

NOTE: INSTALL FOR FINAL AWT K-WL-7020579-01-DBW

WIRE TABLE

ITEM NO.	DESCRIPTION AWG	COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	SIGNAL
19	24	ORN	B16L2	W/WRAP	B01L2	W/WRAP	-5V
			W5(1)		B16L2		
			E16K1		E01K1		
			W5(2)		E16K1		
			W5(3)		D14L2		
			D16M2		C16U1		
			W5(4)		F16M2		
			E31K1		E32K1		
			W28		B16L2		
19	24	ORN	3015	W/WRAP	B07L2	W/WRAP	-5V

NOTE: INSTALL AFTER FINAL AWT. K-WL-7020579-01-DBW REV A

ITEM NO.	ADD	DELETE	FROM CONN	FROM WITH	TO CONN	TO WITH	SIGNAL NAME
20	-	X	C25F1	W/WRAP	D25S1	W/WRAP	FCTL OPLD 1 H
20	-	X	D25R1	W/WRAP	C25V2	W/WRAP	
20	-	X	A25C1	W/WRAP	C25T2	W/WRAP	TEMP FCTL 1 H
20	X	-	K25F2	W/WRAP	D25R1	W/WRAP	FCTL OPLD 1 H
20	X	-	D25R1	W/WRAP	A25C2	W/WRAP	FCTL OPLD 1 H
20	X	-	H25V2	W/WRAP	C25T2	W/WRAP	TEMP FCTL 1 H
21	X	-	F15H1	WIRE	K25S2	WIRE	DISP ID MAINT (1) H
21	X	-	E14T1	WIRE	K25N2	WIRE	GND
20	X	-	C01U1	W/WRAP	A01D11	W/WRAP	DISPH OUTD PC COUT 87 H

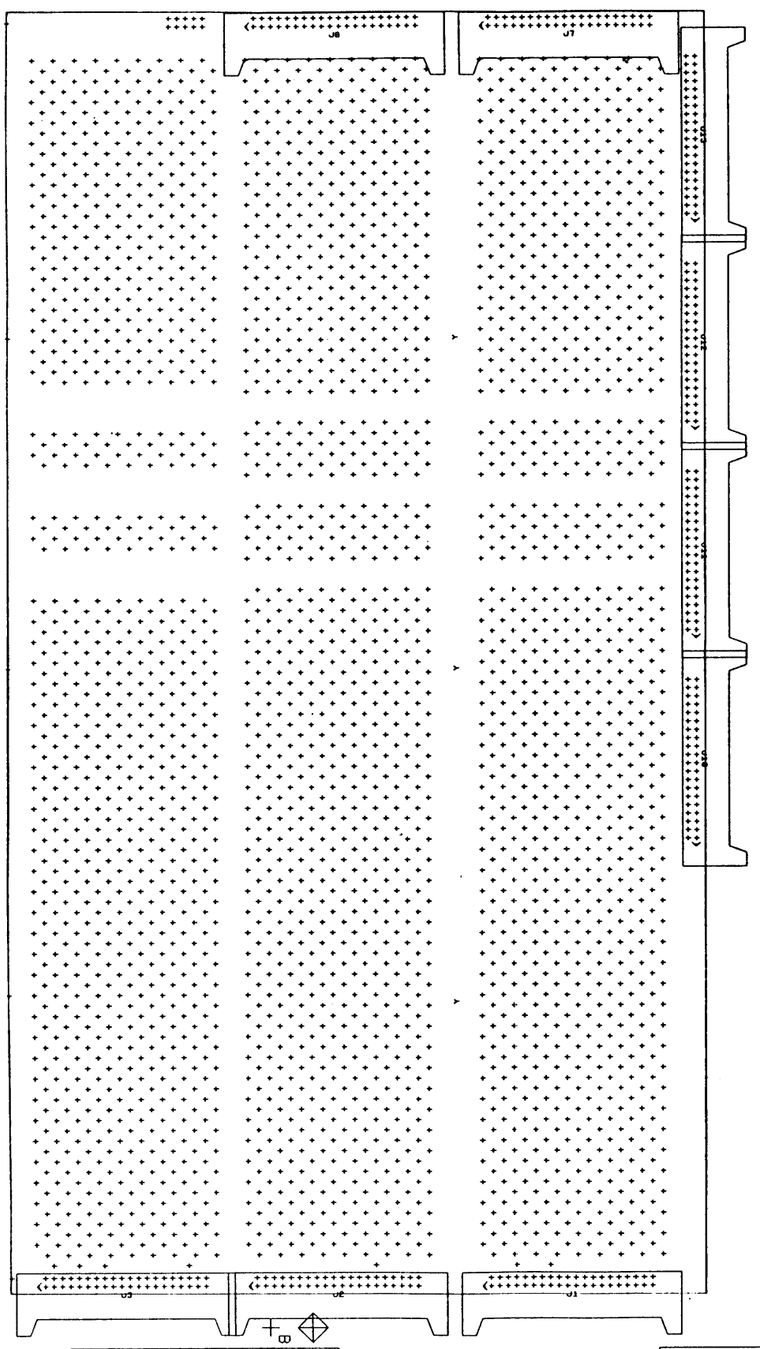
CAUTION: SEE OFF SHEET PARTS LIST K-PL-7020579-0-DBP. (Z55478)

SIZE	CODE IDENT NO.
A	14A
SCALE	1A
SHEET	

DRAWING NO. K-7020579-0-0

TITLE: BACK PLANE ASSY (CPU)

REV.



NOTES:

SIGNATURES	DATE
DRN:	
CHK:	
ENG:	
PROJ.ENG:	
PROD.:	

SCALE 2-1
SHT. 1 OF 1
NEXT HIGHER ASSY. M.11

ETCH REV.
P.C. DESIGN DATA BASE REV.

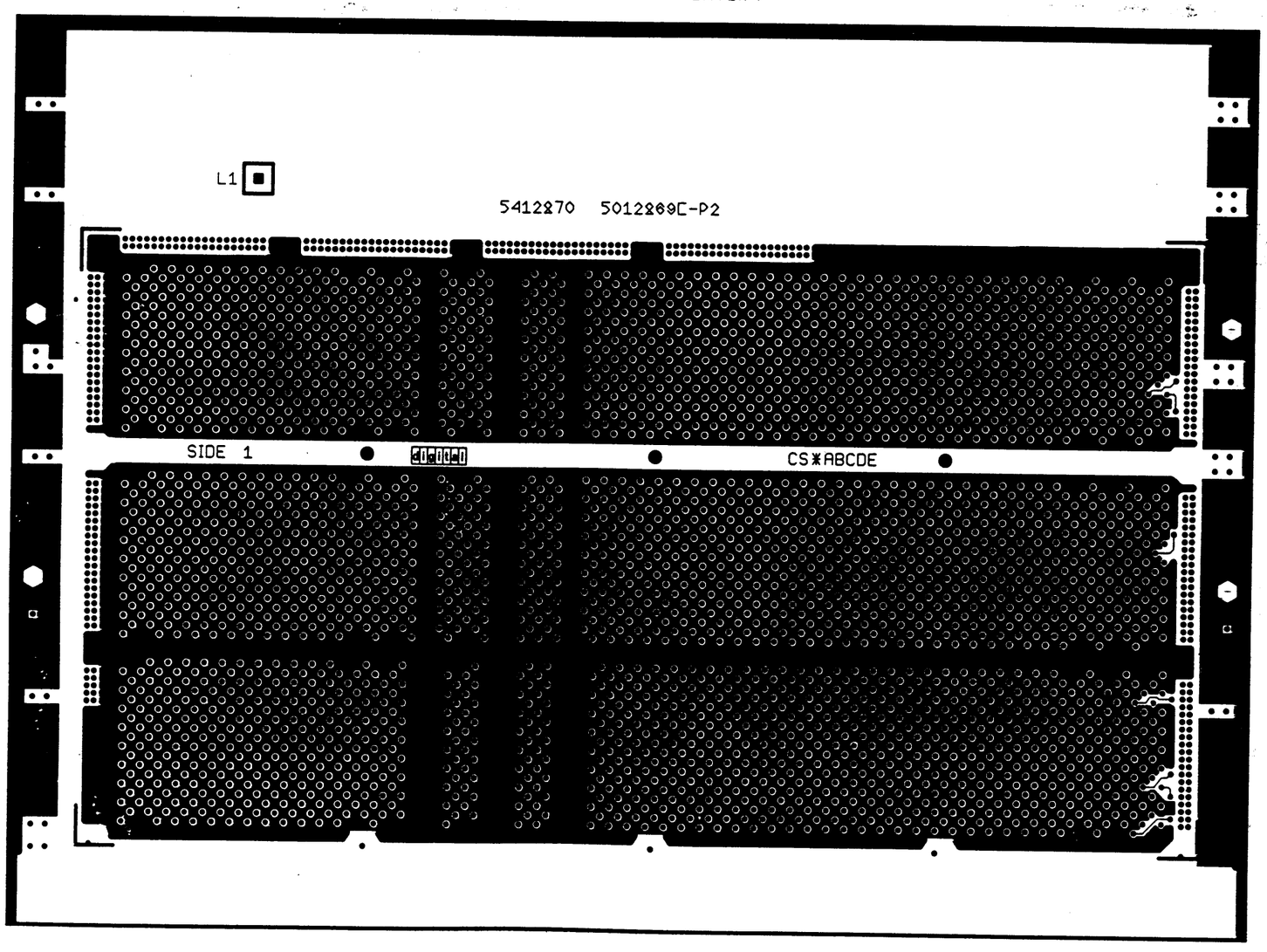
CHG/CHANGE NO/REV

digital

TITLE
CPU BD I

SIZE	CODE	NUMBER	REV
E	JA	5412670 YA 01	A

LAYER 1



REVISIONS		
CHG	CHANGE NO.	REV.

TITLE	SIZE/CODE	NUMBER	REV.
CPU BD 1	E UA	5412870-YA-0	A.
SCALE 2 : 1 SHEET 2 OF 4	UNIT		

5412870-YA-0 A

TW

LAYER 4

0-5
0-7
0-8
0-3
0-6
0-4

L4

J1 1
5
J10
J11
J12
J13
29
J7

0-2
0-1
0-9

CPU BD 1
5412870
5012869C-P2
SIDE 2

J2
J8
J3
J9

0-10
0-11

TITLE		SIZE	CODE	NUMBER	REV.
CPU BD 1		E	UA	5412870-YA-0	A
SCALE 2:1	SHEET 3 OF 4	DWT			

5412870 YA-0 A

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REWORK INSTRUCTION

ECTH CUTS SIDE 2

0-1	CUT ECTH	BETWEEN B06L2	AND B09L2
0-2	CUT ECTH	BETWEEN B04L2	AND F10L2
0-3	CUT ECTH	BETWEEN A18U2	AND A20U2
0-4	CUT ETCH	BETWEEN A20U2	AND A22U2
0-5	CUT ETCH	BETWEEN A18S1	AND A20S1
0-6	CUT ETCH	BETWEEN A20S1	AND A22S1
0-7	CUT ETCH	BETWEEN A18A1	AND A20A1
0-8	CUT ETCH	BETWEEN A20A1	AND A22A1
0-9	CUT ETCH	BETWEEN B24D2	AND B25D2
0-10	CUT ETCH	BETWEEN B05L2	AND B06L2
0-11	CUT ETCH	BETWEEN B06L2	AND B07L2

REVISION HISTORY

DATE	ECO NUMBER	REV

TITLE: CPU BD 1

DOCUMENT NUMBER: EUA5412870-YA-0 REV A

SCALE 2/1 SHEET 1 OF 1

TW

NOTE: ALL DIMENSIONAL TOLERANCES NOT TO EXCEED ±.010.

COMPONENT SIDE VIEW

NOTES (CONTINUED)
5. LINE WIDTH IS 15 MILS ± 3 MILS.
6. INNER LAYER TO OUTER LAYER DIELECTRIC THICKNESS IS 21 MILS ± 3 MILS.
7. INNER LAYER TO INNER LAYER DIELECTRIC THICKNESS IS 10 MILS ± 3 MILS.

SIGNATURES	DATE
DRN.	
CHK. D.	
ENG.	
PROJ. ENG.	
PROD.	

digital

TITLE: CPU BOARD 2

SIZE: E | CAGE NUMBER: 04214 | DWG NO: 54112872 | REV: A

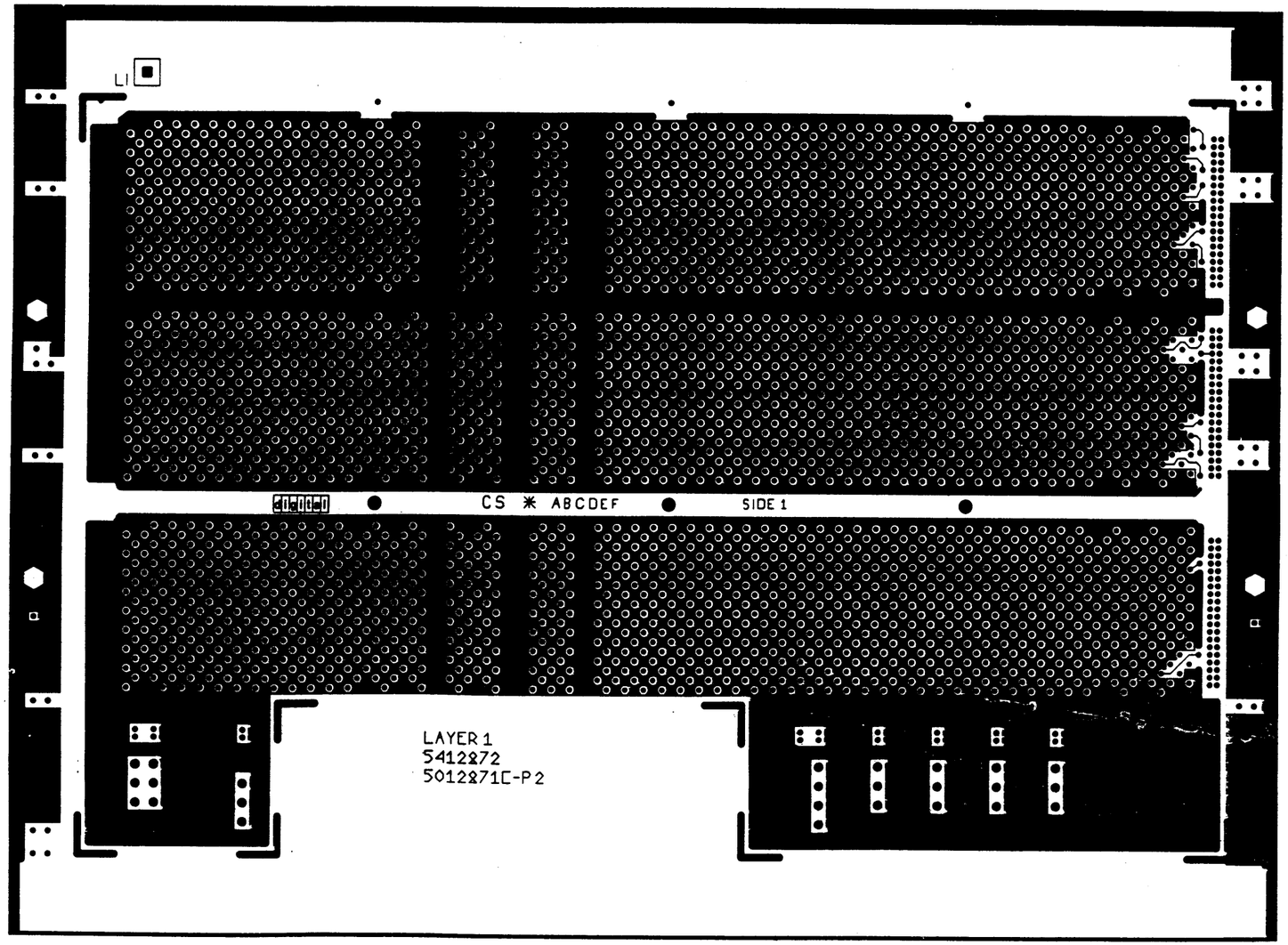
NEXT HIGHER ASSY: 54112872 YA

CHG CHANGE NO REV

NOTES:
1. B HOLES PLATED THROUGH
2. 1/4 OZ COPPER
3. 1/2 OZ COPPER
4. 1/4 OZ COPPER
5. 1/2 OZ COPPER
6. BOARD TO BE 2 INCH POWER
7. DEPOSITED FOR 2 OZ/FT² TO GROUND

E | 54112872 YA 0 | 1

LAYER 1



TYPE			NUMBER	REV
CPU BOARD 2	SIZE/CODE	E UA	5412872-YA-0	A
SCALE 2 — SHEET 2 OF 5	DRWT.			

TW

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LAYER 2

L2

PWR

LAYER 2
5012871C-P2
5412872

REVISIONS		
DATE	CHANGE NO.	REV.

TITLE	CODE	NUMBER	REV.
CPU BOARD 2	E UA	5412872-YA-0	A
SCALE 2 —	SHEET 2 OF 6	DWG	

TW

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LAYER 3

3

GND

5012872LC-P2
5412872
LAYER 3

REVISIONS		
CHG	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV
CPU BOARD 2	E	UA	5412872-YA-0	A
SCALE 2 -	SHEET 4 OF 5		DIST.	

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LAYER 4

0-1
0-4
0-5
0-3
0-2

J14
J15
J16
J17
J18
J19
J20
J6

CPU DD 2
SIDE 2
5412872-P2 1
5012872LC-P2 1

REVISIONS		
ECO	CHANGE NO.	REV.

TITLE					
CPU BOARD 2					
SCALE 2 = 1	SHEET 5 OF 5	SIZE	CODE	NUMBER	REV
		E	UA	5412872-YA-0	A
		DIST.			

5412872-YA-0 A

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REWORK INSTRUCTIONS

ETCH CUTS SIDE 2

0-1 CUT ETCH BETWEEN D13V2 AND D14V2
0-2 CUT ETCH BETWEEN D02L1 AND D03L2
0-3 CUT ETCH BETWEEN D02M2 AND D03M2
0-4 CUT ETCH BETWEEN E02K1 AND E03K1
0-5 CUT ETCH BETWEEN E01K1 AND E02K1

REVISION HISTORY

DATE	ECO NUMBER	REV

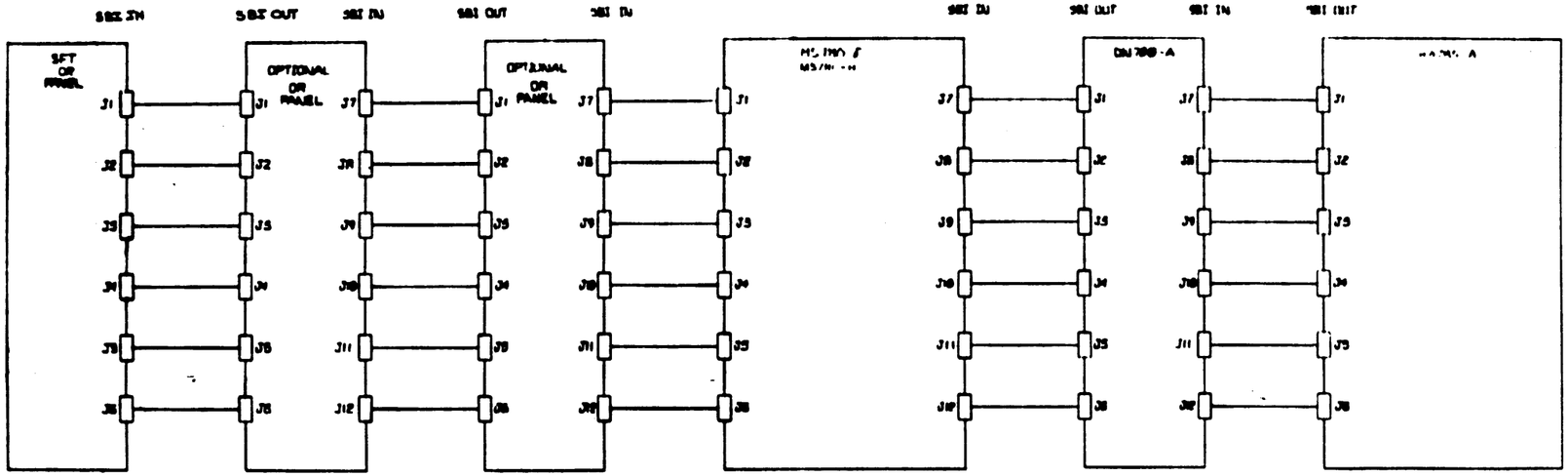
TITLE: CPU BOARD 2

DOCUMENT NUMBER: SUB CODE E UA 5412872-YA-0 REV A

SCALE: 1/1 SHEET 5 OF 5

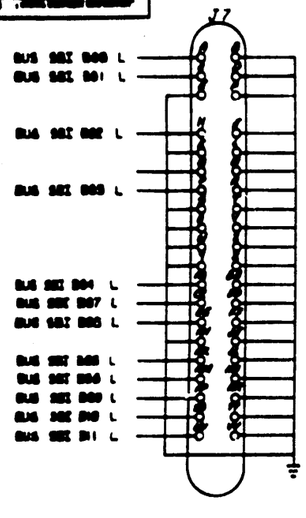
E UA 5412872-YA-0 REV A

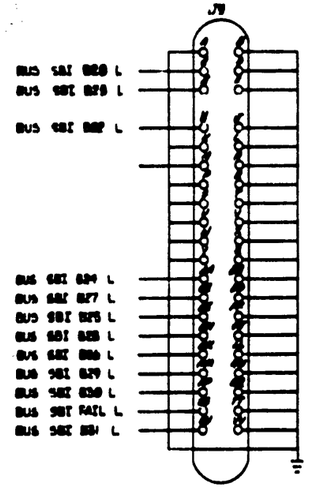
NOTES:
1. SBI CABLE CONNECTIONS TO SFT FROM ADJACENT BACKPLANE ARE ALWAYS 1700087-1 (QTY 6) OTHER SBI CABLES ARE 1700087-0.

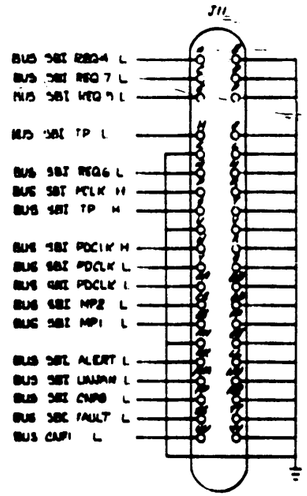


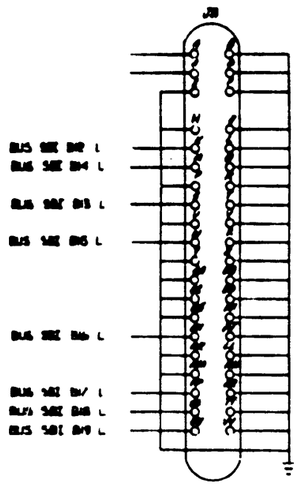
S.B.I INTERCONNECT

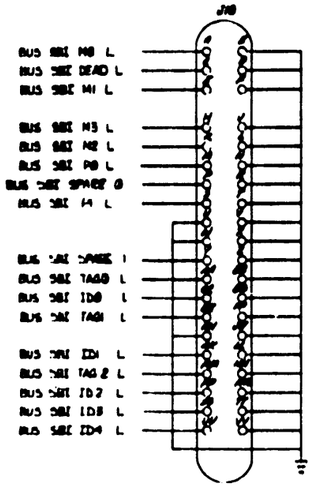
TITLE	11785-A S.B.I INTERCONNECT
SIZE	D
CODE	1C
DWG NO	11785-A-3
REV	B
SHEET	3 OF 3

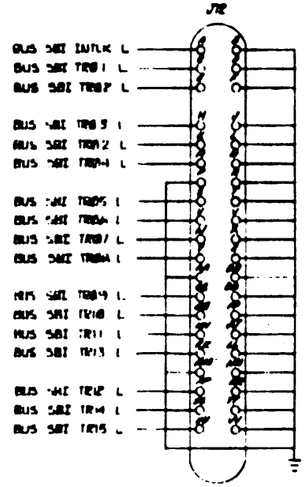










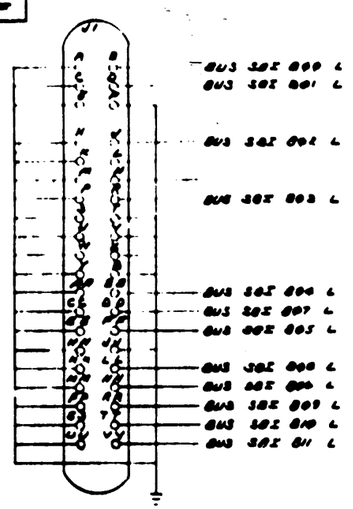


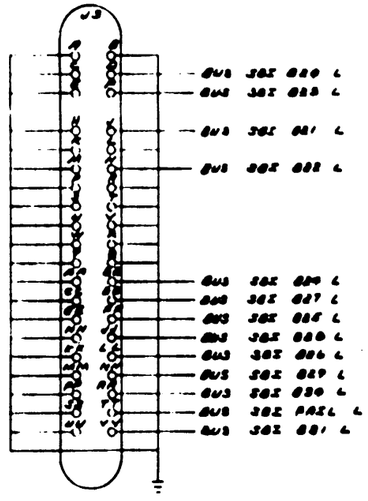
PIN DESIGNATIONS FOR
"S.B.I. IN" CONNECTORS

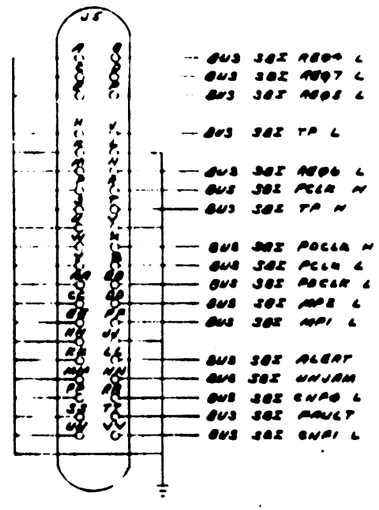
TYPE 1178S A S.B.I
INTERCONNECT

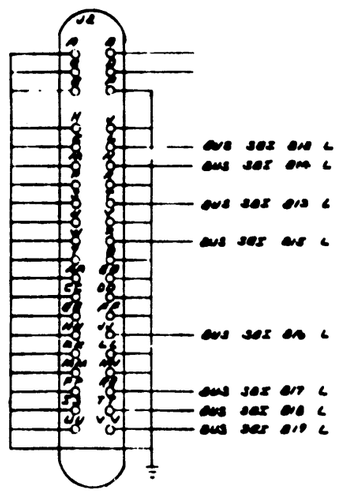
SIZE D | IC 1178S-A 3 | REV H

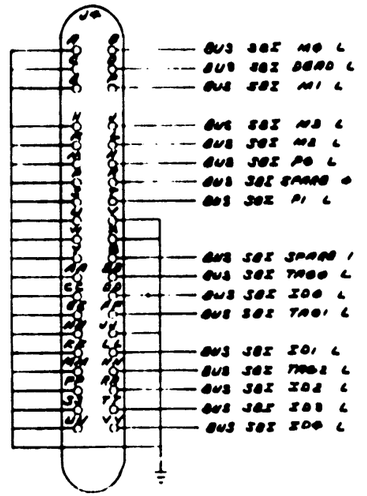
SHEET 2 OF 3

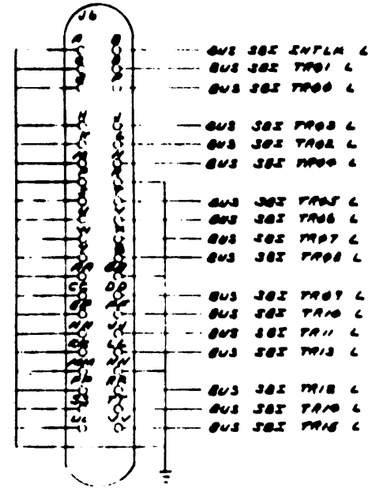












PIN DESIGNATIONS FOR
"S.B.I. OUT" CONNECTORS

TITLE	11785-A S.B.I. INTERCONNECT
SIZE	D
CODE	IC
NUMBER	11785-A-3
REV	B
SCALE	
SHEET	3 OF 3

[redacted]

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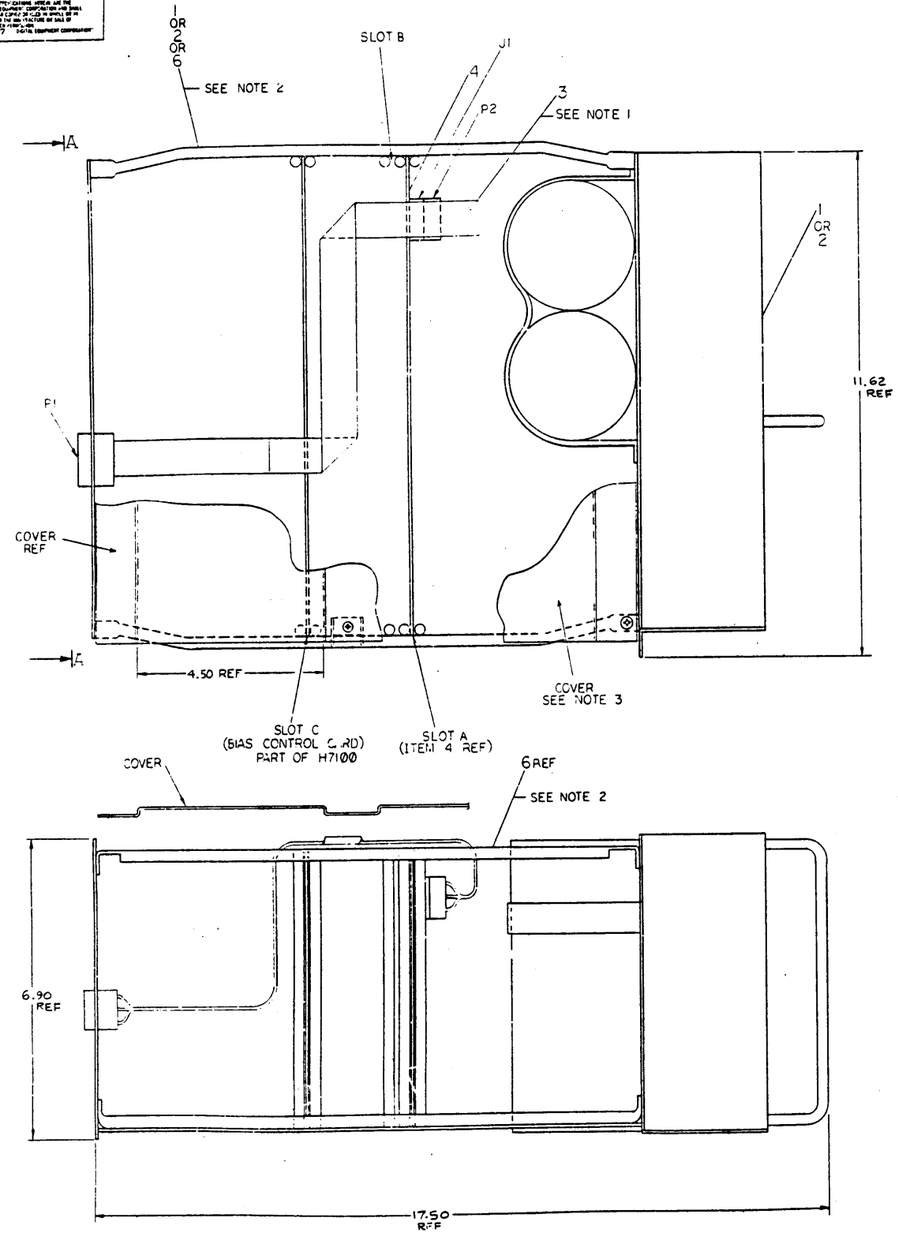
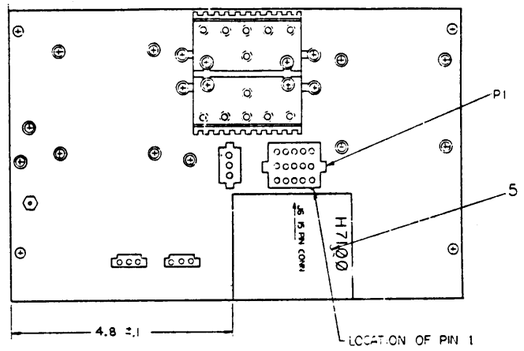
LEGEND	
PART NO.	VARIATION
7014956-00	115V
7014956-01	230V
7014956-02	2020 OPTION

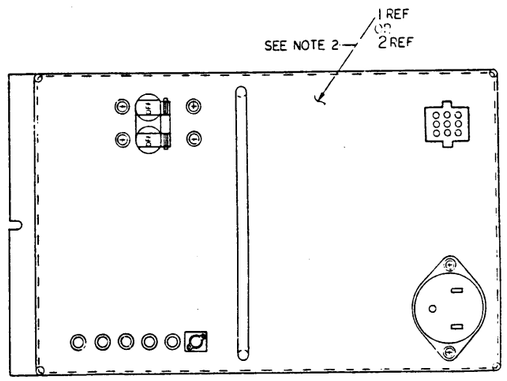
NOTES:

1. ROUTE CABLE +5 OUTPUT (ITEM #3) BEHIND -5.2 REGULATOR (ITEM #4) AND AROUND BARS TO CUTOUT IN REAR PANEL AS SHOWN.
2. THE VIEWS SHOWN ON THIS DRAWING DEPICT THE ASSEMBLY AS IT WOULD LOOK IN THE -00 OR -01 VARIATION. THE -02 VARIATION WOULD LOOK SIMILAR EXCEPT THAT THE FRONT PANEL OF THE H7100 WOULD NOT BE INCLUDED. SEE DEC DRAWING E-UA-H7100-0-0 FOR FURTHER INFORMATION.
3. AFTER INSTALLATION OF PEG BOARDS AND CABLE IS COMPLETE, REINSTALL COVER AS SHOWN.





VIEW A-A



ITEM NO.	DESCRIPTION	DWG PART NO.
1	POWER SUPPLY (H7100-0)	E-UA-H7100-0-0
1	DECAL, UBA OPTION	9614762-00
1	-5.2 REGULATOR	9-UA-5412560-0
1	CABLE, +5 OUTPUT	17001164-00
1	POWER SUPPLY (H7100-01)	E-UA-H7100-0-0
1	POWER SUPPLY (H7100-A2)	E-UA-H7100-0-0

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

	ANGLES ± 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE (INCHES)					
			0 TO 6	OVER 6 TO 12	OVER 12 TO 24	OVER 24 TO 48	OVER 48 TO 96	OVER 96 TO 192
SURFACE QUALITY 125		STOCK DIMS	± 1/16	± 1/16	± 1/16	± 1/16	± 1/16	± 1/16
		MEDIUM	± .005	± .01	± .015	± .020	± .030	± .060
		PREFERRED	± .002	± .005	± .010	± .015	± .020	± .040

QUANTITY & VARIATION

DRN		FIRST USED ON	
CHK'D		VAX	
ENG		TITLE	SUPPLY, UBA OPTION
PROJ ENG			
PROD			
NEXT HIGHER ASSY			
MATERIAL	SEE PARTS LIST	SIZE	E
FINISH		SCALE	
		SHEET 1 OF 1	

7014956-02
7014956-01
7014956-00

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

CODE IDENT NO. 80009

DWG NO. A07014956-0-C

REV

1 FW

COMPONENT SIDE VIEW

5.68 REF

11.91 REF.

E187 E170 E153 E136 E119 E102 E85 E68 E51 E34 E17
E186 E169 E152 E135 E118 E101 E84 E67 E50 E33 E16
E185 E168 E151 E134 E117 E100 E83 E66 E49 E32 E15
E184 E167 E150 E133 E116 E99 E82 E65 E48 E31 E14
E183 E166 E149 E132 E115 E98 E81 E64 E47 E30 E13
E182 E165 E148 E131 E114 E97 E80 E63 E46 E29 E12
E181 E164 E147 E130 E113 E96 E79 E62 E45 E28 E11
E180 E163 E146 E129 E112 E95 E78 E61 E44 E27 E10
E179 E162 E145 E128 E111 E94 E77 E60 E43 E26 E9
E178 E161 E144 E127 E110 E93 E76 E59 E42 E25 E8
E177 E160 E143 E126 E109 E92 E75 E58 E41 E24 E7
E176 E159 E142 E125 E108 E91 E74 E57 E40 E23 E6
E175 E158 E141 E124 E107 E90 E73 E56 E39 E22 E5
E174 E157 E140 E123 E106 E89 E72 E55 E38 E21 E4
E173 E156 E139 E122 E105 E88 E71 E54 E37 E20 E3
E172 E155 E138 E121 E104 E87 E70 E53 E36 E19 E2
E171 E154 E137 E120 E103 E86 E69 E52 E35 E18 E1

C12 C11 C10 C9 C8 C7 C6 C5

F E D C B A

1984

digital

SIGNATURES
DRN. D.
CHK. D.
MECH. ENG.
PROJ. ENG.
PROD. ENG.
SCALE
SHT. OF
NEXT HIGHER ASSY.

DATE
TITLE
SIZE/CODE
NUMBER
REV

ETCH REV.

CHG CHANGE NO REF

NOTES:
1. ALL RATING IS INPUT
2. SPARE CAPACITORS: C1-C4, C13-C14, C16-C17, C19-C20, C22-C23, C25-C26, C28-C29, C31-C32, C34-C35, C37-C38, C40-C41, C43-C44, C46-C47, C49-C50, C52-C53, C55-C56, C58-C59, C61-C62, C64-C65, C67-C68, C70-C71, C73-C74, C76-C77, C79-C80, C82-C83, C85-C86, C88-C89, C91-C92, C94-C95, C97-C98, C100-C101, C103-C104, C106-C107, C109-C110, C112-C113, C115-C116, C118-C119, C121-C122, C124-C125, C127-C128, C130-C131, C133-C134, C136-C137, C139-C140, C142-C143, C145-C146, C148-C149, C151-C152, C154-C155, C157-C158, C160-C161, C163-C164, C166-C167, C169-C170, C172-C173, C175-C176, C178-C179, C181-C182, C184-C185, C187-C188, C190-C191, C193-C194, C196-C197, C199-C200

STEP 1 = 1 MIL = .001
STEP 2 = 1 MIL = .001

E1A M7460-0-0 C

AUTOMATED BY PRTLST.4Q(50)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION VARIATION REVISION LEVEL:	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	E-MD-5016069-0-0	5016069-01		INTERFACE LOW BIT	1	
2	2		1012784-00		.047 MFD 50V +80-20% CER	69	C1-C5,C13-C76
3	3		1017472-00		10 MFD 35V +50-10% AL EL	7	C6-C12
4	4		1103041-00		PIV= 8 IO= 50 MA	2	D9,D10
5	5		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
6	6		1300202-00		47.0 .25 W 5.0 % CF	8	R67-R74
7	7		1300250-00		150.0 .25 W 5.0 % CF	16	R3,R4,R7,R8,R11,R12,R15,R16,R38,
							CONT R39,R42,R43,R46,R47,R50,R51
8	8		1300295-00		330.0 .25 W 5.0 % CF	5	R17,R19,R21,R23,R24
9	9		1301424-00		680.0 .25 W 5.0 % CF	5	R18,R20,R22,R25,R26
10	10		1302957-00		121.0 .25 W 1.0 % RN55D-F10	18	R6,R34,R36,R37,R40,R41,R44,R45,
							CONT R48,R49,R1,R2,R5,R9,R10,R13,R14,
							CONT R27
11	11		1921305-01		74F00 NAND GATE,QUAD,2-IN	11	E27,E32,E34,E63,E67,E76,E99,
							CONT E132,E151,E165,E182
12	12		1921307-01		74F04 HEX INVERTER	11	E14,E46,E66,E77,E84,E119,E134,
							CONT E150,E159,E161,E179
13	13		1921309-01		74F10 NAND GATE,TRIPLE,3-I	7	E13,E48,E51,E115,E117,E142,E162
14	14		1921310-01		74F11 AND GATE,TRIPLE,3-IN	2	E100,E133
15	15		1921311-01		74F20 NAND GATE,DUAL,4-IN	2	E44,E144
16	16		1910541-00		74S40 BUFFER,POS-NAND,DUAL	1	E143
17	17		1921313-01		74F64 AND OR INVERT GATE,4-	12	E50,E85,E95,E98,E101,E102,E116,
							CONT E118,E135,E136,E153,E163
18	18		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	7	E16,E17,E148,E149,E152,E169,E177
19	19		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	8	E28,E45,E47,E61,E62,E64,E130,
							CONT E147
20	20		1921319-01		74F153 MUX,DUAL,4-IN	10	E19,E20,E105-E107,E123,E124,
							CONT E127,E128,E145
21	21		1921320-01		74F157 MUX,QUAD,2-IN	3	E54,E55,E88
22	22		1921323-01		74F174 FF-D,HEX	7	E6,E7,E23,E24,E39,E40,E111

REVISION HISTORY			BASIC PART NO: M7460	DRN: S.MANSOR	DATE: 25-MAY-83	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: E.T.GERRY	DATE: 26-MAY-83	TITLE PARTS LIST INTERFACE LOW BITS (SBL)			
---	INITIAL	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	DES.ENG: B.HALL	DATE: 25-MAY-83	DOCUMENT NUMBER			
						SIZE	CODE	NUMBER	REV
				RESP.ENG.: B.HALL	DATE: 8-AUG-83	K	PL	M7460-0-0BP	A
				MFG.ENG.: M.KRYSAK	DATE: 8-AUG-83	RELEASE DATE: 12-OCT-83			
				ASSEMBLY NUMBER: E-UA-M7460-0-0	TOP DOCUMENT NUMBER: B-DD-M7460-0-0	FILE NAME: Z3942A.PLS			EDIT # 13

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AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A2 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
23	23		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	9	E9,E12,E25,E26,E31,E58,E59,E113,
						CONT	E164
24	24		1921324-01		74F175 FF-D,QUAD	15	E8,E11,E15,E33,E65,E82,E83,E96,
						CONT	E166-E168,E170,E181,E183,E184
25	25		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	8	E52,E69,E86,E103,E104,E120,E121,
						CONT	E137
26	26		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E154
27	27		1921332-01		74F280 PARITY GEN/CHECK,9-B	1	E3
28	28		1921330-01		74F257 MUX,QUAD,2-IN	10	E4,E5,E22,E41,E57,E139,E156,
						CONT	E158,E173,E175
29	29		1921316-01		74F138 DECODER/DEMUX,1-OF-8	1	E160
30	30		1911983-00		74S133 NAND GATE-POSITIVE 1	2	E108,E109
31	31		1921315-01		74F86 EXCLUSIVE OR GATE,QU	1	E70
32	32		1921306-01		74F02 NOR GATE,QUAD,2-IN	7	E42,E43,E80,E114,E131,E174,E176
33	33		1921308-01		74F08 AND GATE,QUAD,2-IN	4	E60,E68,E97,E129
34	34		1912731-00		DEC 8646A TRANSCEIVER,4BIT BUS	4	E1,E2,E18,E35
35	35		1912746-01		74S37-1BUFFER-GATE	2	E72,E79
36	36		1912860-00		LS259 LATCH 8BIT	1	E21
37	37		1912863-00		LS273 FF-D OCTAL W/CLEAR	2	E125,E126
38	38		1912872-00		LS377 FF-D 8BIT W/ENABLE	4	E36,E53,E122,E141
39	39		1921322-01		74F161 BINARY COUNTER,PRESE	2	E29,E30
40	40		1921010-01		74F373 OCTAL TRANSPARENT LA	8	E37,E38,E71,E90,E93,E94,E110,
						CONT	E138
41	41		1920442-01		74F374 FF-D,OCTAL,TRI-STATE	4	E81,E155,E172,E178
42	42		1913730-00		DC 101 PRIORITY ARBITRATOR	1	E171
43	43		1913788-00		26S10 TRANSCEIVER,BUS,QUA	4	E73,E74,E87,E89
44	44		1921331-01		74F258 MUX,QUAD,2-IN	2	E140,E157
45	45		1913888-00		DC 102A EQUALS CHECKER 8BIT	2	E56,E75
46	46		2303082-00		B2-03	1	E91
47	47		2302982-00		B2-03	1	E92
48	48		23E13F1-00		F1-04	1	E49
49	49		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
50	50		1302858-00		100.0 .25 W 1.0 % RN55D-F10	3	R29,R31,R32
51	51		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	
52	52	BLANK			*** THIS ITEM IS NOT USED ***	-	
53	53	BLANK			*** THIS ITEM IS NOT USED ***	-	
54	54	BLANK			*** THIS ITEM IS NOT USED ***	-	

55 NOTE: SPARE LOCATIONS ARE D1-D8,R28,R30,R33,R35,R66,R75-R92

D I G I T A L	TITLE: INTERFACE LOW BITS (SBL)	SECTION A OF A

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M7460-0-DBP	A

SIGNAL NAME	PAGE NUMBER(S)
SBLH ID RECIEVE 10 H	SBLH
SBLH ID RECIEVE 11 H	SBLH,S
SBLH ID RECIEVE 12 H	SBLH,S
SBLH ID RECIEVE 13 H	SBLH,S
SBLH ID RECIEVE 14 H	SBLH,S
SBLH ID RECIEVE 15 H	SBLH,S
SBLI ACK PULSE L	SBLK,I
SBLI ANY READ DATA L	SBLK,I,E,M
SBLI BSY LAST CYC H	SBLM,I
SBLI CS SET SBI CNF ERR H	SBLM,I
SBLI ISR DATA L	SBLR,I
SBLI READ DATA L	SBLE,I
SBLI RESET BUSY H	SBLI,D,E
SBLI RESET BUSY L	SBLI,L,K
SBLI SET TO OR CNF H	SBLI,M,T
SBLI SET TO OR CNF L	SBLI,K
SBLI TO OR CNF TRP H	SBLM,B,I
SBLJ ADDRESS REG 10 H	SBLA,B,J
SBLJ ADDRESS REG 11 H	SBLA,B,J
SBLJ ADDRESS REG 12 H	SBLA,J
SBLJ ADDRESS REG 13 H	SBLA,J
SBLJ ADDRESS REG 14 H	SBLA,J
SBLJ ADDRESS REG 15 H	SBLA,J
SBLJ ADDRESS REG 16 H	SBLA,J
SBLJ ADDRESS REG 17 H	SBLA,J
SBLJ MARK INVALID L	SBLJ,R
SBLJ PA 12 L	SBLJ
SBLJ PA 13 L	SBLJ
SBLJ TIMEOUT ADRS 10 H	SBLH,J
SBLJ TIMEOUT ADRS 11 H	SBLH,J
SBLJ TIMEOUT ADRS 12 H	SBLH,J
SBLJ TIMEOUT ADRS 13 H	SBLH,J
SBLJ TIMEOUT ADRS 14 H	SBLH,J
SBLJ TIMEOUT ADRS 15 H	SBLH,J
SBLJ TIMEOUT ADRS 16 H	SBLJ,H
SBLJ TIMEOUT ADRS 17 H	SBLJ,H
SBLK ACK PULSE L	SBLK,I
SBLK BUFFER FULL A H	SBLN,K
SBLK BUFFER FULL H	SBLC,M,K,P,B
SBLK BUFFER FULL L	SBLK,F,U,R
SBLK BUSY H	SBLL,K
SBLK BUSY L	SBLL,K
SBLK CLEAR BUSY L	SBLK
SBLK EXPECT RD H	SBLK,E
SBLK EXPECT RD L	SBLK,R,B
SBLK EXTEND READ H	SBLK,R
SBLK LATCH TIMO REG L	SBLK
SBLK RESET BUSY H	SBLI,D,K
SBLK SET RETRY H	SBLL,K
SBLK SET SBI CNF ERR H	SBLK,I

SIGNAL NAME	PAGE NUMBER(S)
SBLK SS EXPECT RD H	SBLD,K
SBLK SS EXPECT RD L	SBLE,K
SBLK TIMEOUT CARRY H	SBLK,M
SBLK TIMEOUT CARRY L	SBLK,D
SBLK TIMEOUT TRAP FF H	SBLK,D
SBLL ACK L	SBLM,L
SBLL ARB OK H	SBLL
SBLL BSY LAST CYC H	SBLE,L,I
SBLL BSY OR NR H	SBLL,K,M
SBLL ERR H	SBLM,L
SBLL PULSE 3 OR 4 H	SBLM,L
SBLL RAISE HOLD H	SBLL,U
SBLL RAISE TR H	SBLD,L,U
SBLL SBI CNF1 R L	SBLL,K
SBLL TIMING PULSE 0 H	SBLL
SBLL TIMING PULSE 1 H	SBLL
SBLL TIMING PULSE 2 H	SBLL,K,M,R
SBLL TIMING PULSE 3 H	SBLL,K
SBLL TIMING PULSE 4 H	SBLL,K
SBLL TRANS ENABLE L	SBLE,L
SBLL TRANSMIT CA H	SBLE,L,K
SBLL XMIT MUX SEL 0 H	SBLA,M,L,T
SBLL XMIT MUX SEL 0 L	SBLA,L
SBLL XMIT MUX SEL 1 H	SBLA,L
SBLM CLEAR IB L	SBLM
SBLM CP SBI ERR CNF H	SBLM,H
SBLM CP ST 0 H	SBLM,H
SBLM CP ST 1 H	SBLM,H
SBLM CP TIMEOUT H	SBLM,H
SBLM CRD H	SBLH,M
SBLM CRD RDS INTR L	SBLM
SBLM IB RDS H	SBLF,M
SBLM IB RDS L	SBLM,N
SBLM IB SBI ERR CNF H	SBLM,F
SBLM IB SBI ERR CNF L	SBLM,N
SBLM IB ST 0 H	SBLM,F
SBLM IB ST 1 H	SBLM,F
SBLM IB TIMEOUT H	SBLM,F
SBLM IB TIMEOUT L	SBLM,N
SBLM MULT CP ERR H	SBLM,F
SBLM RDS CRD INT EN H	SBLH,M
SBLM RDS H	SBLH,M
SBLM SAVE ADRS H	SBLM,D
SBLM SET RDS H	SBLM,B
SBLM SET TO OR CNF H	SBLI,M
SBLM SET TO OR CNF L	SBLK,M
SBLM TIMEOUT TRAP L	SBLM
SBLM TIMO CNF INT L	SBLM
SBLN BUFFER FULL FF H	SBLN,T,R
SBLN BUFFER FULL FF L	SBLJ,N,T,D,P

SIGNAL NAME	PAGE NUMBER(S)
SBLN CLEAR PAR REG L	SBLN
SBLN DISABLE SBI CYC H	SBLT,N,H,D
SBLN FORCE MISS GR1 H	SBLN,H
SBLN FORCE MISS GR1 L	SBLS,P,N,T
SBLN IB ERR H	SBLS,N
SBLN IB PAR ERR H	SBLS,N
SBLN IB PAR ERR L	SBLN,H
SBLN MAINT REG 08 H	SBLK,N,H
SBLN MAINT REG 09 H	SBLN,H
SBLN MAINT REG 10 H	SBLH,N
SBLN PARITY REG 00 H	SBLF,N
SBLN PARITY REG 01 H	SBLF,N
SBLN PARITY REG 02 H	SBLF,N
SBLN PARITY REG 03 H	SBLF,N
SBLN PARITY REG 04 H	SBLF,N
SBLN PARITY REG 05 H	SBLF,N
SBLN PARITY REG 06 H	SBLF,N
SBLN PARITY REG 07 H	SBLF,N
SBLN PARITY REG 08 H	SBLN,H
SBLN PARITY REG 09 H	SBLN,H
SBLN PARITY REG 10 H	SBLH,N
SBLN PARITY REG 11 H	SBLH,N
SBLN PARITY REG 12 H	SBLN,H
SBLN PARITY REG 13 H	SBLN,H
SBLN PARITY REG 15 H	SBLN,H
SBLN REPLACE GR0 H	SBLN,H
SBLN REPLACE GR1 H	SBLN,H
SBLN REVERSE P1 H	SBLE,H,N
SBLN SBI MISS DATA G0 H	SBLN
SBLN SBI MISS DATA G1 H	SBLN
SBLP ADRS LATCH 29 H	SBLP,T
SBLP ALLOW IB H	SBLP,D
SBLP ALLOW IB L	SBLM,T,P
SBLP ANY READ H	SBLK,P,T
SBLP ANY READ L	SBLP,L
SBLP ANY WRITE H	SBLK,P,T
SBLP EXTEND WRITE H	SBLK,L,P
SBLP FORCE HOLD L	SBLD,K,P
SBLP FORCE INTLK H	SBLP
SBLP G0 PAR ERR H	SBLP,R,S,T
SBLP G1 PAR ERR H	SBLP,R,S,T
SBLP ID BUFF 00 H	SBLP,N
SBLP INTLK READ H	SBLR,D,P
SBLP INTLK READ L	SBLP,K
SBLP ISR H	SBLK,R,L,P,T
SBLP ISR OR WRITE H	SBLP,D
SBLP MD TO D L	SBLP
SBLP PAR ERR TRAP L	SBLP
SBLP ROM ENABLE 0 H	SBLP,T
SBLP ROM ENABLE 1 H	SBLP,T

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DLcKA DATE 18-AUG-83 ENG. DATE Oct 83
CHK'D. DATE BOARD LOCATION: AF2
SHEET 1 OF 1
DSKB:<CIRKA>SBL1.DRW 08-AUG-83 13:27 NEXT HIGHER ASSEMBLY: B-DD-M7460-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBL1	A

SIGNAL NAME	PAGE NUMBER(S)
SBLH ID RECIEVE 10 H	SBLH
SBLH ID RECIEVE 11 H	SBLH,S
SBLH ID RECIEVE 12 H	SBLH,S
SBLH ID RECIEVE 13 H	SBLH,S
SBLH ID RECIEVE 14 H	SBLH,S
SBLH ID RECIEVE 15 H	SBLH,S
SBLI ACK PULSE L	SBLK,I
SBLI ANY READ DATA L	SBLK,I,E,M
SBLI BSY LAST CYC H	SBLM,I
SBLI CS SET SBI CNF ERR H	SBLM,I
SBLI ISR DATA L	SBLR,I
SBLI READ DATA L	SBLE,I
SBLI RESET BUSY H	SBLI,D,E
SBLI RESET BUSY L	SBLI,L,K
SBLI SET TO OR CNF H	SBLI,M,T
SBLI SET TO OR CNF L	SBLI,K
SBLI TO OR CNF TRP H	SBLM,B,I
SBLJ ADDRESS REG 10 H	SBLA,B,J
SBLJ ADDRESS REG 11 H	SBLA,B,J
SBLJ ADDRESS REG 12 H	SBLA,J
SBLJ ADDRESS REG 13 H	SBLA,J
SBLJ ADDRESS REG 14 H	SBLA,J
SBLJ ADDRESS REG 15 H	SBLA,J
SBLJ ADDRESS REG 16 H	SBLA,J
SBLJ ADDRESS REG 17 H	SBLA,J
SBLJ MARK INVALID L	SBLJ,R
SBLJ PA 12 L	SBLJ
SBLJ PA 13 L	SBLJ
SBLJ TIMEOUT ADRS 10 H	SBLH,J
SBLJ TIMEOUT ADRS 11 H	SBLH,J
SBLJ TIMEOUT ADRS 12 H	SBLH,J
SBLJ TIMEOUT ADRS 13 H	SBLH,J
SBLJ TIMEOUT ADRS 14 H	SBLH,J
SBLJ TIMEOUT ADRS 15 H	SBLH,J
SBLJ TIMEOUT ADRS 16 H	SBLJ,H
SBLJ TIMEOUT ADRS 17 H	SBLJ,H
SBLK ACK PULSE L	SBLK,I
SBLK BUFFER FULL A H	SBLN,K
SBLK BUFFER FULL H	SBLC,M,K,P,B
SBLK BUFFER FULL L	SBLK,F,U,R
SBLK BUSY H	SBLL,K
SBLK BUSY L	SBLL,K
SBLK CLEAR BUSY L	SBLK
SBLK EXPECT RD H	SBLK,E
SBLK EXPECT RD L	SBLK,R,B
SBLK EXTEND READ H	SBLK,R
SBLK LATCH TIMO REG L	SBLK
SBLK RESET BUSY H	SBLI,D,K
SBLK SET RETRY H	SBLL,K
SBLK SET SBI CNF ERR H	SBLK,I

SIGNAL NAME	PAGE NUMBER(S)
SBLK SS EXPECT RD H	SBLD,K
SBLK SS EXPECT RD L	SBLE,K
SBLK TIMEOUT CARRY H	SBLK,M
SBLK TIMEOUT CARRY L	SBLK,D
SBLK TIMEOUT TRAP FF H	SBLK,D
SBLL ACK L	SBLM,L
SBLL ARB OK H	SBLL
SBLL BSY LAST CYC H	SBLE,L,I
SBLL BSY OR NR H	SBLL,K,M
SBLL ERR H	SBLM,L
SBLL PULSE 3 OR 4 H	SBLM,L
SBLL RAISE HOLD H	SBLL,U
SBLL RAISE TR H	SBLD,L,U
SBLL SBI CNF1 R L	SBLL,K
SBLL TIMING PULSE 0 H	SBLL
SBLL TIMING PULSE 1 H	SBLL
SBLL TIMING PULSE 2 H	SBLL,K,M,R
SBLL TIMING PULSE 3 H	SBLL,K
SBLL TIMING PULSE 4 H	SBLL,K
SBLL TRANS ENABLE L	SBLE,L
SBLL TRANSMIT CA H	SBLE,L,K
SBLL XMIT MUX SEL 0 H	SBLA,M,L,T
SBLL XMIT MUX SEL 0 L	SBLA,L
SBLL XMIT MUX SEL 1 H	SBLA,L
SBLM CLEAR IB L	SBLM
SBLM CP SBI ERR CNF H	SBLM,H
SBLM CP ST 0 H	SBLM,H
SBLM CP ST 1 H	SBLM,H
SBLM CP TIMEOUT H	SBLM,H
SBLM CRD H	SBLH,M
SBLM CRD RDS INTR L	SBLM
SBLM IB RDS H	SBLF,M
SBLM IB RDS L	SBLM,N
SBLM IB SBI ERR CNF H	SBLM,F
SBLM IB SBI ERR CNF L	SBLM,N
SBLM IB ST 0 H	SBLM,F
SBLM IB ST 1 H	SBLM,F
SBLM IB TIMEOUT H	SBLM,F
SBLM IB TIMEOUT L	SBLM,N
SBLM MULT CP ERR H	SBLM,F
SBLM RDS CRD INT EN H	SBLH,M
SBLM RDS H	SBLH,M
SBLM SAVE ADRS H	SBLM,D
SBLM SET RDS H	SBLM,B
SBLM SET TO OR CNF H	SBLI,M
SBLM SET TO OR CNF L	SBLK,M
SBLM TIMEOUT TRAP L	SBLM
SBLM TIMO CNF INT L	SBLM
SBLN BUFFER FULL FF H	SBLN,T,R
SBLN BUFFER FULL FF L	SBLJ,N,T,D,P

SIGNAL NAME	PAGE NUMBER(S)
SBLN CLEAR PAR REG L	SBLN
SBLN DISABLE SBI CYC H	SBLT,N,M,D
SBLN FORCE MISS GR1 H	SBLN,H
SBLN FORCE MISS GR1 L	SBLS,P,N,T
SBLN IB ERR H	SBLS,N
SBLN IB PAR ERR H	SBLS,N
SBLN IB PAR ERR L	SBLN,H
SBLN MAINT REG 08 H	SBLK,N,H
SBLN MAINT REG 09 H	SBLN,H
SBLN MAINT REG 10 H	SBLH,N
SBLN PARITY REG 00 H	SBLF,N
SBLN PARITY REG 01 H	SBLF,N
SBLN PARITY REG 02 H	SBLF,N
SBLN PARITY REG 03 H	SBLF,N
SBLN PARITY REG 04 H	SBLF,N
SBLN PARITY REG 05 H	SBLF,N
SBLN PARITY REG 06 H	SBLF,N
SBLN PARITY REG 07 H	SBLF,N
SBLN PARITY REG 08 H	SBLN,H
SBLN PARITY REG 09 H	SBLN,H
SBLN PARITY REG 10 H	SBLH,N
SBLN PARITY REG 11 H	SBLH,N
SBLN PARITY REG 12 H	SBLN,H
SBLN PARITY REG 13 H	SBLN,H
SBLN PARITY REG 15 H	SBLN,H
SBLN REPLACE GR0 H	SBLN,H
SBLN REPLACE GR1 H	SBLN,H
SBLN REVERSE P1 H	SBLE,H,N
SBLN SBI MISS DATA G0 H	SBLN
SBLN SBI MISS DATA G1 H	SBLN
SBLP ADRS LATCH 29 H	SBLP,T
SBLP ALLOW IB H	SBLP,D
SBLP ALLOW IB L	SBLM,T,P
SBLP ANY READ H	SBLK,P,T
SBLP ANY READ L	SBLP,L
SBLP ANY WRITE H	SBLK,P,T
SBLP EXTEND WRITE H	SBLK,L,P
SBLP FORCE HOLD L	SBLD,K,P
SBLP FORCE INTLK H	SBLP
SBLP G0 PAR ERR H	SBLP,R,S,T
SBLP G1 PAR ERR H	SBLP,R,S,T
SBLP ID BUFF 08 H	SBLP,N
SBLP INTLK READ H	SBLR,D,P
SBLP INTLK READ L	SBLP,K
SBLP ISR H	SBLK,R,L,P,T
SBLP ISR OR WRITE H	SBLP,D
SBLP MD TO D L	SBLP
SBLP PAR ERR TRAP L	SBLP
SBLP ROM ENABLE 0 H	SBLP,T
SBLP ROM ENABLE 1 H	SBLP,T

NOTES:
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REVISIONS		
CHK	CHANGE NO.	REV

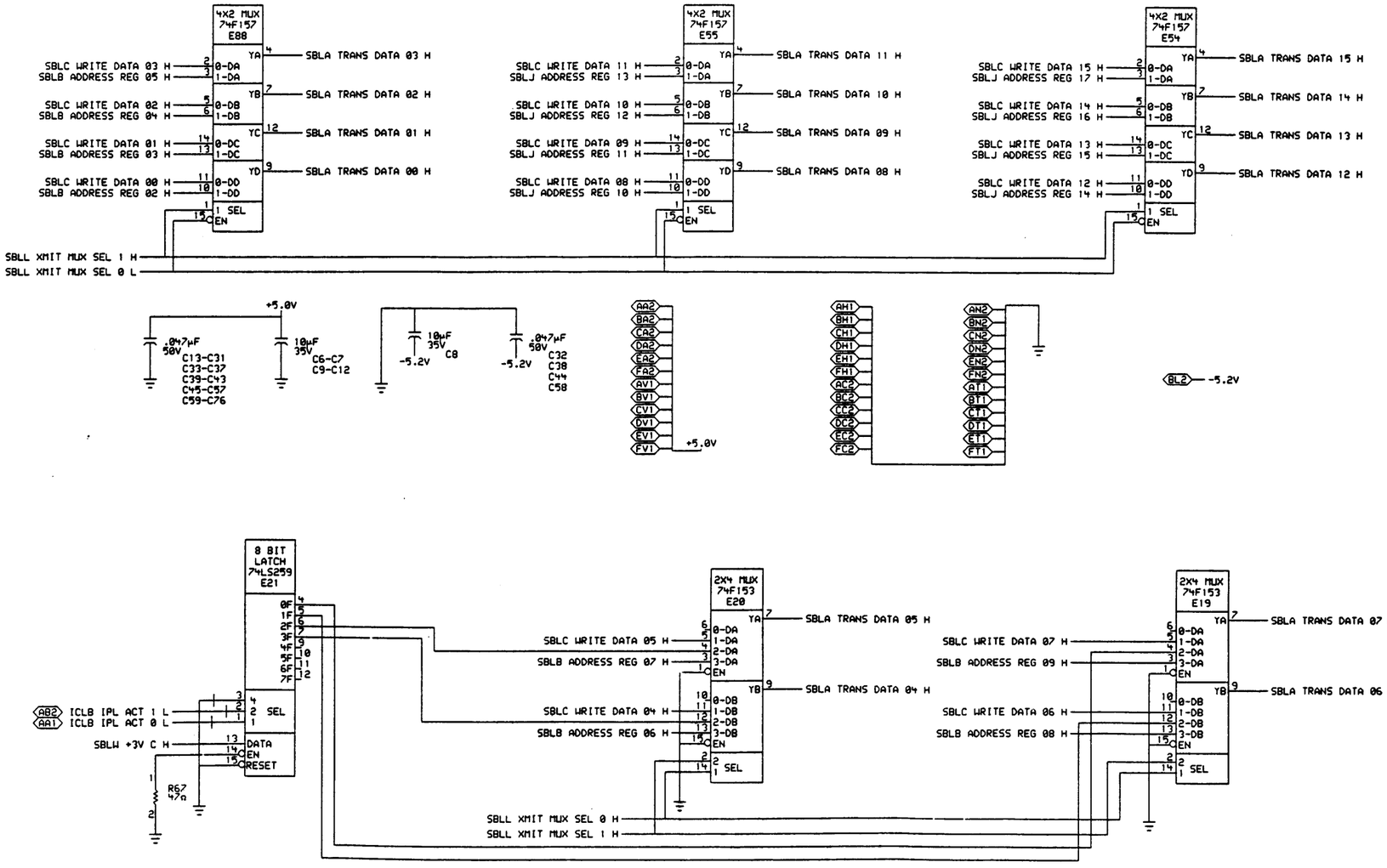
digital

DRN. DCIRKA | DATE 10-AUG-83 | ENG. Bruce Hall | DATE 10AUG83
CHK'D [illegible] | DATE [illegible] | BOARD LOCATION: AF2
DSKB:<CIRKA>SBL2.DRW 08-AUG-83 13:27 | SHEET 1 OF 1 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBL2	A

REV. A | SIZE K CS | CODE | NUMBER M7460-0-SBL2 | B



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REVISIONS		
CHK	CHANGE NO.	REV

DSKB:<CIRKA>SBLA.DRW 08-AUG-83 13:23
FIRST USED ON OPTION/MODEL: 11/785

DRN. MCirKA — DATE 10-AUG-83
CHK'D. — DATE
ENG. — DATE 11-Aug-83
BOARD LOCATION: AF2
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLA	A

(SBI RECEIVE DATA REGISTER CONTROL)

SBLW +3V B H
SBLX SBI T2 H
SBLW CPT3 B H
74F374 E178
4 D FF 74F175 E166
SBLW CLEAR C L
SBLW CPT1 A H
SBLB T1 SBI DATA SEL H
SBLW CPT0 A H
74F00 E103

SBLW +3V B H
SBLX SBI T0 H
SBLX SBI T1 L
74F74 E177
74F02 E176
SBLB CLK RCV DATA A H
SBLB CLK RCV DATA B H

8 D FF 74F374 E172
FV2 BUS PA 02 H
FS1 BUS PA 03 H
FR2 BUS PA 04 H
FR1 BUS PA 05 H
FL1 BUS PA 06 H
FK2 BUS PA 07 H
FK1 BUS PA 08 H
FF1 TBMK PA 09 H
EN OUT CLK

SBLW CPT2 A L
SBLK BUFFER FULL H
74F02 E174
SBLB CLK PA IN H
R69 470

4x2 MUX 74F258 E140
SBLG READ DATA 09 H
SBLJ ADDRESS REG 11 H
SBLG READ DATA 07 H
SBLG READ DATA 08 H
SBLJ ADDRESS REG 10 H
SBLB PA 11 L EH2
SBLB PA 09 L EF1
SBLB PA 10 L EF2
1 SEL EN

8 D FF 74LS377 E122
SBLB TIMEOUT ADRS 02 H
SBLB TIMEOUT ADRS 03 H
SBLB TIMEOUT ADRS 04 H
SBLB TIMEOUT ADRS 05 H
SBLB TIMEOUT ADRS 06 H
SBLB TIMEOUT ADRS 07 H
SBLB TIMEOUT ADRS 08 H
SBLB TIMEOUT ADRS 09 H
EN CLK
SBLD CP TIMEOUT T1 H
SBLW CPT0 A H

SBLB ADDRESS REG 06 H
SBLB ADDRESS REG 07 H
SBLB ADDRESS REG 08 H
SBLB ADDRESS REG 09 H
SBLB ADDRESS REG 02 H
SBLB ADDRESS REG 03 H
SBLB ADDRESS REG 04 H
SBLB ADDRESS REG 05 H

4 D FF 74F175 E82
SBLB T1 SBI DATA SEL H
SBLB SBI DATA SEL H
SBLB RDS FF H
SBLB RDS FF L
SBLM SET RDS H
SBLB SBI CYCLE FF H
SBLB SBI CYCLE FF L
BA1 SBHM CS SET SBI CYCLE H
SBLB CLR TO TRP H
SBLI TO OR CNF TRP H
SBLW CLEAR C L
SBLW CPT0 A H

4X2 MUX 74F257 E156
SBLG READ DATA 03 H
SBLG READ DATA 02 H
SBLG READ DATA 00 H
SBLK EXPECT RD L
SBLG READ DATA 01 H
BUS PA 05 H FR1
BUS PA 04 H FR2
BUS PA 02 H FV2
BUS PA 03 H FS1
1 SEL EN

4x2 MUX 74F257 E173
SBLG READ DATA 06 H
SBLG READ DATA 04 H
SBLG READ DATA 05 H
BUS PA 08 H FK1
BUS PA 06 H FL1
BUS PA 07 H FK2

SBLS WRITE INVALID L
SBLS SELECT SBI ADR L

(ADDRESS LOGIC)

(SBLB)

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REVISIONS		
CHK	CHANGE NO.	REV

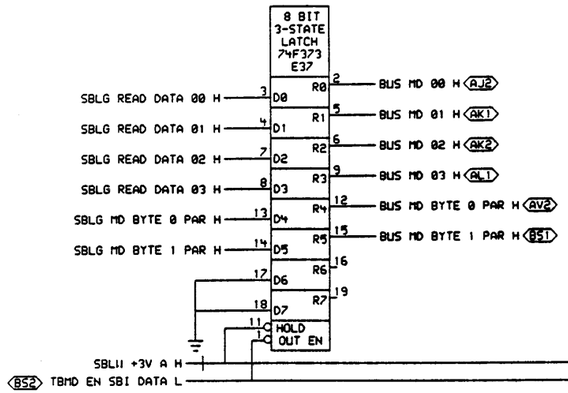
digital

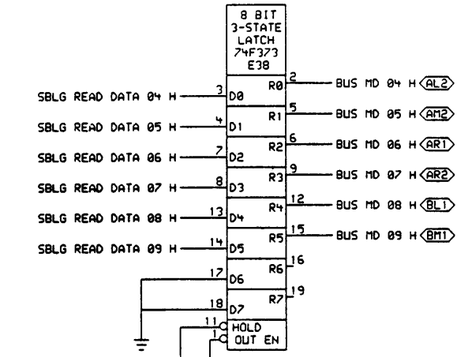
DRN.	DATE	ENG.	DATE
DLrKA	10-AUG-83	Bonnie Swill	11-OCT-83
CHK'D.	DATE	BOARD LOCATION:	AF2
		SHEET 1 OF 1	

DSKB:<CIRKA>SBLB.DRW 08-AUG-83 13:23 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7460-0

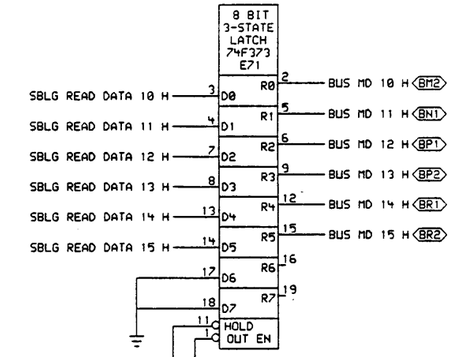
TITLE: SBI INTERFACE LOW BITS

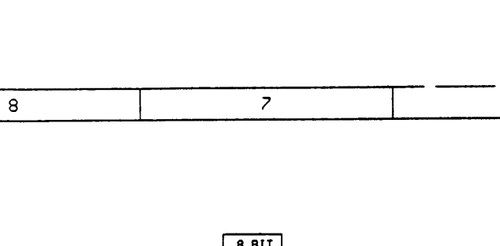
SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLB	A



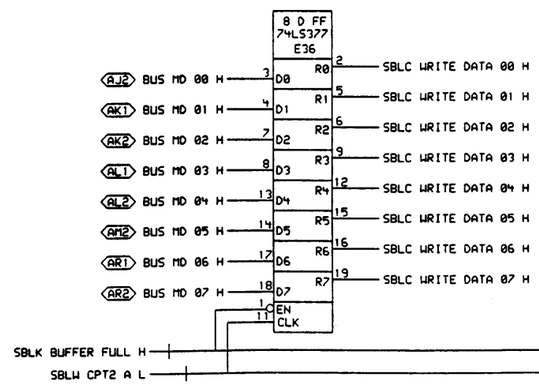


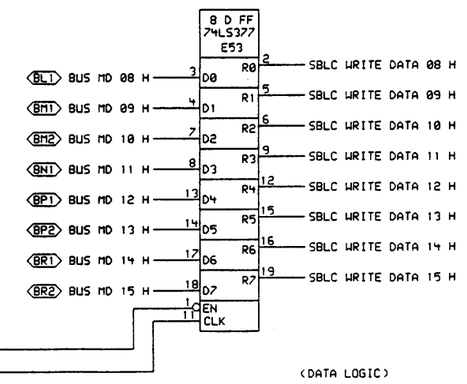
MD BUS DRIVERS





WRITE DATA REGISTER





(DATA LOGIC)

(SBLC)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DCirKA — DATE 10-AUG-83 — ENG. Barney Nault — DATE 11/22/83

CHK'D. — DATE — BOARD LOCATION: AF2 — SHEET 1 OF 1

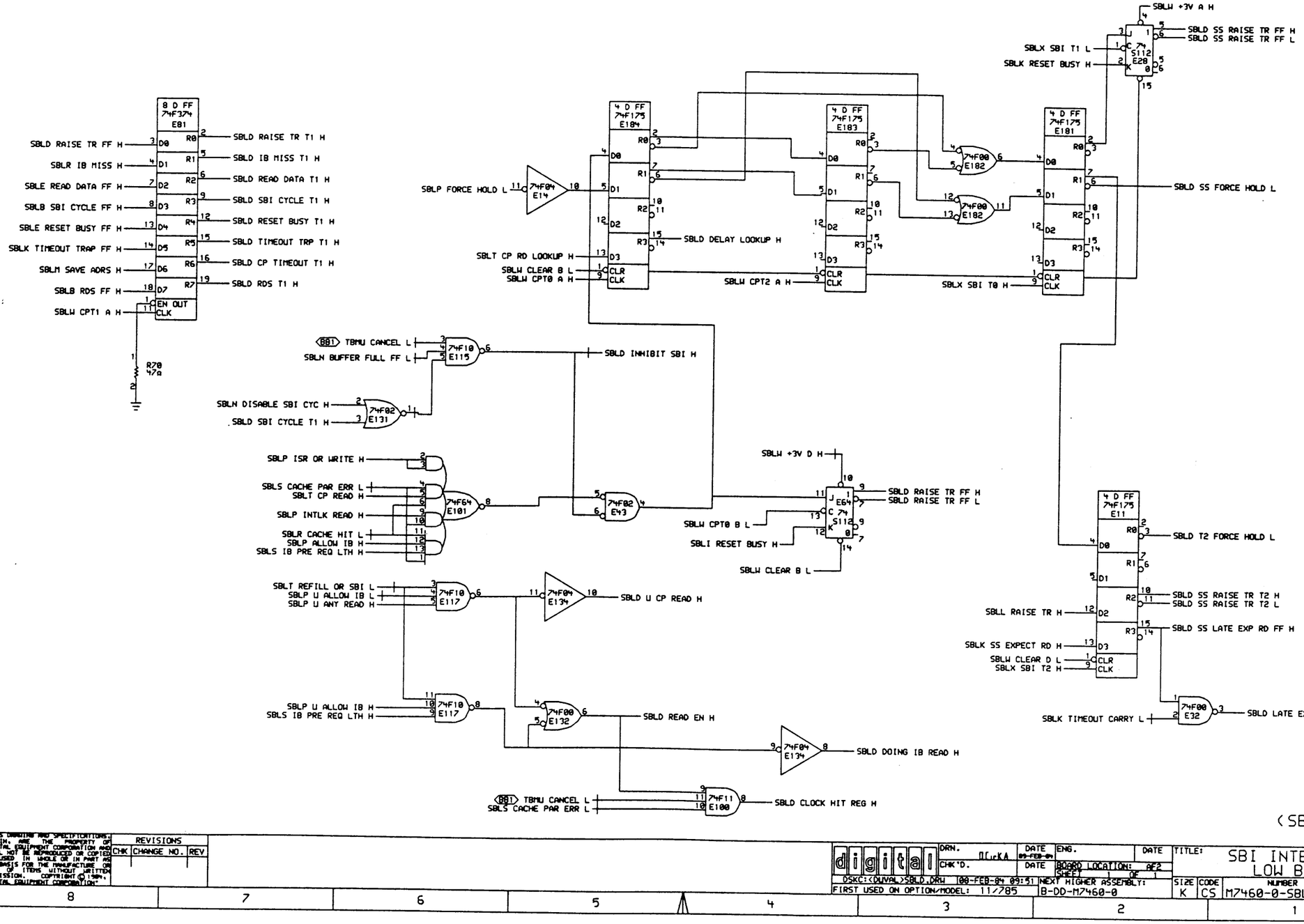
DSKB:<CIRKA>SBLC.DRW 08-AUG-83 13:23 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0

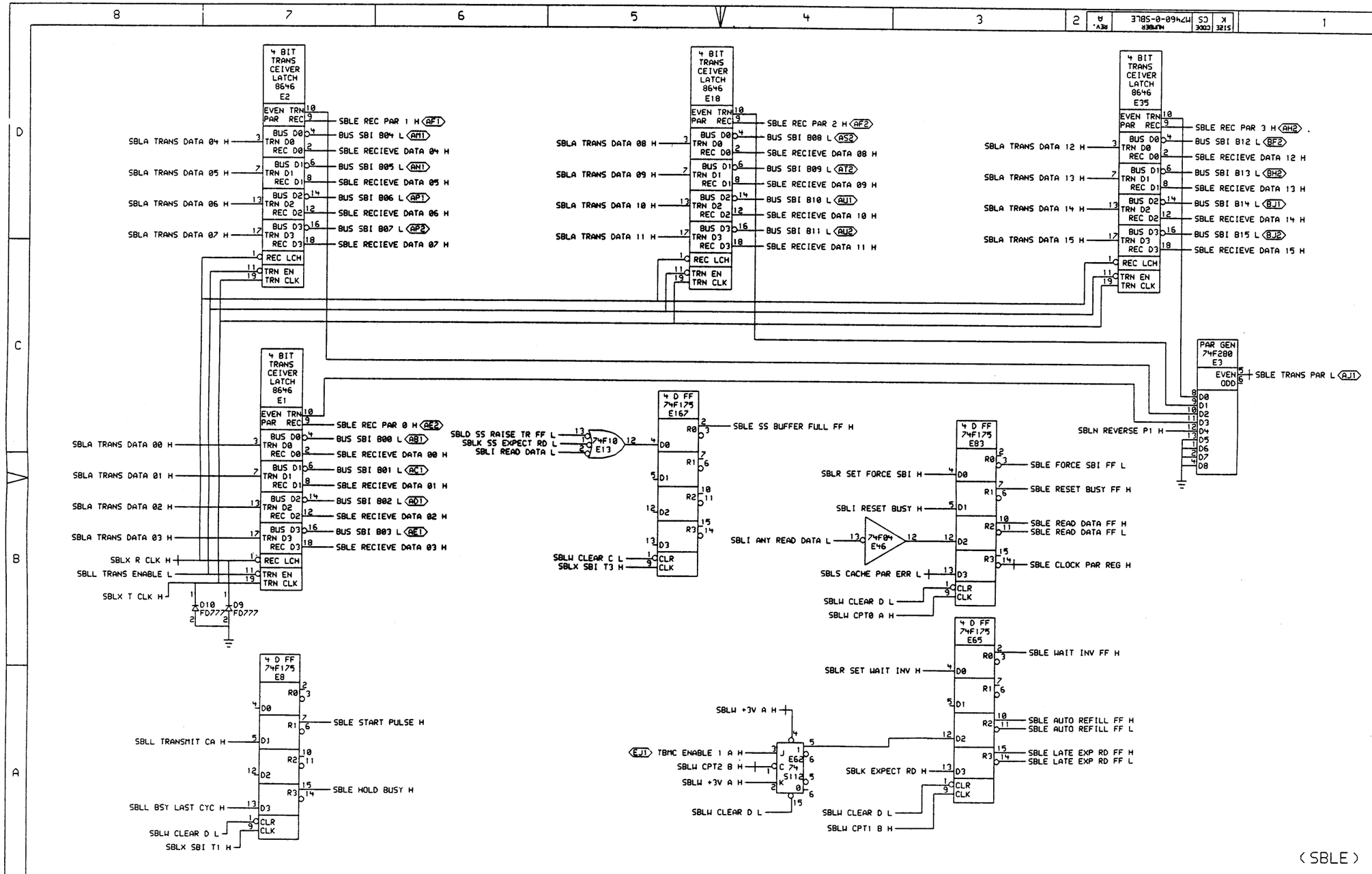
FIRST USED ON OPTION/MODEL: 111785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLC	A

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLC	A


8 D FF 74F374 E81
SBLD RAISE TR FF H
SBLR IB MISS H
SBLE READ DATA FF H
SBLB SBI CYCLE FF H
SBLE RESET BUSY FF H
SBLK TIMEOUT TRAP FF H
SBLM SAVE ADRS H
SBLB RDS FF H
SBLW CPT1 A H
SBLD RAISE TR T1 H
SBLD IB MISS T1 H
SBLD READ DATA T1 H
SBLD SBI CYCLE T1 H
SBLD RESET BUSY T1 H
SBLD TIMEOUT TRP T1 H
SBLD CP TIMEOUT T1 H
SBLD RDS T1 H
R70 47Ω
4 D FF 74F175 E184
4 D FF 74F175 E183
4 D FF 74F175 E181
SBLP FORCE HOLD L
74F04 E14
SBLT CP RD LOOKUP H
SBLW CLEAR B L
SBLW CPT0 A H
SBLD DELAY LOOKUP H
SBLW CPT2 A H
SBLX SBI T0 H
74F00 E182
SBLW +3V A H
SBLX SBI T1 L
SBLK RESET BUSY H
74 S112 E28
SBLD SS RAISE TR FF H
SBLD SS RAISE TR FF L
SBLD SS FORCE HOLD L
681 TBMU CANCEL L
SBLN BUFFER FULL FF L
74F10 E115
SBLD INHIBIT SBI H
SBLN DISABLE SBI CYC H
SBLD SBI CYCLE T1 H
74F02 E131
SBLP ISR OR WRITE H
SBLS CACHE PAR ERR L
SBLT CP READ H
SBLP INTLK READ H
SBLR CACHE HIT L
SBLP ALLOW IB H
SBLS IB PRE REQ LTH H
74F64 E101
74F82 E43
SBLW +3V D H
SBLW CPT0 B L
SBLI RESET BUSY H
SBLW CLEAR B L
E64 S112
SBLD RAISE TR FF H
SBLD RAISE TR FF L
SBLT REFILL OR SBI L
SBLP U ALLOW IB L
SBLP U ANY READ H
74F10 E117
74F04 E134
SBLD U CP READ H
SBLP U ALLOW IB H
SBLS IB PRE REQ LTH H
74F10 E117
74F00 E132
SBLD READ EN H
74F04 E134
SBLD DOING IB READ H
881 TBMU CANCEL L
SBLS CACHE PAR ERR L
74F11 E100
SBLD CLOCK HIT REG H
4 D FF 74F175 E11
SBLD T2 FORCE HOLD L
SBLD SS RAISE TR T2 H
SBLD SS RAISE TR T2 L
SBLL RAISE TR H
SBLD SS LATE EXP RD FF H
SBLK SS EXPECT RD H
SBLW CLEAR D L
SBLX SBI T2 H
SBLK TIMEOUT CARRY L
74F00 E32
SBLD LATE EXP RD L
BDT
(SBLD)
REVISIONS
CHK CHANGE NO. REV
DRN. MCuckA
CHK'D.
DATE 09-FEB-84
ENG.
BOARD LOCATION: AF2
SHEET 1 OF 1
TITLE: SBI INTERFACE LOW BITS
DSKC:<DUVAL>SBLD.DRW 08-FEB-84 09:51
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7460-0
SIZE K
CODE CS
NUMBER M7460-0-SBLD
REV. B



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REVISIONS		
CHK	CHANGE NO.	REV

digital

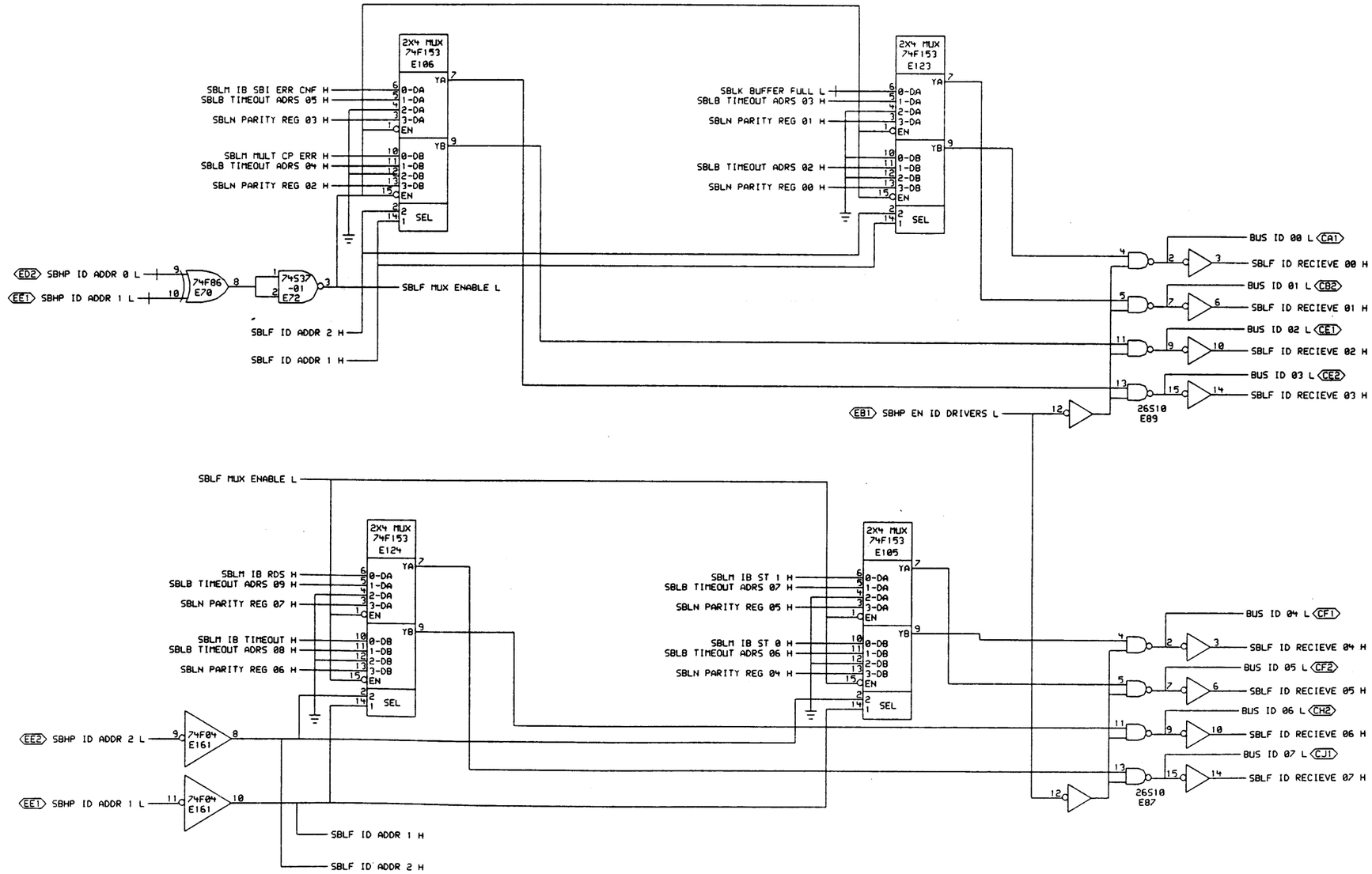
DRN. MCirKA | DATE 10-AUG-83 | ENG. Bonnie Wallace | DATE
CHK'D. | DATE | BOARD LOCATION: AF2 | SHEET 1 OF 1

DSKB:<CIRKA>SBLE.DRW 08-AUG-83 13:23 | NEXT HIGHER ASSEMBLY: B-DD-M7460-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLE	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DCrKA — DATE 10-AUG-83 — ENG. Bonnie Hall — DATE 11-8-83

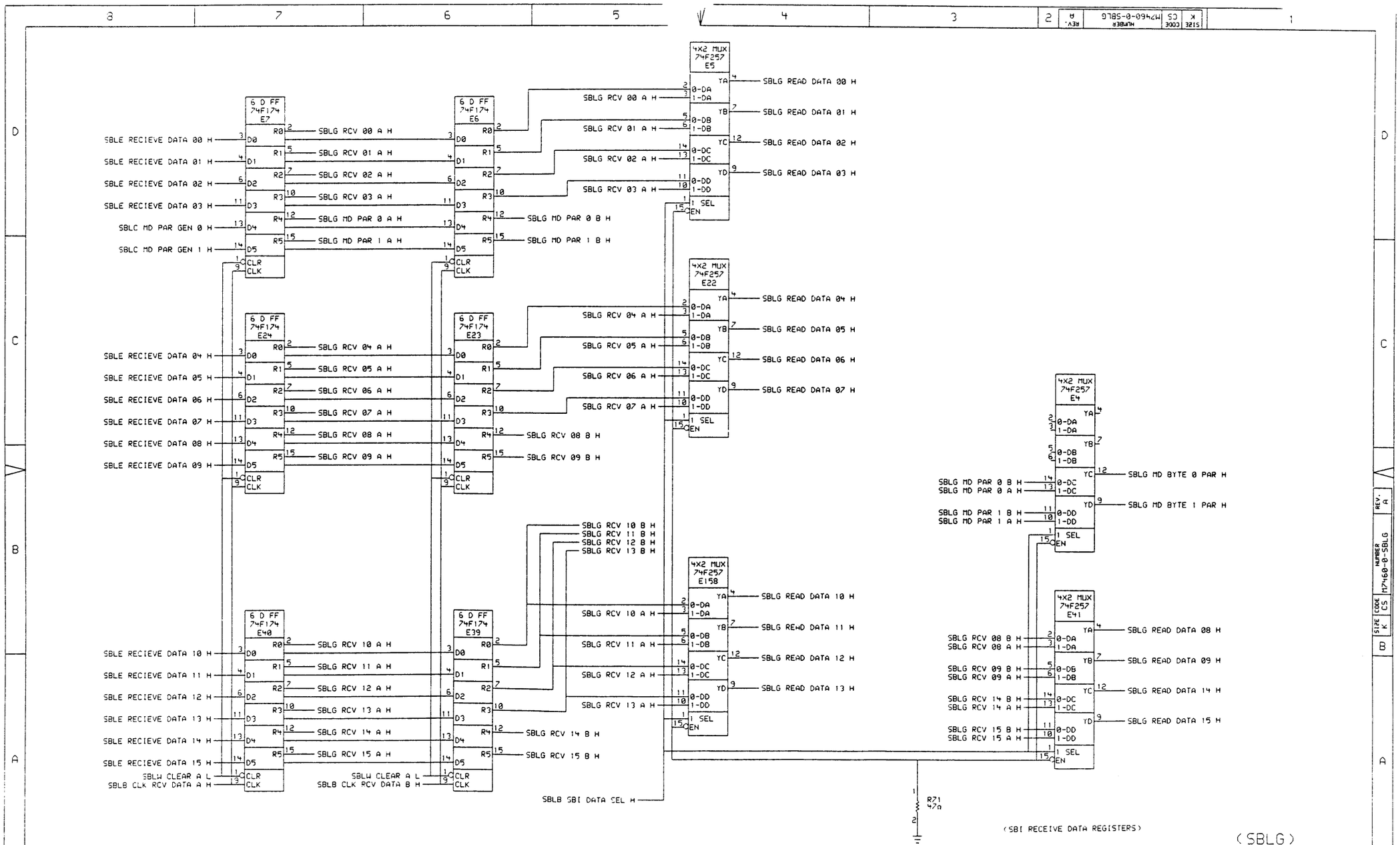
CHK'D. — DATE — BOARD LOCATION: AF2 — SHEET 1 OF 1

DSKB:<CIRKA>SBLF.DRW 08-AUG-83 13:24 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLF	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

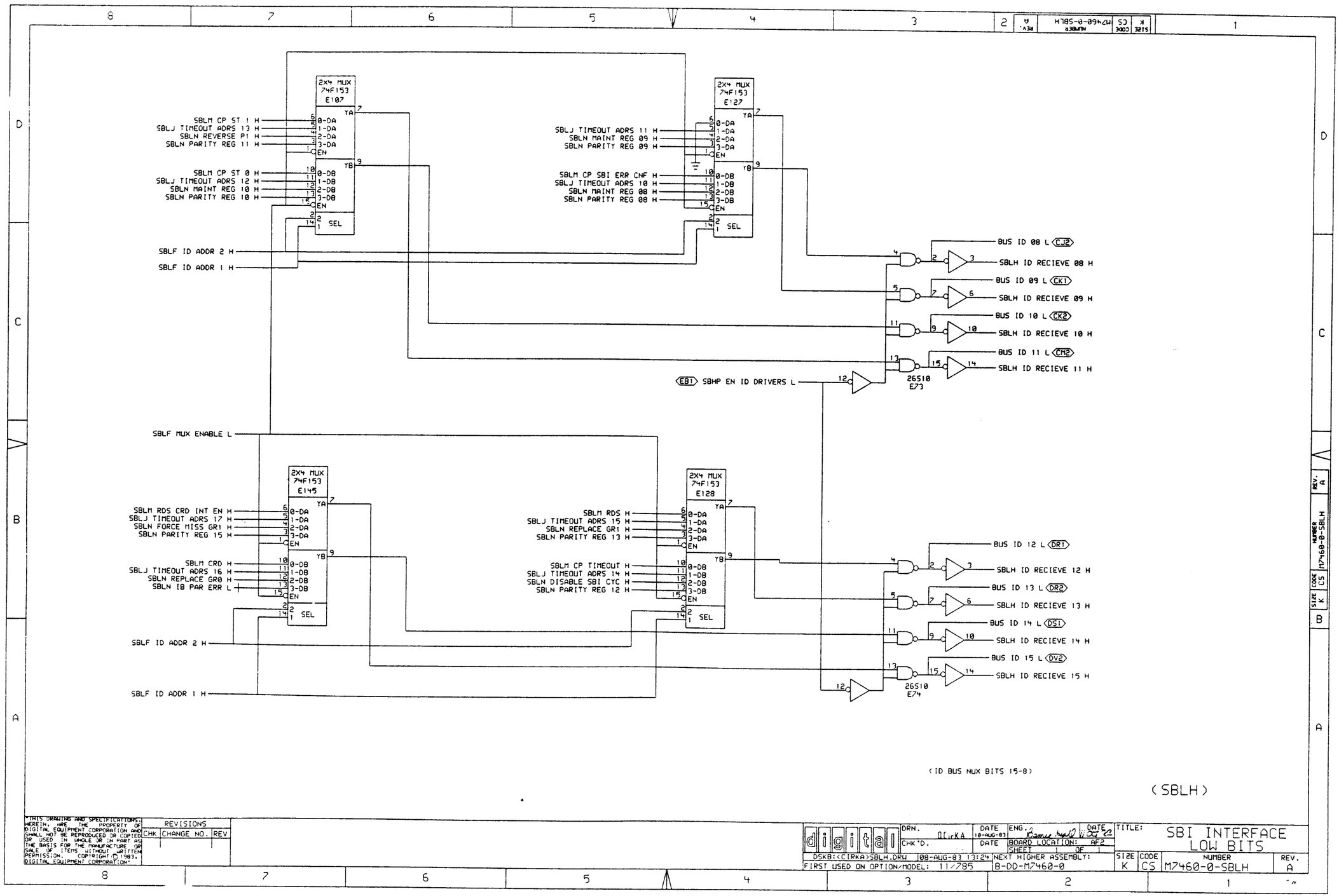
DRN. DCrKA — DATE 10-AUG-83 — ENG. — DATE — TITLE. SBI INTERFACE LOW BITS

CHK 'D. — DATE — BOARD LOCATION: AF2 — SHEET 1 OF 1

DSKB:<CIRKA>SBLG.DPH 08-AUG-83 13:24 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0

FIRST USED ON OPTION/MODEL: 11/785

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLG	A



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REVISIONS		
CHK	CHANGE NO.	REV

DRN. AC rKA — DATE 10-AUG-83 — ENG. — DATE — CHK'D. — DATE

BOARD LOCATION: AF2

SHEET 1 OF 1

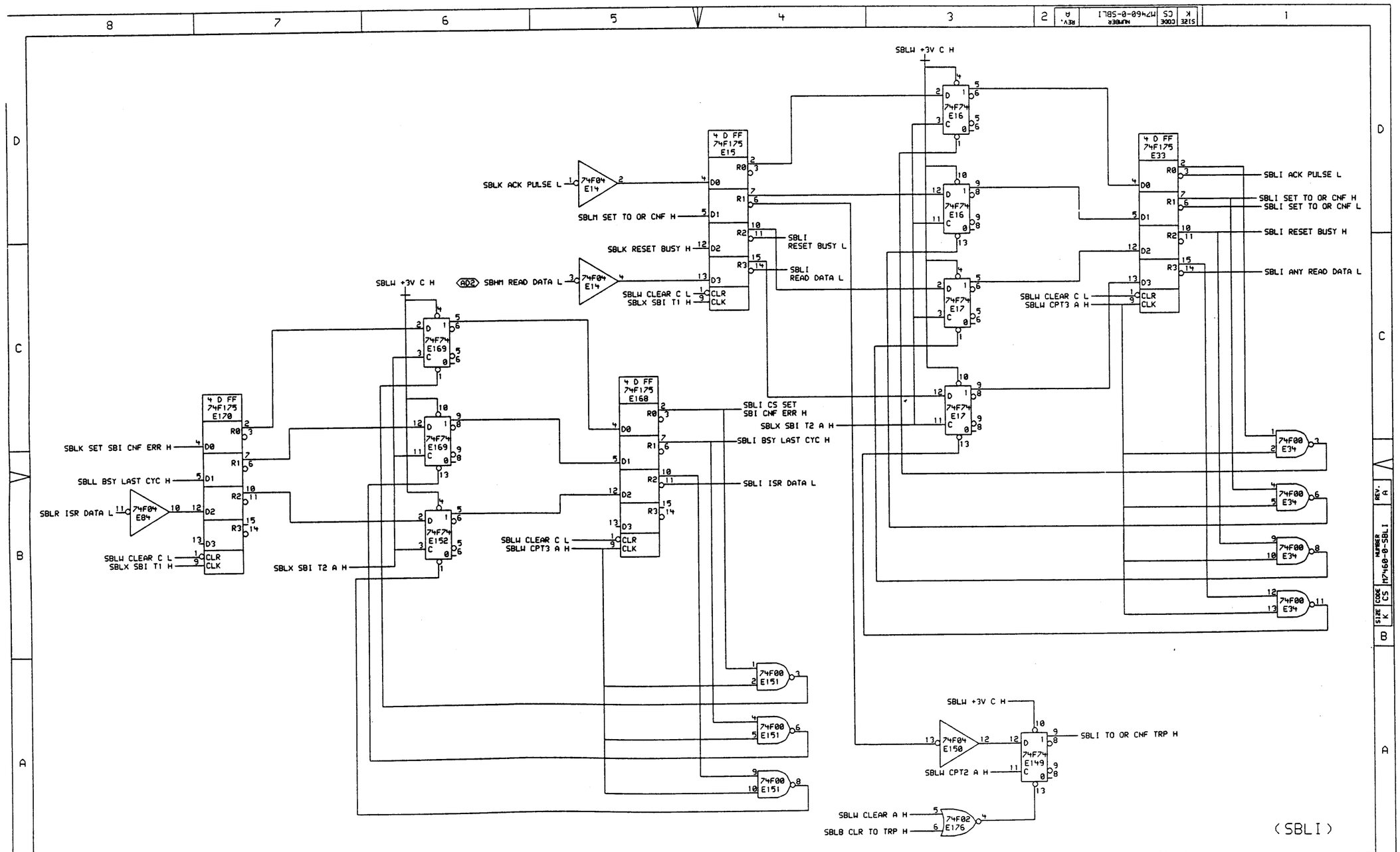
DSKB:<CIRKA>SBLH.DRW 08-AUG-83 13:24

NEXT HIGHER ASSEMBLY: B-DD-M7460-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLH	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MCirKA — DATE 10-AUG-83 — ENG. — DATE Oct 83

CHK'D. — DATE — BOARD LOCATION: AF2

SHEET 1 OF 1

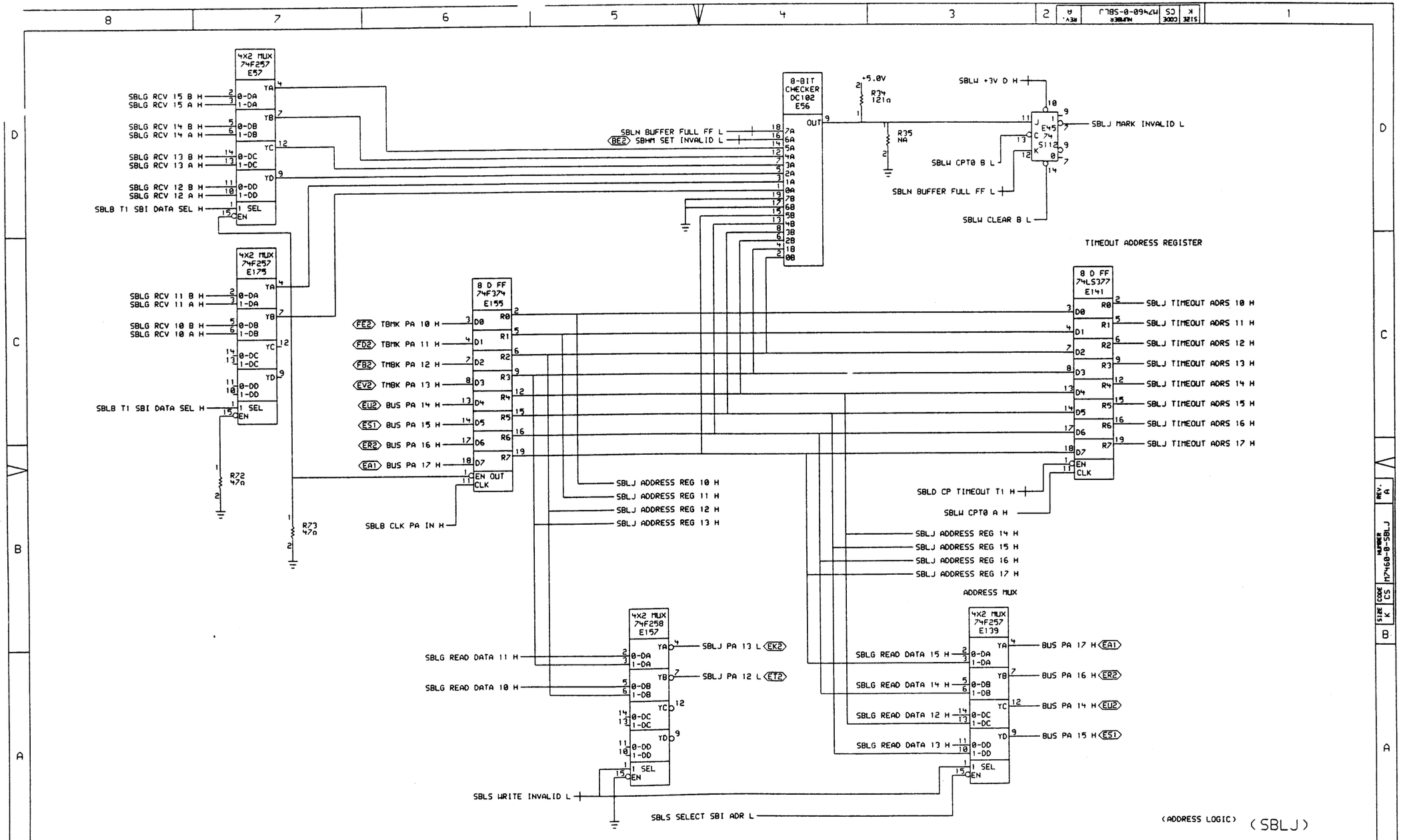
DSKB:<CIRKA>SBLI.DRW 08-AUG-83 13:24

FIRST USED ON OPTION/MODEL: 111785

NEXT HIGHER ASSEMBLY: B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLI	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MCIRKA | DATE 10-AUG-83 | ENG | DATE

CHK'D. | DATE | BOARD LOCATION: AF2 | SHEET 1 OF 1

DSKB:<CIRKA>SBLJ.DRW 08-AUG-83 13:24 | NEXT HIGHER ASSEMBLY:

FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLJ	A

SBLW +3V B H
SBLD RAISE TR FF L
SBLK BUFFER FULL H
SBLK BUFFER FULL L
SBLT TIMEOUT TRAP EN H
SBLD RAISE TR T1 H
74F08 E68
J E61 C 74 S112 K
SBLK TIMEOUT TRAP FF H
74F20 E44
SBLW CPT0 A L
SBLT STALL L
SBLW CLEAR A L
SBLE READ DATA FF L
SBLK EXPECT RD L
74S37 -01 E72
SBLW +3V B H
74F04 E159
SBLK BUFFER FULL A H FA1
SBLD CP TIMEOUT T1 H
74S37 -01 E79
SBLK LATCH TIMO REG L BD2
SBLW +3V B H
SBLL TRANSMIT CA H
SBLX SBI T1 L
J E61 C 74 S112 K
SBLK BUSY H
SBLK BUSY L
SBLM SET TO OR CNF L
SBLK CLEAR BUSY L
74F00 E32
SBLW CLEAR A L
SBLK RESET BUSY H
SBLK SS EXPECT RD H
74F04 E14
SBLK SS EXPECT RD L
SBLP FORCE HOLD L
SBLI SET TO OR CNF L
74F10 E48
SBLI ACK PULSE L
SBLI ANY READ DATA L
74F00 E32
SHFT REG 74F194 E12
SHFT 0IN
D0 D1 D2 D3
R0 R1 R2 R3
SHFT 3IN
0=HOLD 2 1=3IN+3 1 2=0IN+0 3=LOAD
CLR CLK
SBLP ANY READ H
SBLK EXTEND READ H
SBLD SS FORCE HOLD L
SBLM SET TO OR CNF L
74F10 E13
SBLK ACK PULSE L
AD2 SBHM READ DATA L
74F00 E182
SBLW CLEAR A L
SBLX SBI T1 H
SBLK SS EXPECT RD H
SBLN MAINT REG 08 H
BIN CTR 74F161 E30
D8 D4 D2 D1
Q8 Q4 Q2 Q1
TC
CET CEP
LOAD CLR
CLK
SBLI RESET BUSY L
SBLE SS BUFFER FULL FF H
SBLX SBI T2 H
BIN CTR 74F161 E29
SBLK TIMEOUT CARRY H
74F04 E46
SBLK TIMEOUT CARRY L
TIMEOUT COUNTER
SBLK EXTEND READ H
SBLP INTLK READ L
SBLT ADRS LATCH 29 L
SBLP ANY READ H
74F11 E100
SHFT REG 74F194 E31
SHFT 0IN
D0 D1 D2 D3
R0 R1 R2 R3
SHFT 3IN
0=HOLD 2 1=3IN+3 1 2=0IN+0 3=LOAD
CLR CLK
SBLW CLEAR A L
SBLW CPT0 A H
74F04 E66
SBLK EXPECT RD L
SBLK EXPECT RD H
SBLW +3V B H
SBLX SBI T1 L
J E47 C 74 S112 K
23-E13F1-00
82HS137
1K X 4 PROM 82HS137 E49
1M 2M 3M 4M
SBLK SET RETRY H
SBLK SET SBI CNF ERR H
SBLK ACK PULSE L
SBLK CLEAR BUSY L
SBLL BSY OR NR H
SBLL SBI CNF1 R L
SBLK TIMEOUT CARRY H
SBLL TIMING PULSE 4 H
SBLL TIMING PULSE 3 H
SBLL TIMING PULSE 2 H
SBLP ANY READ H
SBLP ANY WRITE H
SBLP EXTEND WRITE H
SBLP ISR H
ADR
EN 1 2
R74 47Ω
(STATE CONTROL)
(SBLK)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DECRKA — DATE 18-AUG-83 — ENG. — DATE
CHK D. — DATE — BOARD LOCATION: AF2 — SHEET 1 OF 1
DSKB:<CIRKA>SBLK.DRW 18-AUG-83 11:14 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLK	A

SBLU ARB OK L — 74F04 E159 — SBLL ARB OK H

SBLW +3V B H — 74F74 E45 (J, C, K, S, 1, 2) — SBLK SET RETRY H; SBLX SBI T1 L

SBLD SS RAISE TR T2 L — 74F02 E43 — SBLL TRANSMIT CA H (CB1)

SBLK BUSY H — 74F74 E45 (15)

(BE1) SBHR SEND DATA H — 74F02 E43 — SBLL TRANS ENABLE L

SBLL SBI CNF1 R L

(EP1) SBHE SBI CNF1 R H — 74F04 E46 — 74F00 E67 — SBLL ACK L

74F11 E100 — SBLL ERR H

(EP2) SBHE SBI CNF0 R H — 74F04 E46 — SBLL BSY OR NR H

SBLL TIMING PULSE 2 H — 74F10 E48

SBLP ISR H — 74S37 -01 E72 — SBLL XMIT MUX SEL 0 H

74F04 E134 — SBLL XMIT MUX SEL 0 L

SBLD T2 FORCE HOLD L

SBLP ANY READ L; SBLL ARB OK H; SBLL RAISE TR H — 74F10 E162

SBLP EXTEND WRITE H — 74F00 E76

SBLL TIMING PULSE 0 H; SBLP ISR H — 74F00 E76

74F20 E144 — SBLL RAISE HOLD H

SBI CONFIRMATION DECODE

SBLK BUSY L; SBLD SS RAISE TR FF H — 74F00 E27

74F00 E27 — SBLL RAISE TR H

SBLK BUSY H — 74S37 -01 E72 — SBLL XMIT MUX SEL 1 H

SBLI RESET BUSY L — 74F00 E27

SBLK BUSY L — 74F00 E27

SBLE START PULSE H

SHFT REG 74F194 E9

SHFT 0IN; D0; D1; D2; D3; SHFT 3IN; 0=HOLD 1=3IN+3 2=0IN+0 3=LOAD; CLR; CLK

R0 — SBLL TIMING PULSE 0 H

R1 — SBLL TIMING PULSE 1 H

R2 — SBLL TIMING PULSE 2 H

R3 — SBLL TIMING PULSE 3 H

SBLW CLEAR A L

SHFT REG 74F194 E26

SBLE HOLD BUSY H

SBLX SBI T2 H

74F02 E42 — 74F04 E66 — SBLL PULSE 3 OR 4 H

SBLL TIMING PULSE 4 H

74F04 E77 — 74F00 E63 — SBLL BSY LAST CYC H

(SBLL)

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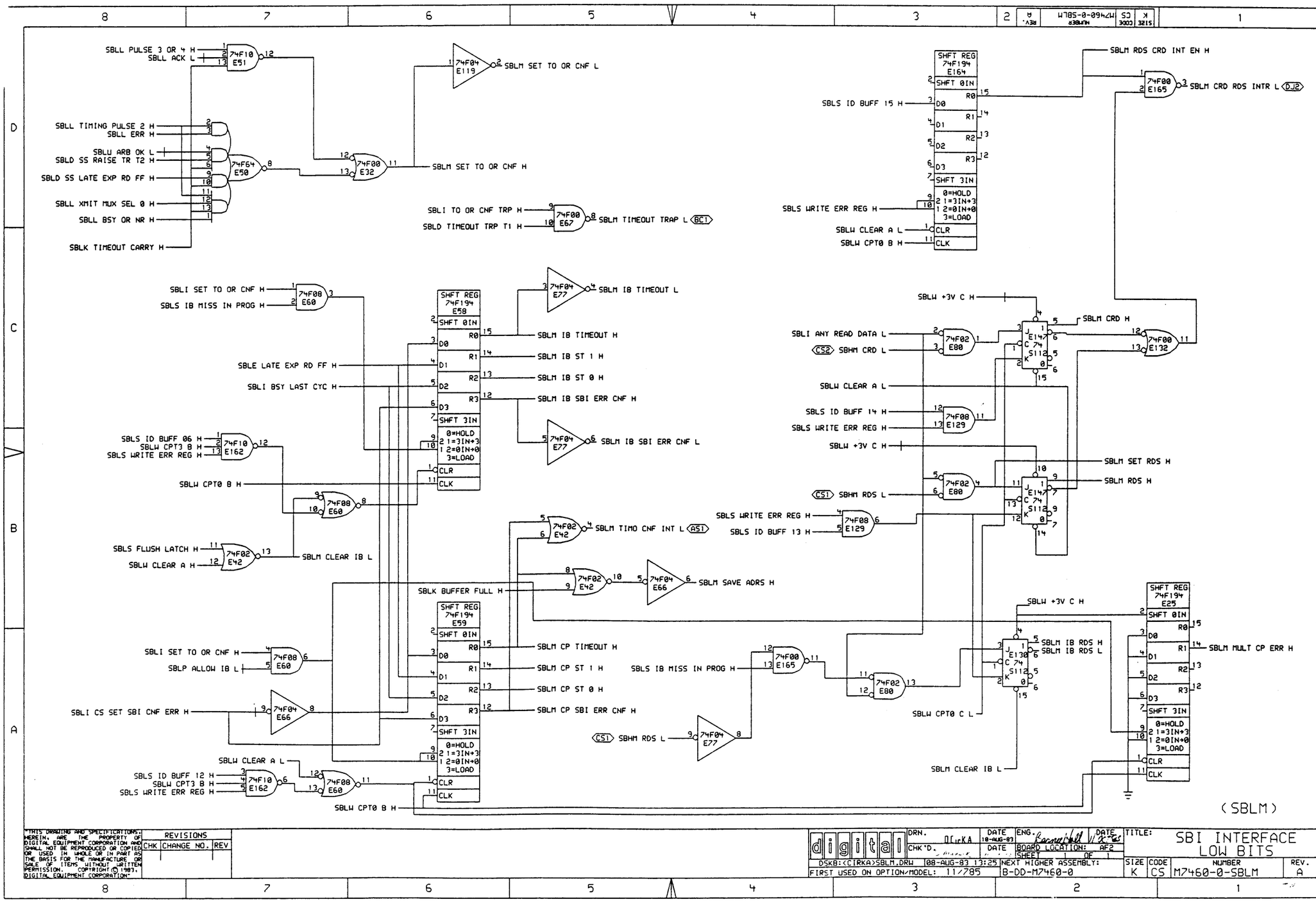
REVISIONS		
CHK	CHANGE NO.	REV

DRN. DICKA	DATE 10-AUG-83	ENG. Ronald Hall	DATE 11 Oct 83
CHK'D.	DATE	BOARD LOCATION: AF2	
		SHEET 1 OF 1	

DSKB:<CIRKA>SBLL.DRW 08-AUG-83 13:25 | NEXT HIGHER ASSEMBLY: B-DD-M7460-0 | FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLL	A



SIZE K	CODE CS	NUMBER M7460-0-SBLM	REV. A								

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DCrKA — DATE 10-AUG-83 — ENG. — DATE

CHK'D. — DATE — BOARD LOCATION: AF2

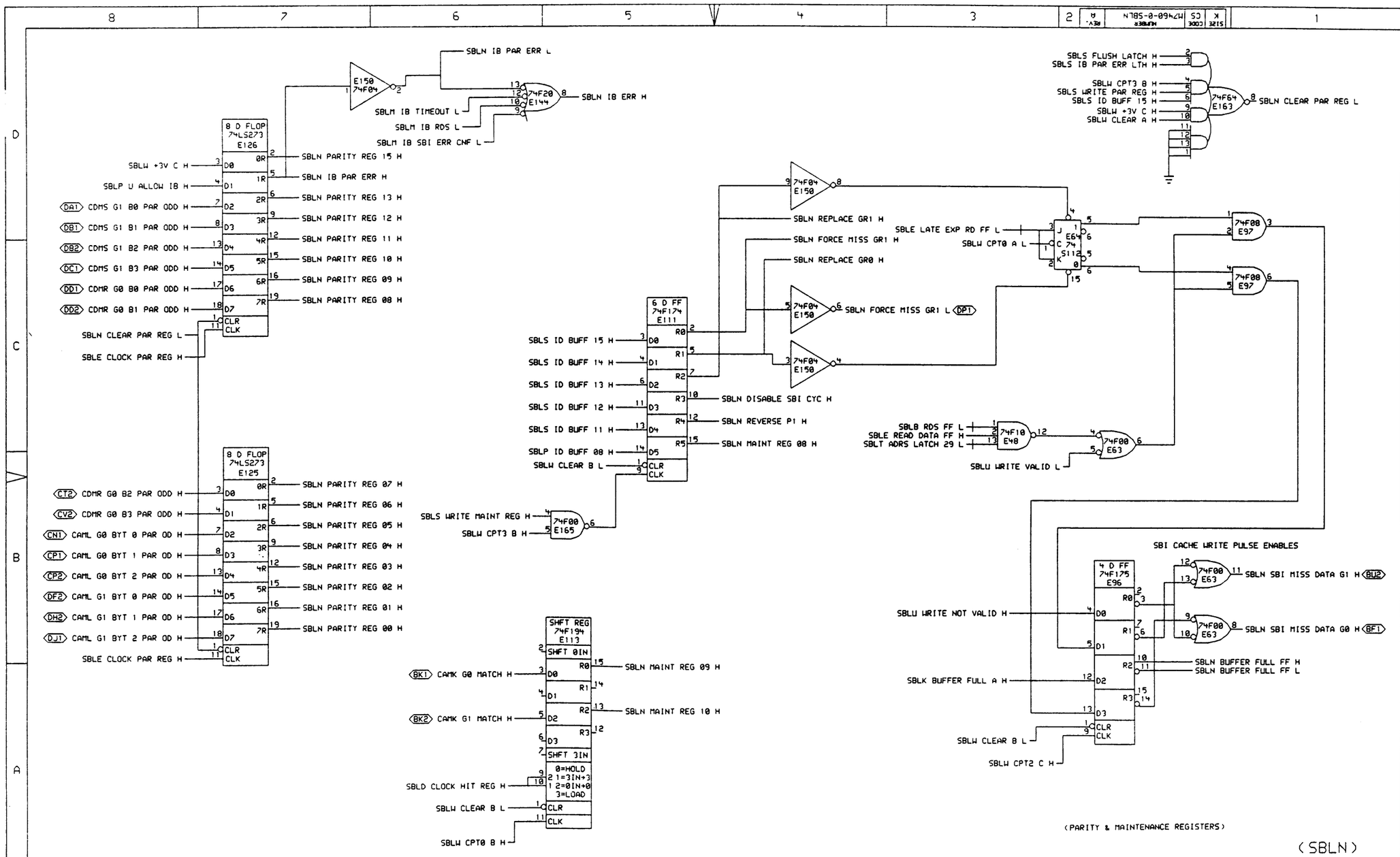
SHEET 1 OF 1

DSKB:<CIRKA>SBLM.DRW 08-AUG-83 13:25 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLM	A



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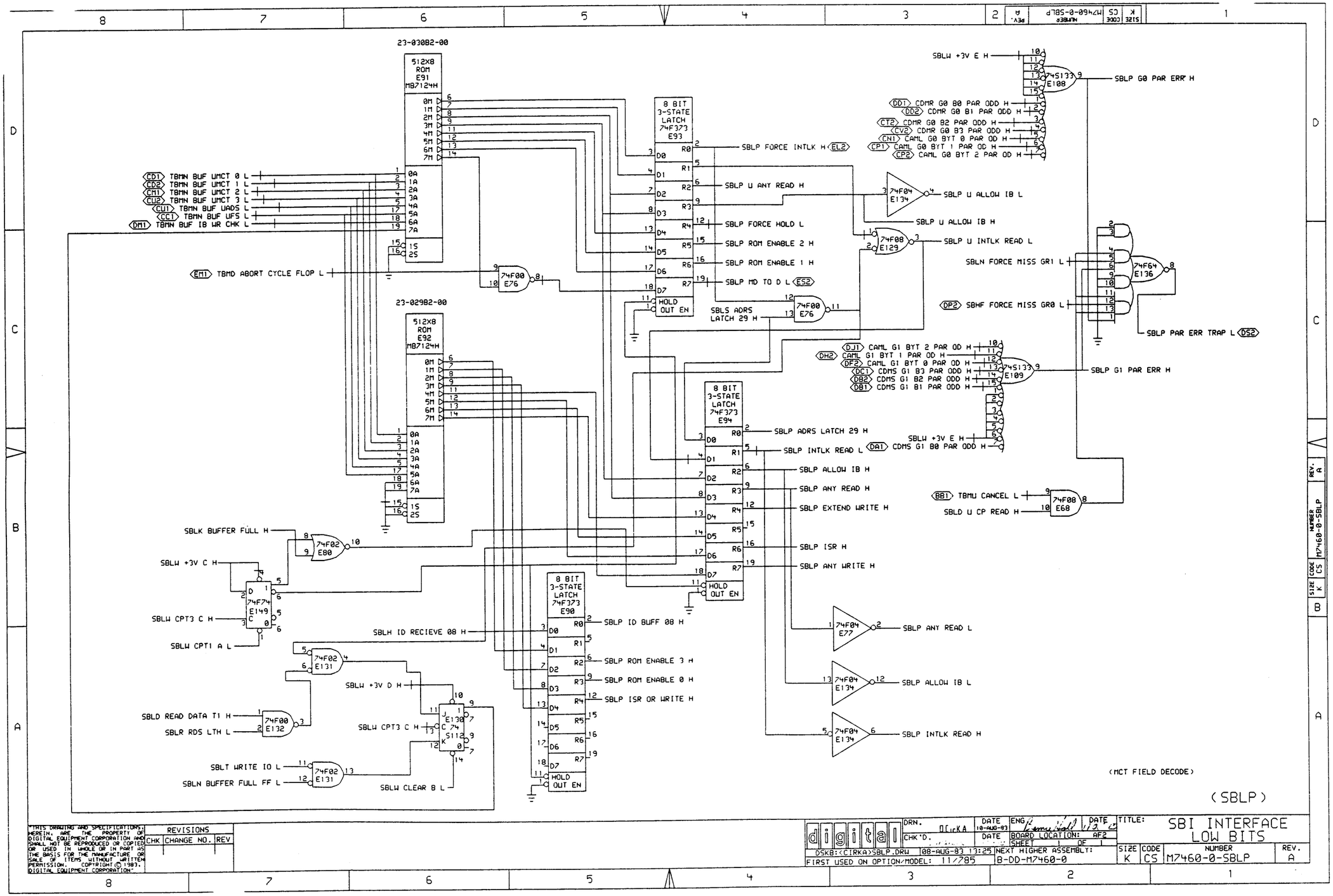
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DICKA — DATE 10-AUG-83 — ENG — DATE
CHK D. — DATE — BOARD LOCATION: AF2
SHEET 1 OF 1
DSKB:<CIRKA>SBLN.DRW 08-AUG-83 13:25 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLN	A



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REVISIONS		
CHK	CHANGE NO.	REV

DRN. DICKA	DATE 10-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF2	
		SHEET 1 OF 1	
DSKB:<CIRKA>SBLP.DRW	08-AUG-83 13:25	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7460-0	

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLP	A

NOTE
D1-D8, R30, R33 & R66 ARE NOT USED

+5.0V
R66 NA
R29 100Ω 1%
R30 NA
D1 N/A
D2 N/A
D3 N/A
D4 N/A
R31 100Ω 1%
R32 100Ω 1%
R33 NA
D5 N/A
D6 N/A
D7 N/A
D8 N/A

BK1 CAMK G0 MATCH H
BK2 CAMK G1 MATCH H
74F02 E43
SBLR CACHE HIT L

SBLD INHIBIT SBI H
74F04 E119
SBLR CACHE HIT H
74F02 E114

CC1 TBMN BUF UFS L
CU2 TBMN BUF UMCT 3 L
SBLK BUFFER FULL L
74S40 E143
SBLR SET CPU WRITE L

SBLB SBI CYCLE FF H
CM1 TBMN BUF UMCT 2 L
74F02 E114

SBLD DOING IB READ H
SBLS CACHE PAR ERR L
74F11 E133
SBLW CPT0 B L

SBLW +3V D H
SBLR IB MISS H
E47 74 S112

SBLS IB MISS IN PROG H
SBLR WANTED DATA L
SBLN BUFFER FULL FF H
74F10 E115
SBLW CLEAR B L

SBLK EXTEND READ H
74F04 E66
SBLE LATE EXP RD FF L
SBLE LATE EXP RD FF H
SBLB ADDRESS REG 02 H
74F04 E159
SBLD READ DATA T1 H
74F64 E98
SBLR WANTED DATA L
74F04 E119
SBLR WANTED DATA H

SBLS IB MISS IN PROG H
SBLR WANTED DATA H
SBLR CACHE HIT H
SBLS CACHE PAR ERR L
BB1 TBMU CANCEL L
SBLD DOING IB READ H
74F64 E118
SBLR IB READ DATA L DN1

SBLT CP READ H
74F10 E115
SBLR RDE TRAP L DT2

74F04 E77
SBLR RDS LTH L
SBLD RDS T1 H

SBLE READ DATA FF H
SBLK EXPECT RD L
SBLJ MARK INVALID L
74F10 E51

SBLU WRITE NOT VALID H
SBLB SBI CYCLE FF H
SBLP INTLK READ H
74F64 E85
SBLR VALID H E82

CU1 TBMN BUF UADS L
74F04 E84
CD1 TBMN BUF UMCT 0 L
CD2 TBMN BUF UMCT 1 L
SBLB SBI CYCLE FF L

CACHE VALID BIT INPUT

SBLS CPU WRITE L
74F04 E159
EM2 TBMX WRITE PULSE L
74F11 E133
CLEAR WRITE-MISS PARITY ERROR FF

SBLP G1 PAR ERR H
SBLP G0 PAR ERR H
74F02 E114
74F04 E150

E78 (16-16653-00)
SBLW CPT0 B L
5 10 15 20 25 30 35 40 45 50
13 3 12 4 11 5 10 6 9

SBLW +3V D H
SBLR SET WAIT INV H
E62 74 S112

SBLR SET FORCE SBI L
SBLE WAIT INV FF H
BE2 SBHM SET INVALID L
74F00 E67
74F04 E66
SBLW CLEAR B L
SBLR SET FORCE SBI H

SBLI ISR DATA L
74F08 E68
SBLR FORCE SBI L BB2

SBLP ISR H
SBLL TIMING PULSE 2 H
74F00 E67
SBLR ISR DATA L

(MISC CACHE CONTROL)

(SBLR)

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REVISIONS		
CHK	CHANGE NO.	REV

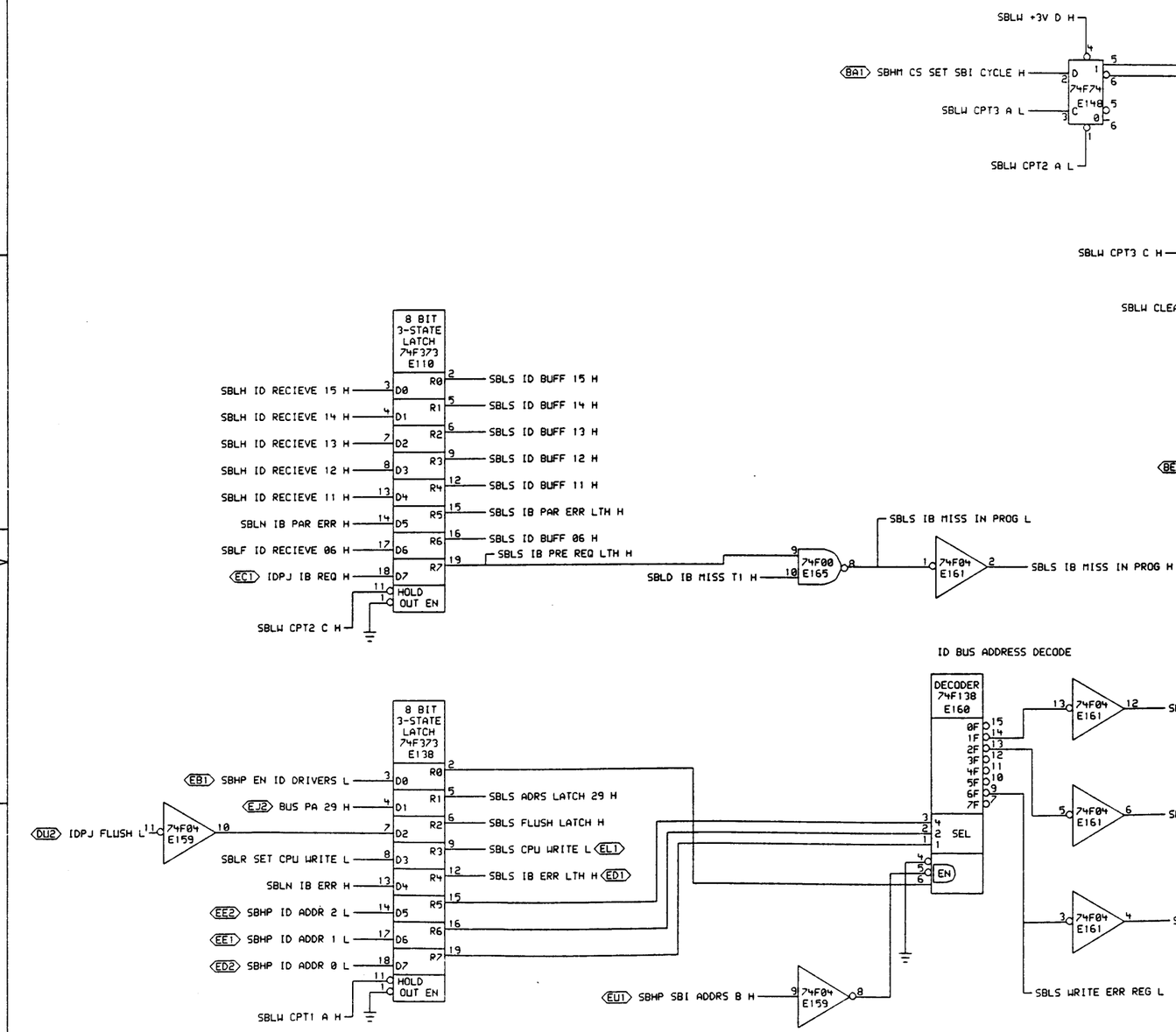
digital

DRN. DirKA	DATE 14-FEB-84	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF2	SHEET 1 OF 1
DSKC:<DUVAL>SBLR.DRW 14-FEB-84 16:09		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7460-0	

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLR	B

REV. B
NUMBER M7460-0-SBLR
SIZE K CODE CS
B
A



SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLS	A

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REVISIONS

CHK	CHANGE NO.	REV

digital

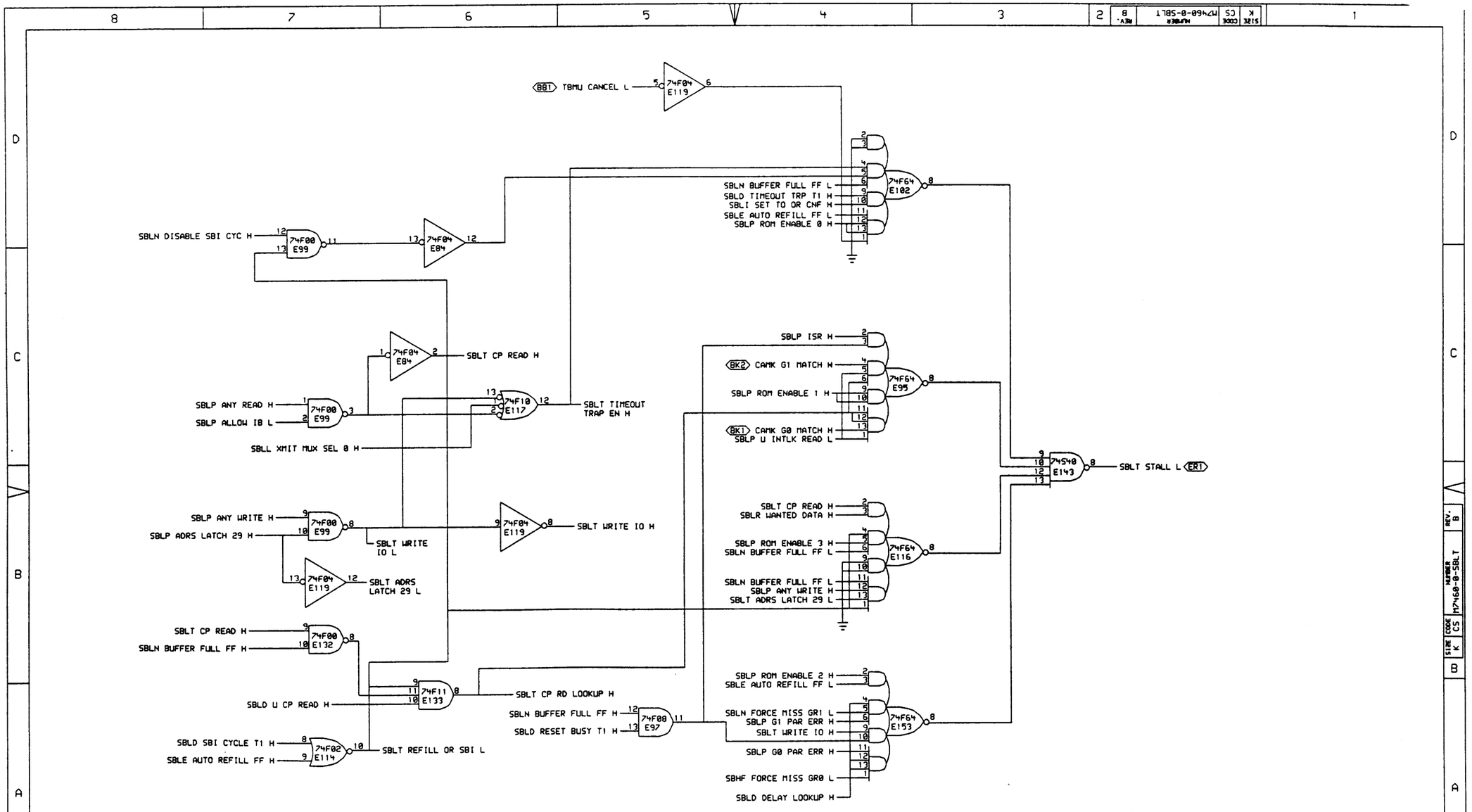
DRN. DIRKA — DATE 10-AUG-83 — ENG. — DATE

CHK'D. — DATE — BOARD LOCATION: AF2 — SHEET 1 OF 1

DSKB:<CIRKA>SBLS.DRW 08-AUG-83 13:26 — NEXT HIGHER ASSEMBLY: B-DD-M7460-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS



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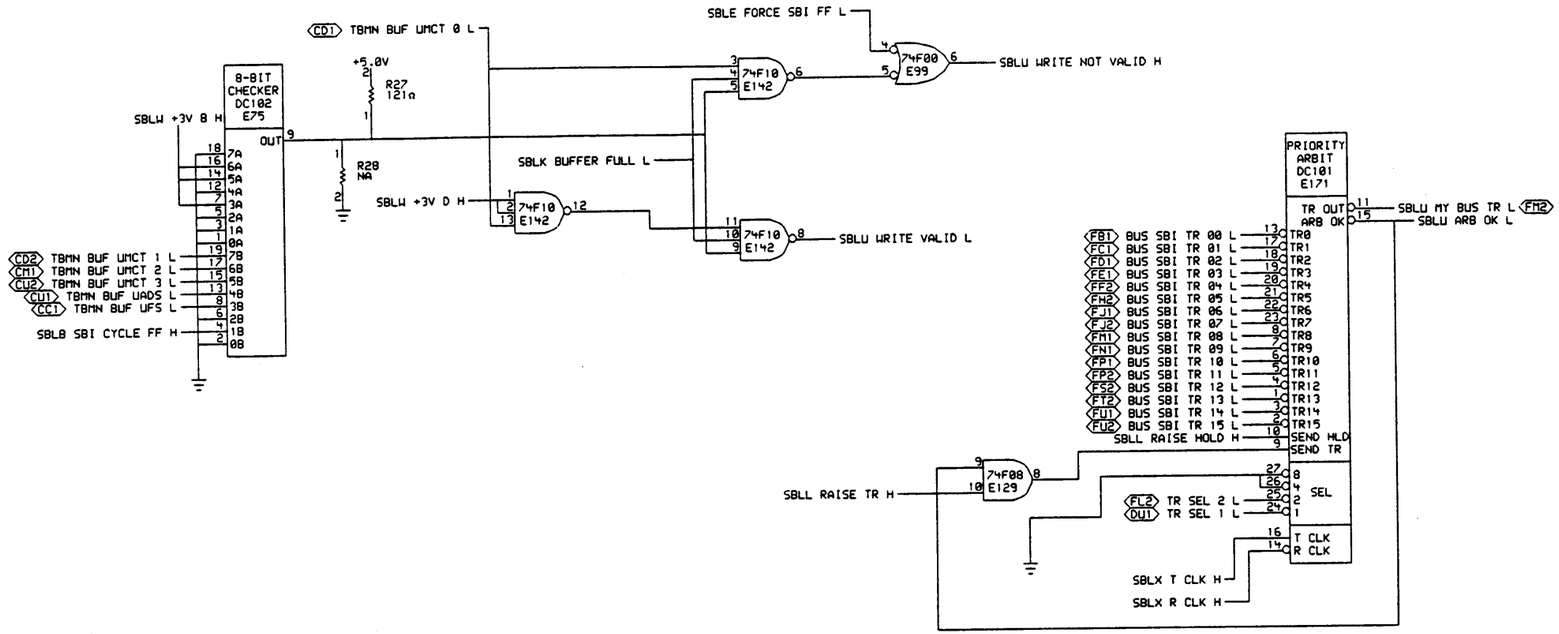
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DirKA — DATE 09-FEB-84 — ENG. — DATE
CHK'D. — DATE — BOARD LOCATION: AF2
SHEET 1 OF 1
DSKC:<DUVAL>SBLT.DRW 08-FEB-84 09:48 — NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 — B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLT	B



(SBI ARBITRATION)

(SBLU)

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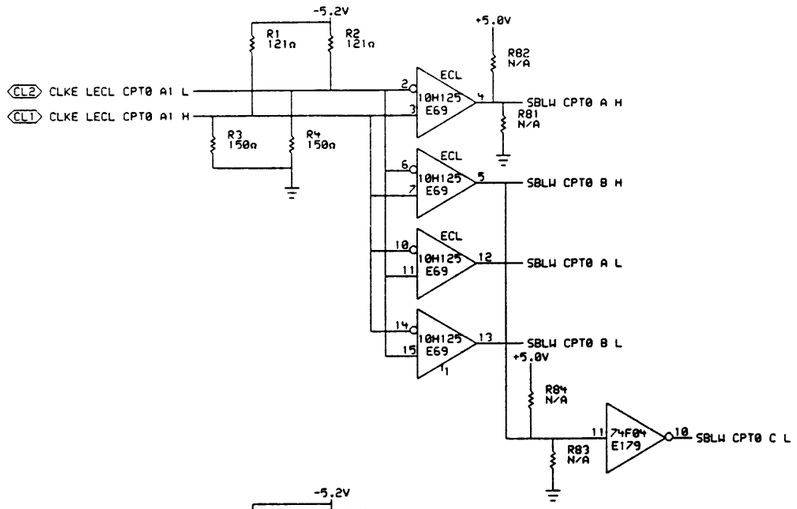
REVISIONS		
CHK	CHANGE NO.	REV

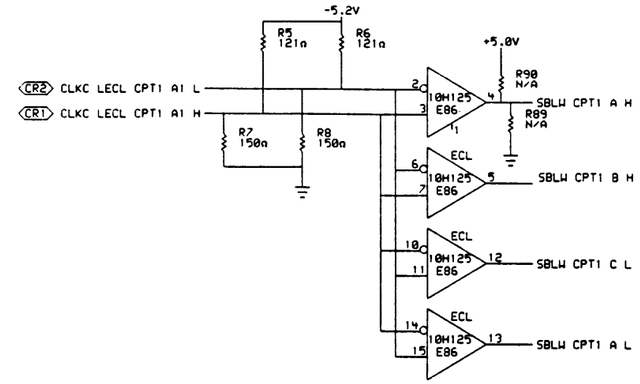
digital

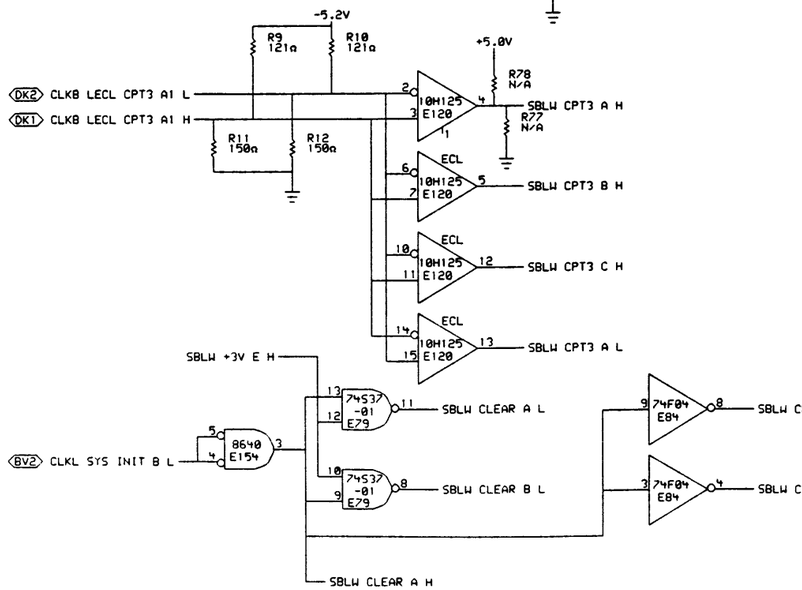
DRN. RICKA DATE 10-AUG-83
CHK'D. DATE
ENG. DATE
BOARD LOCATION: AF2
SHEET 1 OF 1
DSKB:<CIRKA>SBLU.DRW 08-AUG-83 13:26
NEXT HIGHER ASSEMBLY: B-DD-M7460-0
FIRST USED ON OPTION/MODEL: 11/785

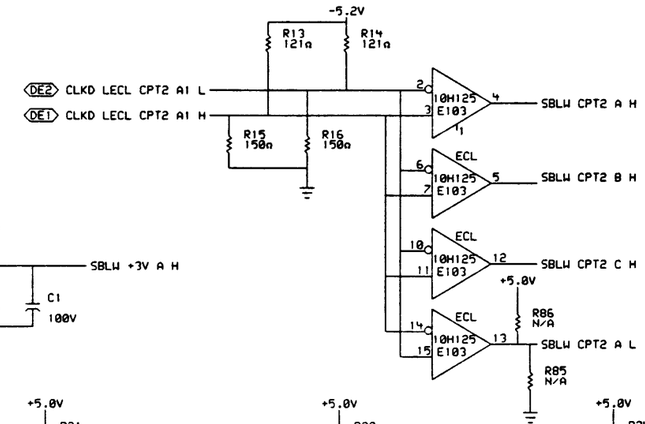
TITLE: SBI INTERFACE LOW BITS

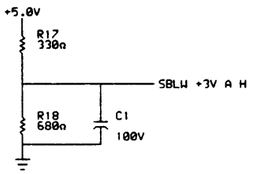
SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLU	A

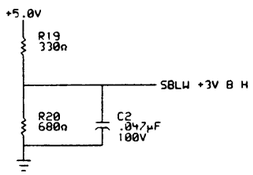


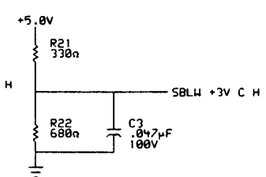


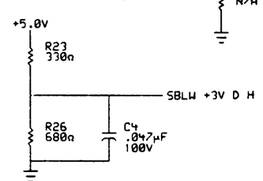


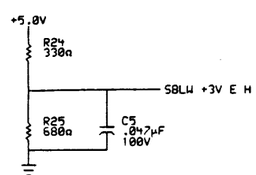












NOTE: RESISTORS THAT ARE MARKED N/A ARE NOT INSTALLED.

(CPU CLOCKS)

(SBLW)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DCirKA — DATE 18-AUG-83 — ENG. Bruce Hall — DATE 18 Aug 83

CHK D. — DATE — BOARD LOCATION: AF2

SHEET 1 OF 1

DSKB:<CIRKA>SBLW.DRW 18-AUG-83 15:59

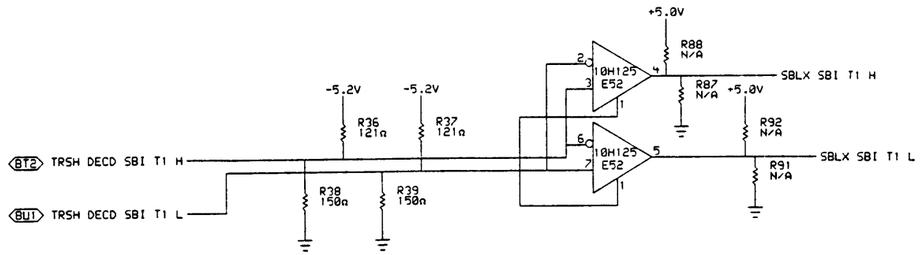
FIRST USED ON OPTION/MODEL: 11/785

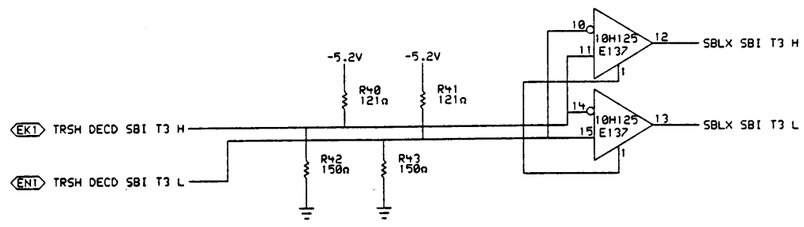
NEXT HIGHER ASSEMBLY: B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

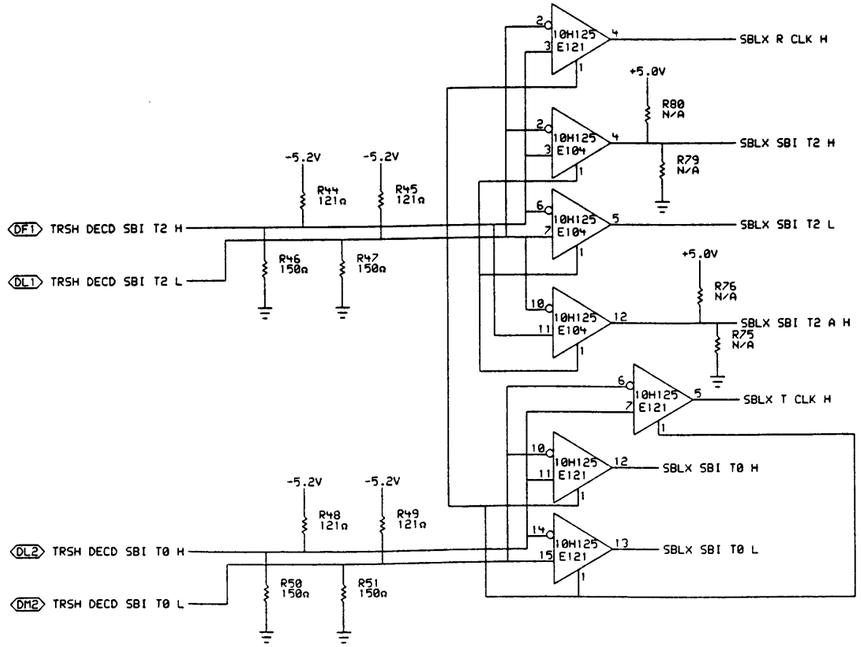
SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLW	A

M7460-0-SBLW REV. A
SIZE K CODE CS





NOTE: RESISTORS THAT ARE MARKED N/A ARE NOT INSTALLED.



(SBLX)

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. DCirKA	DATE 18-AUG-83	ENG.	DATE	TITLE: SBI INTERFACE LOW BITS
	CHK'D.	DATE	BOARD LOCATION: AF2		
DSKB:<CIRKA>SBLX.DRW 18-AUG-83 16:09			SHEET 1 OF 1		
FIRST USED ON OPTION/MODEL: 11/785			NEXT HIGHER ASSEMBLY: B-DD-M7460-0		SIZE K / CODE CS / NUMBER M7460-0-SBLX / REV. A

REV. A | NUMBER M7460-0-SBLX | CODE CS | SIZE K

SIGNAL NAME	PAGE NUMBER(S)
BUS ID 00 L	SBLF
BUS ID 01 L	SBLF
BUS ID 02 L	SBLF
BUS ID 03 L	SBLF
BUS ID 04 L	SBLF
BUS ID 05 L	SBLF
BUS ID 06 L	SBLF
BUS ID 07 L	SBLF
BUS ID 08 L	SBLH
BUS ID 09 L	SBLH
BUS ID 10 L	SBLH
BUS ID 11 L	SBLH
BUS ID 12 L	SBLH
BUS ID 13 L	SBLH
BUS ID 14 L	SBLH
BUS ID 15 L	SBLH
BUS MD 00 H	SBLC
BUS MD 01 H	SBLC
BUS MD 02 H	SBLC
BUS MD 03 H	SBLC
BUS MD 04 H	SBLC
BUS MD 05 H	SBLC
BUS MD 06 H	SBLC
BUS MD 07 H	SBLC
BUS MD 08 H	SBLC
BUS MD 09 H	SBLC
BUS MD 10 H	SBLC
BUS MD 11 H	SBLC
BUS MD 12 H	SBLC
BUS MD 13 H	SBLC
BUS MD 14 H	SBLC
BUS MD 15 H	SBLC
BUS MD BYTE 0 PAR H	SBLC
BUS MD BYTE 1 PAR H	SBLC
BUS PA 02 H	SBLB
BUS PA 03 H	SBLB
BUS PA 04 H	SBLB
BUS PA 05 H	SBLB
BUS PA 06 H	SBLB
BUS PA 07 H	SBLB
BUS PA 08 H	SBLB
BUS PA 14 H	SBLJ
BUS PA 15 H	SBLJ
BUS PA 16 H	SBLJ
BUS PA 17 H	SBLJ
BUS PA 29 H	SBLS
BUS SBI 800 L	SBLE
BUS SBI 801 L	SBLE
BUS SBI 802 L	SBLE
BUS SBI 803 L	SBLE

SIGNAL NAME	PAGE NUMBER(S)
BUS SBI 804 L	SBLE
BUS SBI 805 L	SBLE
BUS SBI 806 L	SBLE
BUS SBI 807 L	SBLE
BUS SBI 808 L	SBLE
BUS SBI 809 L	SBLE
BUS SBI 810 L	SBLE
BUS SBI 811 L	SBLE
BUS SBI 812 L	SBLE
BUS SBI 813 L	SBLE
BUS SBI 814 L	SBLE
BUS SBI 815 L	SBLE
BUS SBI TR 00 L	SBLU
BUS SBI TR 01 L	SBLU
BUS SBI TR 02 L	SBLU
BUS SBI TR 03 L	SBLU
BUS SBI TR 04 L	SBLU
BUS SBI TR 05 L	SBLU
BUS SBI TR 06 L	SBLU
BUS SBI TR 07 L	SBLU
BUS SBI TR 08 L	SBLU
BUS SBI TR 09 L	SBLU
BUS SBI TR 10 L	SBLU
BUS SBI TR 11 L	SBLU
BUS SBI TR 12 L	SBLU
BUS SBI TR 13 L	SBLU
BUS SBI TR 14 L	SBLU
BUS SBI TR 15 L	SBLU
CAMK G0 MATCH H	SBLR,T,N
CAMK G1 MATCH H	SBLR,T,N
CAML G0 BYT 0 PAR OD H	SBLP,N
CAML G0 BYT 1 PAR OD H	SBLP,N
CAML G0 BYT 2 PAR OD H	SBLP,N
CAML G1 BYT 0 PAR OD H	SBLP,N
CAML G1 BYT 1 PAR OD H	SBLP,N
CAML G1 BYT 2 PAR OD H	SBLP,N
CDMR G0 B0 PAR ODD H	SBLP,N
CDMR G0 B1 PAR ODD H	SBLP,N
CDMR G0 B2 PAR ODD H	SBLP,N
CDMR G0 B3 PAR ODD H	SBLP,N
CDMS G1 B0 PAR ODD H	SBLP,N
CDMS G1 B1 PAR ODD H	SBLP,N
CDMS G1 B2 PAR ODD H	SBLP,N
CDMS G1 B3 PAR ODD H	SBLP,N
CLKB LECL CPT3 A1 H	SBLW
CLKB LECL CPT3 A1 L	SBLW
CLKC LECL CPT1 A1 H	SBLW
CLKC LECL CPT1 A1 L	SBLW
CLKD LECL CPT2 A1 H	SBLW
CLKD LECL CPT2 A1 L	SBLW

SIGNAL NAME	PAGE NUMBER(S)
CLKE LECL CPT0 A1 H	SBLW
CLKE LECL CPT0 A1 L	SBLW
CLKL SYS INIT B L	SBLW
ICLB IPL ACT 0 L	SBLA
ICLB IPL ACT 1 L	SBLA
IDPJ FLUSH L	SBLS
IDPJ IB REQ H	SBLS
SBME SBI CNF0 R H	SBLL
SBME SBI CNF1 R H	SBLL
SBMF FORCE MISS GR0 L	SBLS,P,T
SBMM CRD L	SBLM
SBMM CS SET SBI CYCLE H	SBLB,S
SBMM RDS L	SBLM
SBMM READ DATA L	SBLI,K
SBMM SET INVALID L	SBLS,J,R
SBMP EN ID DRIVERS L	SBLH,F,S
SBMP ID ADDR 0 L	SBLF,S
SBMP ID ADDR 1 L	SBLF,S
SBMP ID ADDR 2 L	SBLS,F
SBMP SBI ADDRS 8 H	SBLS
SBMR SEND DATA H	SBLL
SBLA TRANS DATA 00 H	SBLE,A
SBLA TRANS DATA 01 H	SBLE,A
SBLA TRANS DATA 02 H	SBLE,A
SBLA TRANS DATA 03 H	SBLE,A
SBLA TRANS DATA 04 H	SBLE,A
SBLA TRANS DATA 05 H	SBLE,A
SBLA TRANS DATA 06 H	SBLE,A
SBLA TRANS DATA 07 H	SBLE,A
SBLA TRANS DATA 08 H	SBLE,A
SBLA TRANS DATA 09 H	SBLE,A
SBLA TRANS DATA 10 H	SBLE,A
SBLA TRANS DATA 11 H	SBLE,A
SBLA TRANS DATA 12 H	SBLE,A
SBLA TRANS DATA 13 H	SBLE,A
SBLA TRANS DATA 14 H	SBLE,A
SBLA TRANS DATA 15 H	SBLE,A
SBLB ADDRESS REG 02 H	SBLA,R,B
SBLB ADDRESS REG 03 H	SBLA,B
SBLB ADDRESS REG 04 H	SBLA,B
SBLB ADDRESS REG 05 H	SBLA,B
SBLB ADDRESS REG 06 H	SBLA,B
SBLB ADDRESS REG 07 H	SBLA,B
SBLB ADDRESS REG 08 H	SBLA,B
SBLB ADDRESS REG 09 H	SBLA,B
SBLB CLK PA IN H	SBLJ,B
SBLB CLK RCV DATA A H	SBLG,B
SBLB CLK RCV DATA B H	SBLG,B
SBLB CLR TO TRP H	SBLB,I
SBLB PA 09 L	SBLB

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

(SBLY)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MURKA DATE 10-AUG-83 ENG. DATE
CHK'D. DATE BOARD LOCATION: AF2
SHEET 1 OF 1
DSKB:<CIRKA>SBLY.DRW 08-AUG-83 13:27 NEXT HIGHER ASSEMBLY: B-DD-M7460-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLY	A

SIZE K | CODE CS | NUMBER M7460-0-SBLY | REV. A | B

SIGNAL NAME	PAGE NUMBER(S)
SBLB PA 10 L	SBLB
SBLB PA 11 L	SBLB
SBLB RDS FF H	SBLD,B
SBLB RDS FF L	SBLN,B
SBLB SBI CYCLE FF H	SBLU,D,B,R
SBLB SBI CYCLE FF L	SBLB,R
SBLB SBI DATA SEL H	SBLG,B
SBLB T1 SBI DATA SEL H	SBLJ,B
SBLB TIMEOUT ADRS 02 H	SBLB,F
SBLB TIMEOUT ADRS 03 H	SBLB,F
SBLB TIMEOUT ADRS 04 H	SBLF,B
SBLB TIMEOUT ADRS 05 H	SBLF,B
SBLB TIMEOUT ADRS 06 H	SBLF,B
SBLB TIMEOUT ADRS 07 H	SBLF,B
SBLB TIMEOUT ADRS 08 H	SBLB,F
SBLB TIMEOUT ADRS 09 H	SBLB,F
SBLC MD PAR GEN 0 H	SBLG,C
SBLC MD PAR GEN 1 H	SBLG,C
SBLC WRITE DATA 00 H	SBLC,A
SBLC WRITE DATA 01 H	SBLC,A
SBLC WRITE DATA 02 H	SBLC,A
SBLC WRITE DATA 03 H	SBLC,A
SBLC WRITE DATA 04 H	SBLA,C
SBLC WRITE DATA 05 H	SBLA,C
SBLC WRITE DATA 06 H	SBLA,C
SBLC WRITE DATA 07 H	SBLA,C
SBLC WRITE DATA 08 H	SBLC,A
SBLC WRITE DATA 09 H	SBLC,A
SBLC WRITE DATA 10 H	SBLC,A
SBLC WRITE DATA 11 H	SBLC,A
SBLC WRITE DATA 12 H	SBLC,A
SBLC WRITE DATA 13 H	SBLC,A
SBLC WRITE DATA 14 H	SBLC,A
SBLC WRITE DATA 15 H	SBLC,A
SBLD CLOCK HIT REG H	SBLD,N
SBLD CP TIMEOUT T1 H	SBLK,D,B,J
SBLD DOING IB READ H	SBLR,D
SBLD I3 MISS T1 H	SBLD,S
SBLD INHIBIT SBI H	SBLD,R
SBLD RAISE TR FF H	SBLD
SBLD RAISE TR FF L	SBLK,D
SBLD RAISE TR T1 H	SBLK,D
SBLD RDS T1 H	SBLR,D
SBLD READ DATA T1 H	SBLD,R,P
SBLD READ EN H	SBLS,D
SBLD RESET BUSY T1 H	SBLD,T
SBLD SBI CYCLE T1 H	SBLD,T
SBLD SS FORCE HOLD L	SBLK,D
SBLD SS LATE EXP RD FF H	SBLD,M
SBLD SS RAISE TR FF H	SBLL,D
SBLD SS RAISE TR FF L	SBLE,D
SBLD SS RAISE TR T2 H	SBLD,M
SBLD SS RAISE TR T2 L	SBLD,L
SBLD T2 FORCE HOLD L	SBLD,L
SBLD TIMEOUT TRP T1 H	SBLM,D,T
SBLD U CP READ H	SBLP,T,D
SBLE AUTO REFILL FF H	SBLE,T
SBLE AUTO REFILL FF L	SBLE,T
SBLE CLOCK PAR REG H	SBLE,N
SBLE FORCE SBI FF L	SBLE,U
SBLE HOLD BUSY H	SBLE,L
SBLE LATE EXP RD FF H	SBLM,E,R
SBLE LATE EXP RD FF L	SBLN,E,R
SBLE LATE EXP RD L	SBLD
SBLE READ DATA FF H	SBLN,R,D,E
SBLE READ DATA FF L	SBLK,E
SBLE PEC PAR 0 H	SBLE,C
SBLE REC PAR 1 H	SBLE,C
SBLE REC PAR 2 H	SBLE,C
SBLE REC PAR 3 H	SBLE,C
SBLE RECIEVE DATA 00 H	SBLE,G
SBLE RECIEVE DATA 01 H	SBLE,G
SBLE RECIEVE DATA 02 H	SBLE,G
SBLE RECIEVE DATA 03 H	SBLE,G
SBLE RECIEVE DATA 04 H	SBLE,G
SBLE RECIEVE DATA 05 H	SBLE,G
SBLE RECIEVE DATA 06 H	SBLE,G
SBLE RECIEVE DATA 07 H	SBLE,G
SBLE RECIEVE DATA 08 H	SBLE,G
SBLE RECIEVE DATA 09 H	SBLE,G
SBLE RECIEVE DATA 10 H	SBLE,G
SBLE RECIEVE DATA 11 H	SBLE,G
SBLE RECIEVE DATA 12 H	SBLE,G
SBLE RECIEVE DATA 13 H	SBLE,G
SBLE RECIEVE DATA 14 H	SBLE,G
SBLE RECIEVE DATA 15 H	SBLE,G
SBLE RESET BUSY FF H	SBLD,E
SBLE SS BUFFER FULL FF H	SBLK,E
SBLE START PULSE H	SBLE,L
SBLE TRANS PAR L	SBLE
SBLE WAIT INV FF H	SBLE,R
SBLF ID ADDR 1 H	SBLF,H
SBLF ID ADDR 2 H	SBLF,H
SBLF ID RECIEVE 00 H	SBLF
SBLF ID RECIEVE 01 H	SBLF
SBLF ID RECIEVE 02 H	SBLF
SBLF ID RECIEVE 03 H	SBLF
SBLF ID RECIEVE 04 H	SBLF
SBLF ID RECIEVE 05 H	SBLF
SBLF ID RECIEVE 06 H	SBLF,S
SBLF ID RECIEVE 07 H	SBLF
SBLF MUX ENABLE L	SBLF,H
SBLG MD BYTE 0 PAR H	SBLG,C
SBLG MD BYTE 1 PAR H	SBLG,C
SBLG MD PAR 0 A H	SBLG
SBLG MD PAR 0 B H	SBLG
SBLG MD PAR 1 A H	SBLG
SBLG MD PAR 1 B H	SBLG
SBLG RCV 00 A H	SBLG
SBLG RCV 01 A H	SBLG
SBLG RCV 02 A H	SBLG
SBLG RCV 03 A H	SBLG
SBLG RCV 04 A H	SBLG
SBLG RCV 05 A H	SBLG
SBLG RCV 06 A H	SBLG
SBLG RCV 07 A H	SBLG
SBLG RCV 08 A H	SBLG
SBLG RCV 08 B H	SBLG
SBLG RCV 09 A H	SBLG
SBLG RCV 09 B H	SBLG
SBLG RCV 10 A H	SBLG,J
SBLG RCV 10 B H	SBLG,J
SBLG RCV 11 A H	SBLG,J
SBLG RCV 11 B H	SBLG,J
SBLG RCV 12 A H	SBLG,J
SBLG RCV 12 B H	SBLG,J
SBLG RCV 13 A H	SBLG,J
SBLG RCV 13 B H	SBLG,J
SBLG RCV 14 A H	SBLG,J
SBLG RCV 14 B H	SBLG,J
SBLG RCV 15 A H	SBLG,J
SBLG RCV 15 B H	SBLG,J
SBLG READ DATA 00 H	SBLG,C,B
SBLG READ DATA 01 H	SBLG,C,B
SBLG READ DATA 02 H	SBLG,C,B
SBLG READ DATA 03 H	SBLG,C,B
SBLG READ DATA 04 H	SBLG,C,B
SBLG READ DATA 05 H	SBLG,C,B
SBLG READ DATA 06 H	SBLG,C,B
SBLG READ DATA 07 H	SBLG,C,B
SBLG READ DATA 08 H	SBLC,G,B
SBLG READ DATA 09 H	SBLC,G,B
SBLG READ DATA 10 H	SBLC,J,G
SBLG READ DATA 11 H	SBLC,J,G
SBLG READ DATA 12 H	SBLC,J,G
SBLG READ DATA 13 H	SBLC,J,G
SBLG READ DATA 14 H	SBLG,C,J
SBLG READ DATA 15 H	SBLG,C,J
SBLH ID RECIEVE 08 H	SBLH,P
SBLH ID RECIEVE 09 H	SBLH

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DCirKA | DATE 10-AUG-83 | ENG | DATE
CHK D. | DATE | BOARD LOCATION: AF2
SHEET 1 OF 1

DSKB:<CIRKA>SBLZ.DRW 08-AUG-83 13:27 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7460-0

TITLE: SBI INTERFACE LOW BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7460-0-SBLZ	A

SIZE	CODE	NUMBER	REV
B	DD	M7460-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7460-00	SBL PART REVISION	A1 B B2
E-UA-M7460-0-0	2		UNIT ASSEMBLY	A B C
K-PL-M7460-0-DBP	2		PARTS LIST	A B B
K-PC-M7460-0-DBI	—		P.C. DATA BASE	A A B
B-DD-5016069-0-0	1		DRAWING DIRECTORY	A B C
	—	5016069-01	ETCHED BOARD	A1 A1 B1
K-CS-M7460-0-SBLA	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLB	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLC	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLD	1		SCHEMATIC	A B B
K-CS-M7460-0-SBLE	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLF	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLG	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLH	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLI	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLJ	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLK	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLL	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLM	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLN	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLP	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLR	1		SCHEMATIC	A B B
K-CS-M7460-0-SBLS	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLT	1		SCHEMATIC	A B B
K-CS-M7460-0-SBLU	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLW	1		SCHEMATIC	A A A

NOTES:

REVISIONS	REV.	CHG NO.	DATE
	A	INIT	8/83
	B	TW001	2/84
	C	TW002	3/84

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digital

USED ON OPTION/MODEL	
11/785	

DRN. S. [illegible]	25-AUG-83	TITLE SBL
CHK'D F. GAROFALO	26 AUG 83	SIZE B / CODE DD / NUMBER M7460-0-0 / REV. C
ENG. [signature]	11 Oct 83	
PROD. [signature]	11 OCT 83	SHEET 1 OF 2

DRB 126

TW

SIZE	CODE	NUMBER	REV.
B	DD	M7460-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7460-0-SBLX	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLY	1		SCHEMATIC	A A A
K-CS-M7460-0-SBLZ	1		SCHEMATIC	A A A
K-CS-M7460-0-SBL1	1		SCHEMATIC	A A A
K-CS-M7460-0-SBL2	1		SCHEMATIC	A A A
K-CS-M7460-0-DBS	-		SUDS DATA BASE	A B B

NOTES:

REVISIONS	REV.	CHG NO.	DATE
	A	INIT	8/83
	B	TW001	2/84
	C	TW002	3/84

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USED ON OPTION/MODEL	
11/785	

DRN. S. MANSOR	25-AUG-83	
CHK'D F. CHEVALL	26 AUG 83	
ENG. Bernie Hall	11 OCT 83	
PROD. Mike Lipsk	11 OCT 83	

TITLE: SBL

SIZE	CODE	NUMBER	REV.
B	DD	M7460-0-0	C

SHEET 2 OF 2

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF F.C.S.

11.91 REF F.C.S.

1 49 5

E200 E184 E168 E152 E136 E119 E102 E85 E68 E51 E34 E17
E199 E183 E167 E151 E135 E118 E101 E84 E67 E50 E33 E16
E198 E182 E166 E150 E134 E117 E100 E83 E66 E49 E32 E15
E197 E181 E165 E149 E133 E116 E99 E82 E65 E48 E31 E14
E196 E180 E164 E148 E132 E115 E98 E81 E64 E47 E30 E13
E195 E179 E163 E147 E131 E114 E97 E80 E63 E46 E29 E12
E194 E178 E162 E146 E130 E113 E96 E79 E62 E45 E28 E11
E193 E177 E161 E145 E129 E112 E95 E78 E61 E44 E27 E10
E192 E176 E160 E144 E128 E111 E94 E77 E60 E43 E26 E9
E191 E175 E159 E143 E127 E110 E93 E76 E59 E42 E25 E8
E190 E174 E158 E142 E126 E109 E92 E75 E58 E41 E24 E7
E189 E173 E157 E141 E125 E108 E91 E74 E57 E40 E23 E6
E188 E172 E156 E140 E124 E107 E90 E73 E56 E39 E22 E5
E187 E171 E155 E139 E123 E106 E89 E72 E55 E38 E21 E4
E186 E170 E154 E138 E122 E105 E88 E71 E54 E37 E20 E3
E185 E169 E153 E137 E121 E104 E87 E70 E53 E36 E19 E2
E184 E168 E152 E136 E120 E103 E86 E69 E52 E35 E18 E1

F E D C B A

I-1 I-2

digital

TITLE INTERFACE HIGH BIT (SBH)

SIZE B CODE NUMBER E W M7461-0-0

NOTES:
1. PIN RATING IS 1 AMP
2. PINS E1 THRU E128 ARE 0.7 DIA

STEP 5 = .1" PITCH
STEP 4 = .1" PITCH
REPORT = .1" PITCH

1983

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REWORK INSTRUCTIONS PER ECO #M7461-TW001

WIRE ADDS SIDE 1:

1-1 ADD A 30AWG. WIRE FROM E170-11 TO E56-9.

1-2 ADD A 30 AWG. WIRE FROM E35-8 TO E185-11.

REVISION HISTORY

DATE	ECO NUMBER	REV

TITLE

DOCUMENT NUMBER: SIZE E | CODE UA | M7461-0-0 | REV B

SCALE | SHEET 2 OF 2

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	45	BLANK			*** THIS ITEM IS NOT USED ***	-	
2	46	BLANK			*** THIS ITEM IS NOT USED ***	-	
3	54	E-MD-5016078-0-0	5016078-01		ETCH BOARD	1	
4	1		1012784-00		.047 MFD 50V +80-20% CER	78	C1-C78
5	49		1017472-00		10 MFD 35V +50-10% AL EL	7	C79-C85
6	2		1103041-00		PIV= 8 IO= 50 MA	2	D1,D2
7	50		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
8	53	BLANK			*** THIS ITEM IS NOT USED ***	-	
9	48		1300202-00		47.0 .25 W 5.0 % CF	8	R97-R104
10	11		1301782-00		121.0 .50 W 1.0 % RN60D-F10	18	R3-R10,R19-R26,R59,R62
11	3		1300247-00		120.0 .25 W 5.0 % CF	8	R41,R43,R45,R47,R49,R51,R53,R55
12	4		1300250-00		150.0 .25 W 5.0 % CF	16	R42,R44,R46,R48,R50,R52,R54,R56,
						CONT	R63-R70
13	5		1300271-00		220.0 .25 W 5.0 % CF	2	R60,R61
14	6		1300295-00		330.0 .25 W 5.0 % CF	4	R1,R35,R57,R79
15	7		1300365-00		1.0 K .25 W 5.0 % CF	2	R39,R40
16	8		1301424-00		680.0 .25 W 5.0 % CF	4	R2,R36,R80,R58
17	9		1301972-00		270.0 .25 W 5.0 % CF	16	R11-R18,R27-R34
18	10		1302957-00		121.0 .25 W 1.0 % RN55D-F10	8	R71-R78
19	17		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	3	E17,E30,E101
20	47	BLANK			*** THIS ITEM IS NOT USED ***	-	
21	44	BLANK			*** THIS ITEM IS NOT USED ***	-	
22	24		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E122
23	28		1912089-00		74S85 CMPRTR-4BIT MAGNITUD	4	E158,E161,E162,E175
24	32		1912586-00		DM 85S68N REGISTER,64BIT EDGE	4	E143-E146
25	33		1912731-00		DEC 8646A TRANSCEIVER,4BIT BUS	11	E18,E19,E72,E103-E105,E137,E138,
						CONT	E153-E155
26	34		1912746-01		74S37-1 BUFFER-GATE	3	E116,E129,E134
27	39		1913788-00		26S10 TRANSCEIVER,BUS,QUA	4	E6,E8,E42,E43
28	40		1913839-00		LS165 SHIFT REG.,8BIT	8	E20,E21,E40,E55,E106,E108,E117,

REVISION HISTORY			BASIC PART NO: M7461				
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: S.MANSOR	DATE: 27-MAY-83	D I G I T A L	
---	INITIAL	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	CHK'D: E.T.GERRY	DATE: 10-JUN-83	TITLE PARTS LIST INTERFACE HIGH BIT (SBH)	
				DES.ENG: DAVE CIRKA	DATE: 10-JUN-83	DOCUMENT NUMBER SIZE: K CODE: PL NUMBER: M7461-0-DBP REV: A	
				RESP.ENG.: DAVE CIRKA	DATE: 13-SEP-83		
				MFG.ENG.: M.KRYSAK	DATE: 13-SEP-83	RELEASE DATE: 11-OCT-83	
				ASSEMBLY NUMBER: E-UA-M7461-0-0	TOP DOCUMENT NUMBER: B-DD-M7461-0-0	FILE NAME: Z3940A.PLS	EDIT # 13

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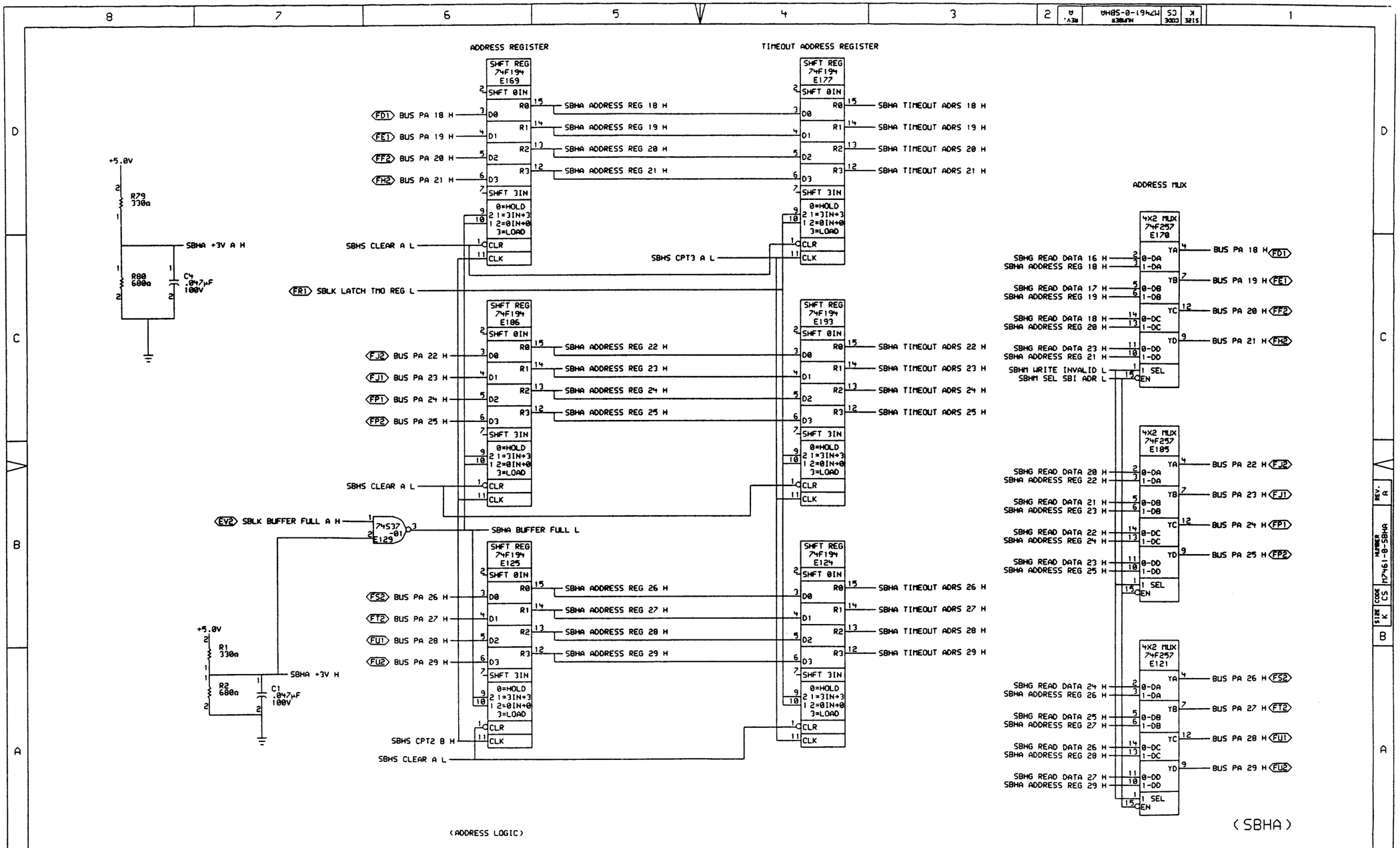
AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T —

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
							CONT E118
29	38		1921010-01	74F373	OCTAL TRANSPARENT LA	9	E1,E35,E44,E53,E95,E99,E142,
							CONT E159,E187
30	12		1921305-01	74F00	NAND GATE,QUAD,2-IN	8	E9,E15,E31,E62,E100,E115,E199,
							CONT E102
31	30		1921306-01	74F02	NOR GATE,QUAD,2-IN	3	E82,E114,E184
32	13		1921307-01	74F04	HEX INVERTER	10	E14,E46,E48,E66,E83,E93,E113,
							CONT E123,E139,E173
33	31		1921308-01	74F08	AND GATE,QUAD,2-IN	6	E16,E26,E80,E147,E152,E188
34	14		1921309-01	74F10	NAND GATE,TRIPLE,3-I	2	E59,E112
35	15		1921311-01	74F20	NAND GATE,DUAL,4-IN	3	E45,E47,E51
36	43		1921312-01	74F32	OR GATE,QUAD,2-IN	1	E60
37	16		1921314-01	74F74	FF-D,DUAL,POS.,EDGE	8	E11,E12,E32,E33,E84,E157,E197,
							CONT E198
38	29		1921315-01	74F86	EXCLUSIVE OR GATE,QU	2	E91,E160
39	27		1921316-01	74F138	DECODER/DEMUX,1-OF-8	4	E110,E127,E130,E140
40	35		1921318-01	74F151	MUX,8-IN	16	E79,E96-E98,E132,E135,E148,E149,
							CONT E151,E178-E181,E194-E196
41	18		1921319-01	74F153	MUX,DUAL,4-IN	9	E24,E25,E27,E39,E41,E76,E78,
							CONT E176,E192
42	19		1921320-01	74F157	MUX,QUAD,2-IN	4	E109,E172,E174,E191
43	37		1921322-01	74F161	BINARY COUNTER,PRESE	3	E49,E141,E136
44	20		1921323-01	74F174	FF-D,HEX	10	E5,E22,E50,E57,E58,E65,E74,E75,
							CONT E89,E156
45	22		1921324-01	74F175	FF-D,QUAD	11	E10,E13,E34,E63,E167,E168,E182,
							CONT E183,E200,E68,E119
46	21		1921327-01	74F194	SHIFT REG,UNIV,BIDIR	24	E28,E29,E81,E124,E125,E131,E133,
							CONT E150,E163-E166,E169,E177,E186,
							CONT E189,E193,E2,E3,E36,E37,E64,
							CONT E171,E85
47	26		1921330-01	74F257	MUX,QUAD,2-IN	8	E4,E7,E23,E56,E73,E121,E170,E185
48	25		1921332-01	74F280	PARITY GEN/CHECK,9-B	4	E38,E54,E107,E126
49	36		1921333-01	74F283	BINARY FULL ADDER,4	1	E190
50	23		1921720-01	10H125	TRANSLATOR ECL TO TTL QUA	8	E52,E69-E71,E86-E88,E120
51	52		23373A1-00	A1-10		1	E61
52	41		23649A2-00	A2-09		1	E90
53	42		23650A2-00	A2-09		1	E92
54	51		9000024-01	EYELET,ROLLED	0.1210DX0.192	12	

55 NOTE: LOCATIONS R81-R96 ARE AN ENGINEERING OPTION-DO NOT INSERT.
56 NOTE: I.C. SPARES:E66,E77,E94,E111,E128

DIGITAL	TITLE	SECTION A OF A
	INTERFACE HIGH BIT (SBH)	

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M7461-0-DBP	A



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REVISIONS		
CHK	CHANGE NO.	REV

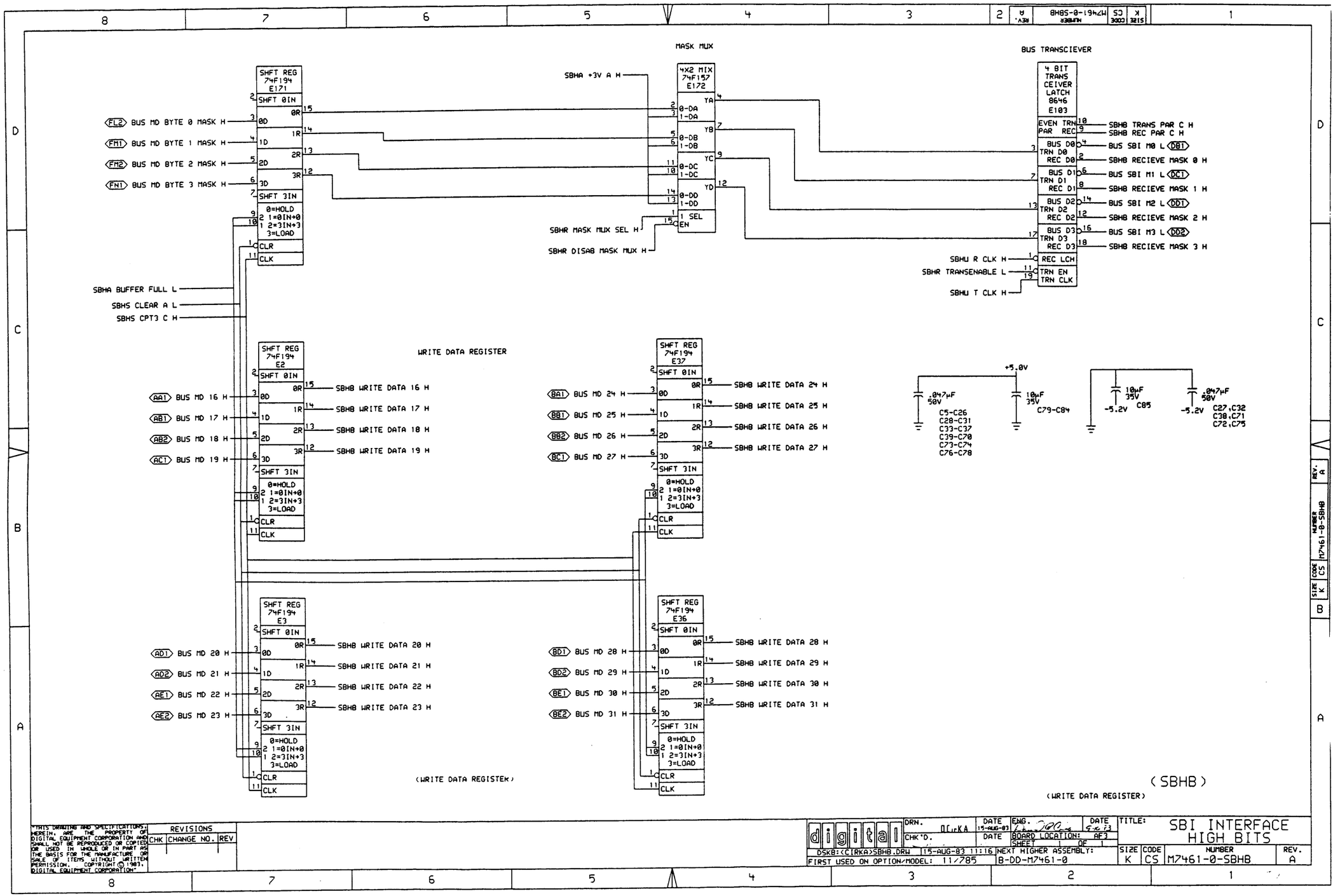
digital

DRN. DCrKA — DATE 15-AUG-83 — ENG. — DATE
CHK D. — DATE — BOARD LOCATION: AF3
SHEET 1 OF 1
DSKB:<CIRKA>SBHA.DRW 15-AUG-83 11:16 — NEXT HIGHER ASSEMBLY: B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

FIRST USED ON OPTION/MODEL: 11/785

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHA	A



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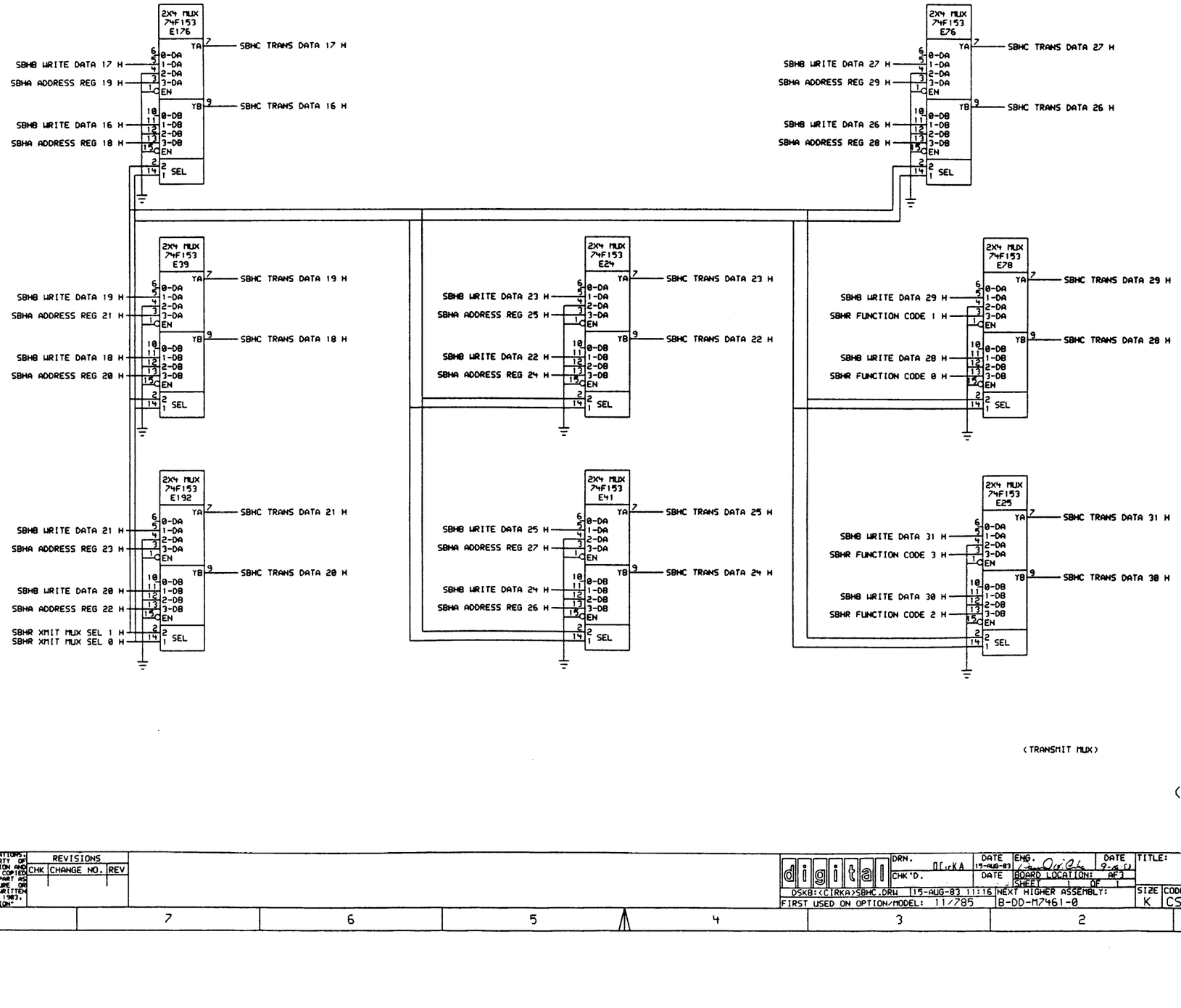
REVISIONS		
CHK	CHANGE NO.	REV

DRN. DCIRKA	DATE 15-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF3	
		SHEET 1 OF 1	
DSKB:<CIRKA>SBHB.DRW 15-AUG-83 11:16		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7461-0	

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHB	A



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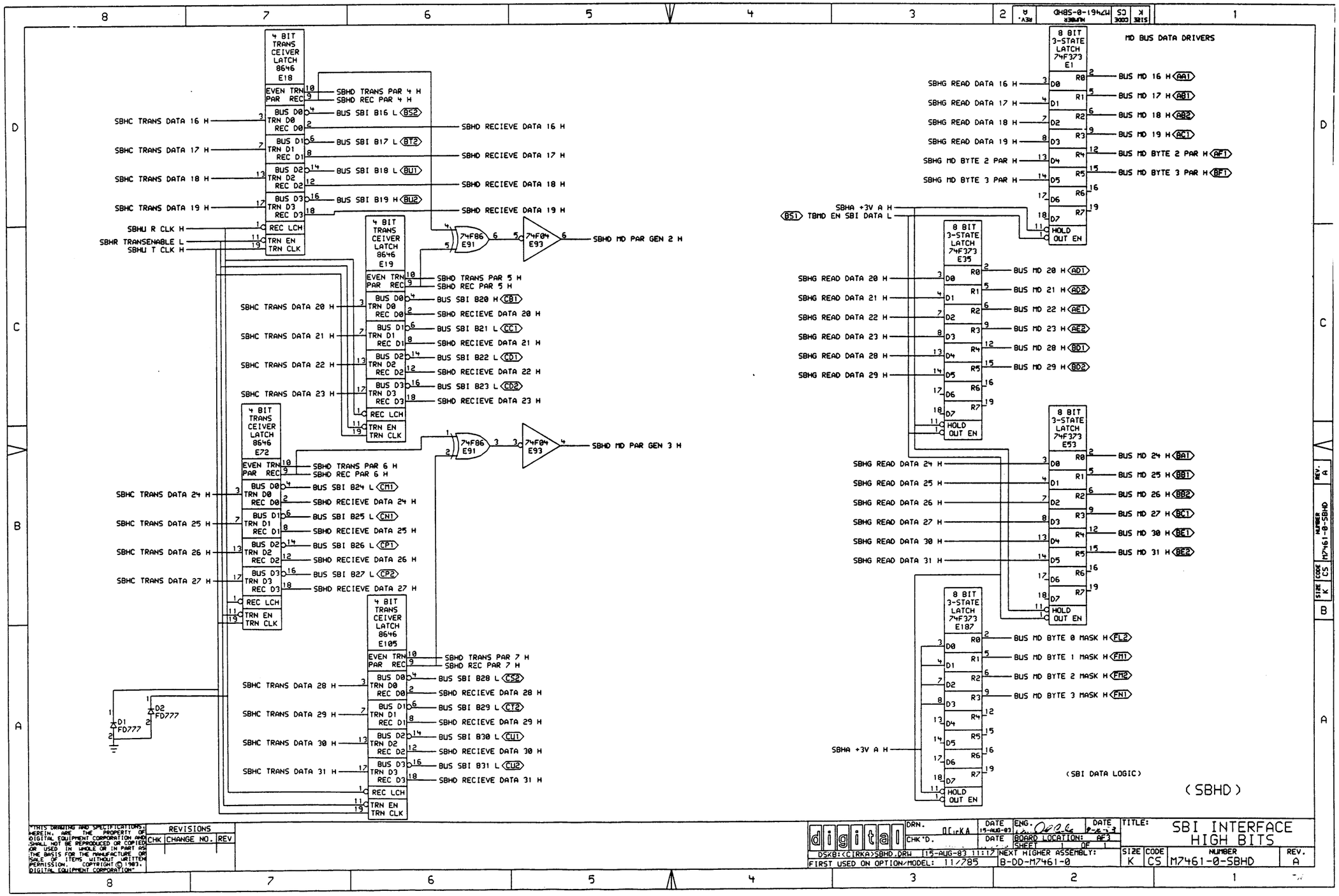
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. RICKA — DATE 15-AUG-83
CHK D. — DATE
ENG. — DATE 9-SEP-83
BOARD LOCATION: AE3
SHEET 1 OF 1
DSKB:<CIRKA>SBHC.DRW 15-AUG-83 11:16
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHC	A



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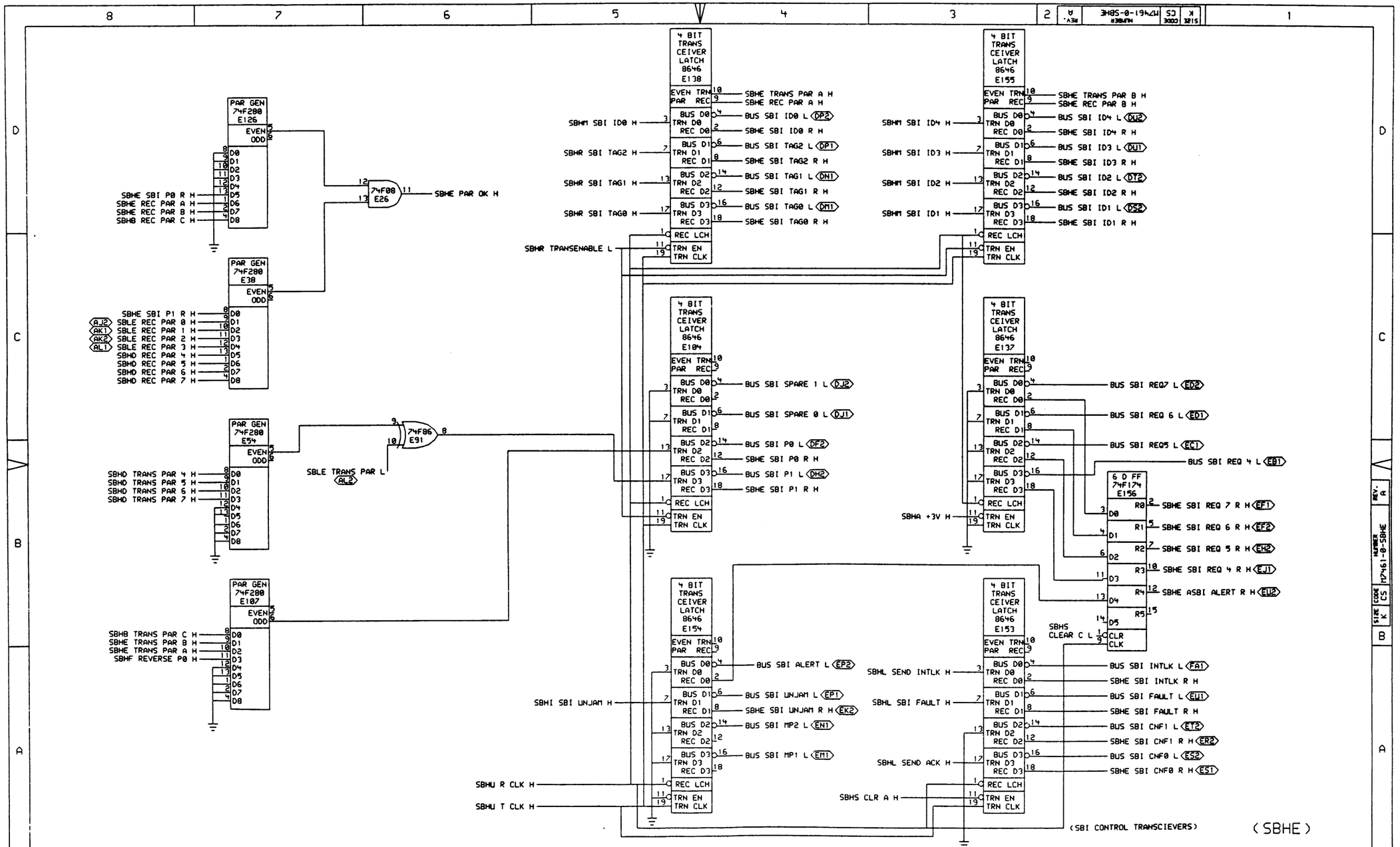
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MCIRKA	DATE 15-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF3	
DSKB:<CIRKA>SBHD.DRW 15-AUG-83 11:17		SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: 11/785		NEXT HIGHER ASSEMBLY: B-DD-M7461-0	

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHD	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DLrKA — DATE 15-AUG-83 — ENG. — DATE
CHK D. — DATE — BOARD LOCATION: AF3 — SHEET 1 OF 1

DSKB:(CIRKA)SBHE.DRW | 15-AUG-83 11:17 | NEXT HIGHER ASSEMBLY: B-DD-M7461-0 | FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHE	A

SBI MAINTENANCE REGISTER

SHFT REG 74F194 E150
SBHP ID BUF 20 H
SBHP ID BUF 21 H
SBHP ID BUF 22 H
SBHP ID BUF 23 H
SBHP WRITE MAINT REG H
SBHS CLEAR A L
SBHS CPT3 B L
SBHF MAINT REG 20 H
SBHF ENBL SBI INVAL H
SBHF FORCE SBI INVAL H
SBHF MAINTENANCE ID0 H

SHFT REG 74F194 E163
SBHF MAINTENANCE ID1 H
SBHF MAINTENANCE ID2 H
SBHF MAINTENANCE ID3 H
SBHF MAINTENANCE ID4 H

SHFT REG 74F194 E133
SBHP ID BUF 16 H
SBHP ID BUF 17 H
SBHP ID BUF 18 H
SBHP ID BUF 19 H
SBHF FORCE MISS GR0 H
74F04 E48
SBHF FORCE MISS GR0 L AM2
SBHF MAINT REG 17 H
SBHF MAINT REG 18 H
SBHF MAINT REG 19 H

SBHP ID BUF 24 H
SBHP ID BUF 25 H
SBHP ID BUF 26 H
SBHP ID BUF 27 H

74F32 E60
74F175 E119
SBHS CPT2 A H
SBHS CLEAR B L
SBHU SBI T0 H
74F175 E34
SBHS CLEAR C L

COMPARATOR REGISTER

SHFT REG 74F194 E165
SBHP WRITE COMP REG H
SBHS CLEAR A L
SBHS CPT3 B L
SBHF COMP TAG 0 H
SBHF COMP TAG 1 H
SBHF COMP TAG 2 H
SBHF COMP COM MASK 0 H

SHFT REG 74F194 E164
SBHF COMP COM MASK 1 H
SBHF COMP COM MASK 2 H
SBHF COMP COM MASK 3 H
SBHF COND LOCK 0 H

SHFT REG 74F194 E28
SBHF FORCE MULT XMIT H
SBHF FORCE UNEXP RD H
SBHF FORCE WRT SEQ H
SBHF REVERSE P0 H

ID REGISTERS
74F175 E68
SBHU SBI T1 H
SBHS CLEAR B L
SBHF SS FRCE UNXP RD H

SBHP ID BUF 28 H
SBHP ID BUF 29 H
SBHP ID BUF 30 H
SBHP ID BUF 31 H

74F08 E26
74F175 E168
SBHS CPT0 C H
SBHS CLEAR C L

FAULT STATUS REGISTER

SHFT REG 74F194 E166
SBHP ID BUF 18 H
SBHP ID BUF 20 H
SBHP ID BUF 24 H
SBHP ID BUF 25 H
SBHP WRITE FAULT REG H
SBHF FAULT INTR EN H
SBHF FS REG 20 H
SBHF FS REG 24 H
SBHF FS REG 25 H

SHFT REG 74F194 E131
SBHF MAINT REG 20 H
SBHF MAINT REG 19 H
SBHF MAINT REG 18 H
SBHF MAINT REG 17 H
SBHN +3V H
SBHS CPT1 C H
74S37 -01 E129
74F04 E123
SBHF REV PAR 3 L DR2
SBHF REV PAR 2 L DR1
SBHF REV PAR 1 L DV2
SBHF REV APR 0 L DS1

SHFT REG 74F194 E29
SBHF COND LOCK 1 H
SBHF LOCK H
SBHF SILO LCK INT EN H

SHFT 0IN
R0 R1 R2 R3
D0 D1 D2 D3
SHFT 3IN
0=HOLD
2 1=3IN+3
1 2=0IN+0
3=LOAD
CLR
CLK

(SBHF)

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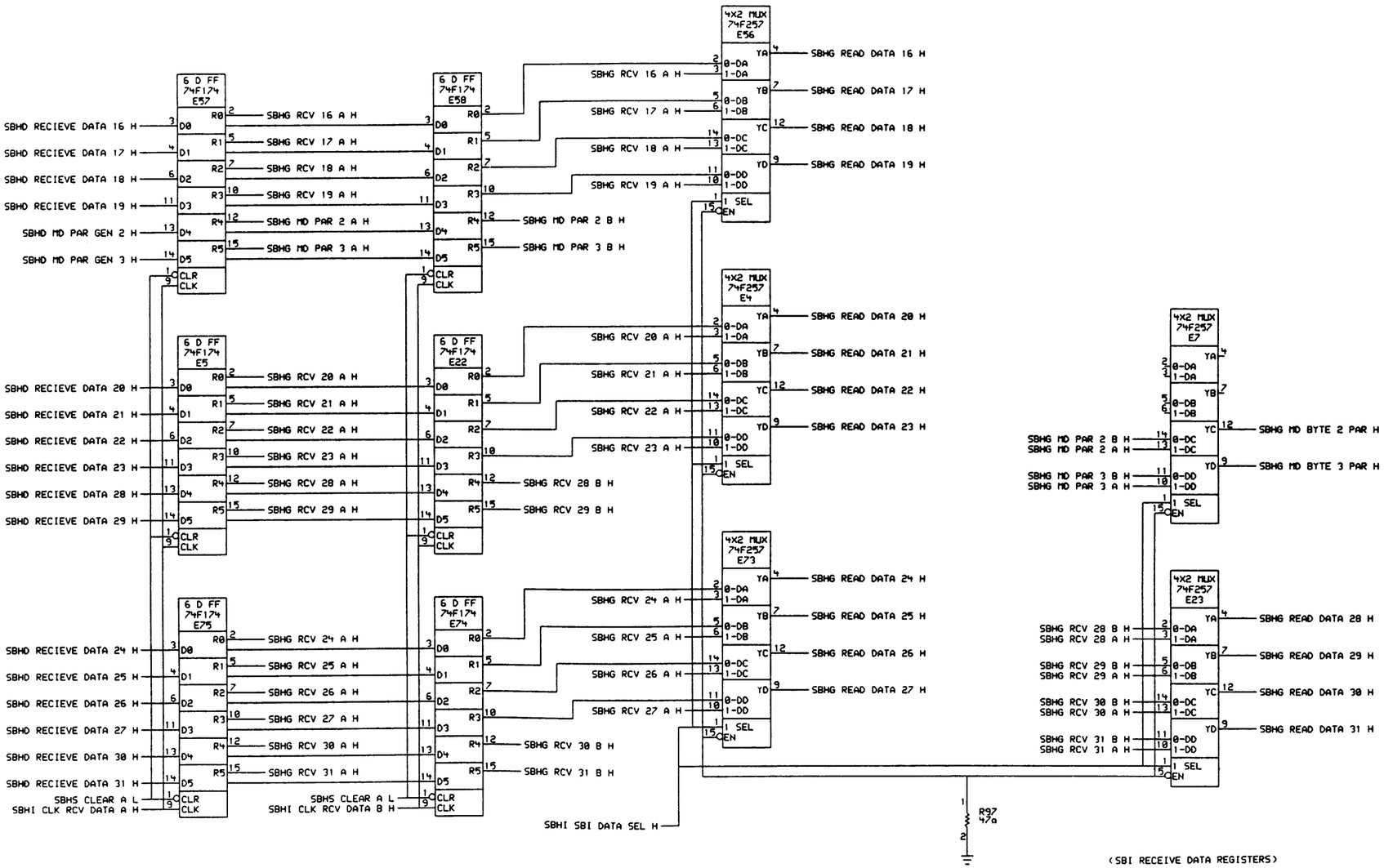
REVISIONS		
CHK	CHANGE NO.	REV

DRN. MCRKA DATE 23-AUG-83 ENG. DATE 9-6-83
CHK'D. DATE BOARD LOCATION: AE3
SHEET 1 OF 1
DSKB:<CIRKA>SBHF.DRW 20-AUG-83 09:26 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHF	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MCKA — DATE 15-AUG-83 — ENG. — DATE —
CHK'D. — DATE — BOARD LOCATION: AF3 — SHEET 1 OF 1

DSKB:<CIRKA>SBHG.DRW 15-AUG-83 11:17
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHG	A

8 MUX 74F151 E98
SBHK SILO DATA 16 H
SBHA TIMEOUT ADRS 18 H
SBHL FAULT SILO LOCK 1 H
SBHK COUNT FIELD 0 H
SBHF FORCE MISS GR0 H
SBHI CPU COUNT 0 H

8 MUX 74F151 E132
SBHK SILO DATA 17 H
SBHA TIMEOUT ADRS 19 H
SBHL FAULT LATCH H
SBHK COUNT FIELD 1 H
SBHF MAINT REG 17 H
SBHI CPU COUNT 1 H

8 MUX 74F151 E151
SBHK SILO DATA 18 H
SBHA TIMEOUT ADRS 20 H
SBHF FAULT INTR EN H
SBHK COUNT FIELD 2 H
SBHF MAINT REG 18 H
SBHI CPU COUNT 2 H

8 MUX 74F151 E135
SBHK SILO DATA 19 H
SBHA TIMEOUT ADRS 21 H
SBHL SEND FAULT 1 H
SBHK COUNT FIELD 3 H
SBHF MAINT REG 19 H
SBHI CPU COUNT 3 H

SBHP ID ADDR 0 L — 74S37 E134 — SBHH ID ADDR 0 H
SBHP ID ADDR 1 L — 74S37 E134 — SBHH ID ADDR 1 H
SBHP ID ADDR 2 L — 74S37 E134 — SBHH ID ADDR 2 H
SBHA +3V H

26S10 E6
BUS ID D16 L (AF2) — SBHH ID RECIEVE 16 H
BUS ID D17 L (AH2) — SBHH ID RECIEVE 17 H
BUS ID D18 L (AJ1) — SBHH ID RECIEVE 18 H
BUS ID D19 L (AM1) — SBHH ID RECIEVE 19 H
+5.0V
R3 121Ω 1/2 W 1% · R4 121Ω 1/2 W 1% · R5 121Ω 1/2 W 1% · R6 121Ω 1/2 W 1%
R11 270Ω · R12 270Ω · R13 270Ω · R14 270Ω

26S10 E8
SBHP EN ID DRIVERS L
BUS ID D20 L (AN1) — SBHH ID RECIEVE 20 H
BUS ID D21 L (AP1) — SBHH ID RECIEVE 21 H
BUS ID D22 L (AP2) — SBHH ID RECIEVE 22 H
BUS ID D23 L (AS2) — SBHH ID RECIEVE 23 H
+5.0V
R7 121Ω 1/2 W 1% · R8 121Ω 1/2 W 1% · R9 121Ω 1/2 W 1% · R10 121Ω 1/2 W 1%
R15 270Ω · R16 270Ω · R17 270Ω · R18 270Ω

8 MUX 74F151 E149
SBHK SILO DATA 20 H
SBHA TIMEOUT ADRS 22 H
SBHF FS REG 20 H
SBHF COMP TAG 0 H
SBHF MAINT REG 20 H
SBHI CPU COUNT 4 H

8 MUX 74F151 E196
SBHK SILO DATA 21 H
SBHA TIMEOUT ADRS 23 H
SBHF COMP TAG 1 H
SBHF ENBL SBI INVAL H

8 MUX 74F151 E181
SBHK SILO DATA 22 H
SBHA TIMEOUT ADRS 24 H
SBHF COMP TAG 2 H
SBHF FORCE SBI INVAL H

8 MUX 74F151 E194
SBHK SILO DATA 23 H
SBHA TIMEOUT ADRS 25 H
SBHF COMP COM MASK 0 H
SBHF MAINTENANCE ID0 H

(ID BUS MUX)

(SBHH)

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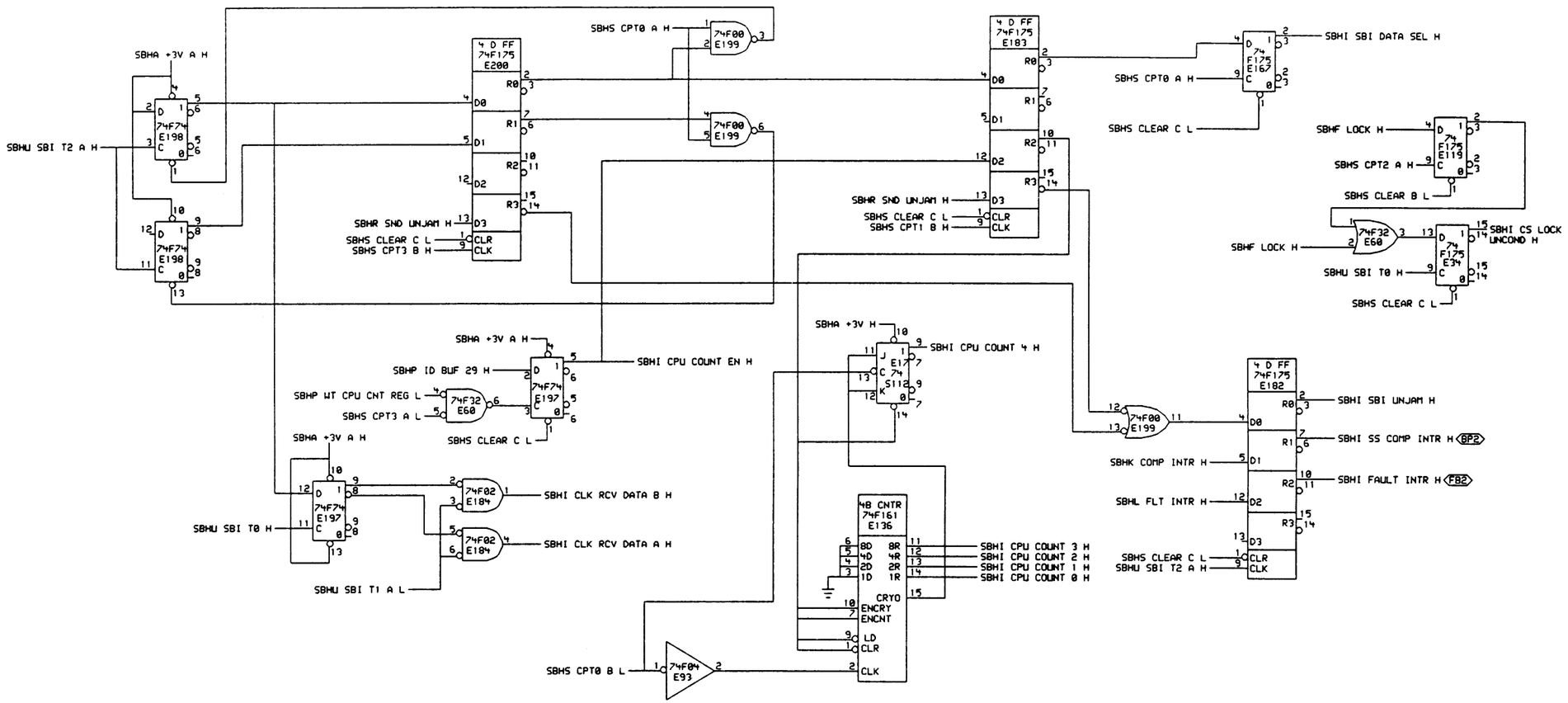
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. CIRKA — DATE 15-AUG-83
CHK'D. — DATE
ENG. — DATE
BOARD LOCATION: AF3
SHEET 1 OF 1
DSKB:<CIRKA>SBHH.DRW 15-AUG-83 11:17
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHH	A



(SBHI)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DLrKA — DATE 23-AUG-83 — ENG. — DATE
CHK'D. — DATE — BOARD LOCATION: AF3 — SHEET 1 OF 1

DSKB:<CIRKA>SBHI.DRW 20-AUG-83 09:28 — NEXT HIGHER ASSEMBLY: B-DD-M7461-0 — FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHI	A

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHJ	A

8 MUX 74F151 E179
SBHK SILO DATA 24 H
SBHA TIMEOUT ADRS 26 H
SBHF FS REG 24 H
SBHF COMP COM MASK 1 H
SBHF MAINTENANCE ID1 H

8 MUX 74F151 E178
SBHK SILO DATA 25 H
SBHA TIMEOUT ADRS 27 H
SBHF FS REG 25 H
SBHF COMP COM MASK 2 H
SBHF MAINTENANCE ID2 H

8 MUX 74F151 E148
SBHK SILO DATA 26 H
SBHA TIMEOUT ADRS 28 H
SBHL FAULT XMITTER H
SBHF COMP COM MASK 3 H
SBHF MAINTENANCE ID3 H

8 MUX 74F151 E96
SBHK SILO DATA 27 H
SBHA TIMEOUT ADRS 29 H
SBHL MULT XMIT FAULT H
SBHF COND LOCK 0 H
SBHF MAINTENANCE ID4 H

SBHH ID ADDR 0 H
SBHH ID ADDR 1 H
SBHH ID ADDR 2 H

26S10 E43
BUS ID D24 L (AT2) — SBHJ ID RECIEVE 24 H
BUS ID D25 L (AU1) — SBHJ ID RECIEVE 25 H
BUS ID D26 L (BF2) — SBHJ ID RECIEVE 26 H
BUS ID D27 L (BH2) — SBHJ ID RECIEVE 27 H

+5.0V
R19 121Ω 1/2 W 1%
R20 121Ω 1/2 W 1%
R21 121Ω 1/2 W 1%
R22 121Ω 1/2 W 1%
R27 270Ω
R28 270Ω
R29 270Ω
R30 270Ω

26S10 E42
BUS ID D28 L (BJ1) — SBHJ ID RECIEVE 28 H
BUS ID D29 L (BJ2) — SBHJ ID RECIEVE 29 H
BUS ID D30 L (BK1) — SBHJ ID RECIEVE 30 H
BUS ID D31 L (BK2) — SBHJ ID RECIEVE 31 H
SBHP EN ID DRIVERS L

+5.0V
R26 121Ω 1/2 W 1%
R25 121Ω 1/2 W 1%
R24 121Ω 1/2 W 1%
R23 121Ω 1/2 W 1%
R34 270Ω
R33 270Ω
R32 270Ω
R31 270Ω

8 MUX 74F151 E195
SBHK SILO DATA 28 H
SBHM TIMEOUT REG 28 H
SBHF COND LOCK 1 H
SBHF FORCE MULT XMIT H

8 MUX 74F151 E180
SBHK SILO DATA 29 H
SBHM TIMEOUT REG 29 H
SBHL UNEXP RD FAULT H
SBHF LOCK H
SBHF FORCE UNEXP RD H
SBHI CPU COUNT EN H

8 MUX 74F151 E97
SBHK SILO DATA 30 H
SBHM TIMEOUT REG 30 H
SBHF SILO LCK INT EN H
SBHF FORCE WRT SEQ H

8 MUX 74F151 E79
SBHK SILO DATA 31 H
SBHM TIMEOUT REG 31 H
SBHL PARITY FAULT H
SBHK COMP SILO LCK (1) H
SBHF REVERSE P0 H

(ID BUS MUX)

(SBHJ)

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REVISIONS		
CHK	CHANGE NO.	REV

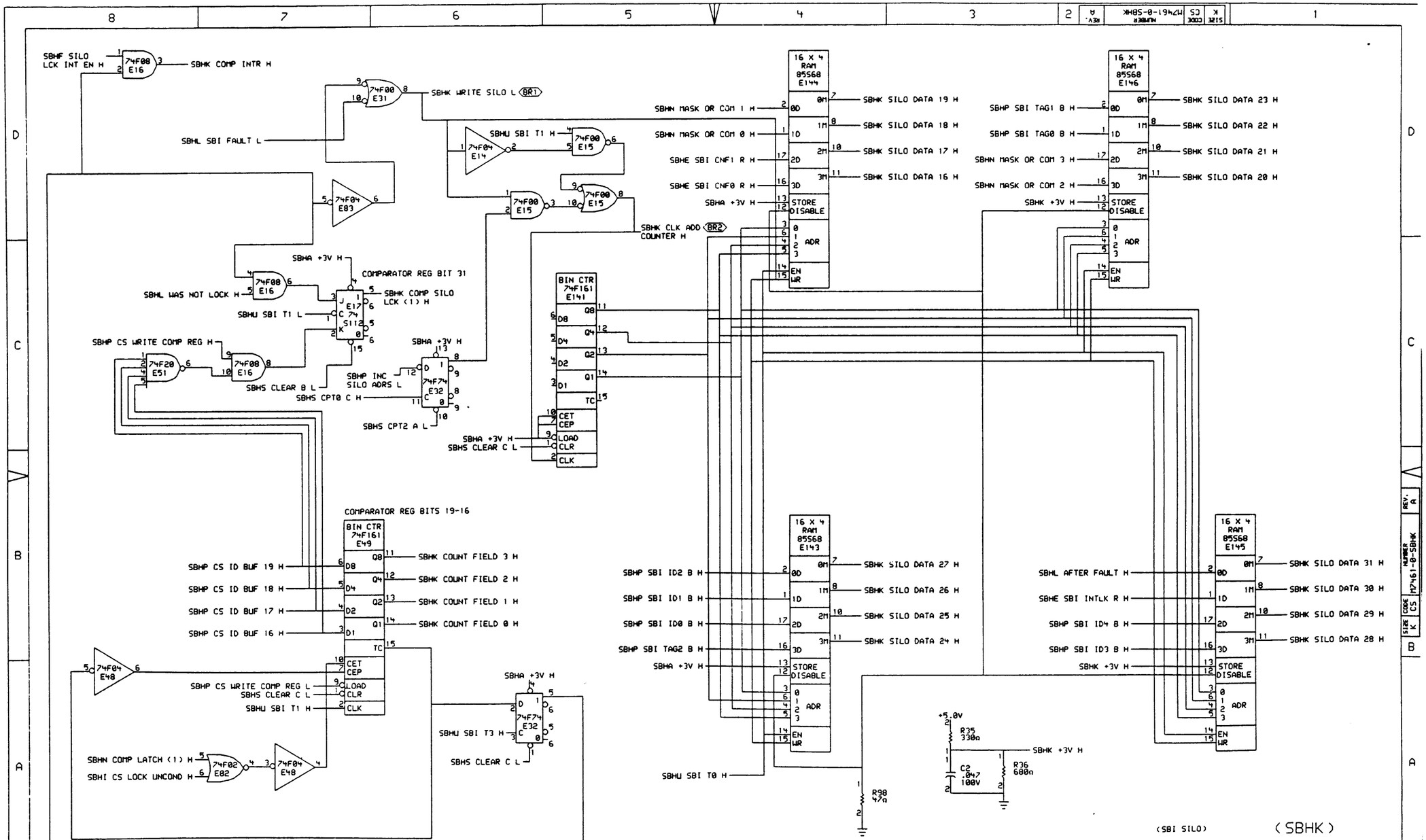
digital

DRN. MIRKA	DATE 15-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF3	
		SHEET 1 OF 1	

DSKB:[CIRKA]SBHJ.DRW 15-AUG-83 11:18 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHJ	A



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REVISIONS		
CHK	CHANGE NO.	REV

DRN. MCIRKA	DATE 15-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF2	
		SHEET 1 OF 1	

DSKB:<CIRKA>SBHK.DRW 15-AUG-83 11:18 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHK	A

FAULT/STATUS REG
BITS 31, 28, 26, 25

SHFT REG 74F194 E64
SHFT 0IN
0D
1D
2D
3D
SHFT 3IN
0=HOLD
1 1=0IN+0
2 1=3IN+3
3=LOAD
CLR
CLK
0R
1R
2R
3R

SBHL SBI TRANSMIT H
SBHL FAULT XMITTER H
SBHL UNEXP RD FAULT H
SBHL PARITY FAULT H
SBHL MULT XMIT FAULT H
SBHS CLEAR C L
SBHU SBI T1 H

74F04 E48 — SBHL EXPECT RD H

SBHE PAR OK H
SBHN SBI TAG EQ READ H
SBHM MY ID H
CK2 SBLE LATE EXPECT RD L
74F20 E45
74F04 E46

4 D FF 74F175 E63
D0 D1 D2 D3
R0 R1 R2 R3
CLR CLK

SBHE PAR OK H — 74F04 E46
SBHE SBI FAULT R H
SBHS CLEAR C L
SBHU SBI T1 H

SBHE SBI FAULT R H — 74F04 E48 — SBHL SBI FAULT L

74F08 E80 — SBHL AFTER FAULT H
SBHL FAULT LATCH H
FAULT/STATUS REG BIT 17

74F10 E59
74F04 E123
74F10 E59 — SBHL SBI FAULT H

SBHM MY ID L — 74F08 E80
74F08 E62

SBHK +3V H
SBHU SBI T1 A L — 74F04 E123
J 74 K S112 E101
SBHL SEND FAULT 1 H
74F08 E152 — SBHL FLT INTR H

6 D FF 74F174 E65
D0 D1 D2 D3 D4 D5
R0 R1 R2 R3 R4 R5
CLR CLK

CA1 SBLL TRANSMIT CA H
SBHR XMIT WRITE DATA H — 74F02 E82
74F04 E66
SBHL SBI TRANSMIT H

SBHR INTLK H — 74F08 E80
SBHL SEND INTLK H

SBHK WRITE SILO L
SBHN COMPARE H
SBHM READ DATA L
SBHS CLEAR C L
SBHU SBI T1 H

74F04 E66 — SBHL WAS NOT LOCK H
SBHF FAULT INTR EN H

SBHK +3V H
74F08 E152
J 74 K S112 E101 — SBHL FAULT SILO LOCK 1 H

74F04 E66 — SBHL SCOPE SYNC L BP1

SBHP WRITE FAULT REG H
SBHH ID RECIEVE 19 H — 74F08 E152

SBHS CLEAR B L

74F04 E66 — SBHL SEND ACK H

FAULT/STATUS REG BIT 16

D 74F175 E168 C
SBHS CPT0 C H
SBHS CLEAR C L

74F00 E102

D 74F175 E34 C
SBHU SBI T0 H
SBHS CLEAR C L

D 74F175 E119 C
SBHS CPT2 A H
SBHS CLEAR B L

(SBHL)

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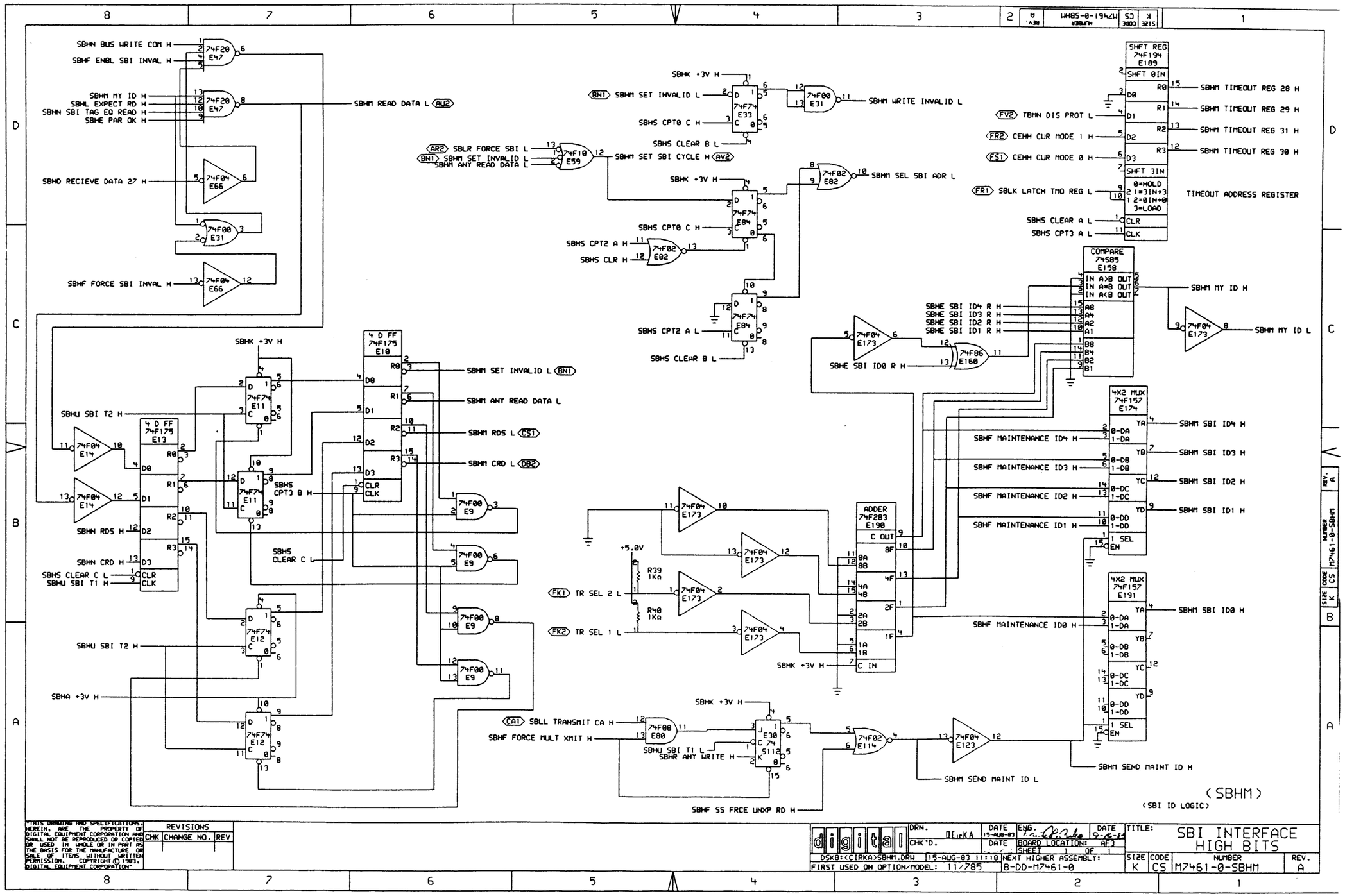
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MCKA — DATE 23-AUG-83
CHK D. — DATE
ENG. Dave — DATE 8-Aug-83
BOARD LOCATION: AC3
SHEET 1 OF 1
DSKB:<CIRKA>SBHL.DRW 20-AUG-83 09:40
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHL	A



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REVISIONS		
CHK	CHANGE NO.	REV

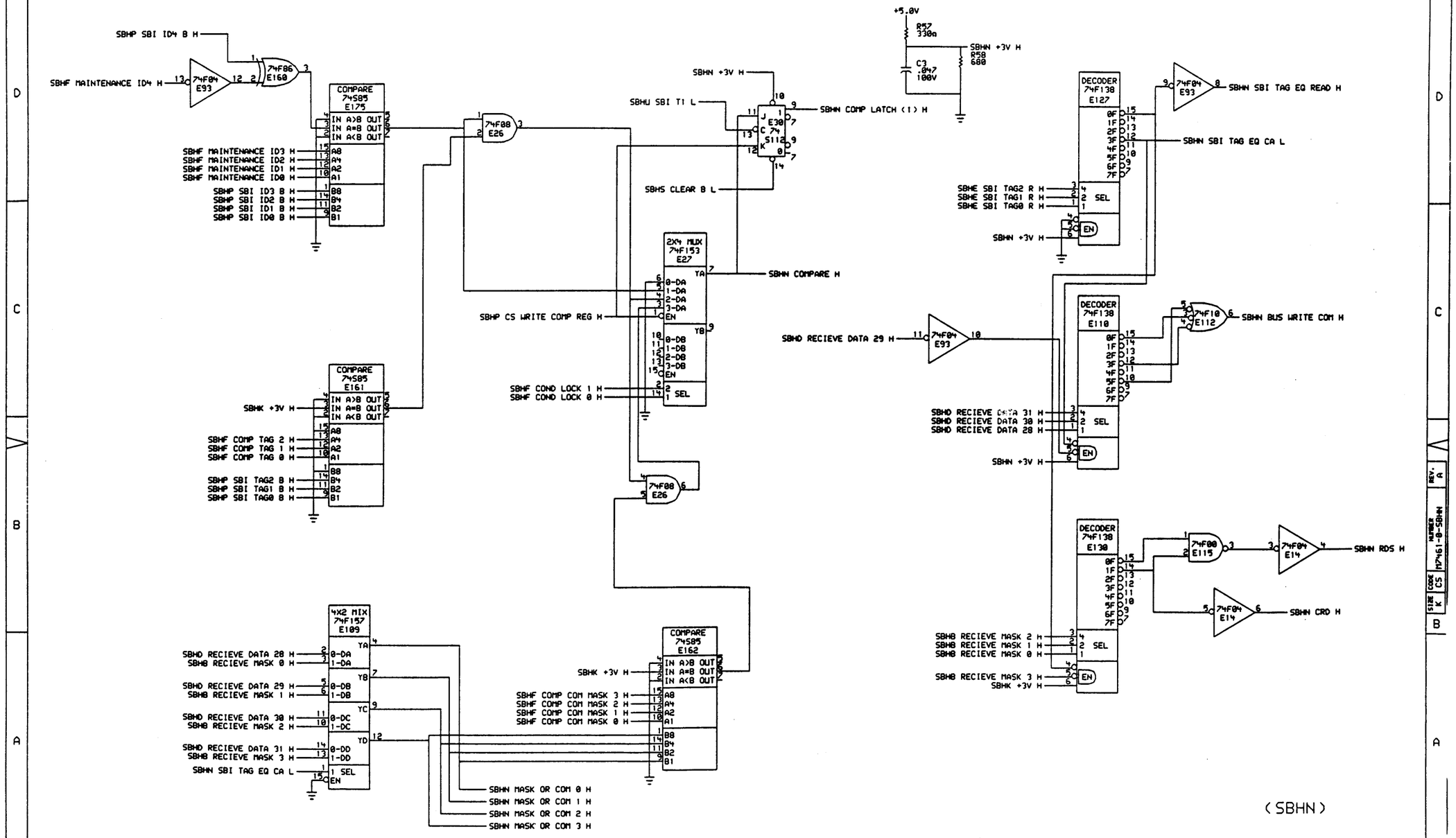
digital

DRN. MLRKA	DATE 15-AUG-83	ENG.	DATE 9-6-83
CHK'D.	DATE	BOARD LOCATION: AF3	
DSKB:<CIRKA>SBHM.DRW	15-AUG-83 11:18	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7461-0	

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHM	A

REV: A
NUMBER M7461-0-SBHM
CODE CS
SIZE K
B



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DLrKA — DATE 15-AUG-83 — ENG. — DATE

CHK'D. — DATE — BOARD LOCATION: AF3

SHEET 1 OF 1

DSKB:<CIRKA>SBHN.DRW 15-AUG-83 11:18 — NEXT HIGHER ASSEMBLY: B-DD-M7461-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHN	A

8 BIT 3-STATE LATCH 74F373 E159
SBHE SBI ID0 R H
SBHE SBI ID1 R H
SBHE SBI ID2 R H
SBHE SBI ID3 R H
SBHE SBI ID4 R H
SBHE SBI TAG0 R H
SBHE SBI TAG1 R H
SBHE SBI TAG2 R H
SBHN +3V H
HOLD
OUT EN
SBHP SBI ID0 B H
SBHP SBI ID1 B H
SBHP SBI ID2 B H
SBHP SBI ID3 B H
SBHP SBI ID4 B H
SBHP SBI TAG0 B H
SBHP SBI TAG1 B H
SBHP SBI TAG2 B H
R99 47Ω
SHFT REG 74F194 E85
SHFT 0IN
SHFT 3IN
0=HOLD
1=3IN+3
2=0IN+0
3=LOAD
SBHP ID BUF 16 H
SBHP ID BUF 17 H
SBHP ID BUF 18 H
SBHP ID BUF 19 H
SBHP WRITE COMP REG H
SBHS CLEAR C L
SBHS CPT3 B L
CLR
CLK
SBHP CS ID BUF 16 H
SBHP CS ID BUF 17 H
SBHP CS ID BUF 18 H
SBHP CS ID BUF 19 H
8 BIT 3-STATE LATCH 74F373 E99
SBHH ID RECIEVE 16 H
SBHH ID RECIEVE 17 H
SBHH ID RECIEVE 18 H
SBHH ID RECIEVE 19 H
SBHH ID RECIEVE 20 H
SBHH ID RECIEVE 21 H
SBHH ID RECIEVE 22 H
SBHH ID RECIEVE 23 H
SBHS CPT1 C H
SBHP ID BUF 16 H
SBHP ID BUF 17 H
SBHP ID BUF 18 H
SBHP ID BUF 19 H
SBHP ID BUF 20 H
SBHP ID BUF 21 H
SBHP ID BUF 22 H
SBHP ID BUF 23 H
R100 47Ω
8 BIT 3-STATE LATCH 74F373 E44
SBHJ ID RECIEVE 24 H
SBHJ ID RECIEVE 25 H
SBHJ ID RECIEVE 26 H
SBHJ ID RECIEVE 27 H
SBHJ ID RECIEVE 28 H
SBHJ ID RECIEVE 29 H
SBHJ ID RECIEVE 30 H
SBHJ ID RECIEVE 31 H
SBHP ID BUF 24 H
SBHP ID BUF 25 H
SBHP ID BUF 26 H
SBHP ID BUF 27 H
SBHP ID BUF 28 H
SBHP ID BUF 29 H
SBHP ID BUF 30 H
SBHP ID BUF 31 H
6 D FF 74F174 E50
SBHP CS WRITE COMP REG H
SBHS CLEAR C L
SBHU SBI T0 H
74F04 E14
SBHP CS WRITE COMP REG L
(E82) ICLJ ID RIGHT WRITE L
SBHS CPT0 B L
74F10 E112
SBHP EN ID DRIVERS L (EA1)
(ER1) ICLJ ID RIGHT ADDR 5 H
74F04 E113
(EM2) ICLJ ID RIGHT ADDR 4 H
(EL2) ICLJ RIGHT ADDR 3 H
74F08 E188
8 BIT 3-STATE LATCH 74F373 E142
(FU2) BUS PA 29 H
SBHP ID DIR B L
SBHP ID SBI ADDR B H (FL1)
74F08 E188
SBHP ADRS LATCH 29 H
DECODER 74F138 E140
SEL
EN
SBHP WT CPU CNT REG L
SBHP WRITE FAULT REG H
SBHP WRITE COMP REG H
SBHP WRITE MAINT REG H
74F04 E139
(EL1) ICLJ RIGHT ADDR 2 H
(EE2) ICLJ RIGHT ADDR 1 H
(EE1) ICLJ RIGHT ADDR 0 H
R101 47Ω
SBHS CPT1 D H
74F20 E51
SBHP INC SILO ADRS L
SBHP ID ADDR 2 L (FE2)
SBHP ID ADDR 1 L (FD2)
SBHP ID ADDR 0 L (FC1)
SBHP WRITE COMP REG H
74F175 E167
SBHS CPT0 A H
SBHS CLEAR C L
SBHK +3V H
74F74 E33
SBHS CPT2 A H
SBHS CLEAR B L
74F00 E15
(ID ADDRESS DECODE)
(SBHP)

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REVISIONS
CHK | CHANGE NO. | REV

digital
DRN. CIRKA | DATE 23-AUG-83 | ENG. | DATE
CHK D. | DATE | BOARD LOCATION: AF3 | SHEET 1 OF 1
DSKB:<CIRKA>SBHP.DRW 20-AUG-83 09:41 | NEXT HIGHER ASSEMBLY: B-DD-M7461-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE HIGH BITS
SIZE K | CODE CS | NUMBER M7461-0-SBHP | REV. A

SBHR ISR H
74F02 E114
SBHR SBI TAG0 H
SBHF SS FRCE UNXP RD H
74F04 E113
74F10 E112
74F08 E147
SBHR SBI TAG1 H
74F08 E147
SBHR SBI TAG2 H
SBHF FORCE WRT SEQ H
74F00 E100
74F00 E100
SBHN +3V H
SBHR EXTEND READ L
74F20 E45
SBHR DISAB MASK MUX H
SBHR ISR H
74F04 E113
74S37 -01 E129
SBHN +3V H
SBHR XMIT MUX SEL 0 H
SBHR XMIT WRITE DATA H
SBHR TIMING PULSE 0 H
SBHR ANY WRITE H
74F00 E62
SBHR EXTEND WRITE H
SBHR TIMING PULSE 1 H
74F00 E62
74F00 E62
SBHN +3V H
74S37 -01 E129
SBHR XMIT MUX SEL 1 H
SBHR XMIT WRITE DATA L
SBHR EXTEND WRITE H
74F04 E113
SBHR IB CYCLE L
74F00 E115
SBHR MASK MUX SEL H
74F00 E115
SBHR SEND DATA H (BH2)
SBHM SEND MAINT ID L
CA1 SBLL TRANSMIT CA H
74F02 E114
SBHR TRANSENABLE L
SHFT REG 74F194 E81
SHFT 0IN
D0
D1
D2
D3
SHFT 3IN
0=HOLD
1=3IN+3
2=0IN+0
3=LOAD
CLR
CLK
SBHR TIMING PULSE 0 H
SBHR TIMING PULSE 1 H
SBHN +3V H
SBHS CLEAR C L
SBHU SBI T1 H
6 D FF 74F174 E89
CB2 TBMN BUF UFS L
CV2 TBMN BUF UADS L
DA1 TBMN BUF UMCT 3 L
CM2 TBMN BUF UMCT 2 L
CE2 TBMN BUF UMCT 1 L
CE1 TBMN BUF UMCT 0 L
SBHS CLEAR C L
SBHS CPT1 D H
256 X 4 ROM 63S141 E90
23-649A2-00
3M 2M 1M 0M
ADR
EN
23-650A2-00
256 X 4 ROM 63S141 E92
SBHP ADRS LATCH 29 H
FF1 SBLP FORCE INTLK H
R102 47Ω
ART TBMU CANCELL L
74F74 E157
SBHS CPT2 A L
SBHN +3V H
8 BIT 3-STATE LATCH 74F373 E95
SBHA BUFFER FULL L
R103 47Ω
SBHR FUNCTION CODE 0 H
SBHR FUNCTION CODE 1 H
SBHR FUNCTION CODE 2 H
SBHR FUNCTION CODE 3 H
SBHR EXTEND READ L
SBHR IB CYCLE L
SBHR ISR H
HOLD OUT EN
74F08 E188
SBHR SND UNJAM H
SBHS CPT3 A L
SBHS CLEAR B L
SBI FUNCTION DECODE ROM
23-373A1-00
32 X 8 PROM 63S081 E61
SBHR ANY WRITE H
SBHR EXTEND WRITE H
SBHR INTLK H
SBHR FUNCTION CODE 0 H
SBHR FUNCTION CODE 1 H
SBHR FUNCTION CODE 2 H
SBHR FUNCTION CODE 3 H
R104 47Ω
(SBHR)

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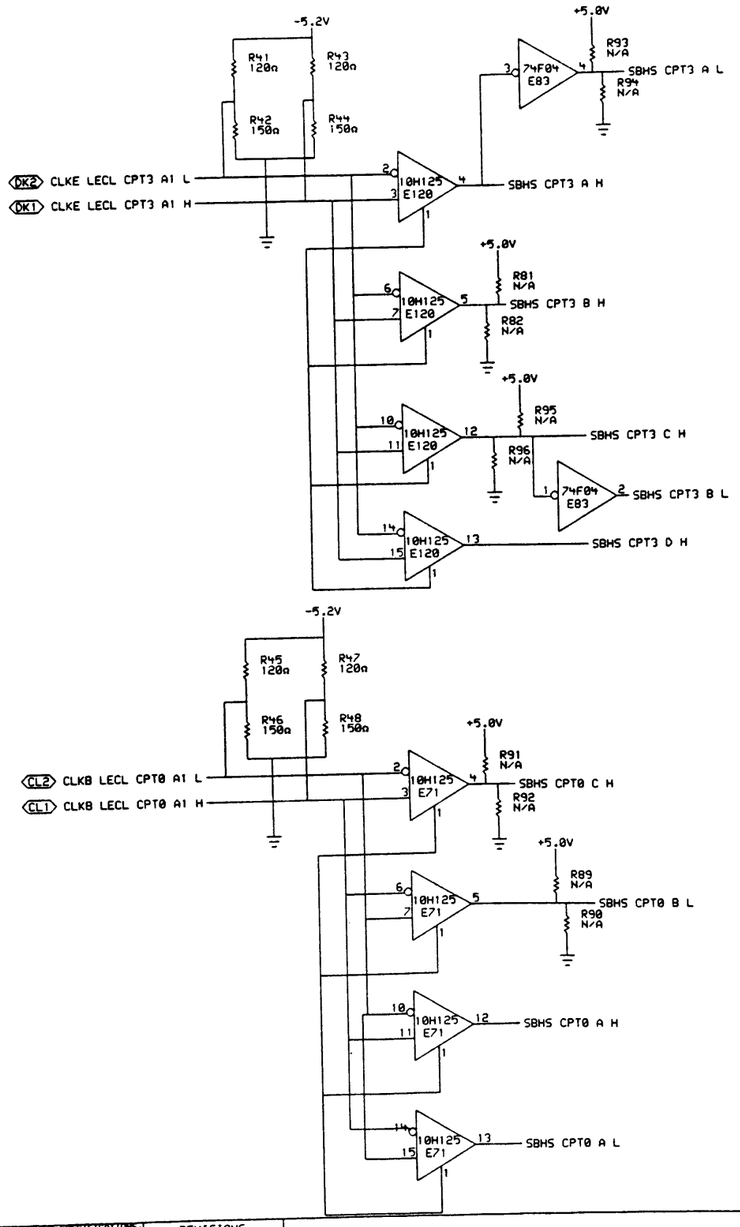
REVISIONS		
CHK	CHANGE NO.	REV

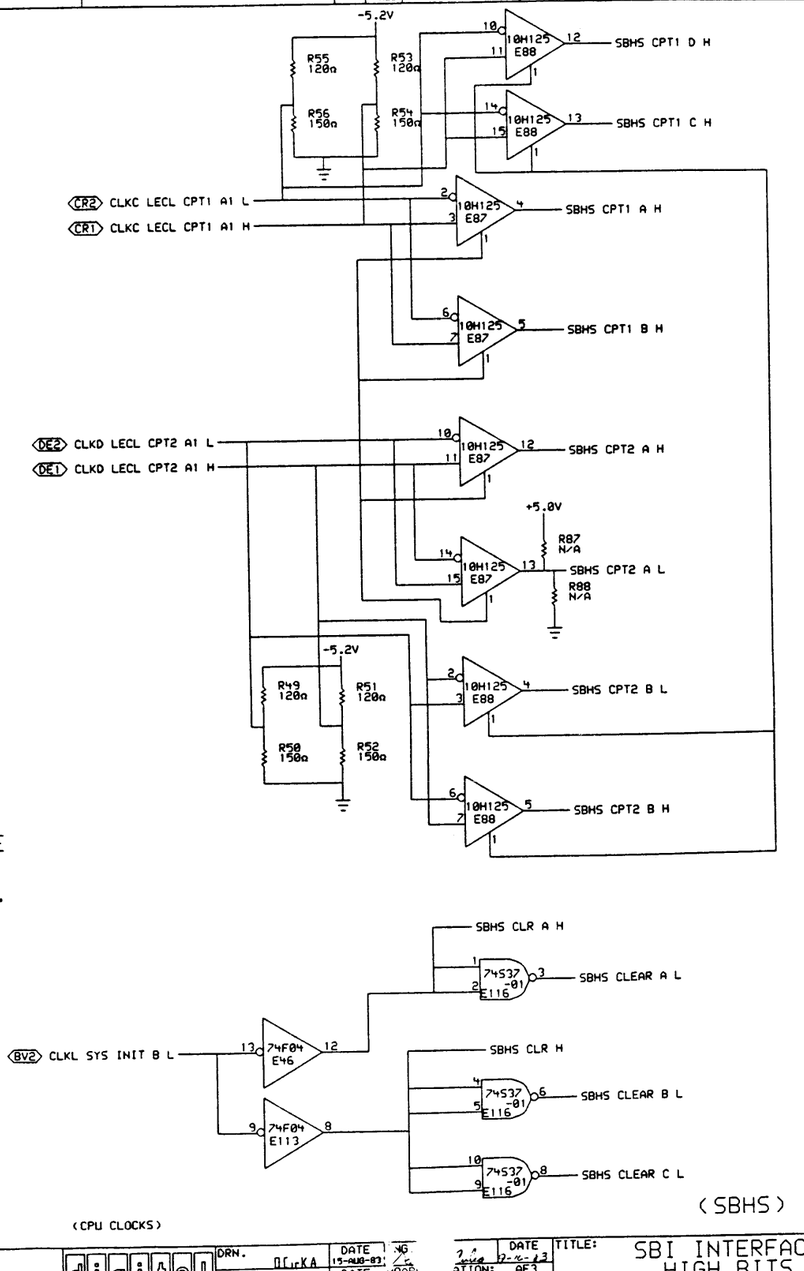
DRN.	RCrKA	DATE 15-AUG-83	ENG. DATE 9-16-83
CHK'D.		DATE	BOARD LOCATION: AF3
DSKB:<CIRKA>SBHR.DRW 15-AUG-83 11:19			SHEET 1 OF 1
FIRST USED ON OPTION/MODEL: 11/785			NEXT HIGHER ASSEMBLY: B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHR	A



NOTE:
RESISTORS THAT ARE
MARKED N/A
ARE NOT INSTALLED.



(SBHS)

(CPU CLOCKS)

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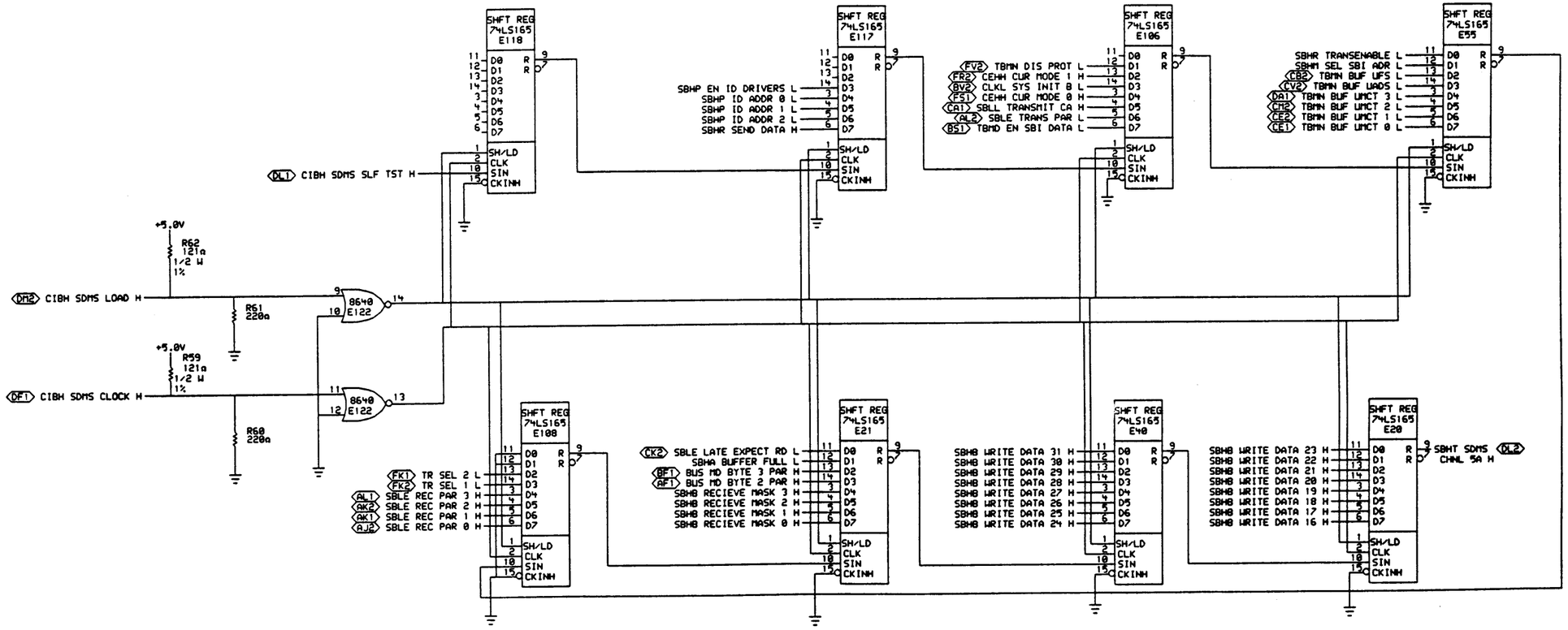
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. ACrKA DATE 15-AUG-83
CHK'D. DATE
DSKB:<CIRKA>SBHS.DRW 15-AUG-83 11:19
FIRST USED ON OPTION/MODEL: 11/785

DATE 12-Aug-83
TITLE: SBI INTERFACE HIGH BITS
ATION: AF3
1 OF 1
ASSEMBLY: 1-0
SIZE K | CODE CS | NUMBER M7461-0-SBHS | REV. A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. DCKA — DATE 15-AUG-83 — ENG. — DATE 5-SEP-83

CHK'D. — DATE — BOARD LOCATION: AE3 — SHEET 1 OF 1

DSKB:<CIRKA>SBHT.DRW 15-AUG-83 11:19 — NEXT HIGHER ASSEMBLY: B-DD-M7461-0

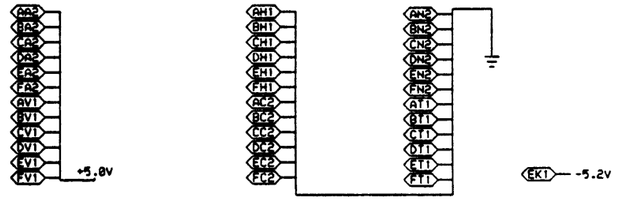
FIRST USED ON OPTION/MODEL: 11/785

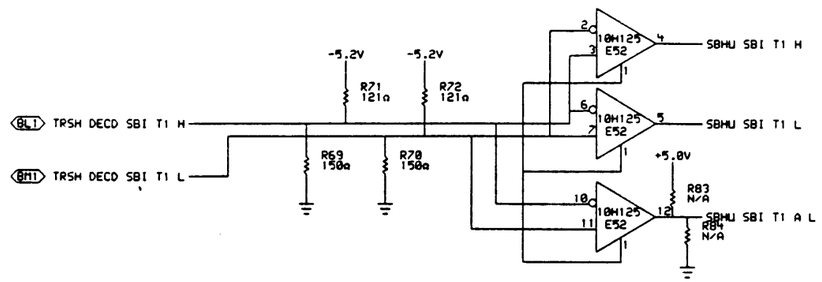
TITLE: SBI INTERFACE HIGH BITS

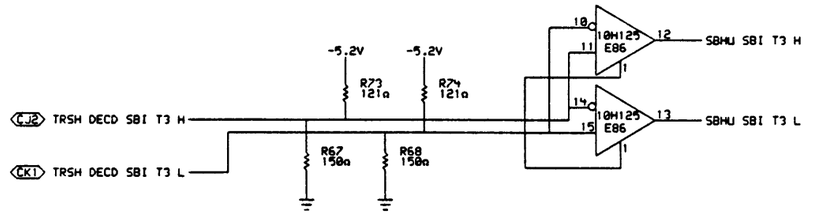
SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHT	A

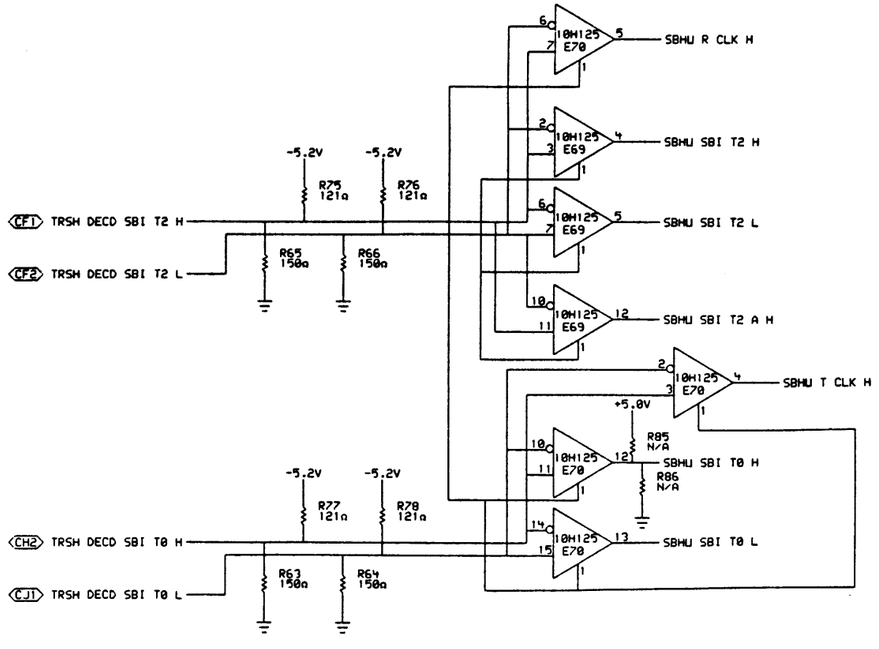
REV. A | NUMBER M7461-0-SBHT | CODE CS | SIZE K | B

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHU	A









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ARE NOT INSTALLED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. MCKA	DATE 15-AUG-83	ENG.	DATE 9-26-83
CHK D.	DATE	BOARD LOCATION: AF3	
		SHEET 1 OF 1	

DSKB:<CIRKA>SBHU.DRW 15-AUG-83 11:19 | NEXT HIGHER ASSEMBLY: B-DD-M7461-0 | FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHU	A

SIGNAL NAME	PAGE NUMBER(S)
BUS ID D16 L	SBMH
BUS ID D17 L	SBMH
BUS ID D18 L	SBMH
BUS ID D19 L	SBMH
BUS ID D20 L	SBMH
BUS ID D21 L	SBMH
BUS ID D22 L	SBMH
BUS ID D23 L	SBMH
BUS ID D24 L	SBMJ
BUS ID D25 L	SBMJ
BUS ID D26 L	SBMJ
BUS ID D27 L	SBMJ
BUS ID D28 L	SBMJ
BUS ID D29 L	SBMJ
BUS ID D30 L	SBMJ
BUS ID D31 L	SBMJ
BUS MD 16 H	SBMD,B
BUS MD 17 H	SBMD,B
BUS MD 18 H	SBMD,B
BUS MD 19 H	SBMD,B
BUS MD 20 H	SBMB,D
BUS MD 21 H	SBMB,D
BUS MD 22 H	SBMB,D
BUS MD 23 H	SBMB,D
BUS MD 24 H	SBMB,D
BUS MD 25 H	SBMB,D
BUS MD 26 H	SBMB,D
BUS MD 27 H	SBMB,D
BUS MD 28 H	SBMD,B
BUS MD 29 H	SBMD,B
BUS MD 30 H	SBMB,D
BUS MD 31 H	SBMB,D
BUS MD BYTE 0 MASK H	SBMB,D
BUS MD BYTE 1 MASK H	SBMB,D
BUS MD BYTE 2 MASK H	SBMB,D
BUS MD BYTE 2 PAR H	SBMD,T
BUS MD BYTE 3 MASK H	SBMB,D
BUS MD BYTE 3 PAR H	SBMD,T
BUS PA 18 H	SBMA
BUS PA 19 H	SBMA
BUS PA 20 H	SBMA
BUS PA 21 H	SBMA
BUS PA 22 H	SBMA
BUS PA 23 H	SBMA
BUS PA 24 H	SBMA
BUS PA 25 H	SBMA
BUS PA 26 H	SBMA
BUS PA 27 H	SBMA
BUS PA 28 H	SBMA
BUS PA 29 H	SBMA,P

SIGNAL NAME	PAGE NUMBER(S)
BUS SBI ALERT L	SBME
BUS SBI B16 L	SBMD
BUS SBI B17 L	SBMD
BUS SBI B18 L	SBMD
BUS SBI B19 H	SBMD
BUS SBI B20 H	SBMD
BUS SBI B21 L	SBMD
BUS SBI B22 L	SBMD
BUS SBI B23 L	SBMD
BUS SBI B24 L	SBMD
BUS SBI B25 L	SBMD
BUS SBI B26 L	SBMD
BUS SBI B27 L	SBMD
BUS SBI B28 L	SBMD
BUS SBI B29 L	SBMD
BUS SBI B30 L	SBMD
BUS SBI B31 L	SBMD
BUS SBI CNF0 L	SBME
BUS SBI CNF1 L	SBME
BUS SBI FAULT L	SBME
BUS SBI ID0 L	SBME
BUS SBI ID1 L	SBME
BUS SBI ID2 L	SBME
BUS SBI ID3 L	SBME
BUS SBI ID4 L	SBME
BUS SBI INTLK L	SBME
BUS SBI M0 L	SBMB
BUS SBI M1 L	SBMB
BUS SBI M2 L	SBMB
BUS SBI M3 L	SBMB
BUS SBI MP1 L	SBME
BUS SBI MP2 L	SBME
BUS SBI P0 L	SBME
BUS SBI P1 L	SBME
BUS SBI REQ 4 L	SBME
BUS SBI REQ 6 L	SBME
BUS SBI REQ5 L	SBME
BUS SBI REQ7 L	SBME
BUS SBI SPARE 0 L	SBME
BUS SBI SPARE 1 L	SBME
BUS SBI TAG0 L	SBME
BUS SBI TAG1 L	SBME
BUS SBI TAG2 L	SBME
BUS SBI UNJAM L	SBME
CEMM CUR MODE 0 H	SBMT,M
CEMM CUR MODE 1 H	SBMT,M
CIBM SDMS CLOCK H	SBMT
CIBM SDMS LOAD H	SBMT
CIBM SDMS SLF TST H	SBMT
CLKB LECL CPT0 A1 H	SBMS

SIGNAL NAME	PAGE NUMBER(S)
CLKB LECL CPT0 A1 L	SBMS
CLKC LECL CPT1 A1 H	SBMS
CLKC LECL CPT1 A1 L	SBMS
CLKD LECL CPT2 A1 H	SBMS
CLKD LECL CPT2 A1 L	SBMS
CLKE LECL CPT3 A1 H	SBMS
CLKE LECL CPT3 A1 L	SBMS
CLKL SYS INIT B L	SBMS,T
ICLJ ID RIGHT ADDR 4 H	SBMP
ICLJ ID RIGHT ADDR 5 H	SBMP
ICLJ ID RIGHT WRITE L	SBMP
ICLJ RIGHT ADDR 0 H	SBMP
ICLJ RIGHT ADDR 1 H	SBMP
ICLJ RIGHT ADDR 2 H	SBMP
ICLJ RIGHT ADDR 3 H	SBMP
SBMA +3V A H	SBMA,D,B,I
SBMA +3V H	SBMA,H,K,I,H,E
SBMA ADDRESS REG 18 H	SBMA,C
SBMA ADDRESS REG 19 H	SBMA,C
SBMA ADDRESS REG 20 H	SBMC,A
SBMA ADDRESS REG 21 H	SBMC,A
SBMA ADDRESS REG 22 H	SBMA,C
SBMA ADDRESS REG 23 H	SBMA,C
SBMA ADDRESS REG 24 H	SBMC,A
SBMA ADDRESS REG 25 H	SBMC,A
SBMA ADDRESS REG 26 H	SBMC,A
SBMA ADDRESS REG 27 H	SBMC,A
SBMA ADDRESS REG 28 H	SBMC,A
SBMA ADDRESS REG 29 H	SBMC,A
SBMA BUFFER FULL L	SBMB,T,R,A
SBMA TIMEOUT ADRS 18 H	SBMH,A
SBMA TIMEOUT ADRS 19 H	SBMH,A
SBMA TIMEOUT ADRS 20 H	SBMH,A
SBMA TIMEOUT ADRS 21 H	SBMH,A
SBMA TIMEOUT ADRS 22 H	SBMH,A
SBMA TIMEOUT ADRS 23 H	SBMA,H
SBMA TIMEOUT ADRS 24 H	SBMH,A
SBMA TIMEOUT ADRS 25 H	SBMA,H
SBMA TIMEOUT ADRS 26 H	SBMA,J
SBMA TIMEOUT ADRS 27 H	SBMA,J
SBMA TIMEOUT ADRS 28 H	SBMA,J
SBMA TIMEOUT ADRS 29 H	SBMJ,A
SBMB REC PAR C H	SBMB,E
SBMB RECIEVE MASK 0 H	SBMT,B,N
SBMB RECIEVE MASK 1 H	SBMT,B,N
SBMB RECIEVE MASK 2 H	SBMT,B,N
SBMB RECIEVE MASK 3 H	SBMT,B,N
SBMB TRANS PAR C H	SBMB,E
SBMB WRITE DATA 16 H	SBMB,T,C
SBMB WRITE DATA 17 H	SBMB,T,C

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

(SBHV)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN. DECrKA	DATE 19-SEP-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION:	REV
DSKB1:<CIRKA>SBHV.DRU 19-SEP-83 10:41		SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: 11/785		NEXT HIGHER ASSEMBLY: B-DD-M7461-0	

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHV	A

SIGNAL NAME	PAGE NUMBER(S)
SBHB WRITE DATA 18 H	SBHB,T,C
SBHB WRITE DATA 19 H	SBHB,T,C
SBHB WRITE DATA 20 H	SBHB,T,C
SBHB WRITE DATA 21 H	SBHB,T,C
SBHB WRITE DATA 22 H	SBHB,T,C
SBHB WRITE DATA 23 H	SBHB,T,C
SBHB WRITE DATA 24 H	SBHB,T,C
SBHB WRITE DATA 25 H	SBHB,T,C
SBHB WRITE DATA 26 H	SBHB,T,C
SBHB WRITE DATA 27 H	SBHB,T,C
SBHB WRITE DATA 28 H	SBHB,T,C
SBHB WRITE DATA 29 H	SBHB,T,C
SBHB WRITE DATA 30 H	SBHC,B,T
SBHB WRITE DATA 31 H	SBHC,B,T
SBHC TRANS DATA 16 H	SBHD,C
SBHC TRANS DATA 17 H	SBHD,C
SBHC TRANS DATA 18 H	SBHD,C
SBHC TRANS DATA 19 H	SBHD,C
SBHC TRANS DATA 20 H	SBHD,C
SBHC TRANS DATA 21 H	SBHD,C
SBHC TRANS DATA 22 H	SBHD,C
SBHC TRANS DATA 23 H	SBHD,C
SBHC TRANS DATA 24 H	SBHC,D
SBHC TRANS DATA 25 H	SBHC,D
SBHC TRANS DATA 26 H	SBHD,C
SBHC TRANS DATA 27 H	SBHD,C
SBHC TRANS DATA 28 H	SBHC,D
SBHC TRANS DATA 29 H	SBHC,D
SBHC TRANS DATA 30 H	SBHC,D
SBHC TRANS DATA 31 H	SBHC,D
SBHD MD PAR GEN 2 H	SBHG,D
SBHD MD PAR GEN 3 H	SBHG,D
SBHD REC PAR 4 H	SBHD,E
SBHD REC PAR 5 H	SBHD,E
SBHD REC PAR 6 H	SBHE,D
SBHD REC PAR 7 H	SBHE,D
SBHD RECIEVE DATA 16 H	SBHD,G
SBHD RECIEVE DATA 17 H	SBHD,G
SBHD RECIEVE DATA 18 H	SBHD,G
SBHD RECIEVE DATA 19 H	SBHD,G
SBHD RECIEVE DATA 20 H	SBHG,D
SBHD RECIEVE DATA 21 H	SBHG,D
SBHD RECIEVE DATA 22 H	SBHG,D
SBHD RECIEVE DATA 23 H	SBHG,D
SBHD RECIEVE DATA 24 H	SBHD,G
SBHD RECIEVE DATA 25 H	SBHD,G
SBHD RECIEVE DATA 26 H	SBHD,G
SBHD RECIEVE DATA 27 H	SBHM,D,G
SBHD RECIEVE DATA 28 H	SBHG,D,N
SBHD RECIEVE DATA 29 H	SBHG,N,D

SIGNAL NAME	PAGE NUMBER(S)
SBHD RECIEVE DATA 30 H	SBHG,D,N
SBHD RECIEVE DATA 31 H	SBHG,D,N
SBHD TRANS PAR 4 H	SBHD,E
SBHD TRANS PAR 5 H	SBHD,E
SBHD TRANS PAR 6 H	SBHE,D
SBHD TRANS PAR 7 H	SBHE,D
SBHE ASBI ALERT R H	SBHE
SBHE PAR OK H	SBHE,L,M
SBHE REC PAR A H	SBHE
SBHE REC PAR B H	SBHE
SBHE SBI CNF0 R H	SBHK,E
SBHE SBI CNF1 R H	SBHK,E
SBHE SBI FAULT R H	SBHL,E
SBHE SBI ID0 R H	SBHE,P,M
SBHE SBI ID1 R H	SBHE,M,P
SBHE SBI ID2 R H	SBHE,M,P
SBHE SBI ID3 R H	SBHE,M,P
SBHE SBI ID4 R H	SBHE,M,P
SBHE SBI INTLK R H	SBHK,E
SBHE SBI P0 R H	SBHE
SBHE SBI P1 R H	SBHE
SBHE SBI REQ 4 R H	SBHE
SBHE SBI REQ 5 R H	SBHE
SBHE SBI REQ 6 R H	SBHE
SBHE SBI REQ 7 R H	SBHE
SBHE SBI TAG0 R H	SBHN,E,P
SBHE SBI TAG1 R H	SBHN,E,P
SBHE SBI TAG2 R H	SBHN,E,P
SBHE SBI UNJAM R H	SBHE
SBHE TRANS PAR A H	SBHE
SBHE TRANS PAR B H	SBHE
SBHF COMP COM MASK 0 H	SBHN,F,H
SBHF COMP COM MASK 1 H	SBHN,F,J
SBHF COMP COM MASK 2 H	SBHN,F,J
SBHF COMP COM MASK 3 H	SBHJ,N,F
SBHF COMP TAG 0 H	SBHH,N,F
SBHF COMP TAG 1 H	SBHN,F,H
SBHF COMP TAG 2 H	SBHN,F,H
SBHF COND LOCK 0 H	SBHN,J,F
SBHF COND LOCK 1 H	SBHN,F,J
SBHF ENBL SBI INVAL H	SBHM,F,H
SBHF FAULT INTR EN H	SBHH,L,F
SBHF FORCE MISS GR0 H	SBHF,H
SBHF FORCE MISS GR0 L	SBHF
SBHF FORCE MULT XMIT H	SBHF,M,J
SBHF FORCE SBI INVAL H	SBHM,F,H
SBHF FORCE UNEXP RD H	SBHF,J
SBHF FORCE WRT SEQ H	SBHF,J,R
SBHF FS REG 20 H	SBHH,F
SBHF FS REG 24 H	SBHF,J

SIGNAL NAME	PAGE NUMBER(S)
SBHF FS REG 25 H	SBHF,J
SBHF LOCK H	SBHF,I,J
SBHF MAINT REG 17 H	SBHF,H
SBHF MAINT REG 18 H	SBHF,H
SBHF MAINT REG 19 H	SBHF,H
SBHF MAINT REG 20 H	SBHF,H
SBHF MAINTENANCE ID0 H	SBHF,N,M,H
SBHF MAINTENANCE ID1 H	SBHF,M,N,J
SBHF MAINTENANCE ID2 H	SBHF,M,N,J
SBHF MAINTENANCE ID3 H	SBHJ,F,M,N
SBHF MAINTENANCE ID4 H	SBHN,J,F,M
SBHF REV APR 0 L	SBHF
SBHF REV PAR 1 L	SBHF
SBHF REV PAR 2 L	SBHF
SBHF REV PAR 3 L	SBHF
SBHF REVERSE P0 H	SBHF,J,E
SBHF SILO LCK INT EN H	SBHK,F,J
SBHF SS FRCE UNXP RD H	SBHF,R,M
SBHG MD BYTE 2 PAR H	SBHD,G
SBHG MD BYTE 3 PAR H	SBHD,G
SBHG MD PAR 2 A H	SBHG
SBHG MD PAR 2 B H	SBHG
SBHG MD PAR 3 A H	SBHG
SBHG MD PAR 3 B H	SBHG
SBHG RCV 16 A H	SBHG
SBHG RCV 17 A H	SBHG
SBHG RCV 18 A H	SBHG
SBHG RCV 19 A H	SBHG
SBHG RCV 20 A H	SBHG
SBHG RCV 21 A H	SBHG
SBHG RCV 22 A H	SBHG
SBHG RCV 23 A H	SBHG
SBHG RCV 24 A H	SBHG
SBHG RCV 25 A H	SBHG
SBHG RCV 26 A H	SBHG
SBHG RCV 27 A H	SBHG
SBHG RCV 28 A H	SBHG
SBHG RCV 28 B H	SBHG
SBHG RCV 29 A H	SBHG
SBHG RCV 29 B H	SBHG
SBHG RCV 30 A H	SBHG
SBHG RCV 30 B H	SBHG
SBHG RCV 31 A H	SBHG
SBHG RCV 31 B H	SBHG
SBHG READ DATA 16 H	SBHD,G,A
SBHG READ DATA 17 H	SBHD,G,A
SBHG READ DATA 18 H	SBHD,G,A
SBHG READ DATA 19 H	SBHD,G
SBHG READ DATA 20 H	SBHG,D,A
SBHG READ DATA 21 H	SBHG,D,A

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CHK	CHANGE NO.	REV

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DRN. RICKA DATE 19-SEP-83 ENG. DATE
CHK'D. DATE BOARD LOCATION: AF3
SHEET 1 OF 1
DSKB:<CIRKA>SBHW.DRW 19-SEP-83 10:49 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHW	A

SIGNAL NAME	PAGE NUMBER(S)
SBHG READ DATA 22 H	SBHG,D,A
SBHG READ DATA 23 H	SBHG,D,A
SBHG READ DATA 24 H	SBHD,G,A
SBHG READ DATA 25 H	SBHD,G,A
SBHG READ DATA 26 H	SBHD,G,A
SBHG READ DATA 27 H	SBHD,G,A
SBHG READ DATA 28 H	SBHG,D
SBHG READ DATA 29 H	SBHG,D
SBHG READ DATA 30 H	SBHG,D
SBHG READ DATA 31 H	SBHG,D
SBHH ID ADDR 0 H	SBHJ,H
SBHH ID ADDR 1 H	SBHJ,H
SBHH ID ADDR 2 H	SBHJ,H
SBHH ID RECIEVE 16 H	SBHH,P
SBHH ID RECIEVE 17 H	SBHH,P
SBHH ID RECIEVE 18 H	SBHH,P
SBHH ID RECIEVE 19 H	SBHH,P,L
SBHH ID RECIEVE 20 H	SBHH,P
SBHH ID RECIEVE 21 H	SBHH,P
SBHH ID RECIEVE 22 H	SBHH,P
SBHH ID RECIEVE 23 H	SBHH,P
SBHI CLK RCV DATA A H	SBHG,I
SBHI CLK RCV DATA B H	SBHG,I
SBHI CPU COUNT 0 H	SBHH,I
SBHI CPU COUNT 1 H	SBHH,I
SBHI CPU COUNT 2 H	SBHI,H
SBHI CPU COUNT 3 H	SBHH,I
SBHI CPU COUNT 4 H	SBHI,H
SBHI CPU COUNT EN H	SBHJ,I
SBHI CS LOCK UNCOND H	SBHI,K
SBHI FAULT INTR H	SBHI
SBHI SBI DATA SEL H	SBHG,I
SBHI SBI UNJAM H	SBHE,I
SBHI SS COMP INTR H	SBHI
SBHJ ID RECIEVE 24 H	SBHJ,P
SBHJ ID RECIEVE 25 H	SBHJ,P
SBHJ ID RECIEVE 26 H	SBHJ,P
SBHJ ID RECIEVE 27 H	SBHJ,P
SBHJ ID RECIEVE 28 H	SBHJ,P
SBHJ ID RECIEVE 29 H	SBHJ,P
SBHJ ID RECIEVE 30 H	SBHJ,P
SBHJ ID RECIEVE 31 H	SBHJ,P
SBHK +3V H	SBHK,M,P,L,N
SBHK CLK ADD COUNTER H	SBHK
SBHK COMP INTR H	SBHK,I
SBHK COMP SILO LCK (1)H	SBHK,J
SBHK COUNT FIELD 0 H	SBHK,H
SBHK COUNT FIELD 1 H	SBHK,H
SBHK COUNT FIELD 2 H	SBHK,H
SBHK COUNT FIELD 3 H	SBHK,H

SIGNAL NAME	PAGE NUMBER(S)
SBHK SILO DATA 16 H	SBHH,K
SBHK SILO DATA 17 H	SBHH,K
SBHK SILO DATA 18 H	SBHK,H
SBHK SILO DATA 19 H	SBHH,K
SBHK SILO DATA 20 H	SBHK,H
SBHK SILO DATA 21 H	SBHK,H
SBHK SILO DATA 22 H	SBHK,H
SBHK SILO DATA 23 H	SBHK,H
SBHK SILO DATA 24 H	SBHK,J
SBHK SILO DATA 25 H	SBHK,J
SBHK SILO DATA 26 H	SBHK,J
SBHK SILO DATA 27 H	SBHJ,K
SBHK SILO DATA 28 H	SBHK,J
SBHK SILO DATA 29 H	SBHK,J
SBHK SILO DATA 30 H	SBHJ,K
SBHK SILO DATA 31 H	SBHJ,K
SBHK WRITE SILO L	SBHK,L
SBHL AFTER FAULT H	SBHL,K
SBHL EXPECT RD H	SBHM,L
SBHL FAULT LATCH H	SBHL,H
SBHL FAULT SILO LOCK 1 H	SBHH,L
SBHL FAULT XMITTER H	SBHL,J
SBHL FLT INTR H	SBHL,I
SBHL MULT XMIT FAULT H	SBHL,J
SBHL PARITY FAULT H	SBHL,J
SBHL SBI FAULT H	SBHL,E
SBHL SBI FAULT L	SBHK,L
SBHL SBI TRANSMIT H	SBHL
SBHL SCOPE SYNC L	SBHL
SBHL SEND ACK H	SBHL,E
SBHL SEND FAULT 1 H	SBHL,H
SBHL SEND INTLK H	SBHL,E
SBHL UNEXP RD FAULT H	SBHL,J
SBHL WAS NOT LOCK H	SBHK,L
SBHM ANY READ DATA L	SBHM
SBHM CRD L	SBHM
SBHM MY ID H	SBHM,L
SBHM MY ID L	SBHL,M
SBHM RDS L	SBHM
SBHM READ DATA L	SBHM,L
SBHM SBI ID0 H	SBHE,M
SBHM SBI ID1 H	SBHE,M
SBHM SBI ID2 H	SBHE,M
SBHM SBI ID3 H	SBHE,M
SBHM SBI ID4 H	SBHE,M
SBHM SEL SBI ADR L	SBHT,M,A
SBHM SEND MAINT ID H	SBHM
SBHM SEND MAINT ID L	SBHR,M
SBHM SET INVALID L	SBHM
SBHM SET SBI CYCLE H	SBHM

SIGNAL NAME	PAGE NUMBER(S)
SBHM TIMEOUT REG 28 H	SBHM,J
SBHM TIMEOUT REG 29 H	SBHJ,M
SBHM TIMEOUT REG 30 H	SBHJ,M
SBHM TIMEOUT REG 31 H	SBHJ,M
SBHM WRITE INVALID L	SBHM,A
SBHN +3V H	SBHN,R,F,P
SBHN BUS WRITE COM H	SBHM,N
SBHN COMP LATCH (1)H	SBHN,K
SBHN COMPARE H	SBHN,L
SBHN CRD H	SBHM,N
SBHN MASK OR COM 0 H	SBHN,K
SBHN MASK OR COM 1 H	SBHN,K
SBHN MASK OR COM 2 H	SBHN,K
SBHN MASK OR COM 3 H	SBHN,K
SBHN RDS H	SBHM,N
SBHN SBI TAG EQ CA L	SBHN
SBHN SBI TAG EQ READ H	SBHL,M,N
SBHP ADRS LATCH 29 H	SBHR,P
SBHP CS ID BUF 16 H	SBHK,P
SBHP CS ID BUF 17 H	SBHK,P
SBHP CS ID BUF 18 H	SBHK,P
SBHP CS ID BUF 19 H	SBHK,P
SBHP CS WRITE COMP REG H	SBHP,K,N
SBHP CS WRITE COMP REG L	SBHP,K
SBHP EN ID DRIVERS L	SBHH,J,P,T
SBHP ID ADDR 0 L	SBHP,T,H
SBHP ID ADDR 1 L	SBHP,T,H
SBHP ID ADDR 2 L	SBHP,T,H
SBHP ID BUF 16 H	SBHP,F
SBHP ID BUF 17 H	SBHP,F
SBHP ID BUF 18 H	SBHP,F
SBHP ID BUF 19 H	SBHP,F
SBHP ID BUF 20 H	SBHP,F
SBHP ID BUF 21 H	SBHP,F
SBHP ID BUF 22 H	SBHP,F
SBHP ID BUF 23 H	SBHP,F
SBHP ID BUF 24 H	SBHP,F
SBHP ID BUF 25 H	SBHP,F
SBHP ID BUF 26 H	SBHP,F
SBHP ID BUF 27 H	SBHP,F
SBHP ID BUF 28 H	SBHF,P
SBHP ID BUF 29 H	SBHF,P,I
SBHP ID BUF 30 H	SBHF,P
SBHP ID BUF 31 H	SBHF,P
SBHP ID DIR B L	SBHP
SBHP ID SBI ADDR B H	SBHP
SBHP INC SILO ADRS L	SBHK,P
SBHP SBI ID0 B H	SBHK,P,N
SBHP SBI ID1 B H	SBHK,P,N
SBHP SBI ID2 B H	SBHK,P,N

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DRN. DC;KA | DATE 19-SEP-83 | ENG. | DATE

CHK'D. | DATE | BOARD LOCATION: AF3 | SHEET 1 OF 1

DSKB:(CIRKA)SBHX.DRW 19-SEP-83 10:50 | NEXT HIGHER ASSEMBLY: B-DD-M7461-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHX	A

SIGNAL NAME	PAGE NUMBER(S)
SBHP SBI ID3 B H	SBHK,P,N
SBHP SBI ID4 B H	SBHK,P,N
SBHP SBI TAG0 B H	SBHK,P,N
SBHP SBI TAG1 B H	SBHK,P,N
SBHP SBI TAG2 B H	SBHK,P,N
SBHP WRITE COMP REG H	SBHF,P
SBHP WRITE FAULT REG H	SBHP,L,F
SBHP WRITE MAINT REG H	SBHF,P
SBHP WT CPU CNT REG L	SBHI,P
SBHR ANY WRITE H	SBHM,R
SBHR DISAB MASK MUX H	SBHR,B
SBHR EXTEND READ L	SBHR
SBHR EXTEND WRITE H	SBHR
SBHR FUNCTION CODE 0 H	SBHR,C
SBHR FUNCTION CODE 1 H	SBHR,C
SBHR FUNCTION CODE 2 H	SBHC,R
SBHR FUNCTION CODE 3 H	SBHC,R
SBHR IB CYCLE L	SBHR
SBHR INTLK H	SBHR,L
SBHR ISR H	SBHR
SBHR MASK MUX SEL H	SBHR,B
SBHR SBI TAG0 H	SBHR,E
SBHR SBI TAG1 H	SBHE,R
SBHR SBI TAG2 H	SBHE,R
SBHR SEND DATA H	SBHR,T
SBHR SND UNJAM H	SBHR,I
SBHR TIMING PULSE 0 H	SBHR
SBHR TIMING PULSE 1 H	SBHR
SBHR TRANSENABLE L	SBHD,T,B,E,R
SBHR XMIT MUX SEL 0 H	SBHC,R
SBHR XMIT MUX SEL 1 H	SBHC,R
SBHR XMIT WRITE DATA H	SBHR,L
SBHR XMIT WRITE DATA L	SBHR
SBHS CLEAR A L	SBHB,G,F,S,A,M
SBHS CLEAR B L	SBHK,N,M,P,F,L,S,I,R
SBHS CLEAR C L	SBHM,K,F,L,I,P,R,S,E
SBHS CLR A H	SBHS,E
SBHS CLR H	SBHM,S
SBHS CPT0 A H	SBHS,I,P
SBHS CPT0 A L	SBHS
SBHS CPT0 B L	SBHI,S,P
SBHS CPT0 C H	SBHK,M,S,F,L
SBHS CPT1 A H	SBHS
SBHS CPT1 B H	SBHS,I
SBHS CPT1 C H	SBHP,S,F
SBHS CPT1 D H	SBHS,R,P
SBHS CPT2 A H	SBHP,M,S,F,L,I
SBHS CPT2 A L	SBHK,M,S,R
SBHS CPT2 B H	SBHS,A
SBHS CPT2 B L	SBHS

SIGNAL NAME	PAGE NUMBER(S)
SBHS CPT3 A H	SBHS
SBHS CPT3 A L	SBHI,S,A,R,M
SBHS CPT3 B H	SBHM,S,I
SBHS CPT3 B L	SBHF,S,P
SBHS CPT3 C H	SBHB,S
SBHS CPT3 D H	SBHS
SBHT SDMS CHNL 5A H	SBHT
SBHU R CLK H	SBHD,U,B,E
SBHU SBI T0 H	SBHF,L,I,P,U,K
SBHU SBI T0 L	SBHU
SBHU SBI T1 A L	SBHU,L,I
SBHU SBI T1 H	SBHM,K,U,L,F,R
SBHU SBI T1 L	SBHK,M,N,U
SBHU SBI T2 A H	SBHU,I
SBHU SBI T2 H	SBHM,U
SBHU SBI T2 L	SBHU
SBHU SBI T3 H	SBHK,U
SBHU SBI T3 L	SBHU
SBHU T CLK H	SBHD,U,B,E
SBLE LATE EXPECT RD L	SBHT,L
SBLE REC PAR 0 H	SBHE,T
SBLE REC PAR 1 H	SBHE,T
SBLE REC PAR 2 H	SBHE,T
SBLE REC PAR 3 H	SBHE,T
SBLE TRANS PAR L	SBHE,T
SBLK BUFFER FULL A H	SBHA
SBLK LATCH TMO REG L	SBHA,M
SBLL TRANSMIT CA H	SBHL,M,R,T
SBLP FORCE INTLK H	SBHR
SBLR FORCE SBI L	SBHM
TBMD EN SBI DATA L	SBHD,T
TBMN BUF UADS L	SBHT,R
TBMN BUF UFS L	SBHT,R
TBMN BUF UMCT 0 L	SBHT,R
TBMN BUF UMCT 1 L	SBHT,R
TBMN BUF UMCT 2 L	SBHT,R
TBMN BUF UMCT 3 L	SBHT,R
TBMN DIS PROT L	SBHT,M
TBMU CANCELL L	SBHR
TR SEL 1 L	SBHT,M
TR SEL 2 L	SBHT,M
TRSH DECD SBI T0 H	SBHU
TRSH DECD SBI T0 L	SBHU
TRSH DECD SBI T1 H	SBHU
TRSH DECD SBI T1 L	SBHU
TRSH DECD SBI T2 H	SBHU
TRSH DECD SBI T2 L	SBHU
TRSH DECD SBI T3 H	SBHU
TRSH DECD SBI T3 L	SBHU

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DRN. DCirKA — DATE 19-SEP-83 — ENG. — DATE
CHK'D. — DATE — BOARD LOCATION: AF3
DSKB:<CIRKA>SBHY.DRW 19-SEP-83 10:48 — SHEET 1 OF 1
FIRST USED ON OPTION/MODEL: 11/785 — NEXT HIGHER ASSEMBLY: B-DD-M7461-0

TITLE: SBI INTERFACE HIGH BITS

SIZE	CODE	NUMBER	REV.
K	CS	M7461-0-SBHY	A

SIZE K | CODE CS | NUMBER M7461-0-SBHY | REV. A

SIZE	CODE	NUMBER	REV.
B	DD	M7461-0-0	E

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		M7461-00	SBH	A B
E-UA-M7461-0-0	1		UNIT ASSEMBLY	A B
K-PL-M7461-0-DBP	2		PARTS LIST	A B
K-PC-M7461-0-DBI	—		P.C. DATA BASE	A A
B-DD-5016078-0-0	1		DRAWING DIRECTORY	A B
K-CS-M7461-0-DBS	—		SUDS DATA BASE	A B
K-CS-M7461-0-SBHA	1		SCHEMATIC	A B
K-CS-M7461-0-SBHB	1		SCHEMATIC	A A
K-CS-M7461-0-SBHC	1		SCHEMATIC	A A
K-CS-M7461-0-SBHD	1		SCHEMATIC	A A
K-CS-M7461-0-SBHE	1		SCHEMATIC	A A
K-CS-M7461-0-SBHF	1		SCHEMATIC	A A
K-CS-M7461-0-SBHG	1		SCHEMATIC	A A
K-CS-M7461-0-SBHH	1		SCHEMATIC	A A
K-CS-M7461-0-SBHI	1		SCHEMATIC	A A
K-CS-M7461-0-SBHJ	1		SCHEMATIC	A A
K-CS-M7461-0-SBHK	1		SCHEMATIC	A A
K-CS-M7461-0-SBHL	1		SCHEMATIC	A A
K-CS-M7461-0-SBHM	1		SCHEMATIC	A A
K-CS-M7461-0-SBHN	1		SCHEMATIC	A A
K-CS-M7461-0-SBHP	1		SCHEMATIC	A A
K-CS-M7461-0-SBHR	1		SCHEMATIC	A A
K-CS-M7461-0-SBHS	1		SCHEMATIC	A A
K-CS-M7461-0-SBHT	1		SCHEMATIC	A A
K-CS-M7461-0-SBHU	1		SCHEMATIC	A A

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REV.	A	B
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DRN.	[illegible]	[illegible]
CHK'D	[illegible]	9-14-83
ENG.	[illegible]	9-16-83
PROD.	[illegible]	9-20-83

TITLE: SBH

SIZE	CODE	NUMBER	REV.
B	DD	M7461-0-0	B

SHEET 1 OF 2

TW

DRB 126

SIZE	CODE	NUMBER	REV.
B	DD	M7461-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7461-0-SBHV	1		SCHEMATIC	A A
K-CS-M7461-0-SBHW	1		SCHEMATIC	A B
K-CS-M7461-0-SBHX	1		SCHEMATIC	A A
K-CS-M7461-0-SBHY	1		SCHEMATIC	A A

NOTES:

REVISIONS		
REV.	A	B
CHG NO.	INIT	[illegible]
DATE	9/83	[illegible]

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DRN.	S. MANSOR	7-21-83
CHK'D	[signature]	9-14-83
ENG.	DAVID R. CIRKA	9-16-83
PROJ.	[signature]	9-20-83

TITLE: SBH

SIZE	CODE	NUMBER	REV.
B	DD	M7461-0-0	B

SHEET 2 OF 2

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

TH2

TH1

34

35

1

E164 E147 E131 E114 E98 E84 E70 E56 E42 E28 E14
E163 E146 E130 E113
E162 E145 E129 E112 E97 E69 E55 E41 E27
E161 E144 E128 E111 E83
E160 E143 E127 E110 E96 E68 E54 E40 E26 E13
E159 E142 E126 E109 E82
E158 E141 E125 E108 E95 E67 E53 E39 E25 E12
E157 E140 E124 E107 E81
E156 E139 E123 E106 E94 E80 E66 E52 E38 E24 E11
E155 E122 E93 E79 E65 E51 E37 E23 E10
E92 E78 E64 E50 E36 E22 E9
E154 E138 E121 E105 E91 E77 E63 E49 E35 E21 E8
E153 E137 E120 E104 E90 E76 E62 E48 E34 E20 E7
E152 E136 E119 E103 E89 E75 E61 E47 E33 E19 E6
E151 E135 E118 E102 E88 E74 E60 E46 E32 E18 E5
E150 E134 E117 E101 E87 E73 E59 E45 E31 E17 E4
E149 E133 E116 E100 E86 E72 E58 E44 E30 E16 E3
E148 E132 E115 E99 E85 E71 E57 E43 E29 E15 E2
E1

C9 C8 C7 C6 C5 C4 C3

F E D C B A

digital

TITLE (CACHE ADDRESS MATRIX (CAM)

SIZE D

DRAWING NUMBER 54-17482-0-0

NEXT HIGHER ASSY 54-17482-0-0

ECO REV. 01P1

MATERIAL UL RATING IS HPHB
2 LAYER 1.6 MM FR4

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	REV	DESCRIPTION	MIN QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:	B2	
1	1	D-MD-5016077-0-0	5016077-01		CACHE ADDRESS METRIX	1	
2	2		1013466-07		220.0 MMF 50V 5% CER	8	C50-C57
3	3		1013466-19		470.0 MMF 50V 5% CER	26	C900-C925
4	4		1017472-00		10 MFD 35V +75-10% AL EL	7	C3-C9
5	5		1301972-00		270.0 .25 W 5.0 % CF	1	R500
6	6		1300229-00		100.0 .25 W 5.0 % CF	34	R100-R107,R900-R925
7	7		1300250-00		150.0 .25 W 5.0 % CF	8	R10,R12,R14,R16,R22,R24,R26,R28
8	8		1300247-00		120.0 .25 W 5.0 % CF	11	R9,R11,R13,R15,R21,R23,R25,R27,
						CONT	R200,R201,R501
9	9		1921332-02		74F280A PARITY GEN/CHECK,9-B	6	E31,E32,E45,E46,E59,E60
10	10		1301424-00		680.0 .25 W 5.0 % CF	3	R2,R30,R998
11	11		1300295-00		330.0 .25 W 5.0 % CF	17	R1,R29,R999,R3-R8,R700-R707
12	12		2114523-03		2147H-1 4K MOS RAM 35NS 18	38	E106-E114,E122-E131,E139-E147,
						CONT	E155-E164
13	13		1921311-01		74F20 NAND GATE,DUAL,4-IN	1	E86
14	14		1921321-01		74F158 MUX,QUAD,2-IN	2	E16,E30
15	15		1913788-00		26S10 TRANSCEIVER,BUS,QUA	2	E15,E29
16	16		1010978-36	.1	MFD 50V 10% CER	15	C48,C49,C58-C69,C700
17	17		1921308-01		74F08 AND GATE,QUAD,2-IN	1	E36
18	18		1921306-01		74F02 NOR GATE,QUAD,2-IN	1	E50
19	19		1921314-01		74F74 F/F-D,DUAL,POS.,EDGE	1	E77
20	20		1911469-00	DEC	8640 RECEIVER,BUS,QUAD,U	1	E58
21	21		1913839-00		LS165 SHIFT REG.,8BIT	8	E33,E34,E47-E49,E61-E63
22	22		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	
23	23		1913888-01	DC	102A EQUALS CHECKER 8BIT	12	E39-E42,E67-E70,E95-E98
24	24		2121818-01		MOS STATIC RAM 256X4 SEPARATE I/	14	E1-E14
25	25	BLANK			*** THIS ITEM IS NOT USED ***	-	
26	26		1920572-01		74F244 BUFFER/LINE DRIVER,O	2	E76,E90
27	27		1921305-01		74F00 NAND GATE,QUAD,2-IN	2	E44,E92
28	28		1921332-01		74F280 PARITY GEN/CHECK,9-B	12	E17-E23,E37,E72-E75

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A
JS	M7462-TW001	B
JS	M7462-TW002	C

BASIC PART NO: M7462

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: P.GROSSE	DATE: 29-MAR-83	D I G I T A L
CHK'D: E.T.GERRY	DATE: 20-SEP-83	TITLE PARTS LIST CACHE ADDRESS MATRIX (CAM)
DES.ENG: J.STICKNEY	DATE: 29-MAR-83	DOCUMENT NUMBER: SIZE K, CODE PL, NUMBER M7462-0-DBP, REV C
RESP.ENG.: J.STICKNEY	DATE: 29-MAR-83	
MFG.ENG.: M.KRYSAK	DATE: 30-SEP-83	RELEASE DATE: 07-JUN-84
ASSEMBLY NUMBER: E-UA-M7462-0-0	TOP DOCUMENT NUMBER: B-DD-M7462-0-0	FILE NAME: Z8059C.PLS; EDIT # 27

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P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	QTY PER VARIATION B2	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:			
29	29		1912860-00		LS259 LATCH 8BIT	2		E35,E91
30	30		1921010-01		74F373 OCTAL TRANSPARENT LA	6		E85,E87-E89,E99,E132
31	31		1921307-01		74F04 HEX INVERTER	5		E94,E102,E118,E135,E151
32	32		1921313-01		74F64 AND OR INVERT GATE,4-	26		E64,E65,E78,E79,E100,E101,
							CONT	E103-E105,E115-E117,E119-E121,
							CONT	E133,E134,E136-E138,E148-E150,
							CONT	E152-E154
33	33		1012784-00		.047 MFD 50V +80-20% CER	82		C1,C2,C10-C47,C70-C110,C800
34	34		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1		
35	35		9000024-01		EYELET,ROLLED 0.1210DX0.192	12		
36	36		1300271-00		220.0 .25 W 5.0 % CF	2		R202,R203
37	37		1301775-00		820.0 .25 W 5.0 % CF	48		R800-R809,R818-R855
38	38		1616653-00		DELAY= 50NS,10TAPS WITH TTLBU	1		E51
39	39		1921720-01		10H125 TRANSLATOR ECL TO TTL	3		E43,E57,E71
40	40		1912746-01		74S37-1BUFFER-GATE	1		E93

41 NOTE: SPARE I.C. LOCATIONS ARE E24-E28,E38,E52,E53-E56,E66,E80-E84.

DIGITAL	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
	CACHE ADDRESS MATRIX (CAM)	A OF A	K	PL	M7462-0-DBP	C

SIGNAL NAME	PAGE NUMBER(S)
CAMI G1 TAG 24 H	CAMJ,L,K,I
CAMI G1 TAG 25 H	CAMJ,L,K,I
CAMI G1 TAG 26 H	CAMJ,L,K,I
CAMI G1 TAG 27 H	CAMJ,L,K,I
CAMI G1 TAG 28 H	CAMJ,L,K,I
CAMJ G0 AD PAR 2 EV H	CAMJ
CAMJ G0 AD PAR 2 OD H	CAMJ,M
CAMJ GRP0 MODIFY H	CAMJ,V
CAMJ GRP0 PAR 1 L	CAMJ,M,U
CAMJ GRP0 PAR 2 H	CAMJ
CAMJ GRP0 PROTECT 00 H	CAMJ,V
CAMJ GRP0 PROTECT 01 H	CAMJ,V
CAMJ GRP0 PROTECT 02 H	CAMJ,V
CAMJ GRP0 PROTECT 03 H	CAMJ,V
CAMJ GRP0 VALID H	CAMJ,X,U
CAMK G0 MATCH H	CAMJ,M,K,P
CAMK G1 MATCH H	CAMJ,M,K,P
CAML G0 BYT 0 PAR EV H	CAMM,L,P
CAML G0 BYT 0 PAR OD H	CAMM,L
CAML G0 BYT 1 PAR EV H	CAMM,L,P
CAML G0 BYT 1 PAR OD H	CAMM,L
CAML G0 BYT 2 PAR EV H	CAML,M,P
CAML G0 BYT 2 PAR OD H	CAML,M
CAML G1 BYT 0 PAR EV H	CAML,M,P
CAML G1 BYT 0 PAR OD H	CAML,M
CAML G1 BYT 1 PAR EV H	CAML,M,P
CAML G1 BYT 1 PAR OD H	CAML,M
CAML G1 BYT 2 PAR EV H	CAML,M,P
CAML G1 BYT 2 PAR OD H	CAML,M
CAMM CPT0 H	CAMM,P
CAMM CPT0 L	CAMM
CAMM CPT1 A H	CAMM,P,B,A
CAMM CPT1 A L	CAMM,A
CAMM CPT1 B H	CAMM,M,B,C
CAMM CPT1 B L	CAMM,M,C
CAMM CPT2 H	CAMM,M,B
CAMM CPT2 L	CAMM
CAMM CPT3 A H	CAMP,M
CAMM CPT3 A L	CAMM
CAMM CPT3 B H	CAMM,M
CAMM CPT3 B L	CAMM
CAMM SDMS CHNL 4 H	CAMM
CAMP +3V A H	CAMP,W,X
CAMP +3V H	CAMP,M,J,S,T,W
CAMP BLOCK WRITE L	CAMP
CAMP DISABLE G0 A0 H	CAMM,P
CAMP DISABLE G0 A1 H	CAMM,J,P
CAMP DISABLE G0 A2 H	CAMJ,P
CAMP DISABLE G0 B0 H	CAMP,D
CAMP DISABLE G0 B1 H	CAMP,D

SIGNAL NAME	PAGE NUMBER(S)
CAMP DISABLE G0 B2 H	CAMP,D
CAMP DISABLE G1 A0 H	CAMS,P
CAMP DISABLE G1 A1 H	CAMS,T,P
CAMP DISABLE G1 A2 H	CAMT,P
CAMP DISABLE G1 B0 H	CAMP,D
CAMP DISABLE G1 B1 H	CAMP,D
CAMP DISABLE G1 B2 H	CAMP,D
CAMP FORCE NOT EQ GR0 H	CAMP,W,X
CAMP FORCE NOT EQ GR1 H	CAMP,W,X
CAMP G0 WR A L	CAMP,D,F,R
CAMP G0 WR L	CAMP,F,E,R
CAMP G0 WRITE EN H	CAMM,P
CAMP G1 WR A L	CAMP,D,I,R
CAMP G1 WR L	CAMP,I,G,R
CAMP G1 WRITE EN H	CAMM,P
CAMP T 50 WINVL L	CAMP
CAMP WRITE A H	CAMP
CAMP WRITE H	CAMP
CAMR VAMX 16 BUFF L	CAMM,S,U,R
CAMR VAMX 17 BUFF L	CAMM,S,U,R
CAMR VAMX 18 BUFF L	CAMM,S,U,R
CAMR VAMX 19 BUFF L	CAMM,S,U,R
CAMR VAMX 20 BUFF L	CAMM,S,U,R
CAMR VAMX 21 BUFF L	CAMM,S,U,R
CAMR VAMX 22 BUFF L	CAMM,S,U,R
CAMR VAMX 23 BUFF L	CAMM,S,U,R
CAMR VAMX 24 BUFF L	CAMM,S,U,R
CAMR VAMX 25 BUFF L	CAMM,S,U,R
CAMR VAMX 26 BUFF L	CAMM,S,U,R
CAMR VAMX 27 BUFF L	CAMM,S,U,R
CAMR VAMX 28 BUFF L	CAMM,S,U,R
CAMR VAMX 29 BUFF L	CAMM,S,U,R
CAMR VAMX 30 BUFF L	CAMM,S,U,R
CAMS G1 AD PAR 0 EV H	CAMS
CAMS G1 AD PAR 0 OD H	CAMS,N
CAMS G1 AD PAR 1 EV H	CAMS
CAMS G1 AD PAR 1 OD H	CAMS,N
CAMS GRP1 ADRS 16 L	CAMS,X,U
CAMS GRP1 ADRS 17 L	CAMS,X,U
CAMS GRP1 ADRS 18 L	CAMS,X,U
CAMS GRP1 ADRS 19 L	CAMS,X,U
CAMS GRP1 ADRS 20 L	CAMS,X,U
CAMS GRP1 ADRS 21 L	CAMS,X,U
CAMS GRP1 ADRS 22 L	CAMS,X,U
CAMS GRP1 ADRS 23 L	CAMS,X,U
CAMS GRP1 ADRS 24 L	CAMS,X,U
CAMS GRP1 ADRS 25 L	CAMS,X,U
CAMS GRP1 ADRS 26 L	CAMS,X,U
CAMS GRP1 ADRS 27 L	CAMS,X,U
CAMS GRP1 ADRS 28 L	CAMS,X,U

SIGNAL NAME	PAGE NUMBER(S)
CAMS GRP1 ADRS 29 L	CAMS,X,U
CAMS GRP1 ADRS 30 L	CAMS,X,U
CAMS GRP1 PAR 0 L	CAMS,X,U
CAMT G1 AD PAR 2 EV H	CAMT
CAMT G1 AD PAR 2 OD H	CAMT,M
CAMT GRP0 VALID H	CAMX
CAMT GRP1 MODIFY H	CAMT,V
CAMT GRP1 PAR 1 L	CAMT,S,X,U
CAMT GRP1 PAR 2 H	CAMT
CAMT GRP1 PROTECT 00 H	CAMT,V
CAMT GRP1 PROTECT 01 H	CAMT,V
CAMT GRP1 PROTECT 02 H	CAMT,V
CAMT GRP1 PROTECT 03 H	CAMT,V
CAMT GRP1 VALID H	CAMT,U
CAMU TB GRP 0 MATCH H	CAMV,X,U
CAMU TB GRP 1 MATCH H	CAMX,U
CAMU TB PAR 0 H	CAMU,N
CAMU TB PAR 0 L	CAMM,S,U,X
CAMU TB PAR 1 H	CAMU,N
CAMU TB PAR 1 L	CAMJ,T,U,X
CAMV MODIFY L	CAMV
CAMV PROTECT 0 L	CAMV
CAMV PROTECT 1 L	CAMV
CAMV PROTECT 2 L	CAMV
CAMV PROTECT 3 L	CAMV
CAMV REC ID 26 H	CAMJ,T,V
CAMV REC ID 27 H	CAMJ,T,V
CAMV REC ID 28 H	CAMJ,T,V
CAMV REC ID 29 H	CAMJ,T,V
CAMV REC ID 30 H	CAMJ,T,V
CAMV REC ID 31 H	CAMJ,T,V
CAMV REC PAR 2 H	CAMJ,T,V,M
CAMV SDMS CHNL 4A H	CAMM
CIBM SDMS CLOCK L	CAMM
CIBM SDMS LOAD H	CAMM
CLKB LECL CPT0A2 H	CAMM
CLKB LECL CPT0A2 L	CAMM
CLKC LECL CPT1A2 H	CAMM
CLKC LECL CPT1A2 L	CAMM
CLKD LECL CPT2A2 H	CAMM
CLKD LECL CPT2A2 L	CAMM
CLKE LECL CPT3A2 H	CAMM
CLKE LECL CPT3A2 L	CAMM
DDPH VAMX 09 L	CAMM,J,S,T
DDPH VAMX 10 L	CAMM,J,S,T
DDPH VAMX 11 L	CAMM,J,S,T
DDPH VAMX 12 L	CAMM,J,S,T
DDPH VAMX 13 L	CAMM,J,S,T
DDPJ VAMX 14 L	CAMM,J,S,T
DDPJ VAMX 15 L	CAMM,J,S,T

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REVISIONS			
CHANGE NO.	REV.		

DRN	DATE 10-NOV-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION:	REV
		SHEET 1 OF 1	
DSKB:[TAYLOR]CAM1.DRW [10-NOV-83 13:51]		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7462-0-0	

TITLE: CACHE ADDRESS MATRIX (CAM1)

SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAM1	A

SIGNAL NAME	PAGE NUMBER(S)
DEPN VARX 16 L	CARX,R,U
DEPN VARX 17 L	CARX,R,U
DEPN VARX 18 L	CARX,R,U
DEPN VARX 19 L	CARX,R,U
DEPN VARX 20 L	CARX
DEPN VARX 21 L	CARX
DEPP VARX 20 L	CARR,U
DEPP VARX 21 L	CARR,U
DEPP VARX 22 L	CARX,U,R
DEPP VARX 23 L	CARX,U,R
DEPR VARX 24 L	CARX,U,R
DEPR VARX 25 L	CARX,U,R
DEPR VARX 26 L	CARX,U,R
DEPR VARX 27 L	CARX,U,R
DEPS VARX 28 L	CARX,U,R
DEPS VARX 29 L	CARX,U,R
DEPS VARX 30 L	CARX,U,R
DEPS VARX 31 L	CARM,J,S,T
SBMF FORCE MISS GR0 L	CAMM,P
SBMF REV PAR 0 L	CAMM,P
SBMF REV PAR 1 L	CAMM,P
SBMF REV PAR 2 L	CAMM,P
SBMF REV PAR 3 L	CAMP,M
SBMM SET INVALID L	CAMP
SBLM FORCE MISS GR1 L	CAMM,P
SBLM SBI MISS DATA G0 H	CAMM,P
SBLM SBI MISS DATA G1 H	CAMM,P
SBLR VALID H	CAMB
SBLS CPU WRITE L	CAMP
TBMF GRP 0 WP L	CAMM,J
TBMF GRP 1 WP L	CAMS,T
TBMK PA 09 H	CAMC,A
TBMK PA 10 H	CAMC,A
TBMK PA 11 H	CAMC,A
TBMK PA 12 H	CAMC,A
TBMK PA 13 H	CAMC,A
TBMT ER REG 0 D16 H	CARX,U
TBMT ER REG 0 D17 H	CARX,U
TBMT FORCE ERR 0 L	CAMP,M
TBMT FORCE ERR 1 L	CAMP,M
TBMT FORCE ERR 2 L	CAMP,M
TBMU CANCEL H	CAMP
TBMX FORCE ERR 3 L	CAMM

SIGNAL NAME	PAGE NUMBER(S)

SIGNAL NAME	PAGE NUMBER(S)

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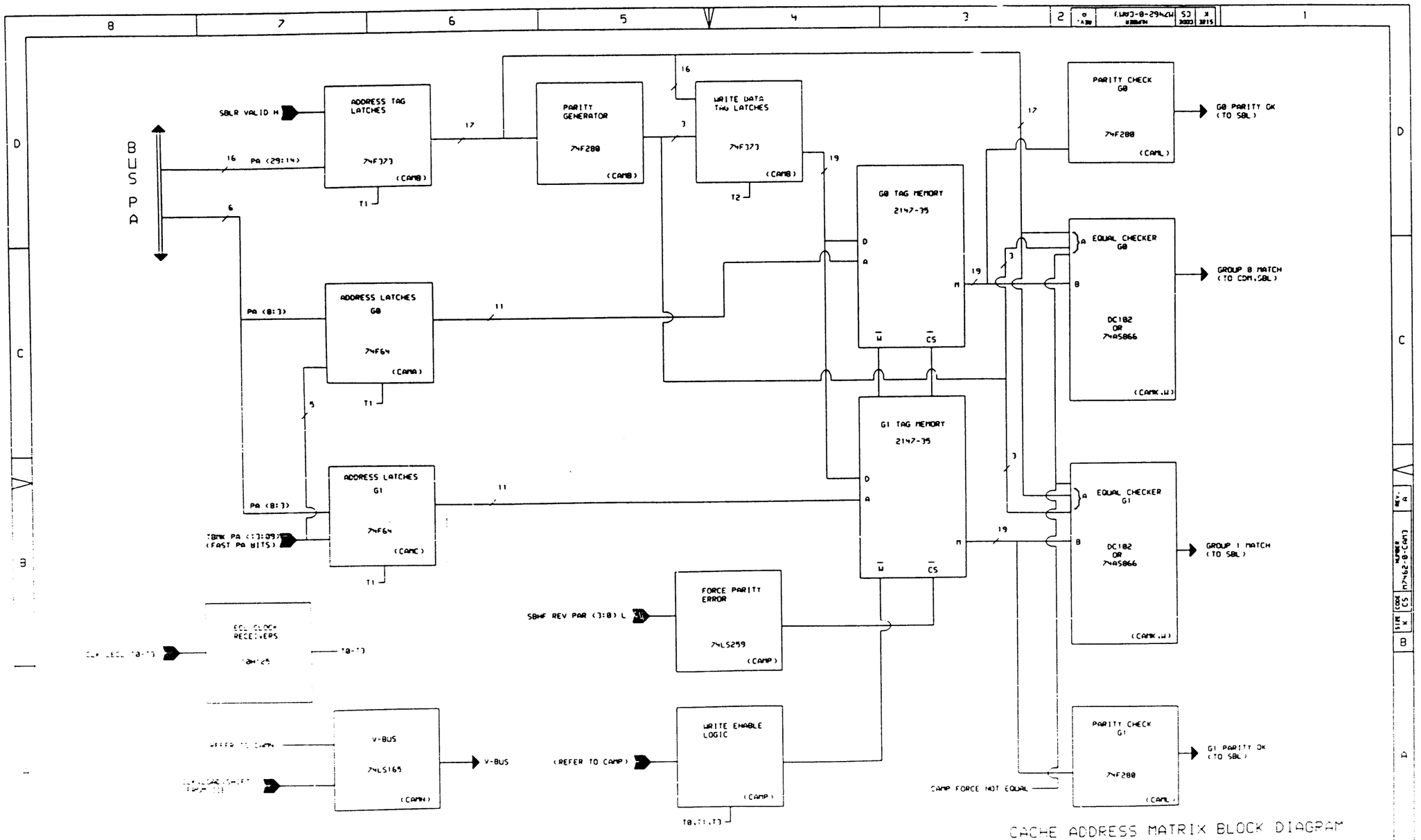
REVISIONS
ECO# CHANGE NO. REV.

digital

DRWN. DATE ENG. DATE
CHK'D. DATE BOARD LOCATION: AF4
DSKB:<TATLOR>CAM2.SAV 18-NOV-83 12:54
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7462-0-0

TITLE: CACHE ADDRESS MATRIX (CAM2)

SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAM2	A

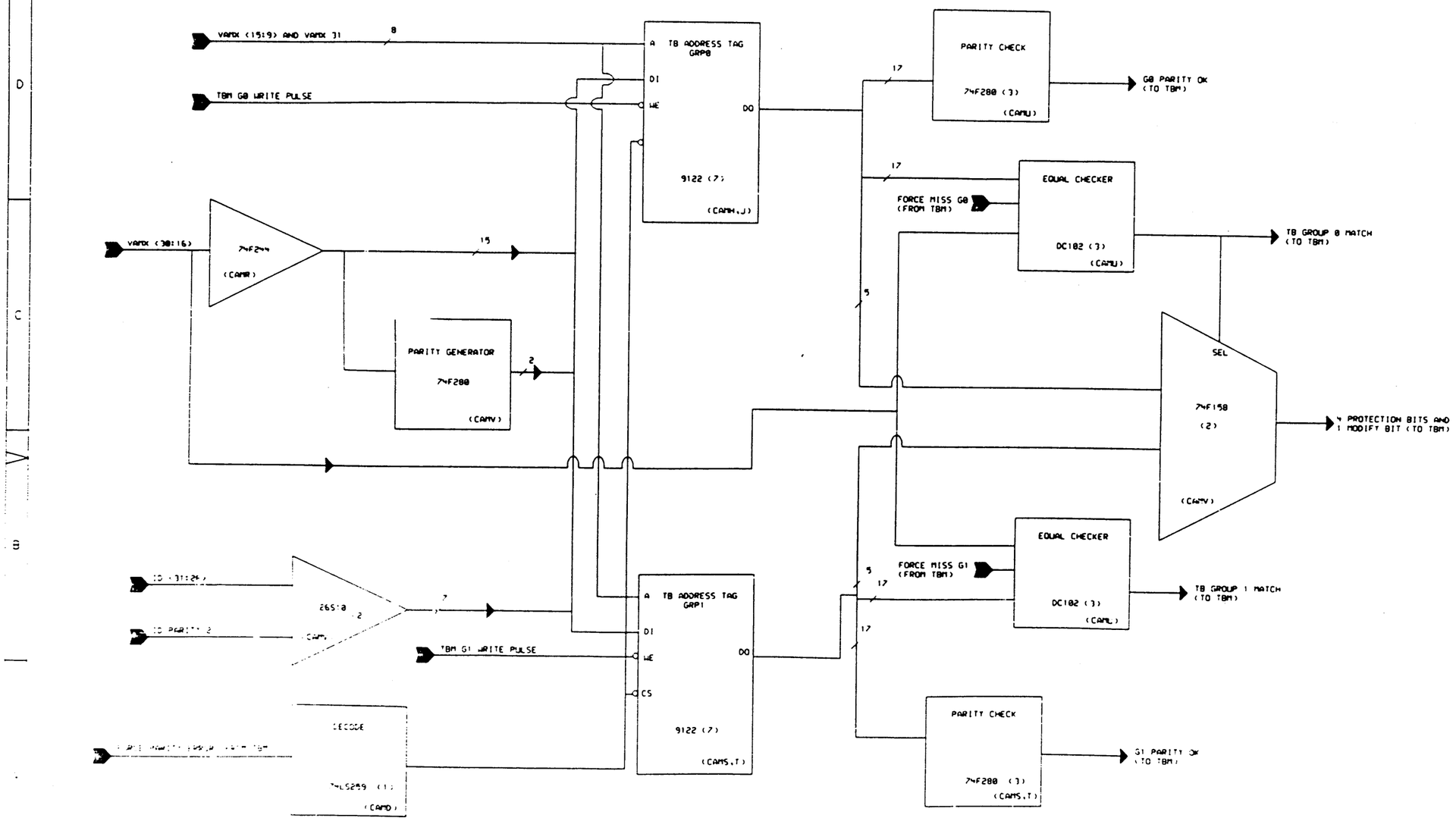


CACHE ADDRESS MATRIX BLOCK DIAGRAM

REVISIONS		digital	DRN.	DATE 18-NOV-87	ENG.	DATE
			CHK'D.	DATE	BOARD LOCATION:	DATE
		DSKB:[ATLAS.CAM]CAM_DW.DW 18-NOV-87 12:54		NEXT HIGHER ASSEMBLY:		
		FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7462-0-0		

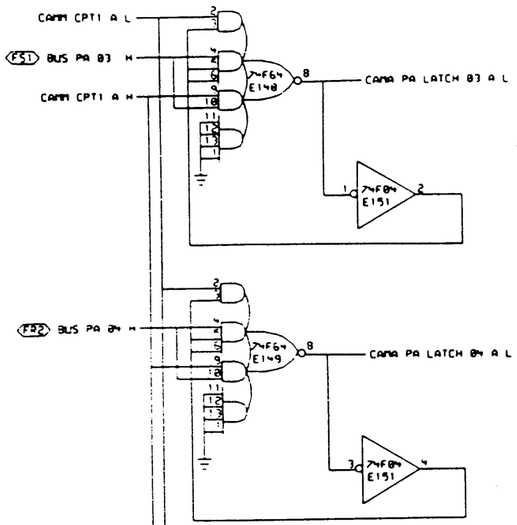
TITLE: CACHE ADDRESS MATRIX (CAM3)

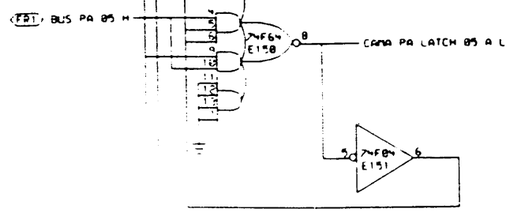
SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAM3	A

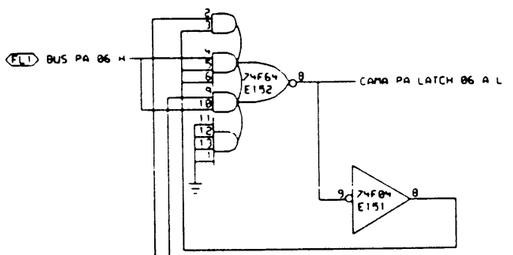


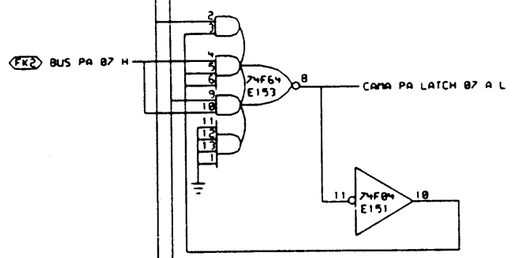
TRANSLATION BUFFER ADDRESS MATRIX BLOCK DIAGRAM

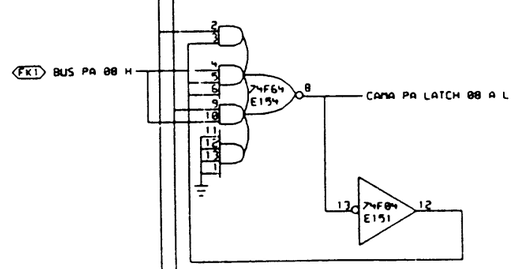
digital	DRWN	DATE	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAM4)				
	CHK'D	DATE	BOARD LOCATION:						
DSKBIC\TAYLOR\CAM4.SCH [18-NOV-93 12:54]			NEXT HIGHER ASSEMBLY:			SIZE	CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL: 11/785			8-DD-M7462-0-0			K	CS	M7462-0-CAM4	A

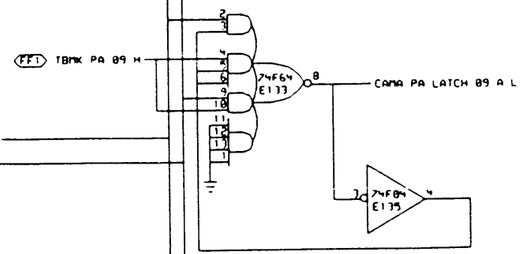


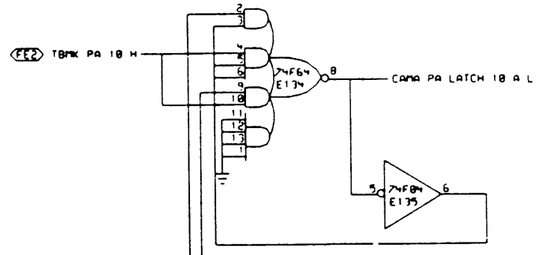


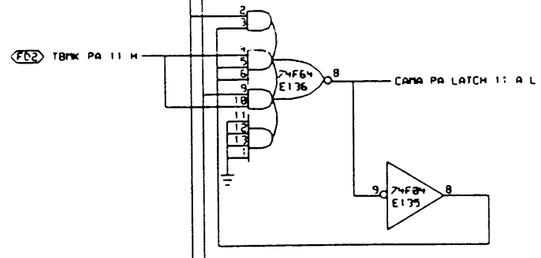


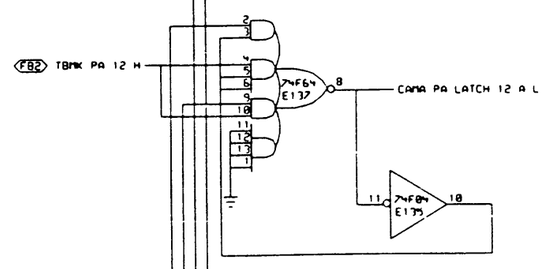


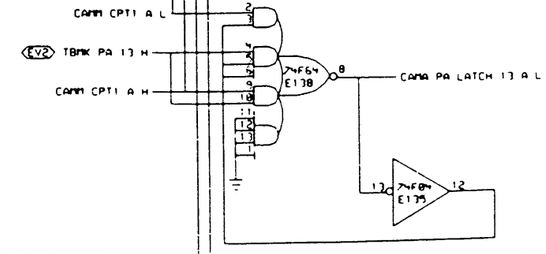












(PA ADDRESS LATCH LOGIC)

REVISIONS			
CHANGE NO.	REV.		

digital	DRN:	DATE 10-NOV-83	ENG. DATE
	CHK'D.	DATE	BOARD LOCATION: AF4
DSKB1:[TAYLOR]CAMA.SAV 10-NOV-83 12:55			NEXT HIGHER ASSEMBLY: B-DD-M7462-0-0
FIRST USED ON OPTION/MODEL: 11/785			

TITLE: CACHE ADDRESS MATRIX (CAMA)			
SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAMA	A

8 BIT 3-STATE LATCH 74F373 E85
E82 BUS PA 14 H
E81 BUS PA 15 H
E82 BUS PA 16 H
E81 BUS PA 17 H
CAMB CPT1 B H
CAMB PA LATCH 14 H
CAMB PA LATCH 15 H
CAMB PA LATCH 16 H
CAMB PA LATCH 17 H
PAR GEN 74F280 E72
EVEN ODD
CAMB TAG PAR 0 EVEN H
+5.0V
R1 330Ω
CAMB +3V H
C1 .0-.7uF 100V
R2 680Ω
8 BIT 3-STATE LATCH 74F373 E87
CAMB LATCH PAR 0 EV H
CAMB PA LATCH2 14 H
CAMB PA LATCH2 15 H
CAMB PA LATCH2 16 H
CAMB PA LATCH2 17 H
8 BIT 3-STATE LATCH 74F373 E99
FD1 BUS PA 18 H
FE1 BUS PA 19 H
FF2 BUS PA 20 H
FH2 BUS PA 21 H
FJ2 BUS PA 22 H
FJ1 BUS PA 23 H
CAMB CPT1 A H
CAMB PA LATCH 18 H
CAMB PA LATCH 19 H
CAMB PA LATCH 20 H
CAMB PA LATCH 21 H
CAMB PA LATCH 22 H
CAMB PA LATCH 23 H
PAR GEN 74F280 E73
EVEN ODD
CAMB TAG PAR 1 EVEN H
8 BIT 3-STATE LATCH 74F373 E88
CAMB LATCH PAR 1 EV H
CAMB PA LATCH2 18 H
CAMB PA LATCH2 19 H
CAMB PA LATCH2 20 H
CAMB PA LATCH2 21 H
CAMB PA LATCH2 22 H
CAMB PA LATCH2 23 H
8 BIT 3-STATE LATCH 74F373 E132
FP1 BUS PA 24 H
FP2 BUS PA 25 H
FS2 BUS PA 26 H
FT2 BUS PA 27 H
FU1 BUS PA 28 H
FU2 BUS PA 29 H
EB2 SBLR VALID H
CAMB CPT1 B H
CAMB PA LATCH 24 H
CAMB PA LATCH 25 H
CAMB PA LATCH 26 H
CAMB PA LATCH 27 H
CAMB PA LATCH 28 H
CAMB PA LATCH 29 H
CAMB LATCH VALID BIT H
PAR GEN 74F280 E74
EVEN ODD
CAMB PAR 2 MATCH H
PAR GEN 74F280 E75
EVEN ODD
CAMB TAG PAR 2 EVEN H
8 BIT 3-STATE LATCH 74F373 E89
CAMB LATCH PAR 2 EV H
CAMB PA LATCH2 24 H
CAMB PA LATCH2 25 H
CAMB PA LATCH2 26 H
CAMB PA LATCH2 27 H
CAMB PA LATCH2 28 H
CAMB LATCH2 VALID BIT H

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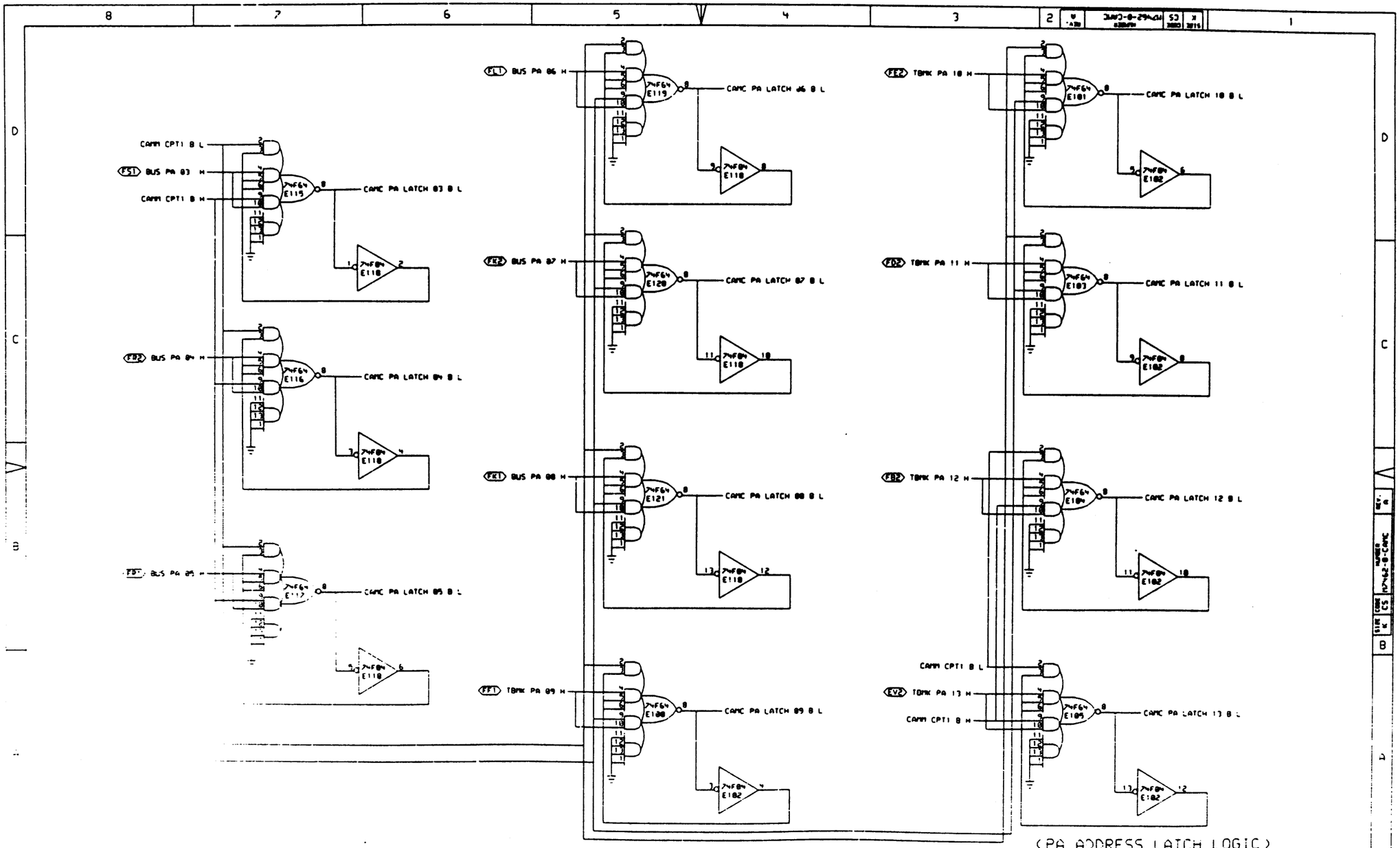
digital

DRWN		DATE 10-NOV-87	ENG.
CHK'D.		DATE	BOARD LOCATION:
DSKBIT(ATLAS)CAMB.DRW 10-NOV-87 12:55			NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7462-0-0

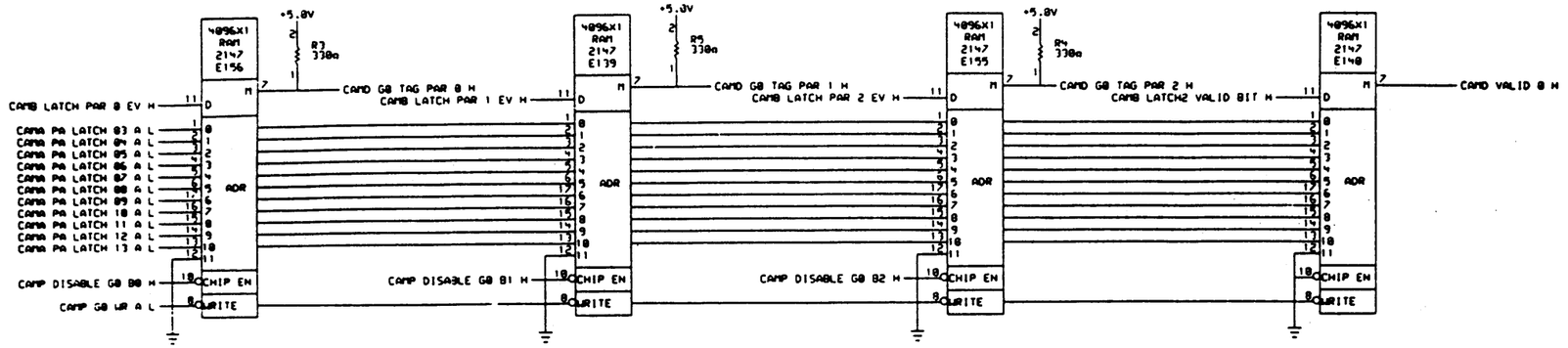
TITLE: CACHE ADDRESS MATRIX (CAMB)

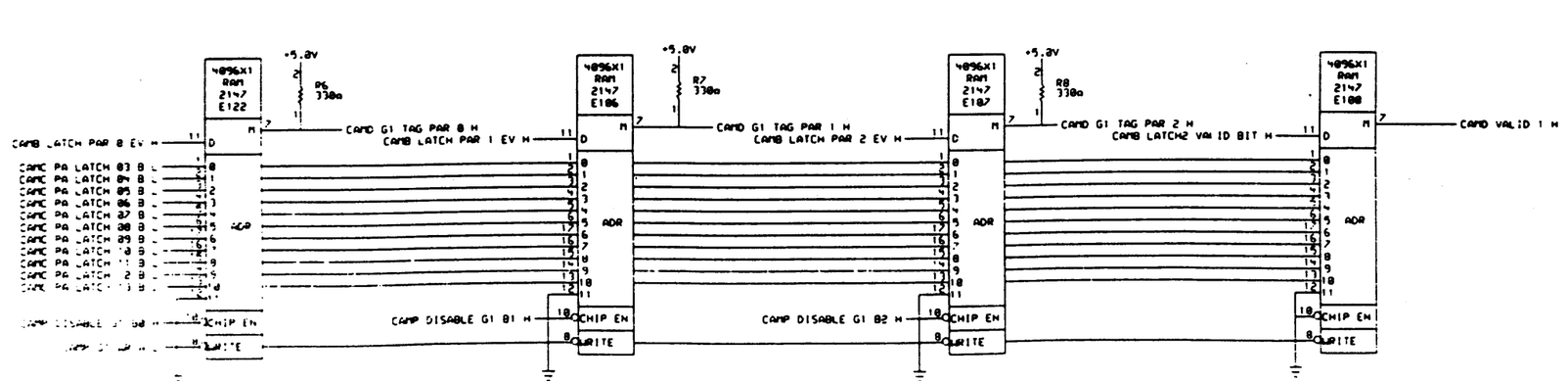
SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAMB	A



(PA ADDRESS LATCH LOGIC)

digital	DRWN	DATE 18-NOV-81	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAMC)		
	CHK'D.	DATE	BOARD LOCATION:				
USED IN TAYLOR CAMC DRW 29-SEP-81 1:05			NEXT HIGHER ASSEMBLY:		SIZE	CODE	NUMBER / REV.
FIRST USED ON OPTION/MODEL: 11/785			8-DD-M7462-0-0		K	CS	M7462-0-CAMC / A



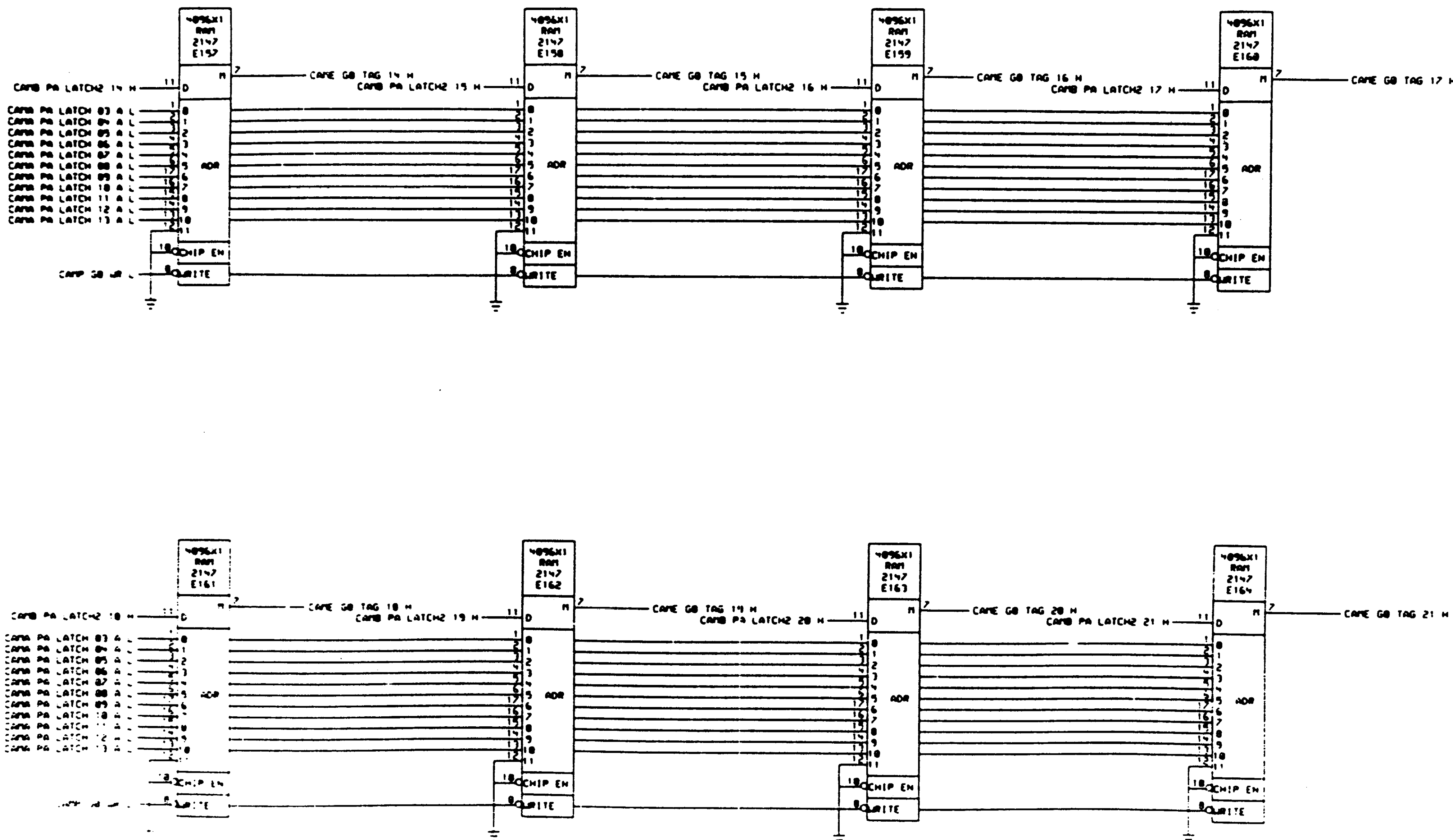


(CACHE ADDRESS PARITY, VALID GROUPS 0 & 1)

REVISIONS

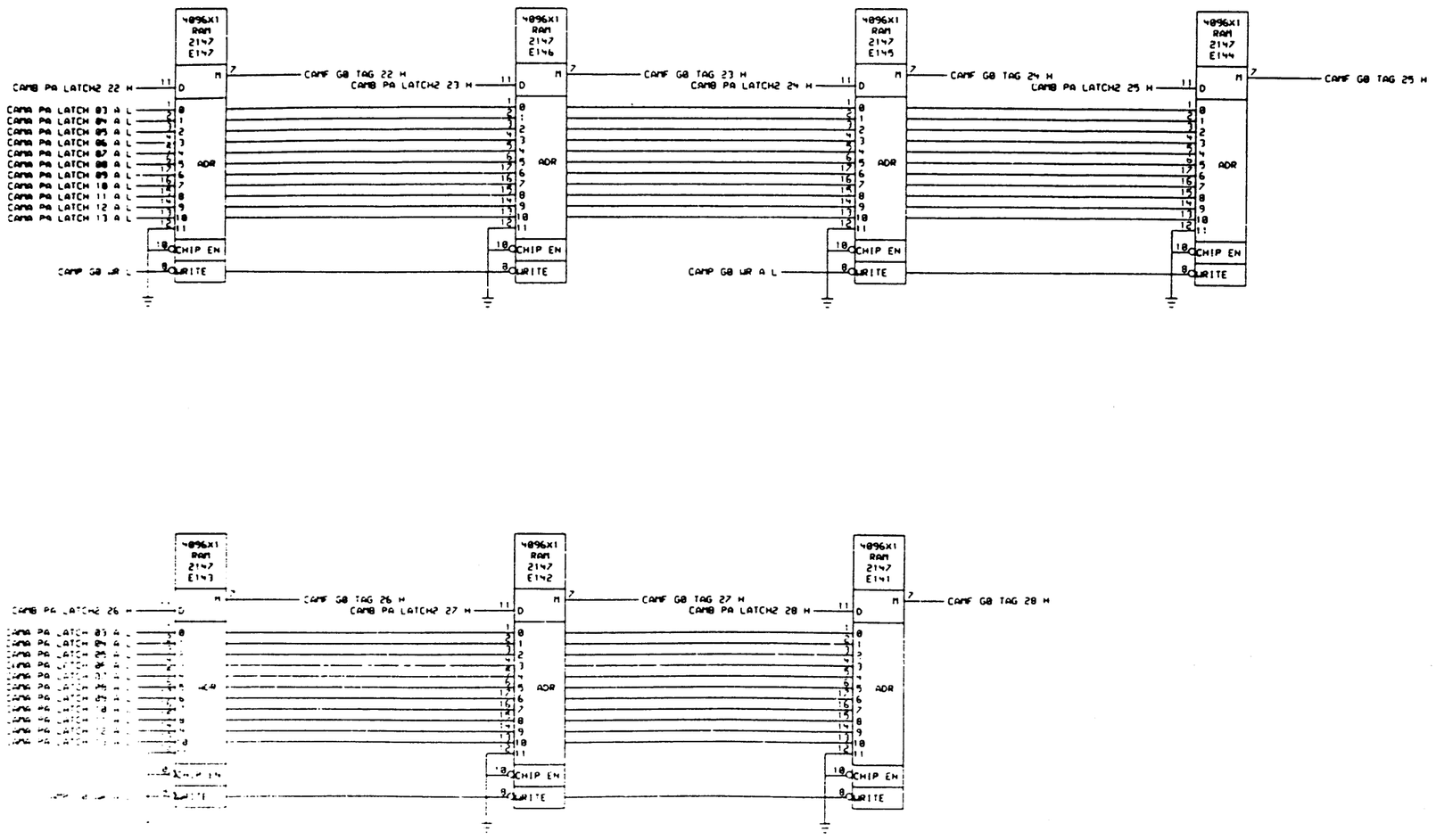
TITLE:	CACHE ADDRESS MATRIX (CAMD)		
SIZE: K	CODE: CS	NUMBER: M7462-0-CAMD	REV: A

DRAWN: CAMD.SCH [8]-NOV-83 11:11
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: 8-DD-M7462-0-0



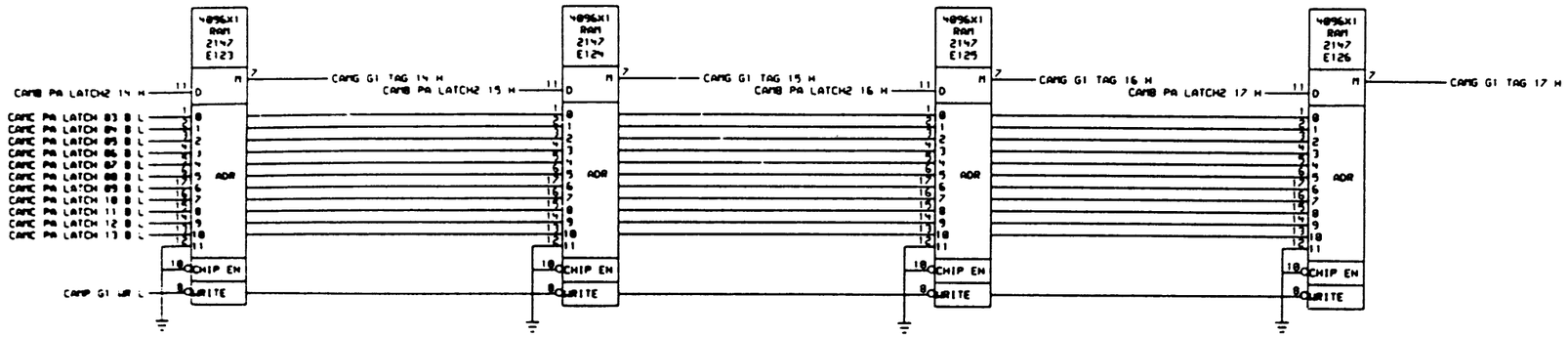
(CACHE ADDRESS TAG GROUP 2 <21:14>)

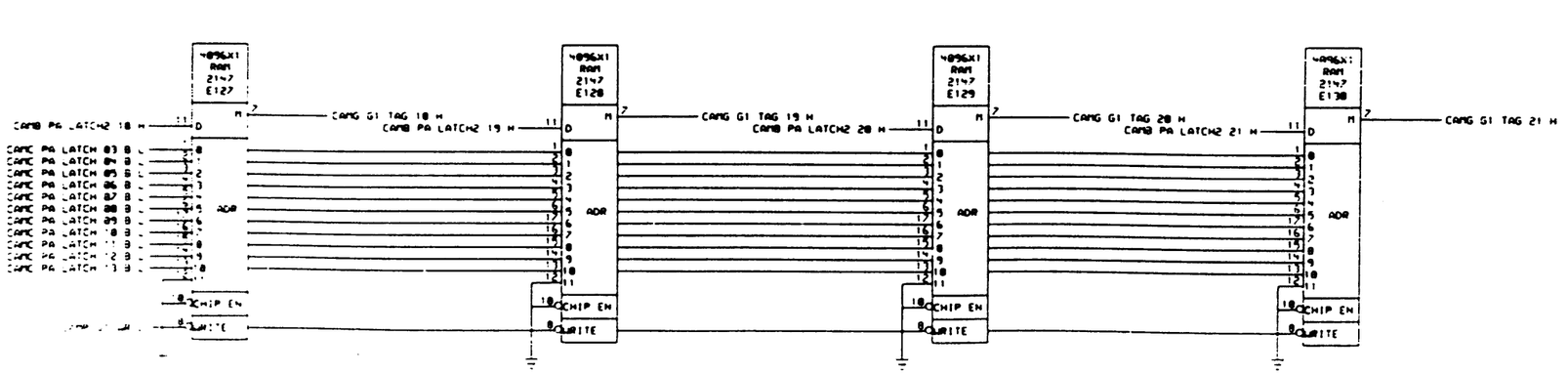
digital	DRN:	DATE 10-NOV-81	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAME)			
	CHK'D.	DATE	BOARD LOCATION:					
			NEXT HIGHER ASSEMBLY: B-DD-M7462-0-0		SIZE K	CODE CS	NUMBER M7462-0-CAME	REV. A
FIRST USED ON OPTION/MODEL: [illegible]								



CACHE ADDRESS TAG GROUP 0 (28:22)

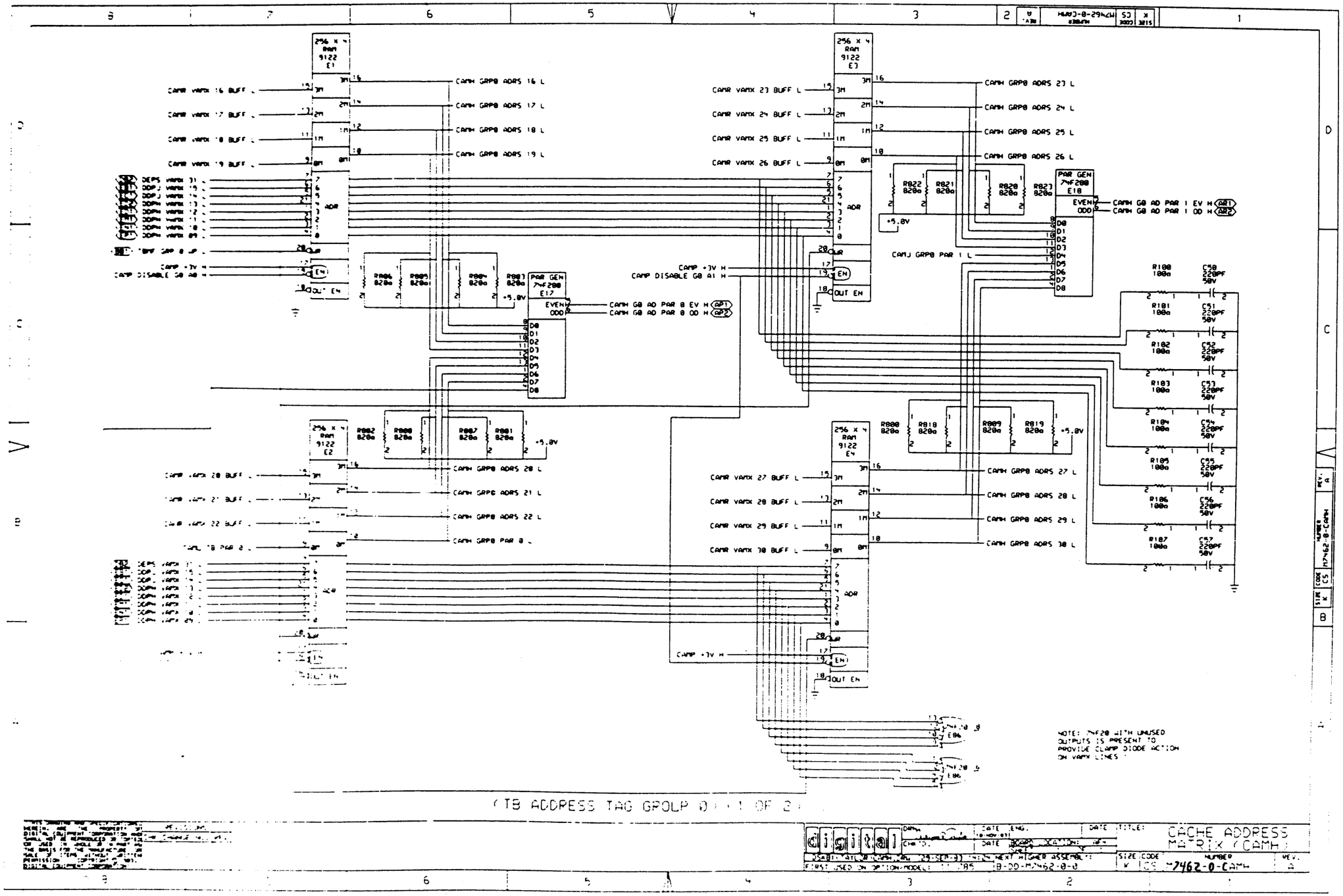
DRAWN:	DATE (ENG.): 18-NOV-83	DATE:	TITLE: CACHE ADDRESS MATRIX (CAMF)
CHK'D:	DATE (BOARD CONTENT):		
ASSEMBLY: 20-SEP-83	NEXT HIGHER ASSEMBLY:		SIZE: K / CODE: CS / NUMBER: M7462-0-CAMF / REV: A
FIRST USED ON OPTION/MODEL:	B-00-M7462-0-0		



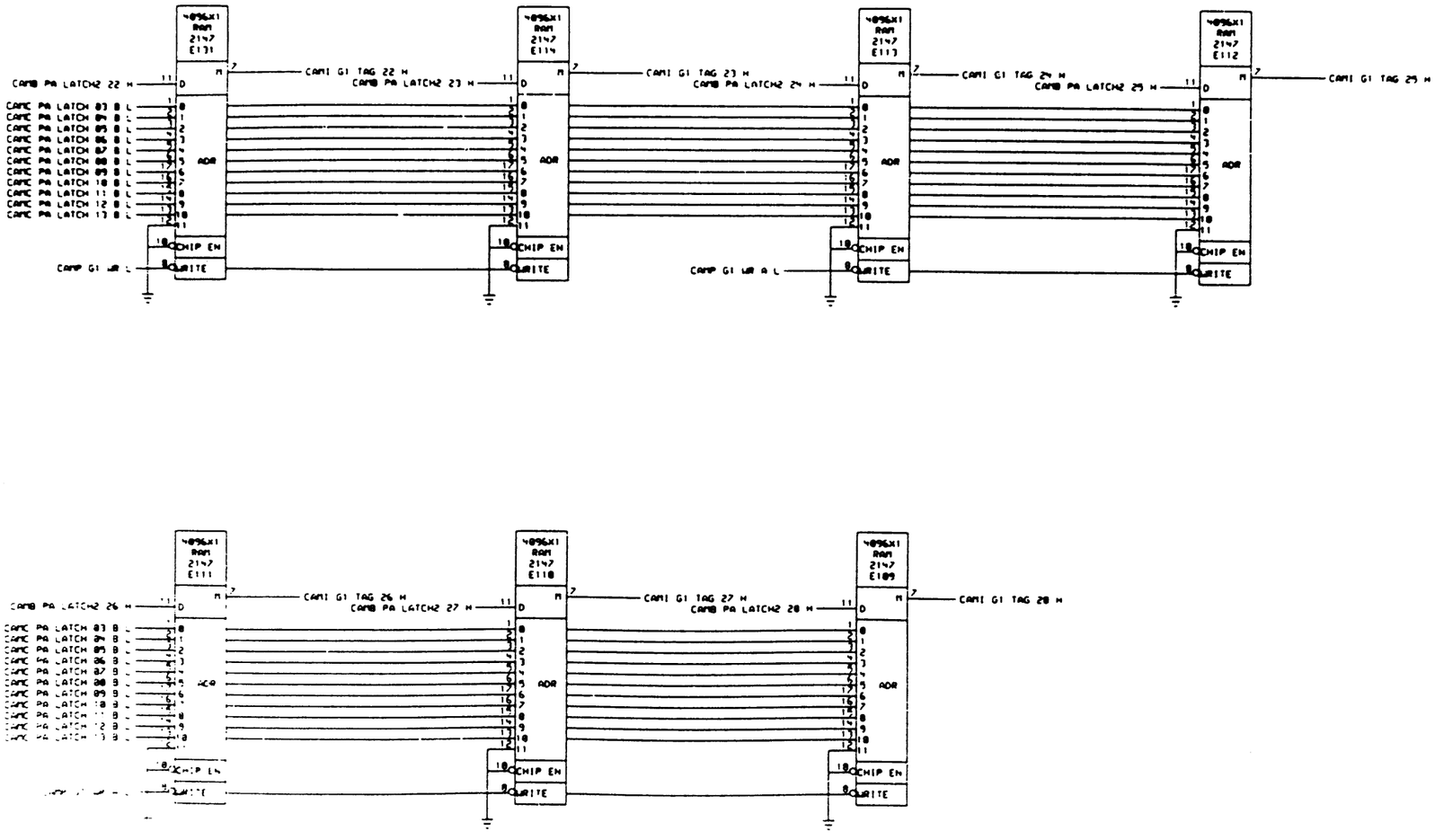


(CACHE ADDRESS GROUP 1 (21:14))

digital	DRWN	DATE ENG. 19-NOV-81	DATE	TITLE: CACHE ADDRESS MATRIX (CAMG)	
	CHK'D	DATE	BOARD OPTIONS:		
	ISSUED: DATE (CAMG) WAS [25-SEP-81]		NEXT HIGHER ASSEMBLY:	SIZE / CODE / NUMBER	REV.
	FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7462-0-0	K / CS / M7462-0-CAMG	A

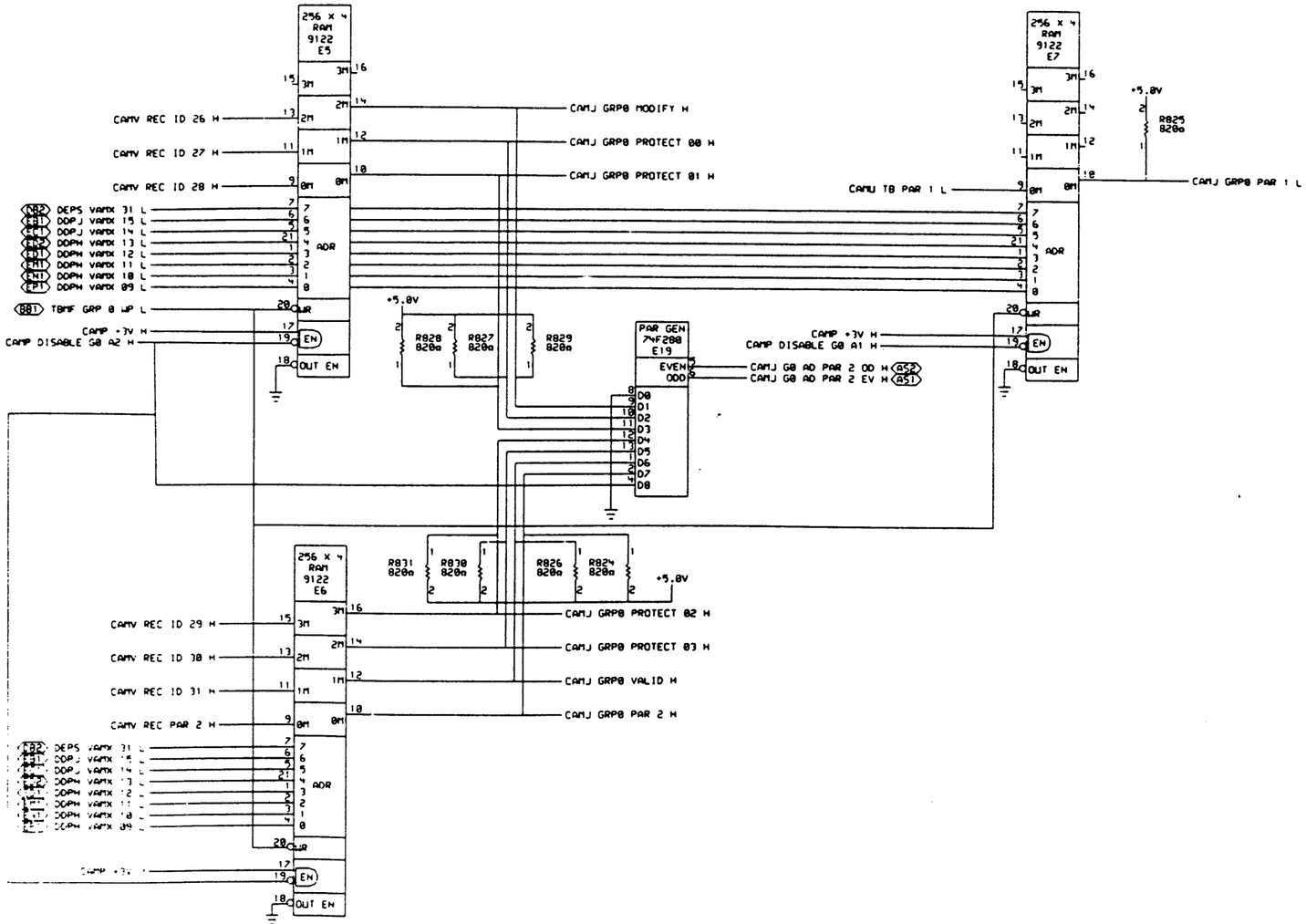


CTB ADDRESS TAG GROUP 0 (1 OF 2)



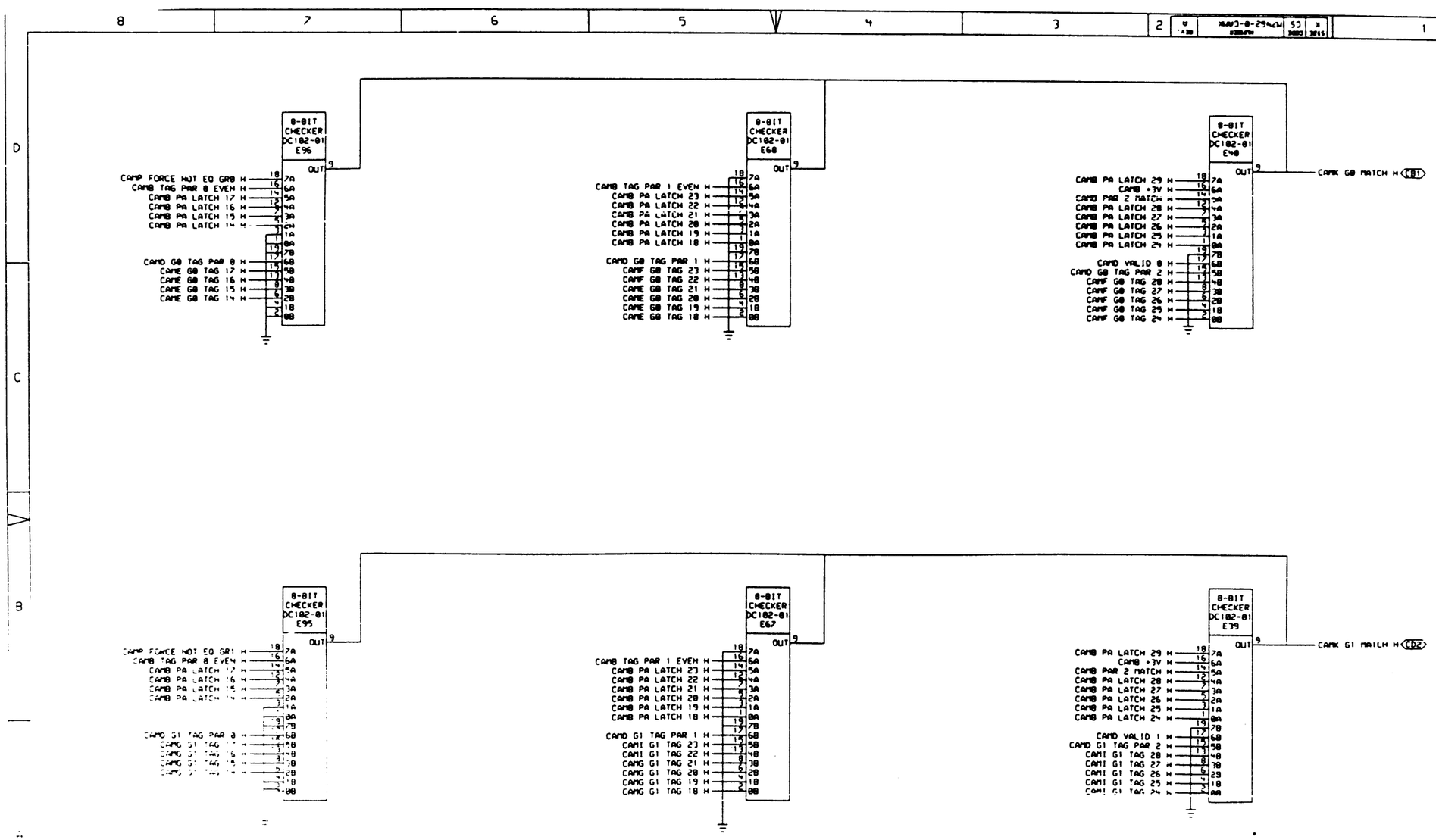
(CACHE ADDRESS TAG GROUP 1 (28:22))

DRWN:	DATE: 10-NOV-83	ENG:	DATE	TITLE: CACHE ADDRESS MATRIX (CAMI)		
CHK'D:	DATE	QUALIFICATION:				
USED ON: STATIC WCS (CAM) SDW [29-SEP-83]		NEXT HIGHER ASSEMBLY:		SIZE: K	CODE: CS	NUMBER: M2462-0-CAMI
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M2462-0-0				REV: A



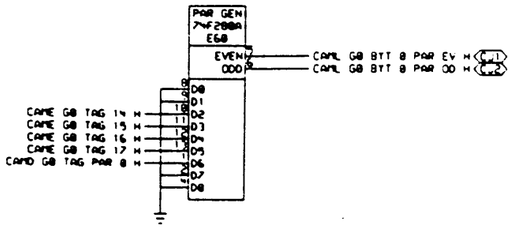
(TB ADDRESS TAG GROUP 0) (2 OF 2)

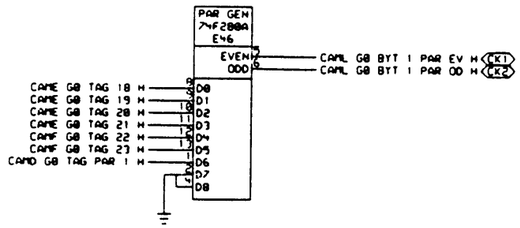
digital	DRWN	DATE 18-NOV-83	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAMJ)	
	CHK D.	DATE	BOARD LOCATION:	SHEET OF		
DSKB1:[ATLAS]CAMJ.DRW 29-SEP-83 13:32	NEXT HIGHER ASSEMBLY:				SIZE K	CODE CS
FIRST USED ON OPTION/MODEL: 11/785	B-DD-M7462-0-0				NUMBER M7462-0-CAMJ	REV. A

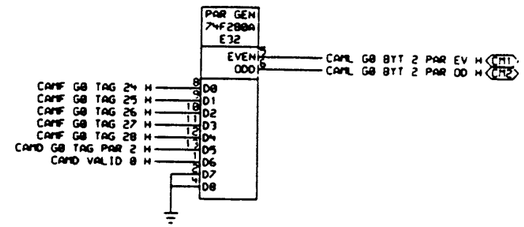


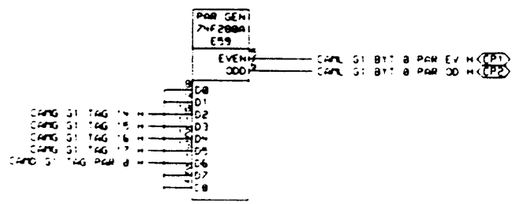
(CACHE ADDRESS TAG EQUAL CHECKER)

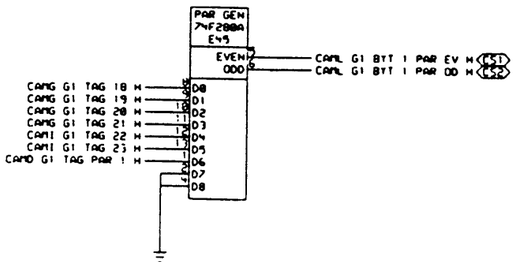
REVISIONS						
digital	DRN.	DATE ENG. 18-NOV-81	DATE	TITLE: CACHE ADDRESS MATRIX (CAMK)		
	CHK'D.	DATE	BOARD LOCATION: AE4 SHEET 1 OF 1			
DSKB:[ATLAS]CAMK.DRW [03-NOV-81 14:14]			NEXT HIGHER ASSEMBLY:	SIZE K	CODE CS	NUMBER M7462-0-CAMK
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7462-0-0			REV. A

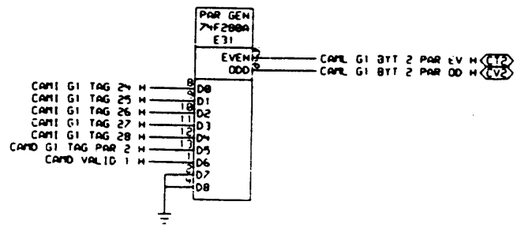










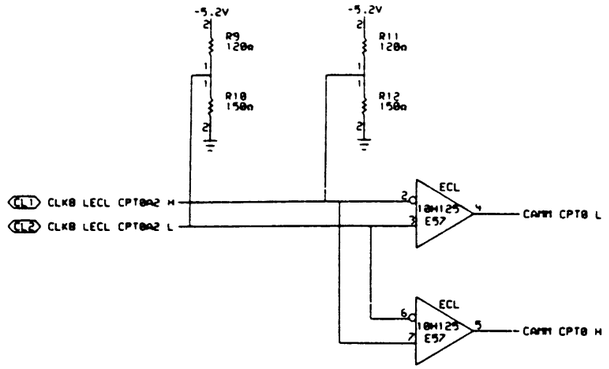


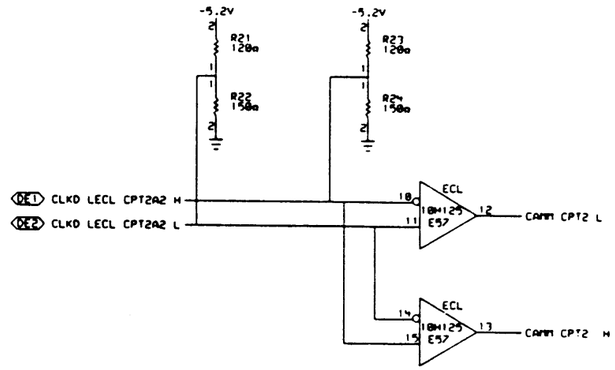
(CACHE ADDRESS TAG PARITY CHECKER)

REVISIONS				digital	DRAWN	DATE (18-NOV-83)	ENG.	DATE
					CHK'D.	DATE	BOARD LOCATION:	REV
							CAGE	
							NEXT HIGHER ASSEMBLY:	
					FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7462-0-0	

TITLE: CACHE ADDRESS MATRIX (CAML)

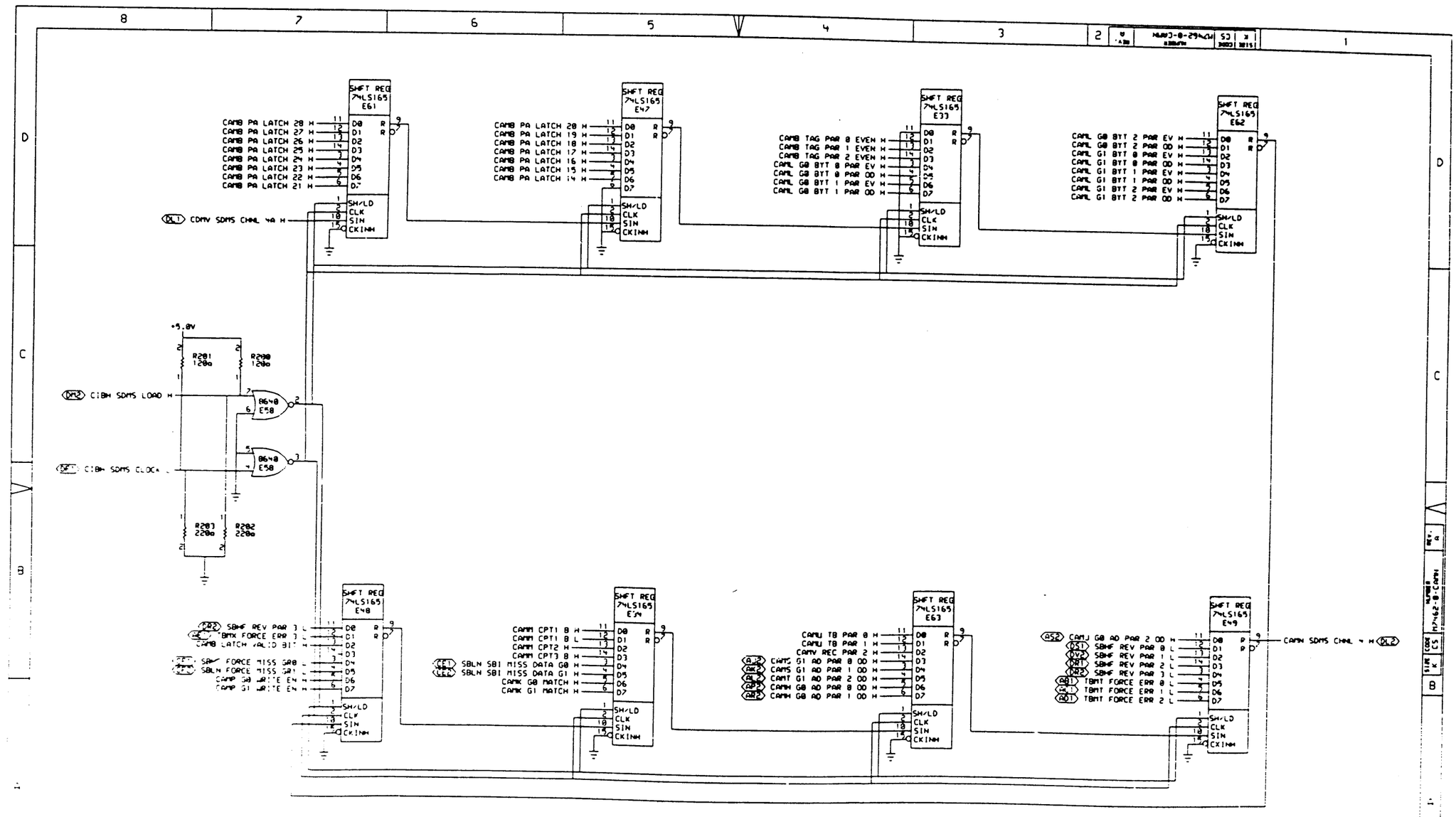
SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAML	A





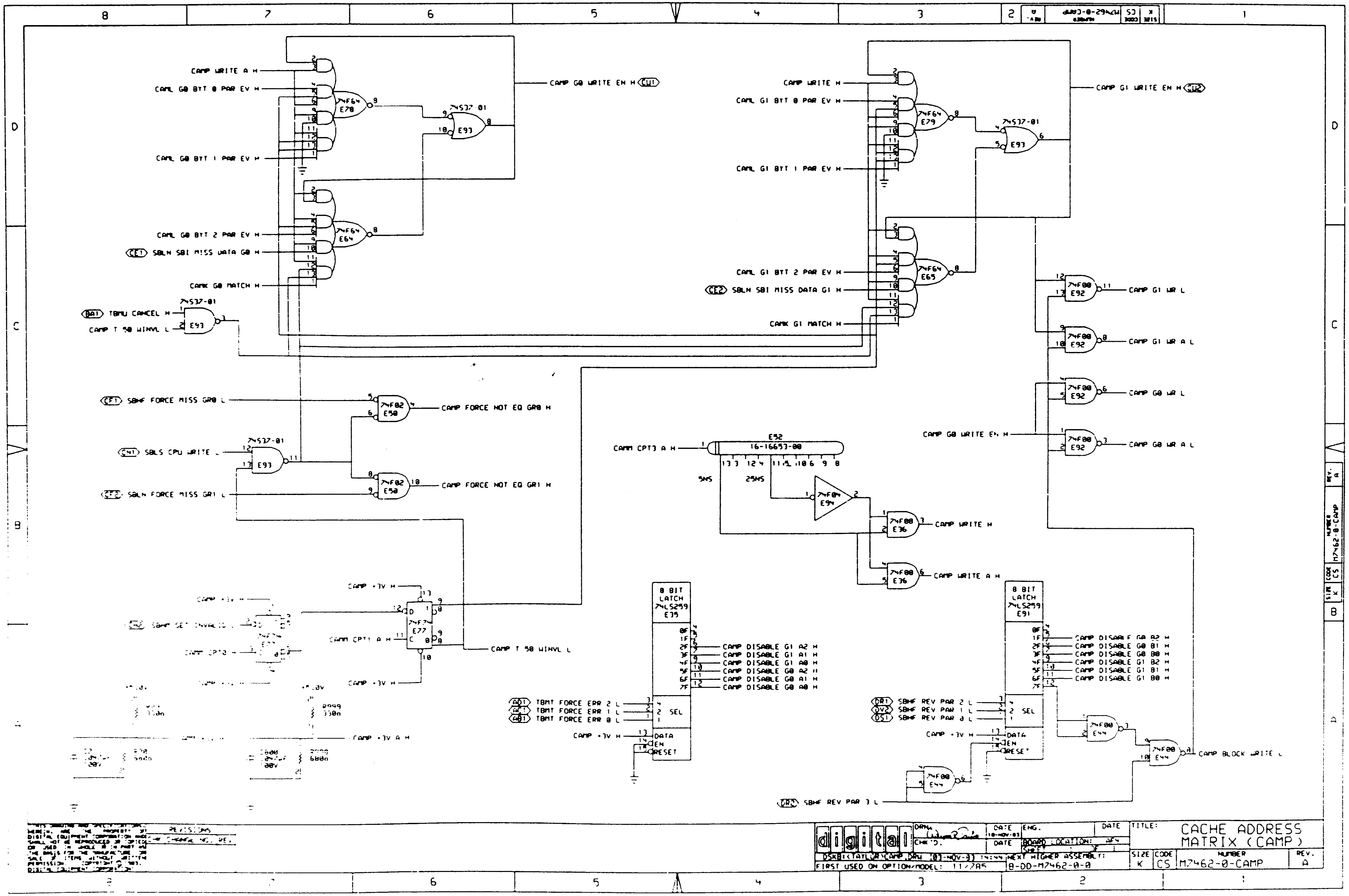
(CLOCK RECEIVERS)

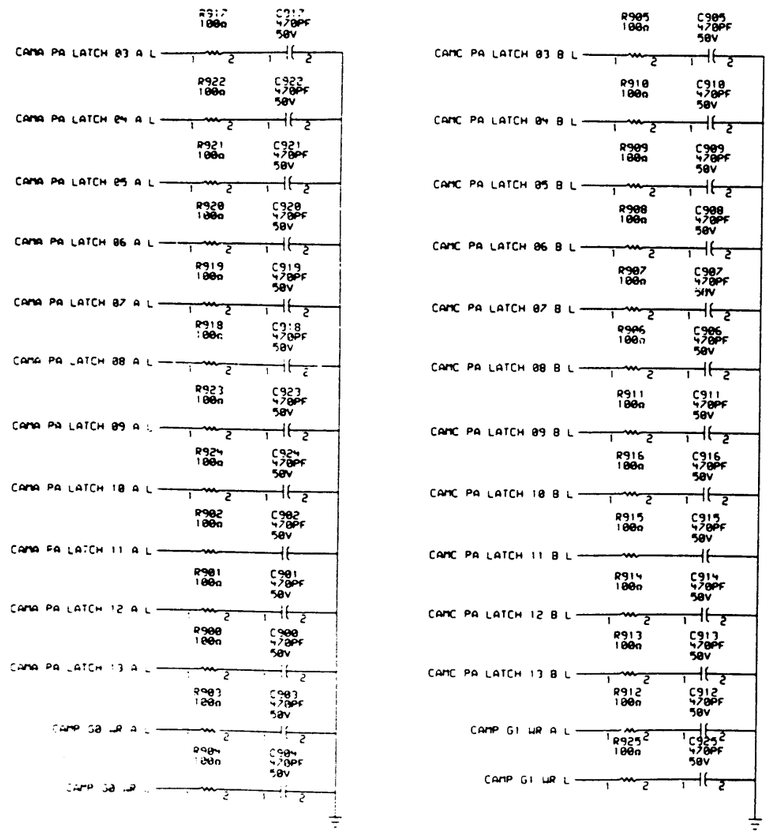
digital	DRN:	DATE 18-NOV-87	ENG.	DATE	TITLE:	CACHE ADDRESS MATRIX (CAMM)	
	CHK'D.	DATE	BOARD LOCATION: A54				
DSKBICTAL.DOCAMM.DRW 25-SEP-87 13:42			NEXT HIGHER ASSEMBLY:		SIZE K	CODE CS	NUMBER M7462-0-CAMM	REV. A
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7462-0-0				

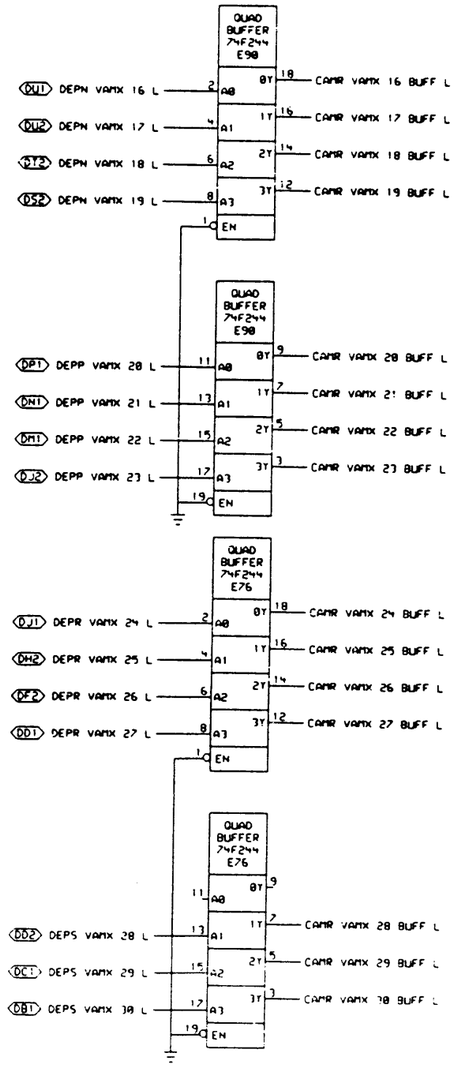


<V BUS REGISTERS>

DRWN	DATE 10-NOV-81	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAMN)					
CHK'D	DATE	BOARD LOCATION:							
DSKB1:[ATLOR,CAMN,SAV] 29-SEP-82 11:42		NEXT HIGHER ASSEMBLY:		SIZE	CODE	NUMBER	REV.		
FIRST USED IN OPTION/MODEL: 11/785		B-DD-M7462-0-0		K	CS	M7462-0-CAMN	A		


CAMP WRITE A H
CAML G0 BYT 0 PAR EV H
CAML G0 BYT 1 PAR EV H
74F64 E78
74S37-01 E93
CAMP G0 WRITE EN H
CU1
CAML G0 BYT 2 PAR EV H
CE1 SBLN SBI MISS DATA G0 H
74F64 E64
CAMK G0 MATCH H
BA1 TBMU CANCEL H
CAMP T 50 WINVL L
CAMP WRITE H
CAML G1 BYT 0 PAR EV H
CAML G1 BYT 1 PAR EV H
74F64 E79
CAMP G1 WRITE EN H
CU2
CAML G1 BYT 2 PAR EV H
CE2 SBLN SBI MISS DATA G1 H
74F64 E65
CAMK G1 MATCH H
74F00 E92
CAMP G1 WR L
CAMP G1 WR A L
CAMP G0 WR L
CAMP G0 WRITE EN H
CAMP G0 WR A L
CF1 SBHF FORCE MISS GR0 L
74F02 E50
CAMP FORCE NOT EQ GR0 H
CH1 SBLS CPU WRITE L
CF2 SBLN FORCE MISS GR1 L
CAMP FORCE NOT EQ GR1 H
E52
16-16653-00
CAMM CPT3 A H
5NS
25NS
74F04 E94
74F00 E36
CAMP WRITE H
CAMP WRITE A H
CAMP +3V H
74F74 E77
CAMM CPT1 A H
CAMP T 50 WINVL L
8 BIT LATCH 74LS259 E35
CAMP DISABLE G1 A2 H
CAMP DISABLE G1 A1 H
CAMP DISABLE G1 A0 H
CAMP DISABLE G0 A2 H
CAMP DISABLE G0 A1 H
CAMP DISABLE G0 A0 H
AD1 TBMT FORCE ERR 2 L
AE1 TBMT FORCE ERR 1 L
AB1 TBMT FORCE ERR 0 L
SEL
DATA
EN
RESET
8 BIT LATCH 74LS259 E91
CAMP DISABLE G0 B2 H
CAMP DISABLE G0 B1 H
CAMP DISABLE G0 B0 H
CAMP DISABLE G1 B2 H
CAMP DISABLE G1 B1 H
CAMP DISABLE G1 B0 H
DR1 SBHF REV PAR 2 L
DV2 SBHF REV PAR 1 L
DS1 SBHF REV PAR 0 L
74F00 E44
CAMP BLOCK WRITE L
DR2 SBHF REV PAR 3 L
CAMP +3V A H
R999 330n
680n
REVISIONS
digital
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7462-0-0
BOARD LOCATION:
TITLE: CACHE ADDRESS MATRIX (CAMP)
SIZE K
CODE CS
NUMBER M7462-0-CAMP
REV. A





(VA MUX DRIVERS)

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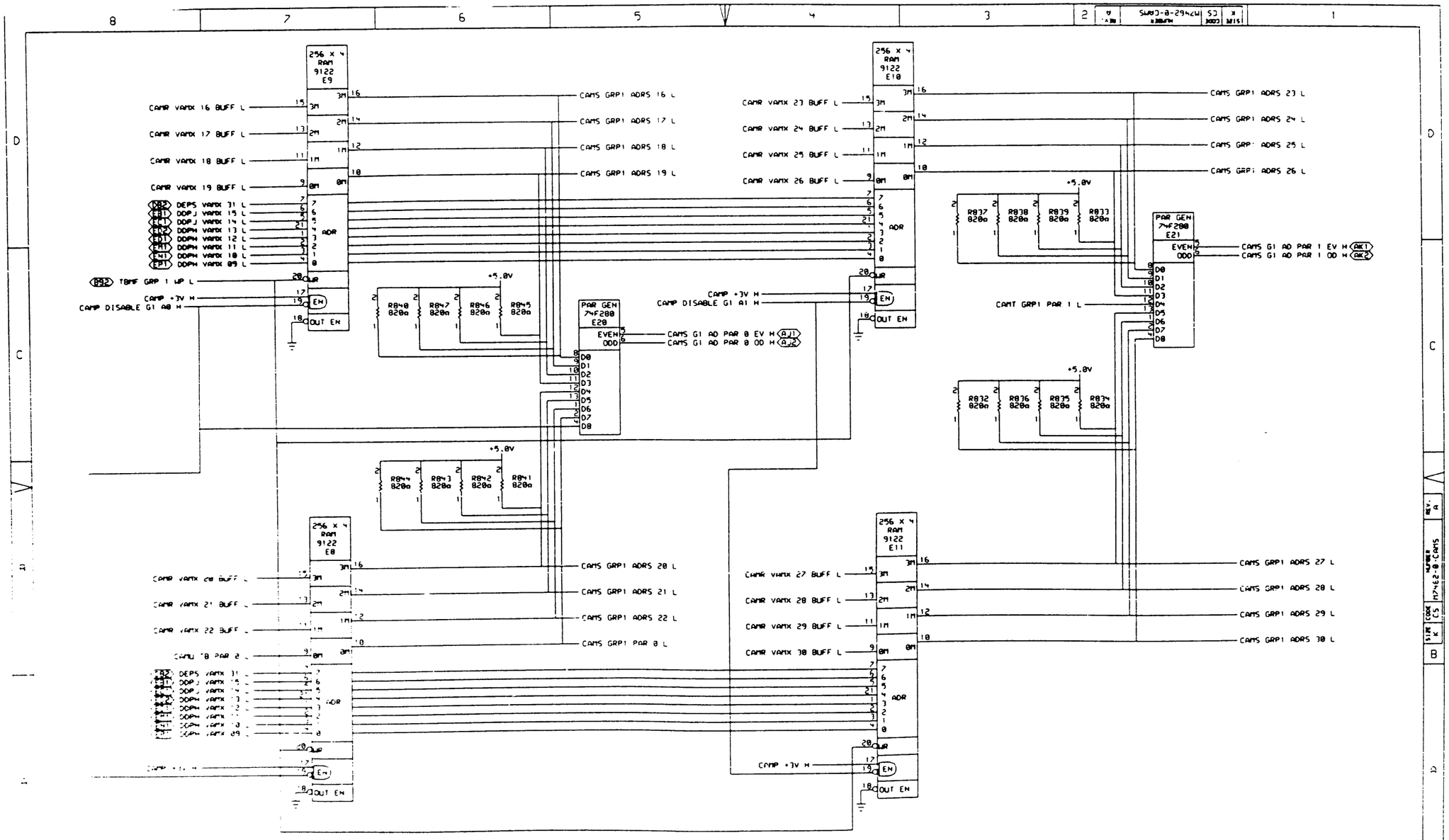
DRAWN	DATE (18-NOV-93)	ENG.	DATE
CHK'D	DATE	BOARD LOCATION:	
DSKBUILT,LRJ,JAM,RW 18-NOV-93 10:12	NEXT HIGHER ASSEMBLY:		
FIRST USED ON OPTION/MODEL: 11/785	B-DD-M7462-0-0		

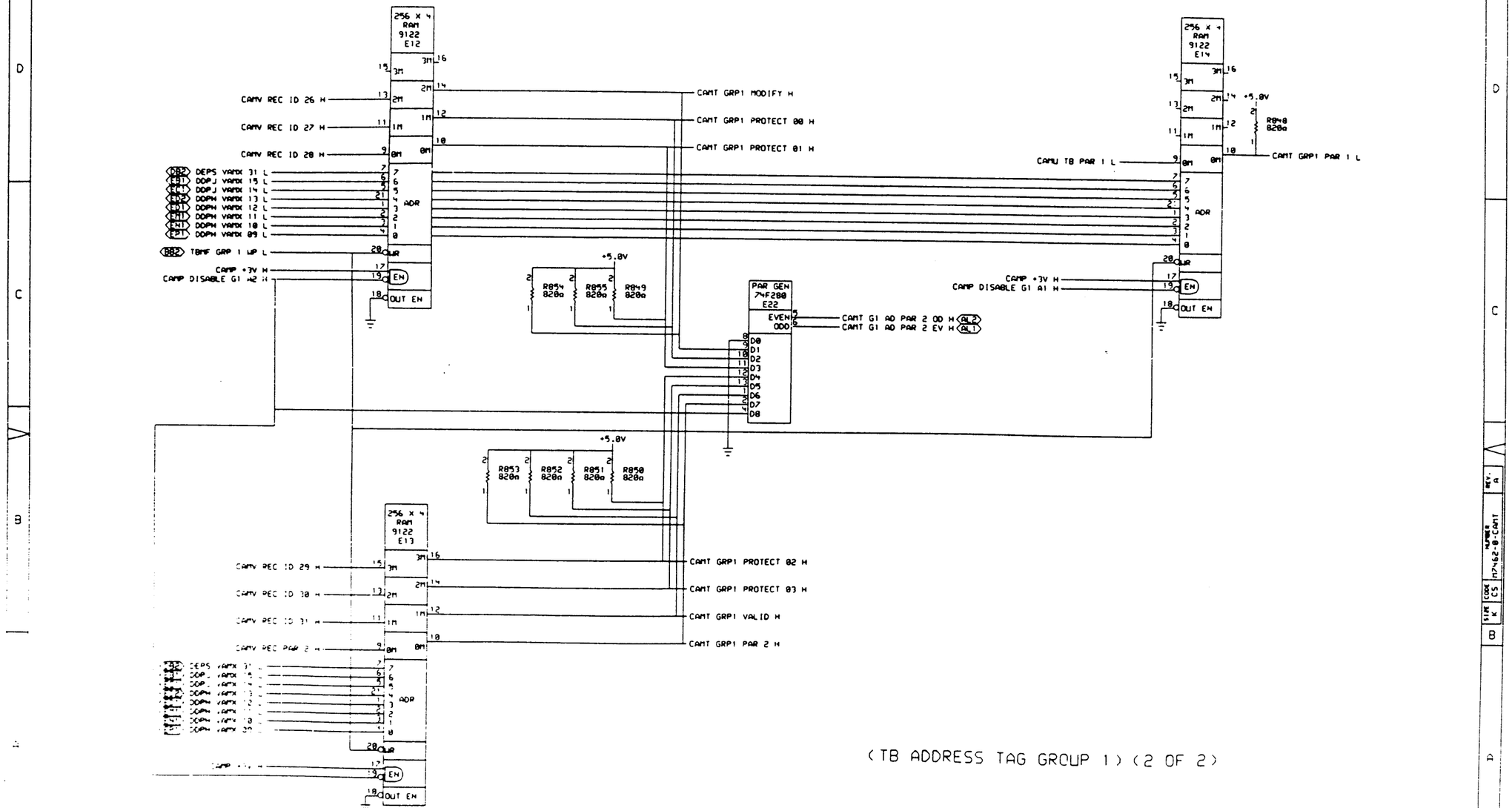
TITLE: CACHE ADDRESS MATRIX (CAMR)

SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAMR	A



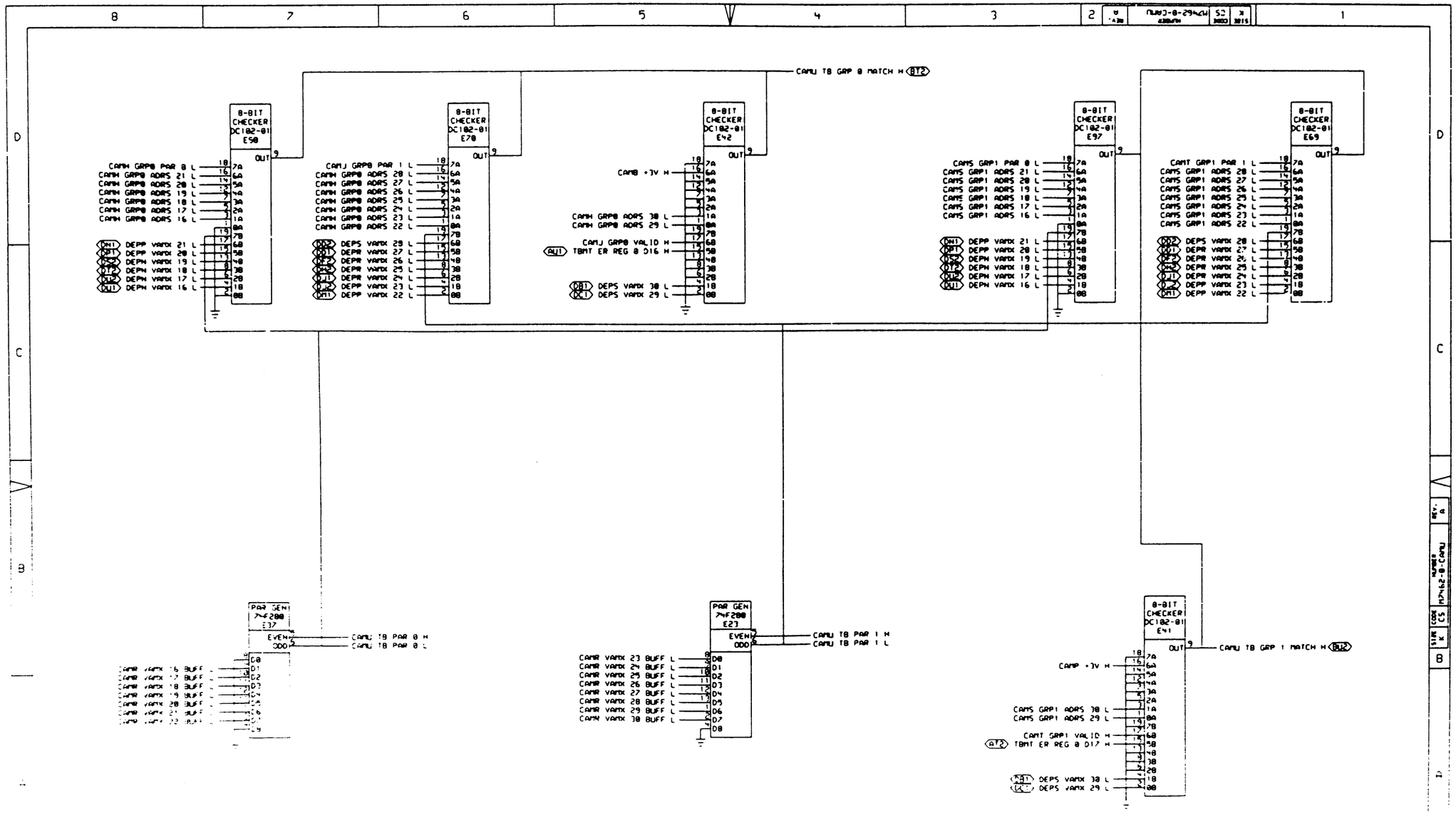
(TB ADDRESS TAG GROUP 1) (1 OF 2)

REVISIONS									
DRN		DATE	ENG.		DATE	TITLE: CACHE ADDRESS MATRIX (CAMS)			
CHK'D.		DATE	BOARD LOCATION:						
DSKB:[MAT,DES]CAMS.DDU [29-SEP-83 13:52]			NEXT HIGHER ASSEMBLY:			SIZE K	CODE CS	NUMBER M7462-0-CAMS	REV. A
FIRST USED ON OPTION/MODEL: 11/785			18-DD-M7462-0-0						



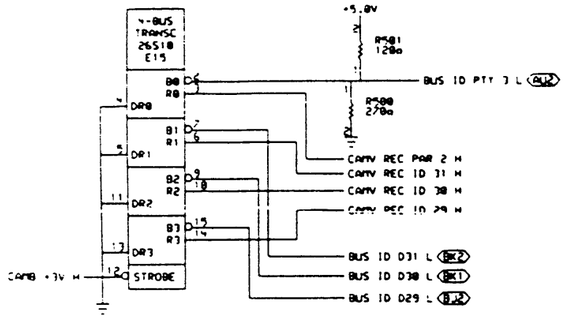
(TB ADDRESS TAG GROUP 1) (2 OF 2)

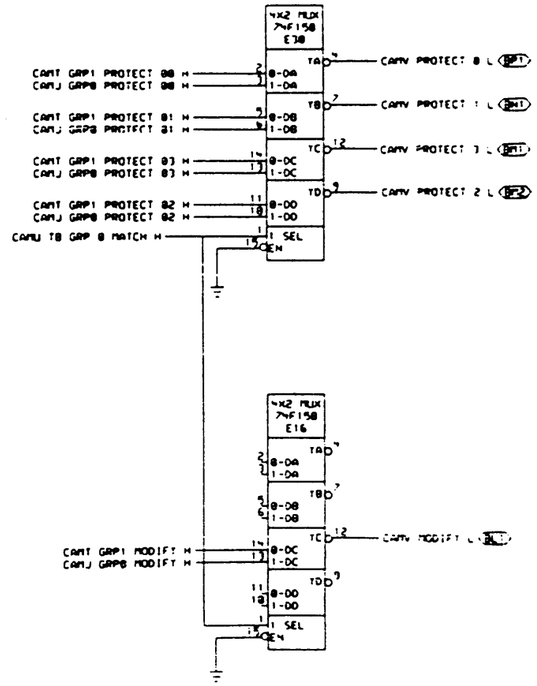
digital	DRWN		DATE 10-NOV-83	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAMT)			
	CHK D.		DATE	BOARD LOCATION: AF4 SHEET 1 OF 1					
DSKB1:[TAYLOR]CAMT.DDN 25-SEP-83 13:59				NEXT HIGHER ASSEMBLY:		SIZE K	CODE CS	NUMBER M7462-0-CAMT	REV. A
FIRST USED ON OPTION/MODEL: 11/785				8-DD-M7462-0-0					

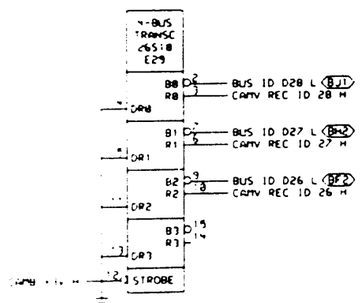


(TB ADDRESS TAG EQUAL CHECKER & VA MUX PARITY GENERATE)

REVISIONS		digital	DRAWN	DATE	ENG.	DATE	TITLE:	CACHE ADDRESS MATRIX (CAMU)	
			CHK'D:	8-NOV-83	DATE	BOARD LOCATION:			
		DIGITAL EQUIPMENT CORPORATION	DIGITAL PROPRIETARY CAMU 08-NOV-83 1:14:4			NEXT HIGHER ASSEMBLY:	SIZE	CODE	NUMBER / REV.
			FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7462-0-0	K	CS	M7462-0-CAMU / A

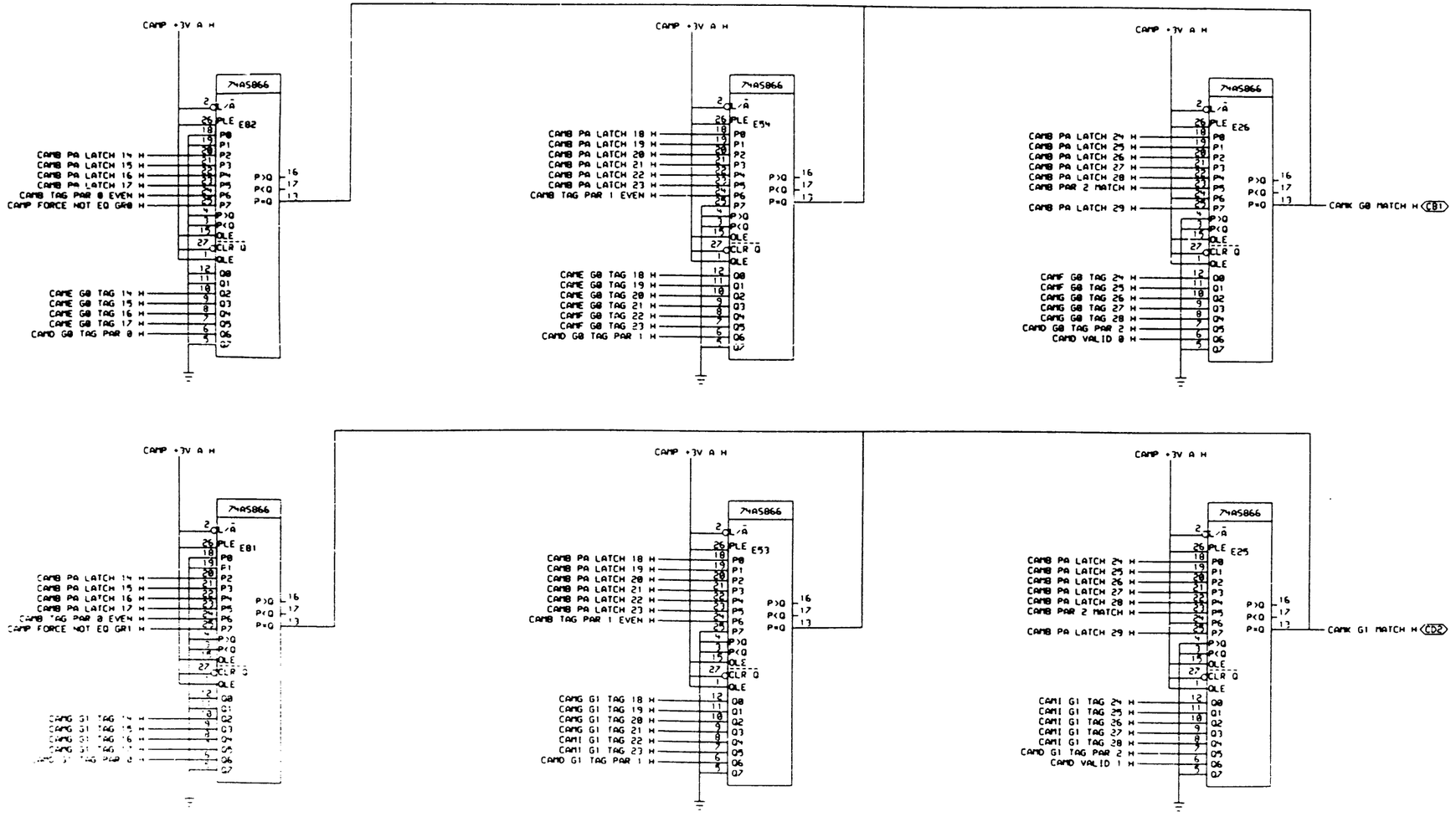






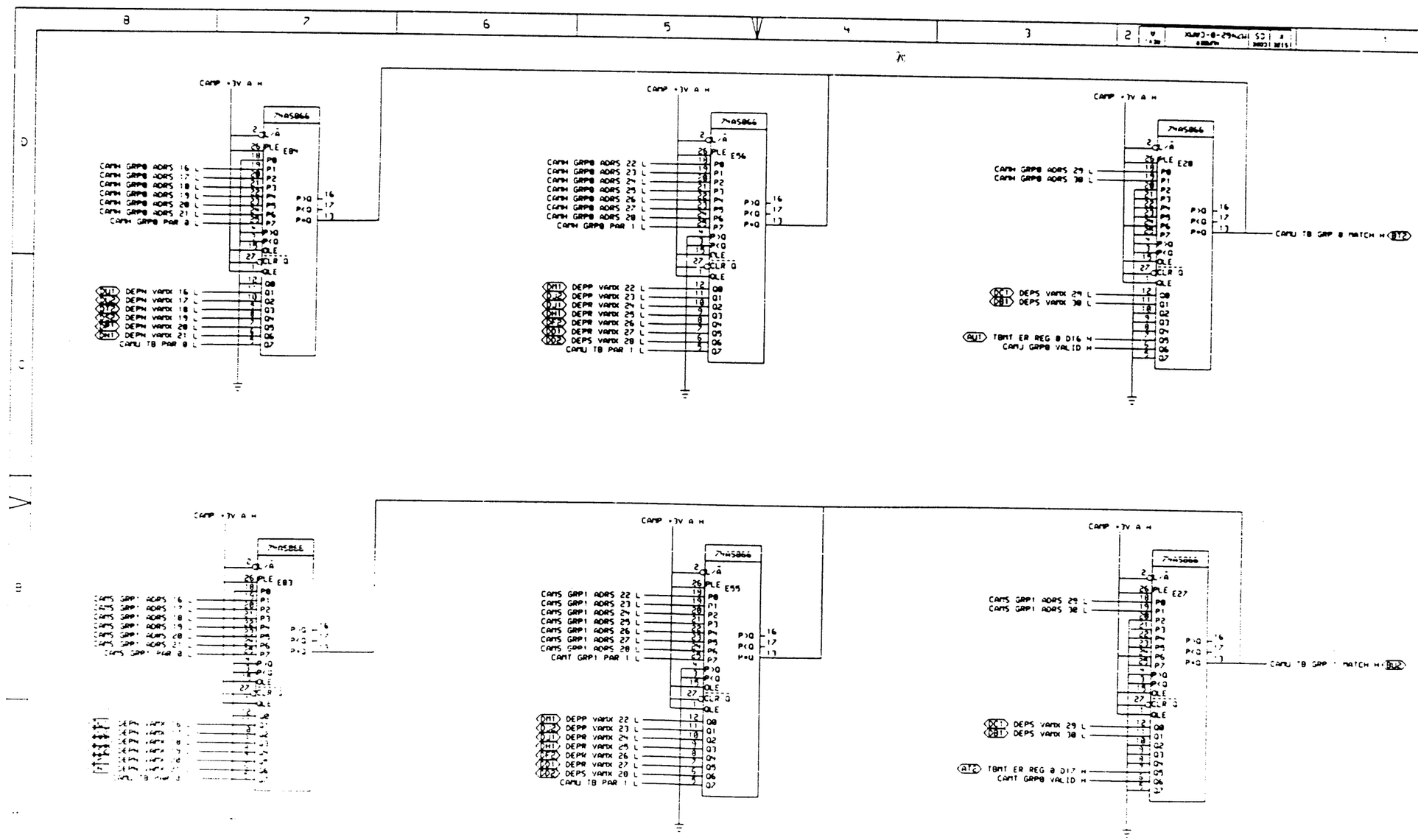
(ID TRANSCEIVERS & PROTECTION CODE MUX)

digital	DRAWN	DATE ENG. 10-NOV-87	TITLE: CACHE ADDRESS MATRIX (CAMV)
	CHK'D	DATE	
ASSEMBLY (CAMV.MU 129-3(E-0) 1-1-0)		NEXT HIGHER ASSEMBLY	SIZE: X CODE: CS NUMBER: M7462-0-CAMV REV: B
FIRST USED ON OPTION/MODEL: 1:1:785		B-DD-M7462-0-0	



(CACHE ADDRESS TAG EQUAL CHECKER)
NOTE: THESE PARTS ARE NOT USED

digital	DRN: Richard Taube	DATE 10-NOV-87	ENG.	DATE	TITLE: CACHE ADDRESS MATRIX (CAMW)
	CHK'D.	DATE	BOARD LOCATION: AF4 SHEET 1 OF 1		
DSKB1:[AT.WS]CAMW.DRW [87-NOV-87 14:48]			NEXT HIGHER ASSEMBLY: B-DD-M7462-0-0		SIZE K | CODE CS | NUMBER M7462-0-CAMW | REV. A
FIRST USED ON OPTION/MODEL: 11/785					



(TB ADDRESS TAG EQUAL CHECKER)
NOTE: THESE PARTS ARE NOT USED

DRN:	DATE: 18-NOV-83	ENG.	DATE	TITLE:	CACHE ADDRESS MATRIX (CAMX)
CHK'D.	DATE	ACCEPTED:			
DSGN: TAYLOR (CAMX.SCH 18-NOV-83 14:41)		NEXT HIGHER ASSEMBLY:		SIZE: X	CODE: 03
FIRST USED ON OPTION/MODEL: 11/785		18-00-M7462-0-0		NUMBER: M7462-0-CAMX	REV: A

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

+5.2V

GND

AA2 AV1 BA2 BV1 CA2 CV1 DA2 DV1 EA2 EV1 FA2 FV1

AC2 BC2 CC2 DC2 EC2 FC2

C1 .047µF 50V, C2 .047µF 50V, C10 .047µF 50V, C11 .047µF 50V, C12 .047µF 50V, C13 .047µF 50V, C14 .047µF 50V, C15 .047µF 50V, C16 .047µF 50V, C17 .047µF 50V, C18 .047µF 50V, C19 .047µF 50V, C20 .047µF 50V, C21 .047µF 50V, C22 .047µF 50V, C23 .047µF 50V, C24 .047µF 50V, C25 .047µF 50V, C26 .047µF 50V, C27 .047µF 50V, C28 .047µF 50V, C29 .047µF 50V, C30 .047µF 50V, C31 .047µF 50V

C32 .047µF 50V, C33 .047µF 50V, C34 .047µF 50V, C35 .047µF 50V, C36 .047µF 50V, C37 .047µF 50V, C38 .047µF 50V, C39 .047µF 50V, C40 .047µF 50V, C41 .047µF 50V, C42 .047µF 50V, C43 .047µF 50V, C44 .047µF 50V, C45 .047µF 50V, C46 .047µF 50V, C47 .047µF 50V, C73 .047µF 50V, C74 .047µF 50V, C75 .047µF 50V, C76 .047µF 50V, C77 .047µF 50V

C78 .047µF 50V, C79 .047µF 50V, C80 .047µF 50V, C81 .047µF 50V, C82 .047µF 50V, C83 .047µF 50V, C84 .047µF 50V, C85 .047µF 50V, C86 .047µF 50V, C87 .047µF 50V, C88 .047µF 50V, C89 .047µF 50V, C90 .047µF 50V, C91 .047µF 50V, C92 .047µF 50V, C93 .047µF 50V, C94 .047µF 50V, C95 .047µF 50V, C96 .047µF 50V, C97 .047µF 50V, C98 .047µF 50V, C99 .047µF 50V, C100 .047µF 50V, C101 .047µF 50V

C106 .047µF 50V, C107 .047µF 50V, C108 .047µF 50V, C109 .047µF 50V, C110 .047µF 50V

C72 .047µF 50V

C48 .1µF 50V, C49 .1µF 50V, C50 .1µF 50V, C51 .1µF 50V, C60 .1µF 50V, C61 .1µF 50V, C62 .1µF 50V, C63 .1µF 50V, C64 .1µF 50V, C65 .1µF 50V, C66 .1µF 50V, C67 .1µF 50V, C68 .1µF 50V, C69 .1µF 50V

C3 10µF 35V, C4 10µF 35V, C5 10µF 35V, C7 10µF 35V, C8 10µF 35V, C9 10µF 35V

D | C | B | A

REVISIONS

DESCRIPTION	ECO	DATE	APPROVED

digital

DRAWN		DATE 10-NOV-83	ENG.	DATE
CHK'D.		DATE	BOARD LOCATION: AF4
DSKBITQTL.LAX;CAMY.XRU	10-NOV-83 12:45	NEXT HIGHER ASSEMBLY: B-DD-M7462-0-0	
FIRST USED ON OPTION/MODEL: 11/785			

TITLE: CACHE ADDRESS MATRIX (CAMY)

SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAMY	A

SIGNAL NAME	PAGE NUMBER(S)
BUS ID D26 L	CAMV
BUS ID D27 L	CAMV
BUS ID D28 L	CAMV
BUS ID D29 L	CAMV
BUS ID D30 L	CAMV
BUS ID D31 L	CAMV
BUS ID PTY 3 L	CAMV
BUS PA 03 H	CAMC,A
BUS PA 04 H	CAMC,A
BUS PA 05 H	CAMC,A
BUS PA 06 H	CAMC,A
BUS PA 07 H	CAMC,A
BUS PA 08 H	CAMC,A
BUS PA 14 H	CAMB
BUS PA 15 H	CAMB
BUS PA 16 H	CAMB
BUS PA 17 H	CAMB
BUS PA 18 H	CAMB
BUS PA 19 H	CAMB
BUS PA 20 H	CAMB
BUS PA 21 H	CAMB
BUS PA 22 H	CAMB
BUS PA 23 H	CAMB
BUS PA 24 H	CAMB
BUS PA 25 H	CAMB
BUS PA 26 H	CAMB
BUS PA 27 H	CAMB
BUS PA 28 H	CAMB
BUS PA 29 H	CAMB
CAM1 G1 TAG 23 H	CAMU
CAMA PA LATCH 03 A L	CAMD,F,A,E,R
CAMA PA LATCH 04 A L	CAMD,F,A,E,R
CAMA PA LATCH 05 A L	CAMD,F,A,E,R
CAMA PA LATCH 06 A L	CAMD,F,A,E,R
CAMA PA LATCH 07 A L	CAMD,F,A,E,R
CAMA PA LATCH 08 A L	CAMD,F,A,E,R
CAMA PA LATCH 09 A L	CAMA,D,F,E,R
CAMA PA LATCH 10 A L	CAMA,D,F,E,R
CAMA PA LATCH 11 A L	CAMA,D,F,E,R
CAMA PA LATCH 12 A L	CAMA,D,F,E,R
CAMA PA LATCH 13 A L	CAMA,D,F,E,R
CAMB +3V H	CAMB,V,K,L
CAMB LATCH PAR 0 EV H	CAMB,D
CAMB LATCH PAR 1 EV H	CAMB,D
CAMB LATCH PAR 2 EV H	CAMB,D
CAMB LATCH VALID BIT H	CAMH,B
CAMB LATCH VALID BIT H	CAMB,D
CAMB PA LATCH 14 H	CAMH,B,W,K
CAMB PA LATCH 15 H	CAMH,B,W,K
CAMB PA LATCH 16 H	CAMH,B,W,K

SIGNAL NAME	PAGE NUMBER(S)
CAMB PA LATCH 17 H	CAMH,B,W,K
CAMB PA LATCH 18 H	CAMH,W,K,B
CAMB PA LATCH 19 H	CAMH,W,K,B
CAMB PA LATCH 20 H	CAMH,W,K,B
CAMB PA LATCH 21 H	CAMU,M,K,B
CAMB PA LATCH 22 H	CAMU,M,K,B
CAMB PA LATCH 23 H	CAMU,M,K,B
CAMB PA LATCH 24 H	CAMU,K,M,B
CAMB PA LATCH 25 H	CAMU,K,M,B
CAMB PA LATCH 26 H	CAMU,K,M,B
CAMB PA LATCH 27 H	CAMU,K,M,B
CAMB PA LATCH 28 H	CAMU,K,M,B
CAMB PA LATCH 29 H	CAMU,K,B
CAMB PA LATCH2 14 H	CAMB,G,E
CAMB PA LATCH2 15 H	CAMB,G,E
CAMB PA LATCH2 16 H	CAMB,G,E
CAMB PA LATCH2 17 H	CAMB,G,E
CAMB PA LATCH2 18 H	CAMB,G,E
CAMB PA LATCH2 19 H	CAMB,G,E
CAMB PA LATCH2 20 H	CAMB,G,E
CAMB PA LATCH2 21 H	CAMB,G,E
CAMB PA LATCH2 22 H	CAMB,I,F
CAMB PA LATCH2 23 H	CAMB,I,F
CAMB PA LATCH2 24 H	CAMB,I,F
CAMB PA LATCH2 25 H	CAMB,I,F
CAMB PA LATCH2 26 H	CAMB,I,F
CAMB PA LATCH2 27 H	CAMB,I,F
CAMB PA LATCH2 28 H	CAMB,I,F
CAMB PAR 2 MATCH H	CAMU,K,B
CAMB TAG PAR 0 EVEN H	CAMH,B,W,K
CAMB TAG PAR 1 EVEN H	CAMH,W,K,B
CAMB TAG PAR 2 EVEN H	CAMH,B
CAMC PA LATCH 03 B L	CAMD,I,C,G,R
CAMC PA LATCH 04 B L	CAMD,I,C,G,R
CAMC PA LATCH 05 B L	CAMD,I,C,G,R
CAMC PA LATCH 06 B L	CAMD,I,C,G,R
CAMC PA LATCH 07 B L	CAMD,I,C,G,R
CAMC PA LATCH 08 B L	CAMD,I,C,G,R
CAMC PA LATCH 09 B L	CAMC,D,I,G,R
CAMC PA LATCH 10 B L	CAMC,D,I,G,R
CAMC PA LATCH 11 B L	CAMC,D,I,G,R
CAMC PA LATCH 12 B L	CAMC,D,I,G,R
CAMC PA LATCH 13 B L	CAMC,D,I,G,R
CAMD GB TAG PAR 0 H	CAML,W,K,D
CAMD GB TAG PAR 1 H	CAML,W,K,D
CAMD GB TAG PAR 2 H	CAMU,L,K,D
CAMD G1 TAG PAR 0 H	CAML,W,K,D
CAMD G1 TAG PAR 1 H	CAML,W,K,D
CAMD G1 TAG PAR 2 H	CAMU,L,K,D
CAMD VALID 0 H	CAMU,L,K,D

SIGNAL NAME	PAGE NUMBER(S)
CAMD VALID 1 H	CAMU,L,K,D
CAME GB TAG 14 H	CAML,W,K,E
CAME GB TAG 15 H	CAML,W,K,E
CAME GB TAG 16 H	CAML,W,K,E
CAME GB TAG 17 H	CAML,W,K,E
CAME GB TAG 18 H	CAML,W,K,E
CAME GB TAG 19 H	CAML,W,K,E
CAME GB TAG 20 H	CAML,W,K,E
CAME GB TAG 21 H	CAML,W,K,E
CAME GB TAG 22 H	CAML,W,K,F
CAME GB TAG 23 H	CAML,W,K,F
CAME GB TAG 24 H	CAMU,L,K,F
CAME GB TAG 25 H	CAMU,L,K,F
CAME GB TAG 26 H	CAML,K,F
CAME GB TAG 27 H	CAML,K,F
CAME GB TAG 28 H	CAML,K,F
CAMG GB TAG 26 H	CAMU
CAMG GB TAG 27 H	CAMU
CAMG GB TAG 28 H	CAMU
CAMG G1 TAG 14 H	CAML,W,K,G
CAMG G1 TAG 15 H	CAML,W,K,G
CAMG G1 TAG 16 H	CAML,W,K,G
CAMG G1 TAG 17 H	CAML,W,K,G
CAMG G1 TAG 18 H	CAML,W,K,G
CAMG G1 TAG 19 H	CAML,W,K,G
CAMG G1 TAG 20 H	CAML,W,K,G
CAMG G1 TAG 21 H	CAML,W,K,G
CAMH GB AD PAR 0 EV H	CAMH
CAMH GB AD PAR 0 OD H	CAMH,N
CAMH GB AD PAR 1 EV H	CAMH
CAMH GB AD PAR 1 OD H	CAMH,N
CAMH GRP0 ADRS 16 L	CAMH,K,U
CAMH GRP0 ADRS 17 L	CAMH,K,U
CAMH GRP0 ADRS 18 L	CAMH,K,U
CAMH GRP0 ADRS 19 L	CAMH,K,U
CAMH GRP0 ADRS 20 L	CAMH,K,U
CAMH GRP0 ADRS 21 L	CAMH,K,U
CAMH GRP0 ADRS 22 L	CAMH,K,U
CAMH GRP0 ADRS 23 L	CAMH,K,U
CAMH GRP0 ADRS 24 L	CAMH,K,U
CAMH GRP0 ADRS 25 L	CAMH,K,U
CAMH GRP0 ADRS 26 L	CAMH,K,U
CAMH GRP0 ADRS 27 L	CAMH,K,U
CAMH GRP0 ADRS 28 L	CAMH,K,U
CAMH GRP0 ADRS 29 L	CAMH,K,U
CAMH GRP0 ADRS 30 L	CAMH,K,U
CAMH GRP0 PAR 0 L	CAMH,K,U
CAMH GRP0 PAR 1 L	CAMX
CAM1 G1 TAG 22 H	CAML,W,K,J
CAM1 G1 TAG 23 H	CAML,K,J

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

REVISIONS
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DIGITAL EQUIPMENT CORPORATION

digital

CAMH	DRAWN	DATE	ENG.
CHK'D.		18-NOV-83	DATE
		DATE	APPROVED

USED ON NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 18-DD-M7462-0-0

TITLE: CACHE ADDRESS MATRIX (CAMH)

SIZE	CODE	NUMBER	REV.
K	CS	M7462-0-CAMH	

SIZE	CODE	NUMBER	REV.
B	DD	M7462-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS		
		M7462-00	CAM PART REVISION	A1	B1	B2
E-UA-M7462-0-0	2		UNIT ASSEMBLY	A	B	C
K-PL-M7462-0-DBP	2		PARTS LIST	A	B	C
K-PC-M7462-0-DBI	–		P.C. DATA BASE	C	C	D
B-DD-5016077-0-0	1		DRAWING DIRECTORY	A	B	C
K-CS-M7462-0-DBS	–		SUDS DATA BASE	A	B	C
K CS M7462-0-CAMA	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMB	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMC	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMD	1		SCHEMATIC	A	A	A
K CS M7462-0-CAME	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMF	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMG	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMH	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMJ	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMJ	1		SCHEMATIC	A	B	B
K CS M7462-0-CAMK	1		SCHEMATIC	A	A	A
K CS M7462-0-CAML	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMM	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMN	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMP	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMR	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMS	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMT	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMU	1		SCHEMATIC	A	A	A
K CS M7462-0-CAMV	1		SCHEMATIC	A	A	A

NOTES:

REVISIONS				
REV.	A	B	C	
CHG NO.	INIT	TW001	TW002	
DATE	11/83	2-84	4/84	

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digital

USED ON OPTION/MODEL	

DRN.	S. Glaister	8-Nov-83
CHK'D	L Wald	8-Nov-83
ENG.	Jay Sidney	11.10.83
PROD	Ted Krysak	11-29-83

TITLE: CACHE ADDRESS MATRIX (CAM)

SIZE	CODE	NUMBER	REV.
B	DD	M7462-0-0	C

SHEET 1 OF 2

DRB 126

TW

SIZE	CODE	NUMBER	REV.
B	DD	M7462-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7462-0-CAMW	1		SCHEMATIC	A A INA
K-CS-M7462-0-CAMX	1		SCHEMATIC	A A INA
K-CS-M7462-0-CAMY	1		SCHEMATIC	A A A
K-CS-M7462-0-CAMZ	1		SCHEMATIC	A A A
K-CS-M7462-0-CAM1	1		SCHEMATIC	A A A
K-CS-M7462-0-CAM2	1		SCHEMATIC	A A A
K-CS-M7462-0-CAM3	1		SCHEMATIC	A A A
K-CS-M7462-0-CAM4	1		SCHEMATIC	A A A
		50-16077-01		C1 D1

NOTES:

REVISIONS	REV.	CHG NO.	DATE
	B	TW001	2/84
	C	TW002	4/84

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USED ON OPTION/MODEL		

DRN. S. Thayer	11-9-83	
CHK'D Kurt Usefan	23-NOV-3	
ENG. Jay Stickney	11.9.83	
PROD. M. Rzepka	11-29-83	

TITLE CACHE ADDRESS MATRIX CAM

SIZE	CODE	NUMBER	REV.
B	DD	M7462-0-0	C

SHEET 2 OF 2

DRB 126

TW

COMPONENT SIDE VIEW

22

21

digital

TITLE CACHE DATA MATRIX (CDM)

SIZE CODE E | NUMBER M7545 | REV A

SCALE NONE | SHT 1 OF 1

NEXT HIGHER ASSY M7543

ETCH REV. 11

CHECK CHANGE NO REV

NOTES

1. ALL RATING IS 1 PACK

2. STEP & REPEAT X & Y AXIS STEP = .1000 TIMES 4 X AXIS STEP = .1000 TIMES 4

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T —

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	D-MD-5016076-0-0	5016076-01		CACHE DATA METRIX	1	
2	2		1012784-00		.047 MFD 50V +80-20% CER	114	C1,C74-C186
3	3		1013466-19		470.0 MMF 50V 5% CER	56	C2-C45,C55-C66
4	4		1300229-00		100.0 .25 W 5.0 % CF	57	R7-R38,R43-R66,R67
5	5		1300247-00		120.0 .25 W 5.0 % CF	7	R1,R100,R103,R104,R107-R109
6	6		1300250-00		150.0 .25 W 5.0 % CF	6	R101,R102,R105,R106,R110,R111
7	7		1300295-00		330.0 .25 W 5.0 % CF	8	R3-R6,R39-R42
8	8		1311522-00		200.0 .25 W 5.0 % CF	1	R2
9	9		1921311-01		74F20 NAND GATE,DUAL,4-IN	4	E48-E51
10	10		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E9
11	11		1912860-00		LS259 LATCH 8BIT	1	E47
12	12		1913839-00		LS165 SHIFT REG.,8BIT	6	E10,E22,E23,E34-E36
13	13		1921010-01		74F373 OCTAL TRANSPARENT LA	9	E15-E18,E28-E31,E43
14	14		1921307-01		74F04 HEX INVERTER	8	E71,E87,E103,E119,E135,E151, CONT E167,E55
15	15		1921313-01		74F64 AND OR INVERT GATE,4-	48	E68-E70,E72-E74,E84-E86,E88-E90, CONT E100-E102,E104-E106,E52-E54, CONT E56-E58,E116-E118,E120-E122, CONT E132-E134,E136-E138,E148-E150, CONT E152-E154,E164-E166,E169,E170, CONT E168
16	16		1921330-01		74F257 MUX,QUAD,2-IN	9	E1-E4,E13,E14,E26,E27,E42
17	17		1921 332-01		74F280 PARITY GEN/CHECK,9-B	8	E6-E8,E19-E21,E32,E33
18	18		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	3	E39-E41
19	19		2114523-03		2147H-1 4K MOS RAM 35NS 18	72	E59-E67,E75-E83,E91-E99, CONT E107-E115,E123-E131,E139-E147, CONT E155-E163,E171-E179
20	20		1017472-00		10 MFD 35V +50-10% AL EL	7	C67-C73
21	21		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
22	22		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	

REVISION HISTORY			BASIC PART NO: M7463				
ENG	ECO NUMBER	REV	SECTION A OF A				
---	INITIAL	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	DRN: S.MANSOR	DATE: 16-AUG-83	D I G I T A L	
				CHK'D: F.GAROFALO	DATE: 31-AUG-83	TITLE PARTS LIST CACHE DATA MATRIX (CDM)	
				DES.ENG: J.STICKNEY	DATE: 31-AUG-83	DOCUMENT NUMBER: SIZE K / CODE PL / NUMBER M7463-0-DBP / REV A	
				RESP.ENG.: J.STICKNEY	DATE: 31-AUG-83		
				MFG.ENG.: M.KRYZAK	DATE: 2-NOV-83	RELEASE DATE: 16-NOV-83	
				ASSEMBLY NUMBER: E-UA-M7463-0-0	TOP DOCUMENT NUMBER: B-DD-M7463-0-0	FILE NAME: Z8057A.PLS	EDIT #: 7

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AU TOMATED BY PRTLST.4Q(50) P A R T S L I S T SHEET A2 OF

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		

23 NOTE: REF.DES. NOT USED:R68-R99,C46-C54
24 NOTE: SPARE I.C. LOCATIONS:E5,E11,E12,E24,E25,E37,E38,E44,E45,E46

D I G I T A L	TITLE CACHE DATA MATRIX (COM)	SECTION A OF A	SIZE K	CODE PL	DOCUMENT NUMBER M7463-0-DBP / REV A

DATA MEMORY

4K x 32 DATA BITS/GROUP
4K x 4 PARITY BITS/GROUP
16K BYTES/GROUP

BUS P A

12

PA (17:02)

ADDRESS LATCHES

74F64

(CDMH,J)

T1

12

GROUP 0 MEMORY

2147-35

A

D

M

W

CS

36

WRITE DATA REGISTER

GROUP 0

74F373

(CDMA)

4

M (3:0)

CAMP G0 WR L

74F20

(CDMB)

BUS M D

40

D (31:00)
P (3:0)
M (3:0)

4

M (3:0)

CAMP G1 WR L

74F20

WRITE DATA REGISTER

GROUP 1

74F373

(CDMA)

T2

36

GROUP 1 MEMORY

2147-35

D

A

M

W

CS

ADDRESS LATCHES

74F64

(CDMP,R)

T1

12

ECL CLOCK RECEIVERS

10H125

(CDMU)

CLK LECL T1, T2

T1, T2

*

FORCE PARITY ERROR

74LS259

(CDMB)

8

SBMF REV PAR

4

* CS IS ALWAYS ENABLED FOR DATA BITS. CAN ONLY DISABLE PARITY BITE.

CAMK G0 MATCH H

PARITY CHECK

74F280

(CDMS)

TO SBM, V-BUS

SEL

OUTPUT MUX

74F257

EN

(CDMT)

36

D (31:00)
P (3:0)

BUS M D

TBMD EN CDM DATA L

36

PARITY CHECK

74F280

(CDMS)

TO SBM, V-BUS

(REFER TO CDMV)

V-BUS

74LS165

(CDMV)

V-BUS

CLK, LOAD, SHIFT (FROM CIB)

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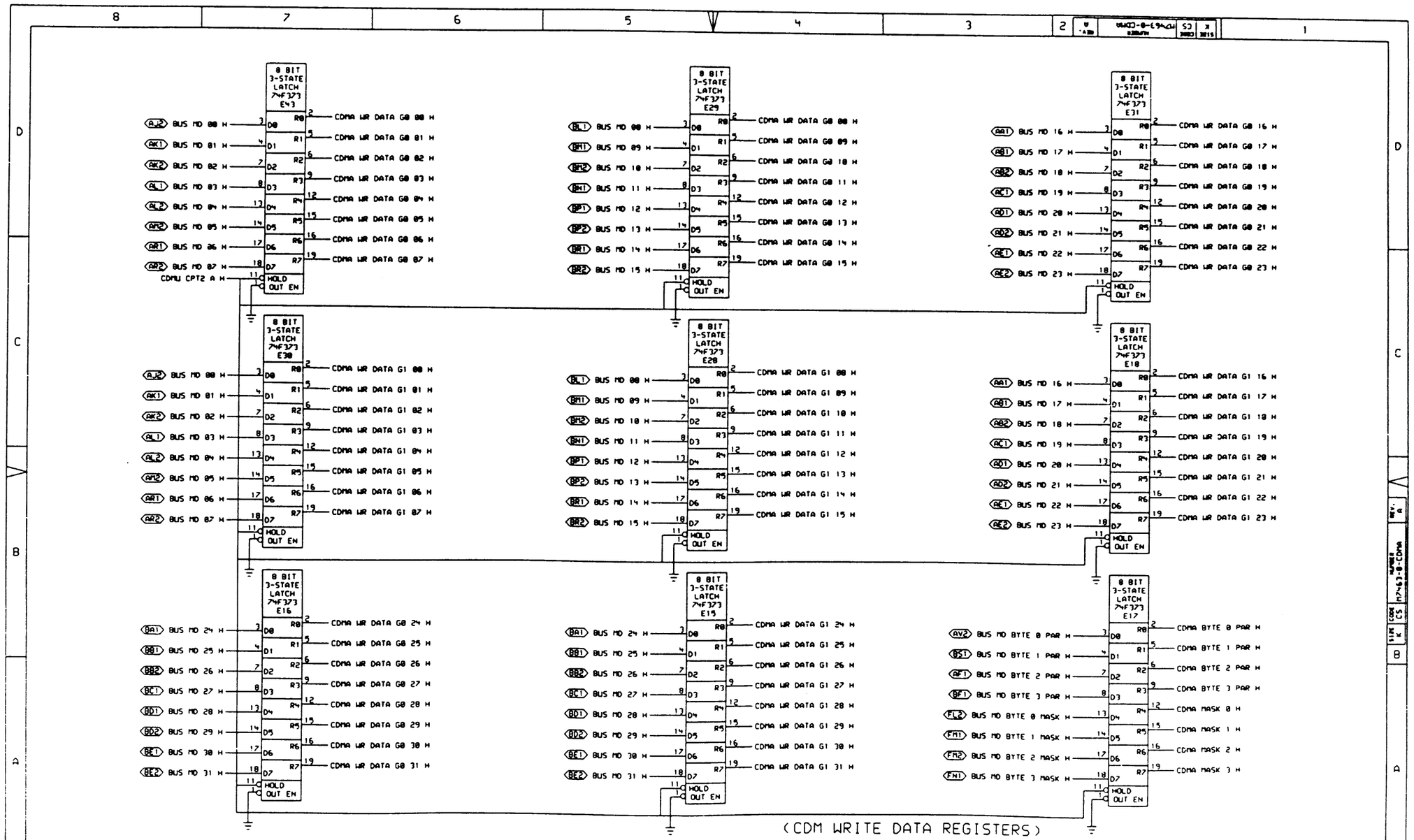
REVISIONS		
CHK	CHANGE NO.	REV

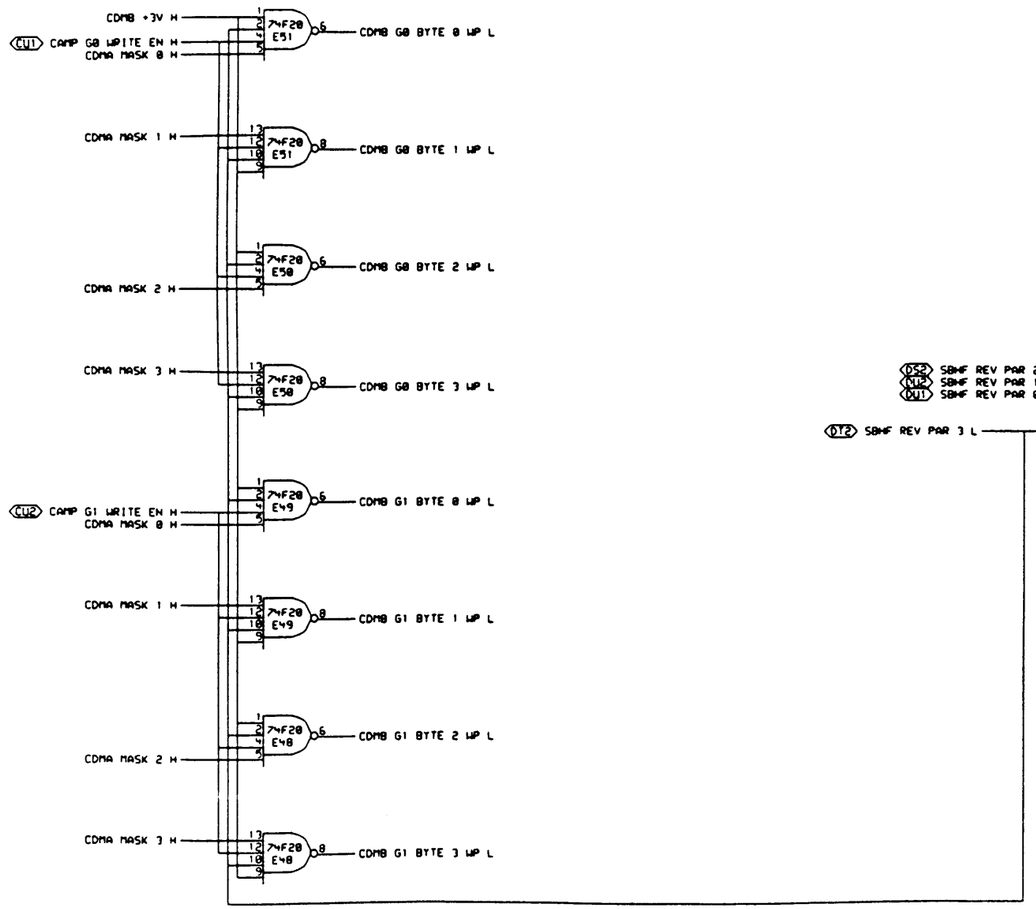
digital

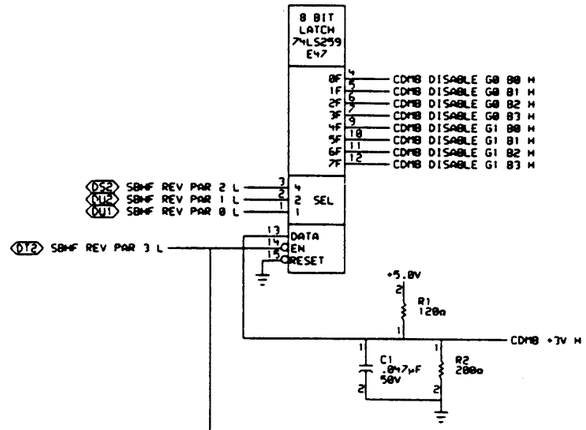
DRN: Richard Taylor DATE 08-NOV-83
CHK D. ENG. DATE
DSKB1:<TAYLOR>CDM1.DRW 07-NOV-83 08:56 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7463-0-0
BOARD LOCATION: AF5
SHEET 1 OF 1

TITLE: CACHE DATA MATRIX (CDM1)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDM1	A


8 BIT 3-STATE LATCH 74F373 E43
A_2 BUS MD 00 H
AK1 BUS MD 01 H
AK2 BUS MD 02 H
AL1 BUS MD 03 H
AL2 BUS MD 04 H
AM2 BUS MD 05 H
AR1 BUS MD 06 H
AR2 BUS MD 07 H
CDMU CPT2 A H
HOLD OUT EN
CDMA WR DATA G0 00 H
CDMA WR DATA G0 01 H
CDMA WR DATA G0 02 H
CDMA WR DATA G0 03 H
CDMA WR DATA G0 04 H
CDMA WR DATA G0 05 H
CDMA WR DATA G0 06 H
CDMA WR DATA G0 07 H
8 BIT 3-STATE LATCH 74F373 E29
BL1 BUS MD 00 H
BM1 BUS MD 09 H
BM2 BUS MD 10 H
BN1 BUS MD 11 H
BP1 BUS MD 12 H
BP2 BUS MD 13 H
BR1 BUS MD 14 H
BR2 BUS MD 15 H
CDMA WR DATA G0 08 H
CDMA WR DATA G0 09 H
CDMA WR DATA G0 10 H
CDMA WR DATA G0 11 H
CDMA WR DATA G0 12 H
CDMA WR DATA G0 13 H
CDMA WR DATA G0 14 H
CDMA WR DATA G0 15 H
8 BIT 3-STATE LATCH 74F373 E31
AA1 BUS MD 16 H
AB1 BUS MD 17 H
AB2 BUS MD 18 H
AC1 BUS MD 19 H
AD1 BUS MD 20 H
AD2 BUS MD 21 H
AE1 BUS MD 22 H
AE2 BUS MD 23 H
CDMA WR DATA G0 16 H
CDMA WR DATA G0 17 H
CDMA WR DATA G0 18 H
CDMA WR DATA G0 19 H
CDMA WR DATA G0 20 H
CDMA WR DATA G0 21 H
CDMA WR DATA G0 22 H
CDMA WR DATA G0 23 H
8 BIT 3-STATE LATCH 74F373 E30
A_2 BUS MD 00 H
AK1 BUS MD 01 H
AK2 BUS MD 02 H
AL1 BUS MD 03 H
AL2 BUS MD 04 H
AM2 BUS MD 05 H
AR1 BUS MD 06 H
AR2 BUS MD 07 H
CDMA WR DATA G1 00 H
CDMA WR DATA G1 01 H
CDMA WR DATA G1 02 H
CDMA WR DATA G1 03 H
CDMA WR DATA G1 04 H
CDMA WR DATA G1 05 H
CDMA WR DATA G1 06 H
CDMA WR DATA G1 07 H
8 BIT 3-STATE LATCH 74F373 E28
BL1 BUS MD 00 H
BM1 BUS MD 09 H
BM2 BUS MD 10 H
BN1 BUS MD 11 H
BP1 BUS MD 12 H
BP2 BUS MD 13 H
BR1 BUS MD 14 H
BR2 BUS MD 15 H
CDMA WR DATA G1 08 H
CDMA WR DATA G1 09 H
CDMA WR DATA G1 10 H
CDMA WR DATA G1 11 H
CDMA WR DATA G1 12 H
CDMA WR DATA G1 13 H
CDMA WR DATA G1 14 H
CDMA WR DATA G1 15 H
8 BIT 3-STATE LATCH 74F373 E18
AA1 BUS MD 16 H
AB1 BUS MD 17 H
AB2 BUS MD 18 H
AC1 BUS MD 19 H
AD1 BUS MD 20 H
AD2 BUS MD 21 H
AE1 BUS MD 22 H
AE2 BUS MD 23 H
CDMA WR DATA G1 16 H
CDMA WR DATA G1 17 H
CDMA WR DATA G1 18 H
CDMA WR DATA G1 19 H
CDMA WR DATA G1 20 H
CDMA WR DATA G1 21 H
CDMA WR DATA G1 22 H
CDMA WR DATA G1 23 H
8 BIT 3-STATE LATCH 74F373 E16
BA1 BUS MD 24 H
BB1 BUS MD 25 H
BB2 BUS MD 26 H
BC1 BUS MD 27 H
BD1 BUS MD 28 H
BD2 BUS MD 29 H
BE1 BUS MD 30 H
BE2 BUS MD 31 H
CDMA WR DATA G0 24 H
CDMA WR DATA G0 25 H
CDMA WR DATA G0 26 H
CDMA WR DATA G0 27 H
CDMA WR DATA G0 28 H
CDMA WR DATA G0 29 H
CDMA WR DATA G0 30 H
CDMA WR DATA G0 31 H
8 BIT 3-STATE LATCH 74F373 E15
BA1 BUS MD 24 H
BB1 BUS MD 25 H
BB2 BUS MD 26 H
BC1 BUS MD 27 H
BD1 BUS MD 28 H
BD2 BUS MD 29 H
BE1 BUS MD 30 H
BE2 BUS MD 31 H
CDMA WR DATA G1 24 H
CDMA WR DATA G1 25 H
CDMA WR DATA G1 26 H
CDMA WR DATA G1 27 H
CDMA WR DATA G1 28 H
CDMA WR DATA G1 29 H
CDMA WR DATA G1 30 H
CDMA WR DATA G1 31 H
8 BIT 3-STATE LATCH 74F373 E17
AV2 BUS MD BYTE 0 PAR H
BS1 BUS MD BYTE 1 PAR H
AF1 BUS MD BYTE 2 PAR H
BF1 BUS MD BYTE 3 PAR H
FL2 BUS MD BYTE 0 MASK H
FM1 BUS MD BYTE 1 MASK H
FM2 BUS MD BYTE 2 MASK H
FN1 BUS MD BYTE 3 MASK H
CDMA BYTE 0 PAR H
CDMA BYTE 1 PAR H
CDMA BYTE 2 PAR H
CDMA BYTE 3 PAR H
CDMA MASK 0 H
CDMA MASK 1 H
CDMA MASK 2 H
CDMA MASK 3 H
(CDM WRITE DATA REGISTERS)
REVISIONS
CHK CHANGE NO. REV
digital
DRN'D.
CHK'D.
DATE 08-NOV-83
ENG.
DATE
BOARD LOCATION: AF5
SHEET 1 OF 1
DSKB:[TAYLOR]CDMA.DRW 29-SEP-83 10:49
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0
TITLE: CACHE DATA MATRIX (CDMA)
SIZE K
CODE CS
NUMBER M7463-0-CDMA
REV. A





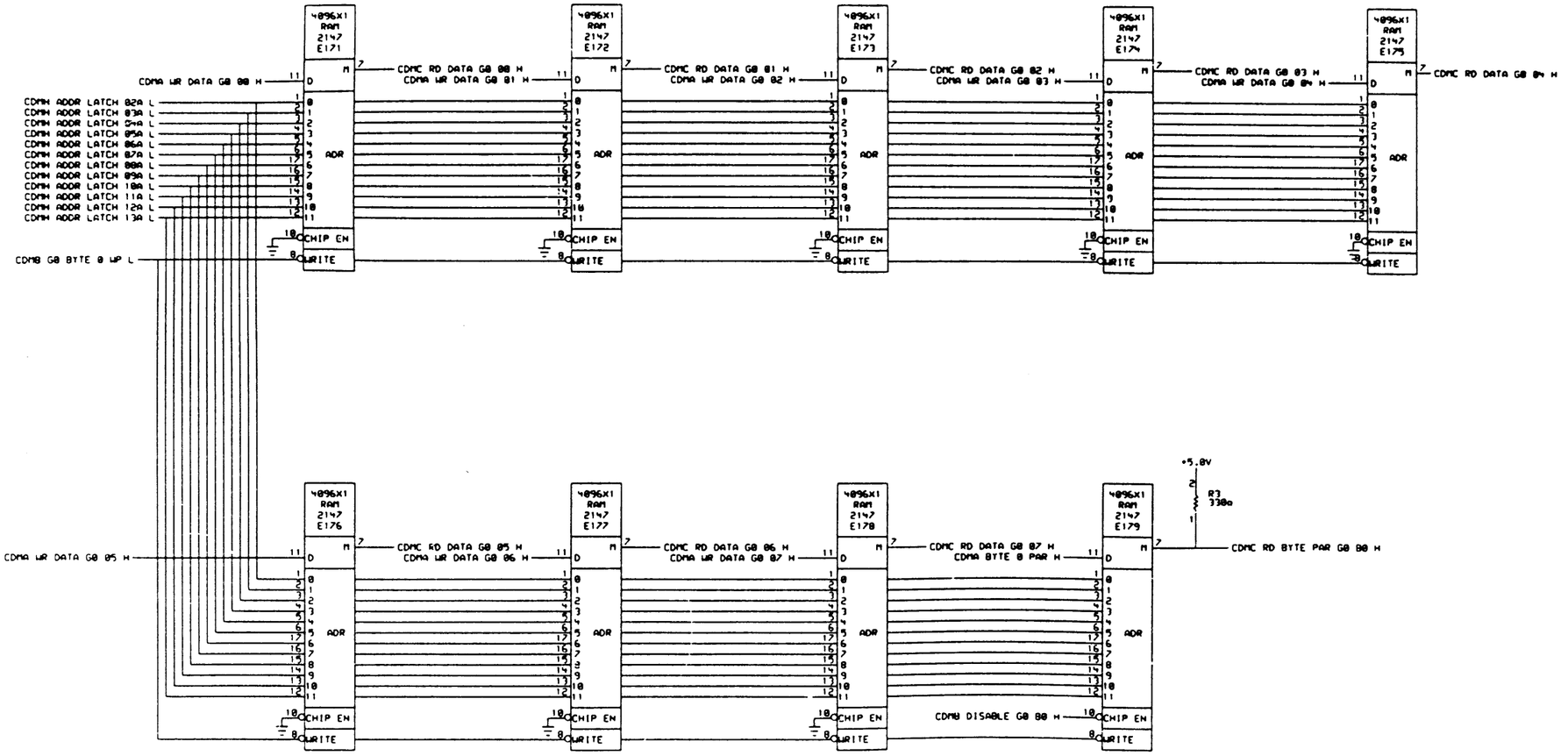
(WRITE ENABLE & FORCE PARITY ERROR DECODE)

REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN.	DATE 08-NOV-83	ENG. DATE
	CHK'D.	DATE	BOARD LOCATION: AF5 SHEET 1 OF 1
DSKBICTAYLOR)CDMB.DRW 31-OCT-83 07:58		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7463-0-0	

TITLE: CACHE DATA MATRIX (CDMB)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMB	A



(DATA MEMORY GR 0 BYTE 0)

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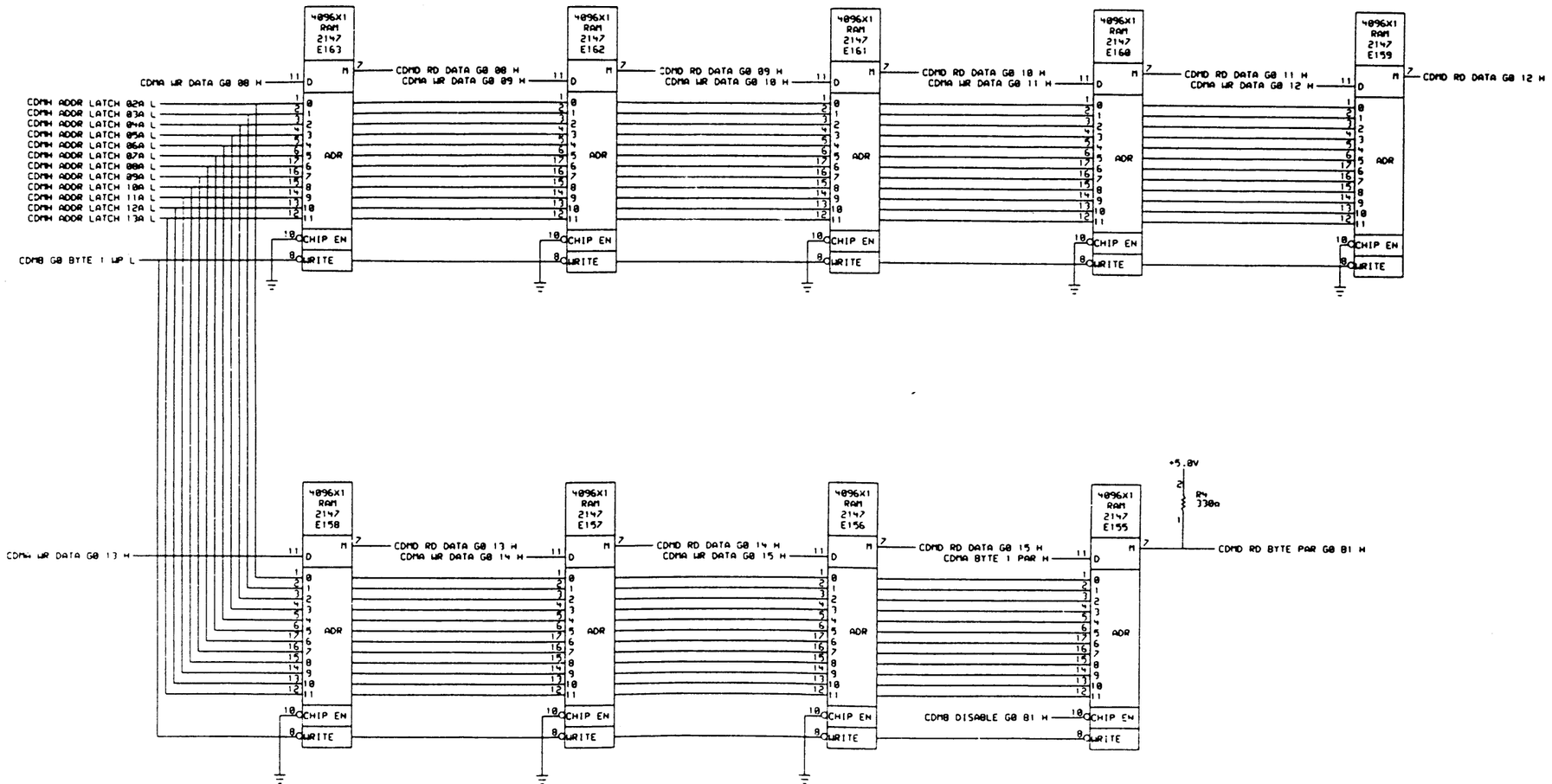
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRWN: [illegible] DATE 08-NOV-83
CHK'D: DATE
ENG. DATE
BOARD LOCATION: AF5
SHEET 1 OF 1
TITLE: CACHE DATA MATRIX (CDMC)
DSKB:<TAYLOR>CDMC.DRW 31-OCT-83 08:00
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0
SIZE K | CODE CS | NUMBER M7463-0-CDMC | REV. A



(DATA MEMORY GR 0 BYTE 1)

REVISIONS		
CHK	CHANGE NO.	REV

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digital

DRN: Lidmer Cole — DATE: 08-NOV-83 — ENG. — DATE — DATE

CHK'D. — DATE — BOARD LOCATION: WF5

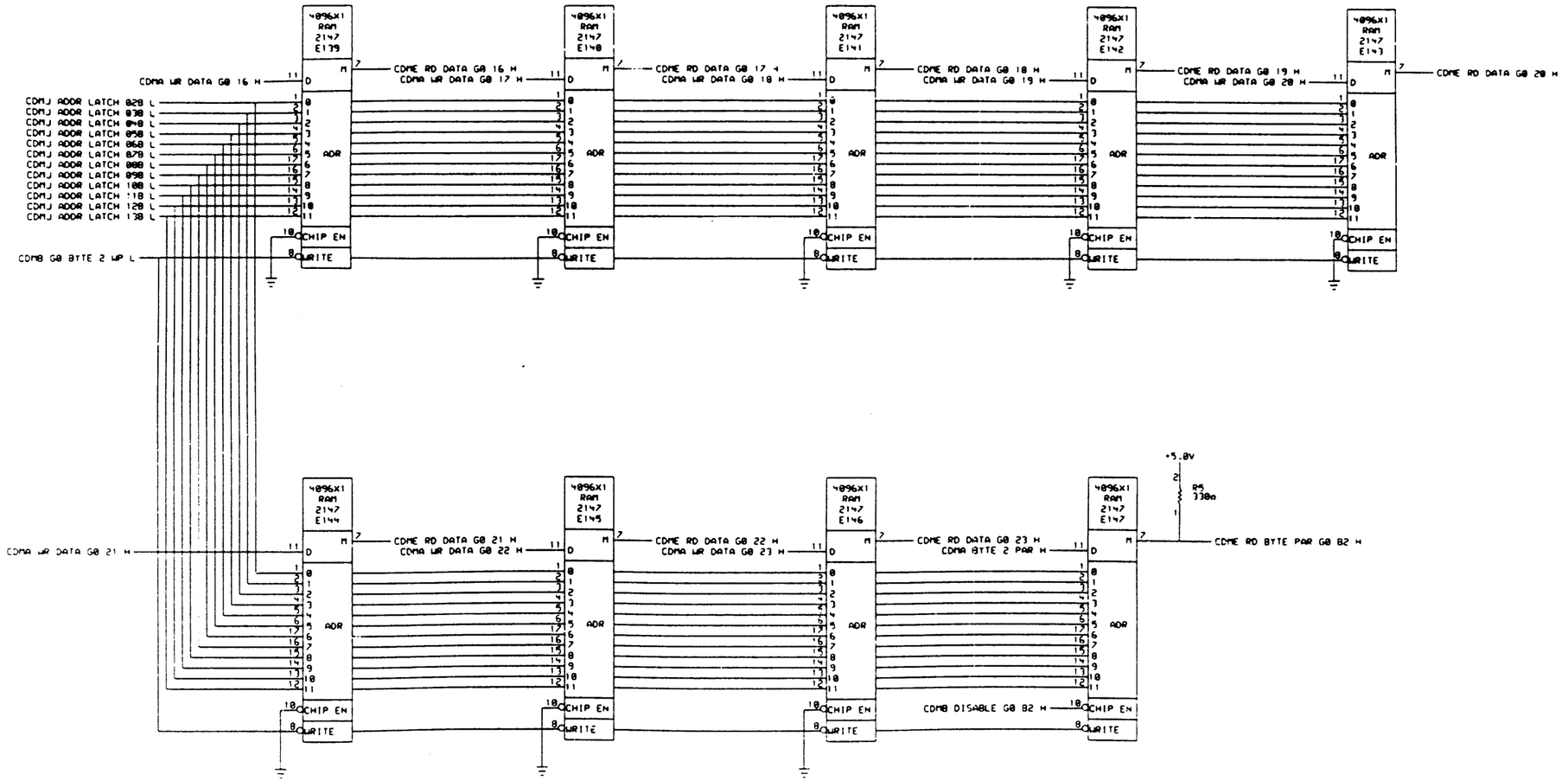
SHEET 1 OF 1

DSKB:<TAYLOR>CDMD.DRW 31-OCT-83 08:01 — NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: CACHE DATA MATRIX (CDMD)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMD	A



(DATA MEMORY GR 0 BYTE 2)

REVISIONS		
CHK	CHANGE NO.	REV

digital

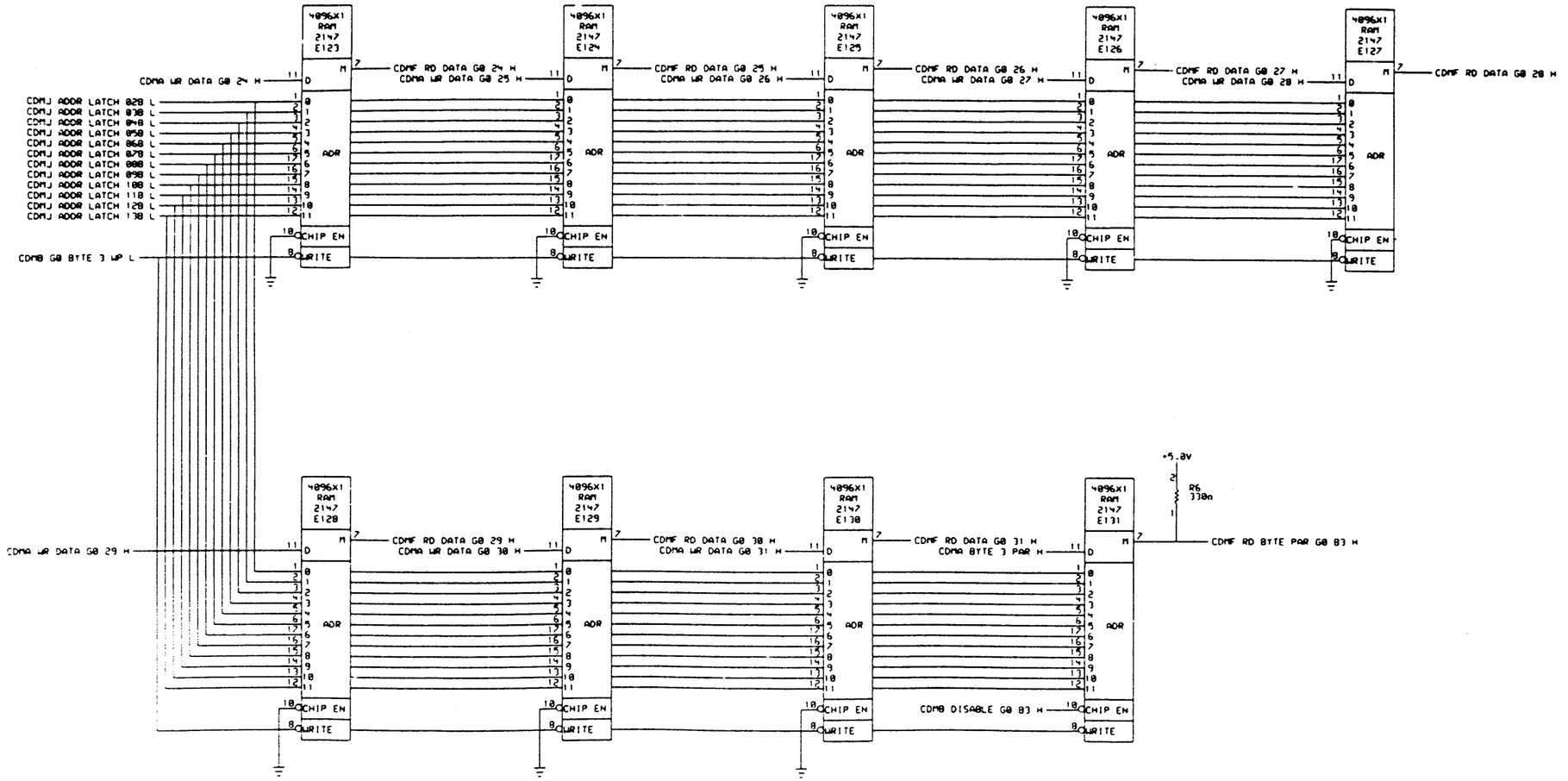
DRN:	DATE:	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF5	
		SHEET 1 OF 2	

TITLE: CACHE DATA MATRIX (CDME)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDME	A

NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0

FIRST USED ON OPTION/MODEL: 111285



(DATA MEMORY GR 0 BYTE 3)

REVISIONS			
CHK	CHANGE NO.	REV.	
	1	1	

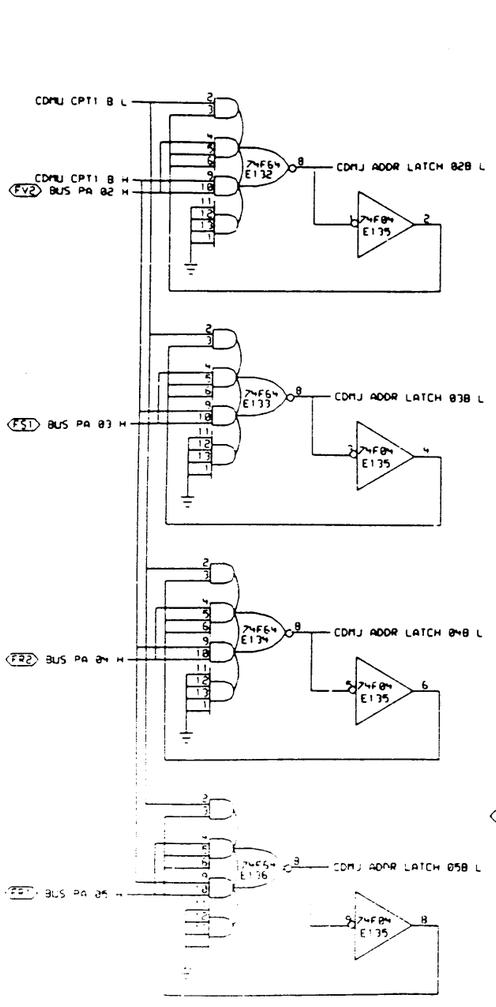
DRN:	DATE 08-NOV-83	ENG.	DATE
CHK 'D.	DATE	BOARD LOCATION: AF5	SHEET 1 OF
DSK@I:[TAYLOR]CDMF.DDU 31-OCT-83 18:32	NEXT HIGHER ASSEMBLY:		
FIRST USED ON OPTION/MODEL: 11/785	B-DD-M7463-0-0		

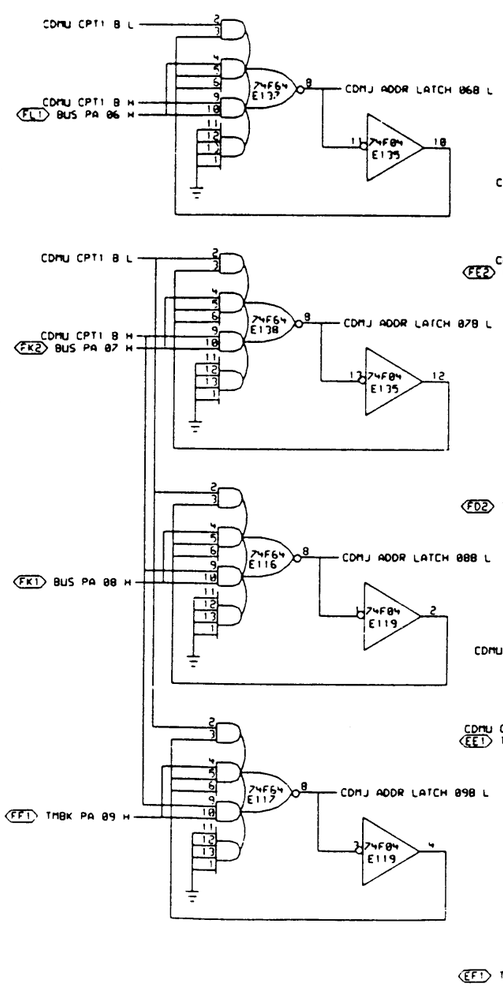
TITLE: CACHE DATA MATRIX (CDMF)

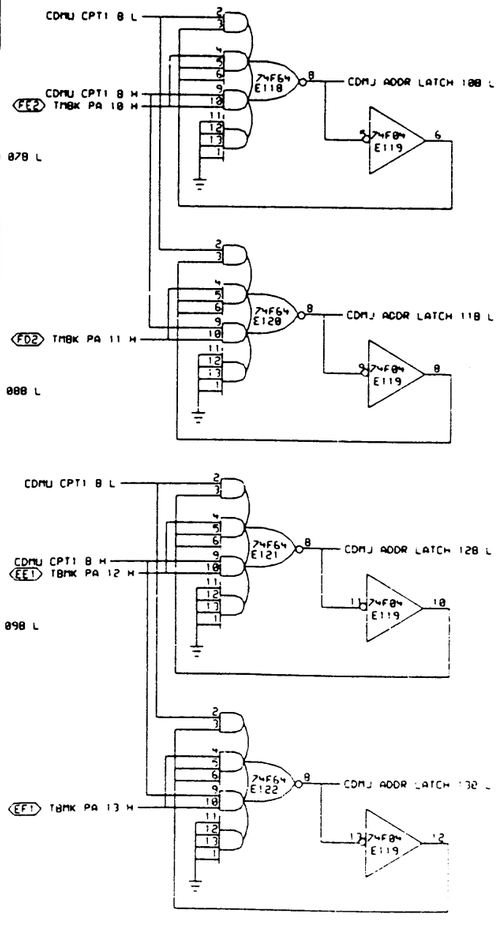
SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMF	A

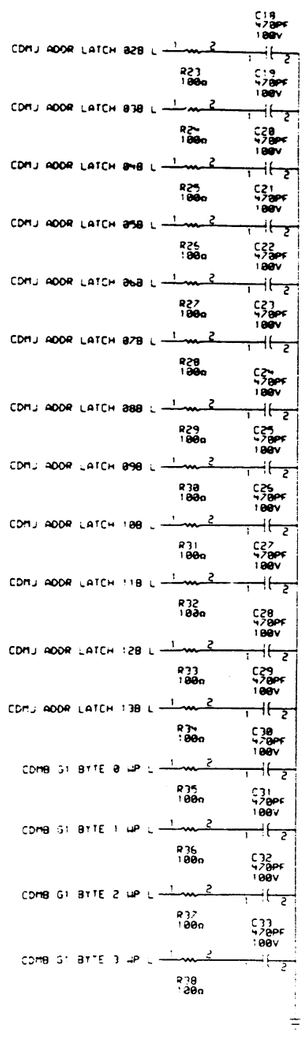
REVISIONS			
CHANGE NO.	REV.		

digital	DRWN	DATE 28-NOV-83	ENG.	DATE	TITLE: CACHE DATA MATRIX (CDMH)
	CHK'D.	DATE	BOARD LOCATION:		
DSKB:[ATLAS.CDMH.DZW] 28-SEP-83 11:02 NEXT HIGHER ASSEMBLY:					SIZE CODE: K NUMBER: CS M7463-0-CDMH REV.: A
FIRST USED ON OPTION/MODEL: 11/785			8-DD-M7463-0-0		





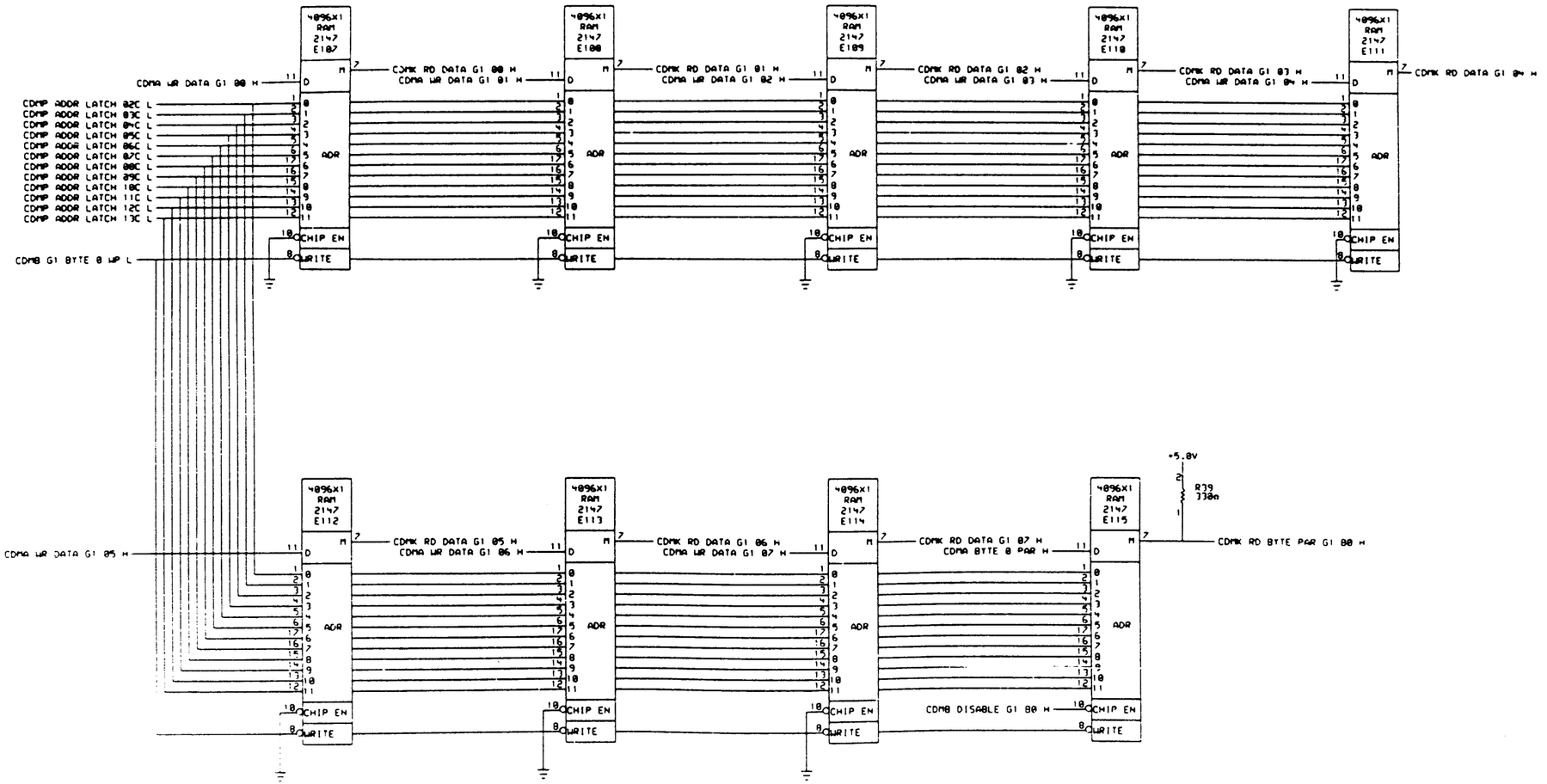




REVISIONS

DRN.	DATE	ENG.	DATE	TITLE: CACHE DATA MATRIX (CDMU)
CHK'D.		08-NOV-83		
DSKB:*CATLOG*CDMU.SDU 29-SEP-83 11:03		BOARD LOCATION:		NEXT HIGHER ASSEMBLY: 8-DD-M7463-0-0
FIRST USED ON OPTION MODEL: 11/785				

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMU	A



(DATA MEMORY GR 1 BYTE 0)

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REVISIONS		
CHANGE NO.	DESCRIPTION	DATE

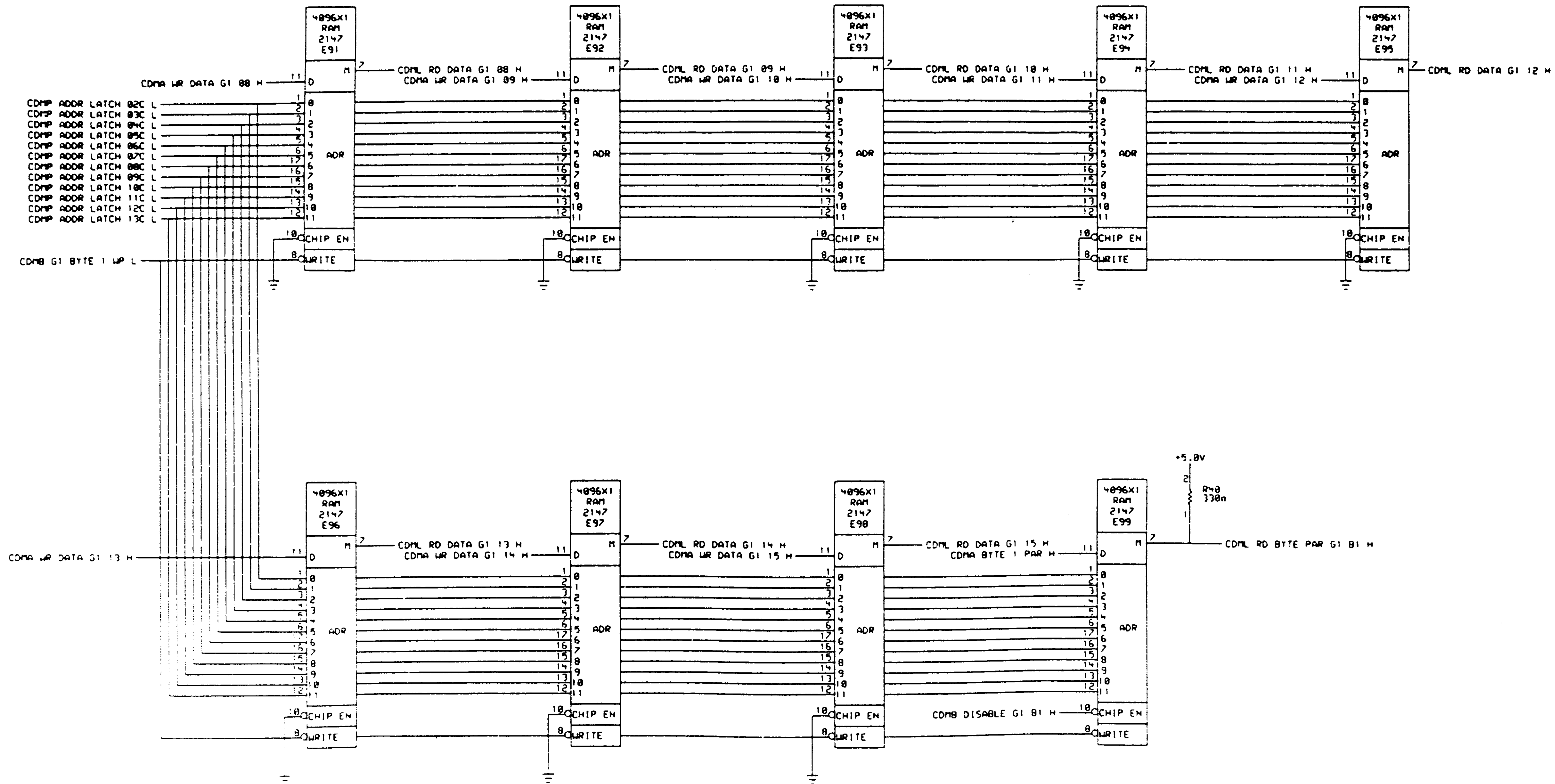
digital

DRWN. | DATE ENG. 08-NOV-83 | DATE
CHK'D. | DATE BOARD LOCATION: OFF SHEET

DSKB1:[ATLAS.CDMK.DWG]1-DC-83 08:03 | NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0
FIRST USED ON OPTION/MODEL: 1285

TITLE: CACHE DATA MATRIX (CDMK)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMK	A



(DATA MEMORY GR 1 BYTE 1)

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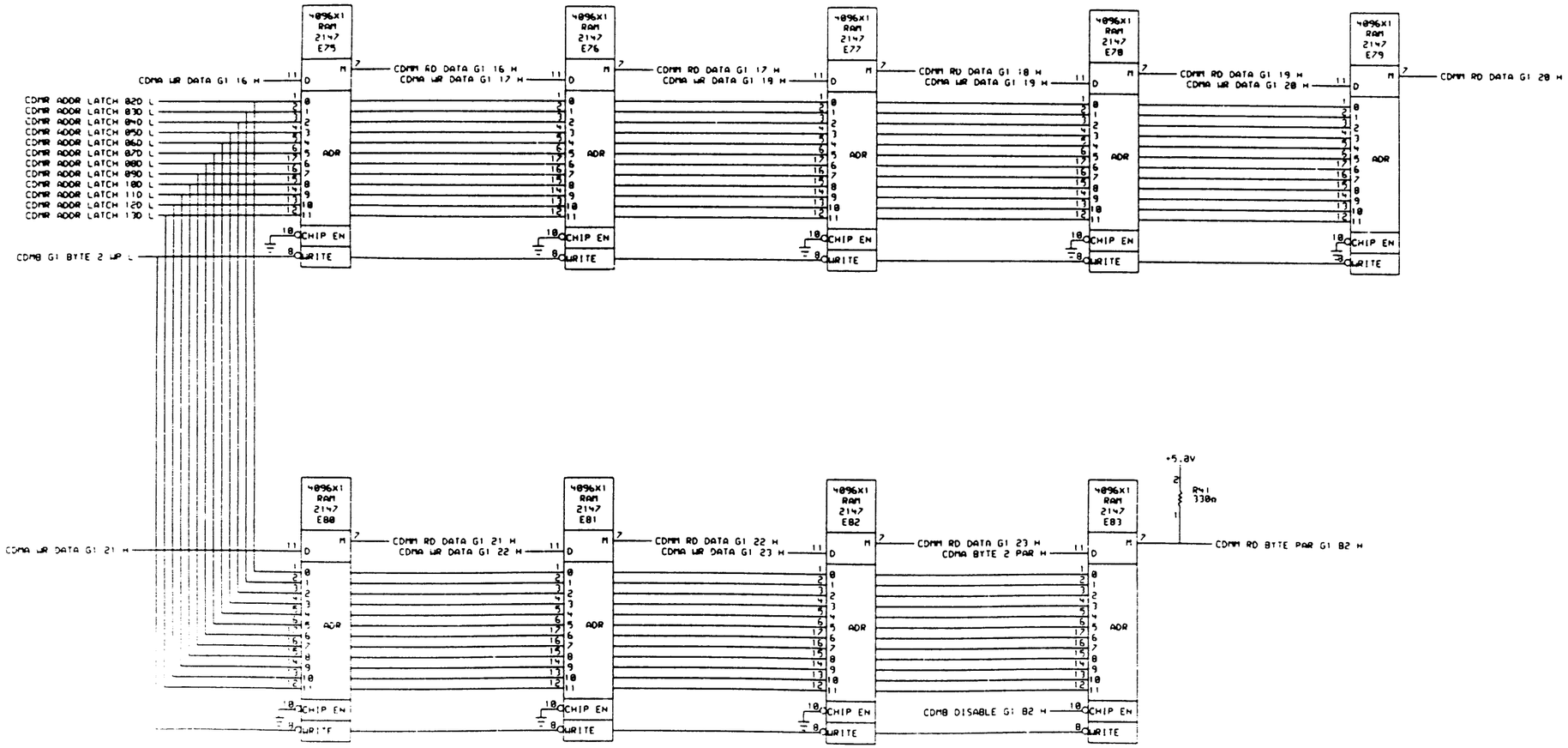
REVISIONS
CHG CHANGE NO. REV.

digital

DRN: [illegible] DATE 08-NOV-83
CHK'D. DATE
ENG. DATE
BOARD LOCATION: AF5
SHEET 1 OF 1
DSKB:<TAYLOR>CDML.DRW [illegible]-OCT-83 08:04
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: A-DD-M7463-0-0

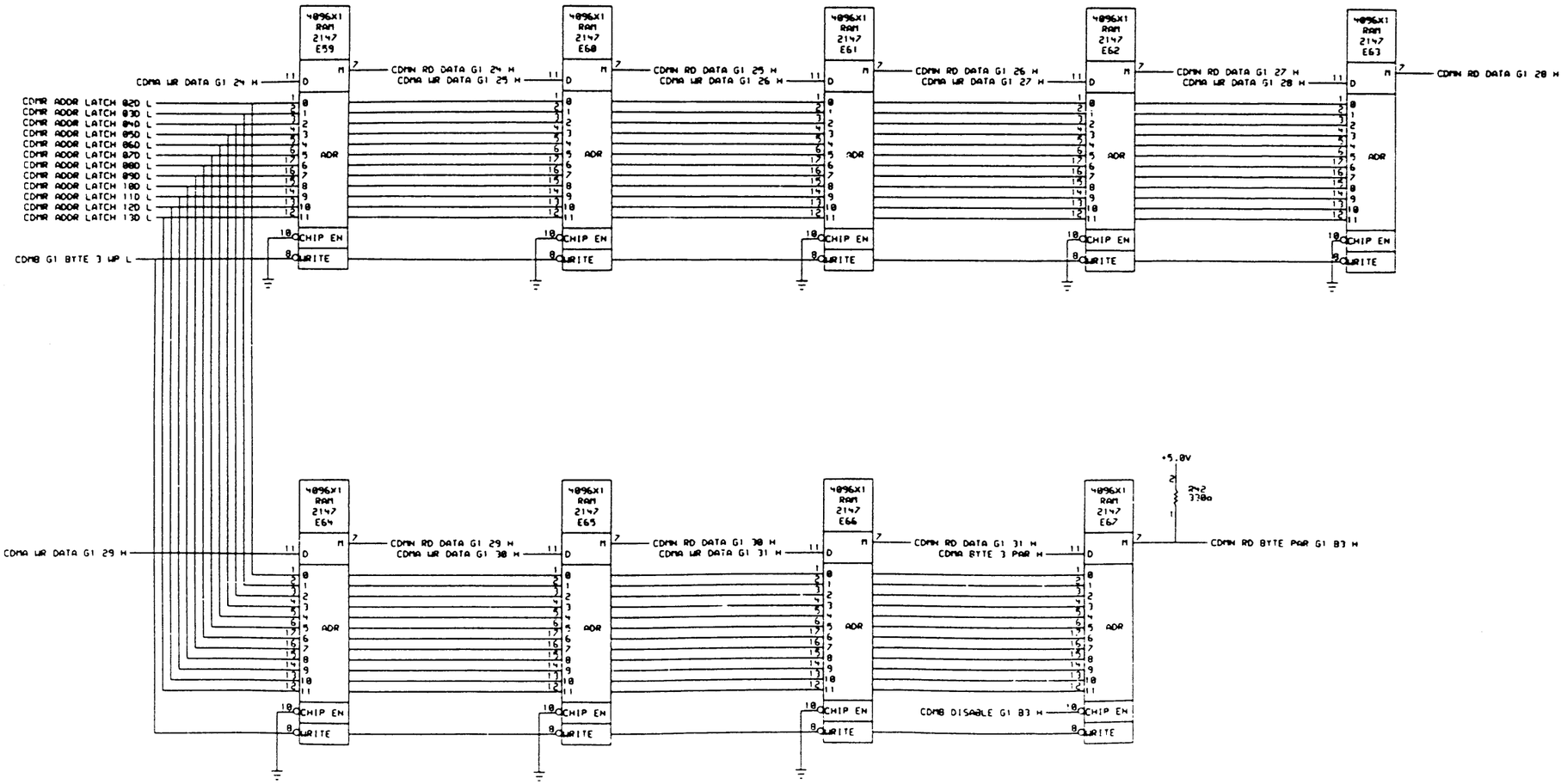
TITLE: CACHE DATA MATRIX (CDML)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDML	A



(DATA MEMORY GP 1 BYTE 2)

REVISIONS		DRWN	DATE ENG.	DATE	TITLE: CACHE DATA MATRIX (CD)
			DATE BOARD LOCATION:		
			NEXT HIGHER ASSEMBLY:		SIZE K / CODE CS / NUMBER M7463-0-CDMA / REV. E
		FIRST USED ON OPTION/MODEL:	B-DD-M7463-0-0		



(DATA MEMORY GR 1 BYTE 3)

REVISIONS		
CHK	CHANGE NO.	REV

digital

DRWN. | DATE 08-NOV-83 | ENG. | DATE | TITLE: CACHE DATA MATRIX (CDMN)

CHK'D. | DATE | BOARD LOCATION:

DSKB:<YATL.03.CDMN.XRU 31-OCT-83 08:26 | NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0

FIRST USED ON OPTION/MODEL: 11/785

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMN	A

CDMU CPTI C L
CDMU CPTI C M
FV2 BUS PA 02 H
7*F64 E100
7*F04 E107
CDMP ADDR LATCH 02C L

FS1 BUS PA 03 H
7*F64 E101
7*F04 E107
CDMP ADDR LATCH 03C L

FR2 BUS PA 04 H
7*F64 E102
7*F04 E107
CDMP ADDR LATCH 04C L

FR1 BUS PA 05 H
7*F64 E104
7*F04 E107
CDMP ADDR LATCH 05C L

CDMU CPTI C L
CDMU CPTI C M
FL1 BUS PA 06 H
7*F64 E105
7*F04 E107
CDMP ADDR LATCH 06C L

CDMU CPTI C L
CDMU CPTI C M
FK2 BUS PA 07 H
7*F64 E106
7*F04 E107
CDMP ADDR LATCH 07C L

FK1 BUS PA 08 H
7*F64 E84
7*F04 E87
CDMP ADDR LATCH 08C L

FF1 TMBK PA 09 H
7*F64 E85
7*F04 E87
CDMP ADDR LATCH 09C L

CDMU CPTI C L
CDMU CPTI C M
FE2 TMBK PA 10 H
7*F64 E86
7*F04 E87
CDMP ADDR LATCH 10C L

FD2 TMBK PA 11 H
7*F64 E88
7*F04 E87
CDMP ADDR LATCH 11C L

CDMU CPTI C L
CDMU CPTI A M
FF1 TBMK PA 12 H
7*F64 E89
7*F04 E87
CDMP ADDR LATCH 12C L

FF1 TBMK PA 13 H
7*F64 E90
7*F04 E87
CDMP ADDR LATCH 13C L

CDMP ADDR LATCH 02C L — R71 100Ω — C57 470PF 100V
CDMP ADDR LATCH 03C L — R72 100Ω — C73 470PF 100V
CDMP ADDR LATCH 04C L — R73 100Ω — C74 470PF 100V
CDMP ADDR LATCH 05C L — R74 100Ω — C75 470PF 100V
CDMP ADDR LATCH 06C L — R75 100Ω — C76 470PF 100V
CDMP ADDR LATCH 07C L — R76 100Ω — C77 470PF 100V
CDMP ADDR LATCH 08C L — R77 100Ω — C78 470PF 100V
CDMP ADDR LATCH 09C L — R78 100Ω — C79 470PF 100V
CDMP ADDR LATCH 10C L — R79 100Ω — C80 470PF 100V
CDMP ADDR LATCH 11C L — R50 100Ω — C81 470PF 100V
CDMP ADDR LATCH 12C L — R51 100Ω — C82 470PF 100V
CDMP ADDR LATCH 13C L — R52 100Ω — C83 470PF 100V
R53 100Ω — C84 470PF 100V
R54 100Ω

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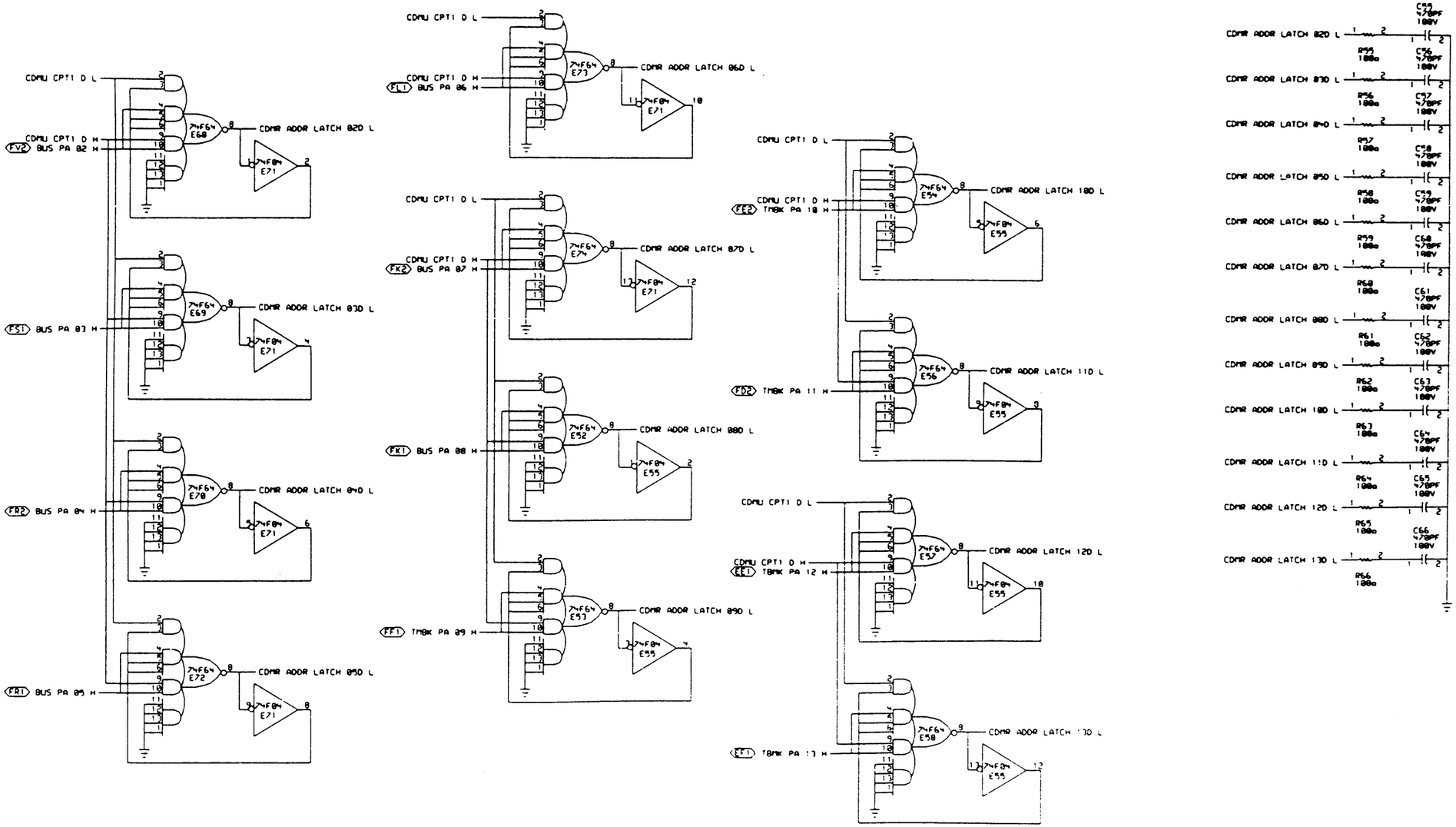
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: [illegible] DATE 08-NOV-83 ENG. DATE
CHK D. DATE
BOARD LOCATION:
DSKB:<TAYLOR>CDMP.DRW 29-SEP-83 11:06 NEXT HIGHER ASSEMBLY: B-DD-M7463-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: CACHE DATA MATRIX (CDMP)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMP	A



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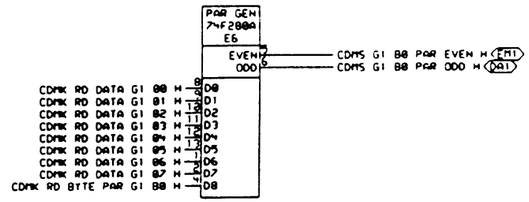
REVISIONS			
CHK	CHANGE NO.	REV

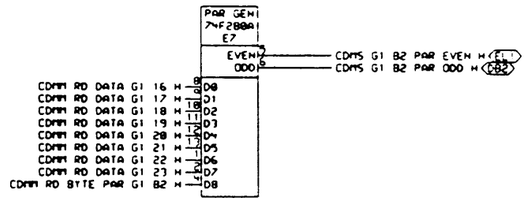
DRWN
CHK'D.
DATE (ENG.) 08-NOV-83
DATE (BOARD) 08-NOV-83
DATE
APPLICATION: N/A

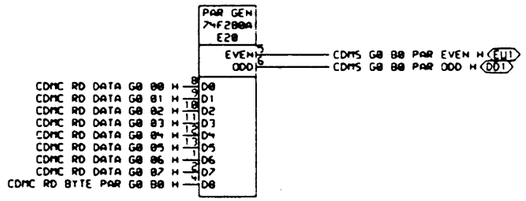
DSKB:[TAYLOR.CDMR.DRW] 29-SEP-83 11:08 NEXT HIGHER ASSEMBLY: 18-DD-M7463-0-0
FIRST USED ON OPTION/MODEL: 11/795

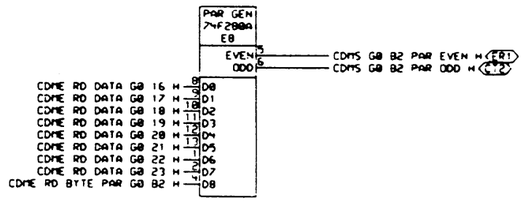
TITLE: CACHE DATA MATRIX (CDMR)

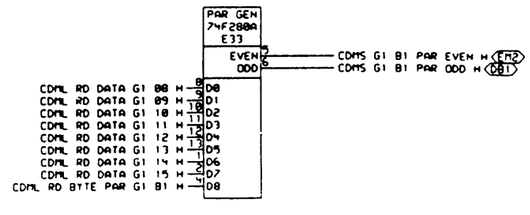
SIZE	CODE	NUMBER	REV.
X	CS	M7463-0-CDMR	A

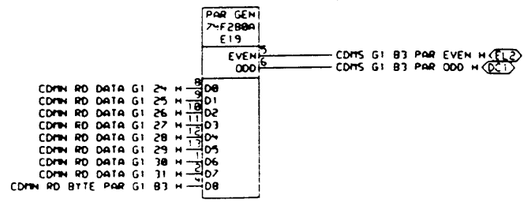


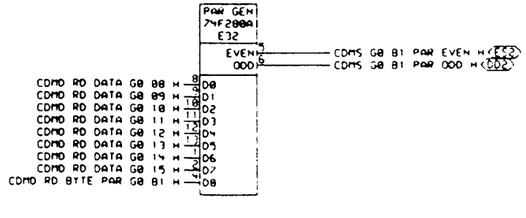


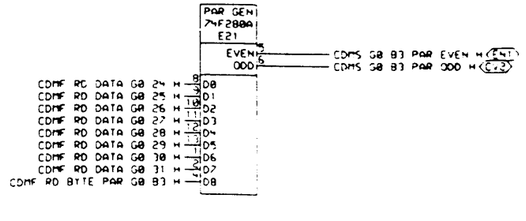












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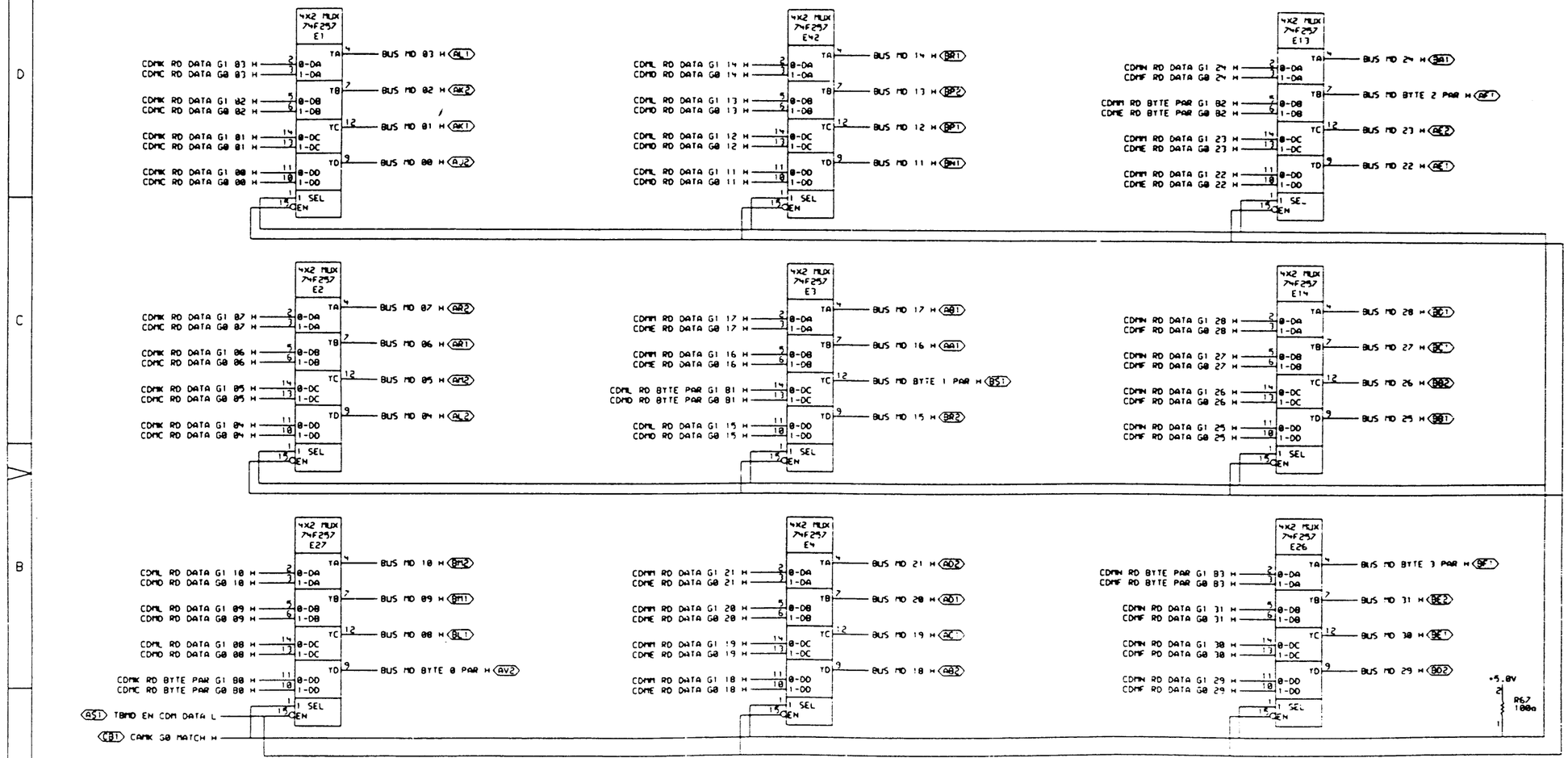
REVISIONS		
CHK	CHANGE NO.	REV.

DRN: CHK'D:
DATE ENG. 08-NOV-83
DATE
SIZE
DATE TITLE:
TITLE: CACHE DATA MATRIX (CDMS)
DSKB:[CTATL.PA]CDMS.DRW 31-OCT-83 09:34
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
8-00-M7463-0-0
SIZE: A | CODE: 1CS | NUMBER: M7463-0-CDMS | REV.: A



(CDM OUTPUT DATA MULTIPLEXER)

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REVISIONS		
CHK	CHANGE NO.	REV

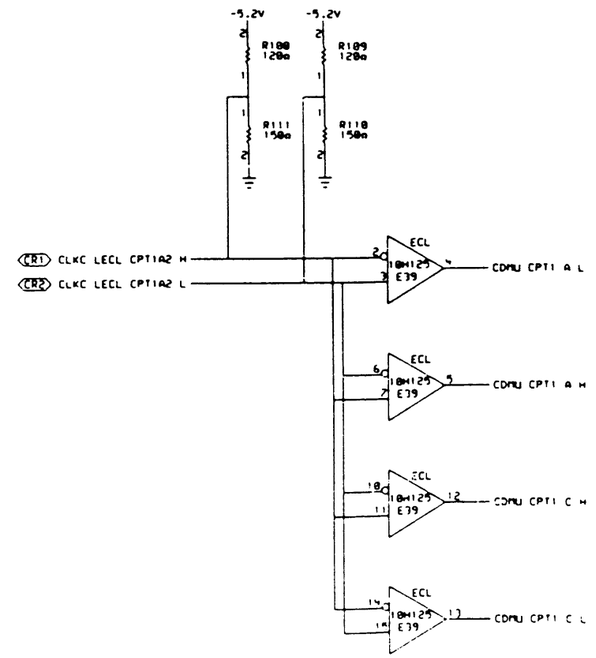
digital

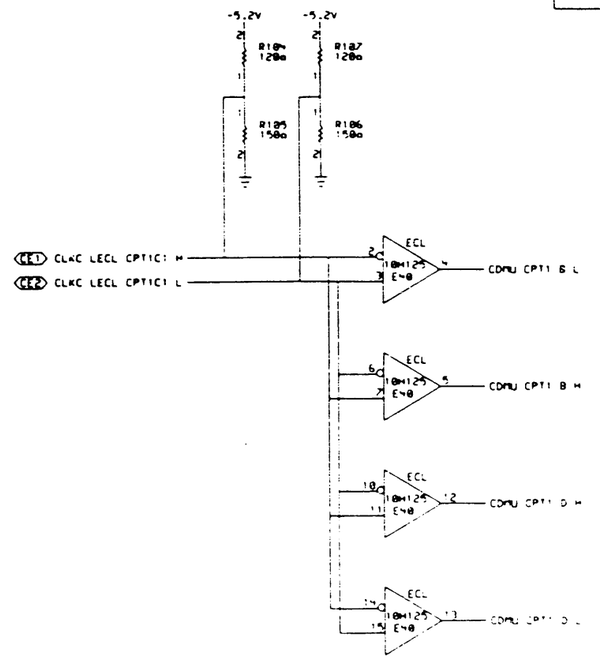
DRWN: [illegible] DATE: 08-NOV-83
CHK'D: DATE:
BOARD CAT'N: DATE:
ENG. DATE:

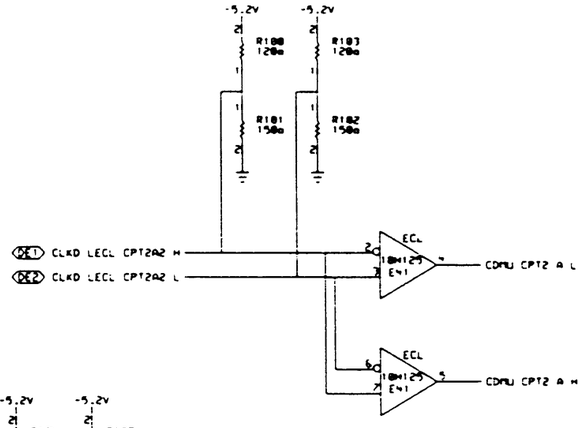
SSKB::[TATL.SRC]CDMT.DRW 29-SEP-83 11:28 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7463-0-0

TITLE: CACHE DATA MATRIX (CDMT)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMT	A







CLOCK RECEIVERS

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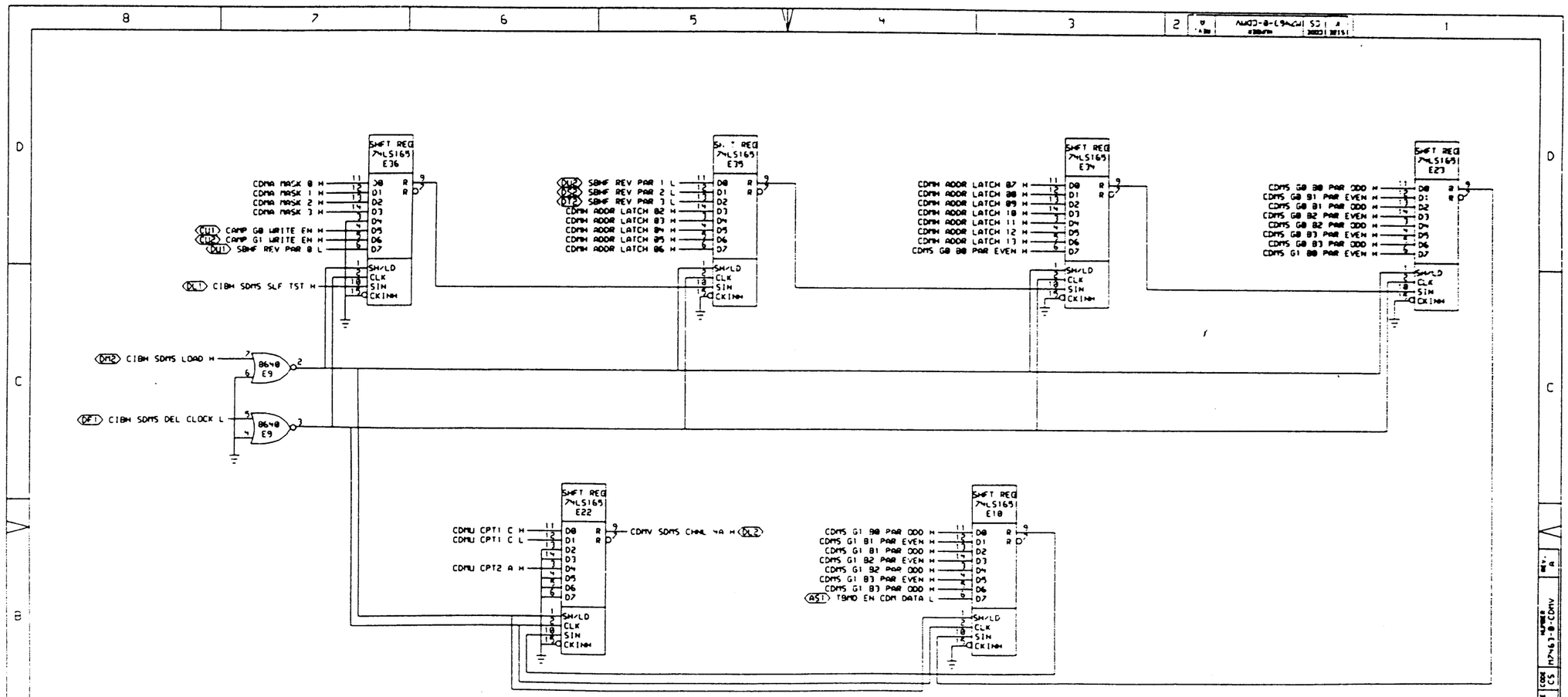
REVISIONS		
CHK	CHANGE NO.	REV.

DRWN: [illegible] DATE ENG. 08-NOV-85 DATE TITLE:
CHK'D: DATE 22-NOV-85 SIZE: X APVD:
SCHEMATIC ACCTG. SPU 29-SEP-87 11:16:16 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: [illegible] B-DD-M7463-0-0

CACHE DATA MATRIX (CDMU)

SIZE	CODE	NUMBER	REV.
K	05	M7463-0-CDMU	A



REVISIONS		
CHK	CHANGE NO.	REV.

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digital

DRN. DATE ENG. DATE TITLE:
CHK'D. DATE

CACHE DATA MATRIX (CDMV)

DSKB:<ATL.B>CDMV.DW 29-SEP-83 10:59 <KAT.MICRO5.ASSEMBLY>
FIRST USED ON OPTION/MODEL: 11/785

SIZE: A | CODE: 25 | NUMBER: M7463-0-CDMV | REV: A

SIZE | CODE | NUMBER | REV.
A | 25 | M7463-0-CDMV | A

+5.8V

GND

-5.2V

REVISIONS		
CHG	CHANGE NO.	REV.

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digital

DRWN. [illegible] DATE 08-NOV-83

CHK'D. DATE

BOARD LOCATION: MF8

SCALE:

SSKB[CATALOG]CDMW.SCH 08-NOV-83 08:15

NEXT HIGHER ASSEMBLY: 8-DD-M7463-0-0

FIRST USED ON OPTION/MODEL: 11/785

DATE TITLE:

CACHE DATA MATRIX (CDMW)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMW	A

SIGNAL NAME	PAGE NUMBER(S)
BUS MD 00 H	CDMT.A
BUS MD 01 H	CDMT.A
BUS MD 02 H	CDMT.A
BUS MD 03 H	CDMT.A
BUS MD 04 H	CDMT.A
BUS MD 05 H	CDMT.A
BUS MD 06 H	CDMT.A
BUS MD 07 H	CDMT.A
BUS MD 08 H	CDMT.A
BUS MD 09 H	CDMT.A
BUS MD 10 H	CDMT.A
BUS MD 11 H	CDMA.T
BUS MD 12 H	CDMA.T
BUS MD 13 H	CDMA.T
BUS MD 14 H	CDMA.T
BUS MD 15 H	CDMT.A
BUS MD 16 H	CDMT.A
BUS MD 17 H	CDMT.A
BUS MD 18 H	CDMT.A
BUS MD 19 H	CDMT.A
BUS MD 20 H	CDMT.A
BUS MD 21 H	CDMT.A
BUS MD 22 H	CDMT.A
BUS MD 23 H	CDMT.A
BUS MD 24 H	CDMT.A
BUS MD 25 H	CDMT.A
BUS MD 26 H	CDMT.A
BUS MD 27 H	CDMT.A
BUS MD 28 H	CDMT.A
BUS MD 29 H	CDMA.T
BUS MD 30 H	CDMA.T
BUS MD 31 H	CDMA.T
BUS MD BYTE 0 MASK H	CDMA
BUS MD BYTE 0 PAR H	CDMA.T
BUS MD BYTE 1 MASK H	CDMA
BUS MD BYTE 1 PAR H	CDMT.A
BUS MD BYTE 2 MASK H	CDMA
BUS MD BYTE 2 PAR H	CDMT.A
BUS MD BYTE 3 MASK H	CDMA
BUS MD BYTE 3 PAR H	CDMA.T
BUS PA 02 H	CDMR.P,J,M
BUS PA 03 H	CDMR.P,J,M
BUS PA 04 H	CDMR.P,J,M
BUS PA 05 H	CDMR.P,J,M
BUS PA 06 H	CDMR.P,J,M
BUS PA 07 H	CDMR.P,J,M
BUS PA 08 H	CDMR.P,J,M
CAMK G0 MATCH H	CDMT
CAMP G0 WRITE EN H	CDMV.B
CAMP G1 WRITE EN H	CDMV.B

SIGNAL NAME	PAGE NUMBER(S)
CDMA BYTE 0 PAR H	CDMA.K,C
CDMA BYTE 1 PAR H	CDMA.L,D
CDMA BYTE 2 PAR H	CDMA.M,E
CDMA BYTE 3 PAR H	CDMA.N,F
CDMA MASK 0 H	CDMA.V,B
CDMA MASK 1 H	CDMA.V,B
CDMA MASK 2 H	CDMA.V,B
CDMA MASK 3 H	CDMA.V,B
CDMA WR DATA G0 00 H	CDMA.C
CDMA WR DATA G0 01 H	CDMA.C
CDMA WR DATA G0 02 H	CDMA.C
CDMA WR DATA G0 03 H	CDMA.C
CDMA WR DATA G0 04 H	CDMA.C
CDMA WR DATA G0 05 H	CDMA.C
CDMA WR DATA G0 06 H	CDMA.C
CDMA WR DATA G0 07 H	CDMA.C
CDMA WR DATA G0 08 H	CDMA.D
CDMA WR DATA G0 09 H	CDMA.D
CDMA WR DATA G0 10 H	CDMA.D
CDMA WR DATA G0 11 H	CDMA.D
CDMA WR DATA G0 12 H	CDMA.D
CDMA WR DATA G0 13 H	CDMA.D
CDMA WR DATA G0 14 H	CDMA.D
CDMA WR DATA G0 15 H	CDMA.D
CDMA WR DATA G0 16 H	CDMA.E
CDMA WR DATA G0 17 H	CDMA.E
CDMA WR DATA G0 18 H	CDMA.E
CDMA WR DATA G0 19 H	CDMA.E
CDMA WR DATA G0 20 H	CDMA.E
CDMA WR DATA G0 21 H	CDMA.E
CDMA WR DATA G0 22 H	CDMA.E
CDMA WR DATA G0 23 H	CDMA.E
CDMA WR DATA G0 24 H	CDMA.F
CDMA WR DATA G0 25 H	CDMA.F
CDMA WR DATA G0 26 H	CDMA.F
CDMA WR DATA G0 27 H	CDMA.F
CDMA WR DATA G0 28 H	CDMA.F
CDMA WR DATA G0 29 H	CDMA.F
CDMA WR DATA G0 30 H	CDMA.F
CDMA WR DATA G0 31 H	CDMA.F
CDMA WR DATA G1 00 H	CDMA.K
CDMA WR DATA G1 01 H	CDMA.K
CDMA WR DATA G1 02 H	CDMA.K
CDMA WR DATA G1 03 H	CDMA.K
CDMA WR DATA G1 04 H	CDMA.K
CDMA WR DATA G1 05 H	CDMA.K
CDMA WR DATA G1 06 H	CDMA.K
CDMA WR DATA G1 07 H	CDMA.K
CDMA WR DATA G1 08 H	CDMA.L
CDMA WR DATA G1 09 H	CDMA.L

SIGNAL NAME	PAGE NUMBER(S)
CDMA WR DATA G1 10 H	CDMA.L
CDMA WR DATA G1 11 H	CDMA.L
CDMA WR DATA G1 12 H	CDMA.L
CDMA WR DATA G1 13 H	CDMA.L
CDMA WR DATA G1 14 H	CDMA.L
CDMA WR DATA G1 15 H	CDMA.L
CDMA WR DATA G1 16 H	CDMA.M
CDMA WR DATA G1 17 H	CDMA.M
CDMA WR DATA G1 18 H	CDMA.M
CDMA WR DATA G1 19 H	CDMA.M
CDMA WR DATA G1 20 H	CDMA.M
CDMA WR DATA G1 21 H	CDMA.M
CDMA WR DATA G1 22 H	CDMA.M
CDMA WR DATA G1 23 H	CDMA.M
CDMA WR DATA G1 24 H	CDMA.N
CDMA WR DATA G1 25 H	CDMA.N
CDMA WR DATA G1 26 H	CDMA.N
CDMA WR DATA G1 27 H	CDMA.N
CDMA WR DATA G1 28 H	CDMA.N
CDMA WR DATA G1 29 H	CDMA.N
CDMA WR DATA G1 30 H	CDMA.N
CDMA WR DATA G1 31 H	CDMA.N
CDMB +3V H	CDMB
CDMB DISABLE G0 00 H	CDMA.C
CDMB DISABLE G0 01 H	CDMB.D
CDMB DISABLE G0 02 H	CDMB.E
CDMB DISABLE G0 03 H	CDMB.F
CDMB DISABLE G1 00 H	CDMB.K
CDMB DISABLE G1 01 H	CDMB.L
CDMB DISABLE G1 02 H	CDMB.M
CDMB DISABLE G1 03 H	CDMB.N
CDMB G0 BYTE 0 WP L	CDMB.C,M
CDMB G0 BYTE 1 WP L	CDMB.D,M
CDMB G0 BYTE 2 WP L	CDMB.E,M
CDMB G0 BYTE 3 WP L	CDMB.F,M
CDMB G1 BYTE 0 WP L	CDMB.K,J
CDMB G1 BYTE 1 WP L	CDMB.L,J
CDMB G1 BYTE 2 WP L	CDMB.M,J
CDMB G1 BYTE 3 WP L	CDMB.N,J
CDMC RD BYTE PAR G0 00 H	CDMS.T,C
CDMC RD DATA G0 00 H	CDMT.S,C
CDMC RD DATA G0 01 H	CDMT.S,C
CDMC RD DATA G0 02 H	CDMT.S,C
CDMC RD DATA G0 03 H	CDMT.S,C
CDMC RD DATA G0 04 H	CDMT.S,C
CDMC RD DATA G0 05 H	CDMT.S,C
CDMC RD DATA G0 06 H	CDMT.S,C
CDMC RD DATA G0 07 H	CDMT.S,C
CDMD RD BYTE PAR G0 01 H	CDMT.S,D
CDMD RD DATA G0 00 H	CDMT.S,D

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

DRWN	DATE	ENG.	DATE
CHK'D.	DATE	APPROVED:	DATE

DSKB:[TAYLOR]CDMX.DRW [04-NOV-93 10:16] NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11295 | 8-DD-M7463-0-0

TITLE: CACHE DATA MATRIX (CDMX)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMX	A

SIGNAL NAME	PAGE NUMBER(S)
CDMD RD DATA G0 09 H	CDMT.S.D
CDMD RD DATA G0 10 H	CDMT.S.D
CDMD RD DATA G0 11 H	CDMS.T.D
CDMD RD DATA G0 12 H	CDMS.T.D
CDMD RD DATA G0 13 H	CDMS.T.D
CDMD RD DATA G0 14 H	CDMS.T.D
CDMD RD DATA G0 15 H	CDMT.S.D
CDME RD BYTE PAR G0 B2 H	CDMS.T.E
CDME RD DATA G0 16 H	CDMT.S.E
CDME RD DATA G0 17 H	CDMT.S.E
CDME RD DATA G0 18 H	CDMT.S.E
CDME RD DATA G0 19 H	CDMT.S.E
CDME RD DATA G0 20 H	CDMT.S.E
CDME RD DATA G0 21 H	CDMT.S.E
CDME RD DATA G0 22 H	CDMS.T.E
CDME RD DATA G0 23 H	CDMS.T.E
CDMF RD BYTE PAR G0 B3 H	CDMS.T.F
CDMF RD DATA G0 24 H	CDMT.S.F
CDMF RD DATA G0 25 H	CDMT.S.F
CDMF RD DATA G0 26 H	CDMT.S.F
CDMF RD DATA G0 27 H	CDMT.S.F
CDMF RD DATA G0 28 H	CDMT.S.F
CDMF RD DATA G0 29 H	CDMS.T.F
CDMF RD DATA G0 30 H	CDMS.T.F
CDMF RD DATA G0 31 H	CDMS.T.F
CDMH ADDR LATCH 02 H	CDMV.H
CDMH ADDR LATCH 02A L	CDMD.H.C
CDMH ADDR LATCH 03 H	CDMV.H
CDMH ADDR LATCH 03A L	CDMD.H.C
CDMH ADDR LATCH 04 H	CDMV.H
CDMH ADDR LATCH 04A L	CDMD.H.C
CDMH ADDR LATCH 05 H	CDMV.H
CDMH ADDR LATCH 05A L	CDMD.H.C
CDMH ADDR LATCH 06 H	CDMV.H
CDMH ADDR LATCH 06A L	CDMD.H.C
CDMH ADDR LATCH 07 H	CDMV.H
CDMH ADDR LATCH 07A L	CDMD.H.C
CDMH ADDR LATCH 08 H	CDMV.H
CDMH ADDR LATCH 08A L	CDMH.D.C
CDMH ADDR LATCH 09 H	CDMV.H
CDMH ADDR LATCH 09A L	CDMH.D.C
CDMH ADDR LATCH 10 H	CDMV.H
CDMH ADDR LATCH 10A L	CDMH.D.C
CDMH ADDR LATCH 11 H	CDMV.H
CDMH ADDR LATCH 11A L	CDMH.D.C
CDMH ADDR LATCH 12 H	CDMV.H
CDMH ADDR LATCH 12A L	CDMH.D.C
CDMH ADDR LATCH 13 H	CDMV.H
CDMH ADDR LATCH 13A L	CDMH.D.C
CDMJ ADDR LATCH 02B L	CDMF.J.E

SIGNAL NAME	PAGE NUMBER(S)
CDMJ ADDR LATCH 03B L	CDMF.J.E
CDMJ ADDR LATCH 04B L	CDMF.J.E
CDMJ ADDR LATCH 05B L	CDMF.J.E
CDMJ ADDR LATCH 06B L	CDMF.J.E
CDMJ ADDR LATCH 07B L	CDMF.J.E
CDMJ ADDR LATCH 08B L	CDMJ.F.E
CDMJ ADDR LATCH 09B L	CDMJ.F.E
CDMJ ADDR LATCH 10B L	CDMJ.F.E
CDMJ ADDR LATCH 11B L	CDMJ.F.E
CDMJ ADDR LATCH 12B L	CDMJ.F.E
CDMJ ADDR LATCH 13B L	CDMJ.F.E
CDMK RD BYTE PAR G1 B0 H	CDMS.T.K
CDMK RD DATA G1 00 H	CDMT.S.K
CDMK RD DATA G1 01 H	CDMT.S.K
CDMK RD DATA G1 02 H	CDMT.S.K
CDMK RD DATA G1 03 H	CDMT.S.K
CDMK RD DATA G1 04 H	CDMT.S.K
CDMK RD DATA G1 05 H	CDMT.S.K
CDMK RD DATA G1 06 H	CDMT.S.K
CDMK RD DATA G1 07 H	CDMT.S.K
CDML RD BYTE PAR G1 B1 H	CDMT.S.L
CDML RD DATA G1 08 H	CDMT.S.L
CDML RD DATA G1 09 H	CDMT.S.L
CDML RD DATA G1 10 H	CDMT.S.L
CDML RD DATA G1 11 H	CDMS.T.L
CDML RD DATA G1 12 H	CDMS.T.L
CDML RD DATA G1 13 H	CDMS.T.L
CDML RD DATA G1 14 H	CDMS.T.L
CDML RD DATA G1 15 H	CDMT.S.L
CDMM RD BYTE PAR G1 B2 H	CDMS.T.M
CDMM RD DATA G1 16 H	CDMT.S.M
CDMM RD DATA G1 17 H	CDMT.S.M
CDMM RD DATA G1 18 H	CDMT.S.M
CDMM RD DATA G1 19 H	CDMT.S.M
CDMM RD DATA G1 20 H	CDMT.S.M
CDMM RD DATA G1 21 H	CDMT.S.M
CDMM RD DATA G1 22 H	CDMS.T.M
CDMM RD DATA G1 23 H	CDMS.T.M
CDMM RD BYTE PAR G1 B3 H	CDMS.T.M
CDMM RD DATA G1 24 H	CDMT.S.M
CDMM RD DATA G1 25 H	CDMT.S.M
CDMM RD DATA G1 26 H	CDMT.S.M
CDMM RD DATA G1 27 H	CDMT.S.M
CDMM RD DATA G1 28 H	CDMT.S.M
CDMM RD DATA G1 29 H	CDMS.T.M
CDMM RD DATA G1 30 H	CDMS.T.M
CDMM RD DATA G1 31 H	CDMS.T.M
CDMP ADDR LATCH 02C L	CDML.P.K
CDMP ADDR LATCH 03C L	CDML.P.K
CDMP ADDR LATCH 04C L	CDML.P.K

SIGNAL NAME	PAGE NUMBER(S)
CDMP ADDR LATCH 05C L	CDML.P.K
CDMP ADDR LATCH 06C L	CDML.P.K
CDMP ADDR LATCH 07C L	CDML.P.K
CDMP ADDR LATCH 08C L	CDMP.L.K
CDMP ADDR LATCH 09C L	CDMP.L.K
CDMP ADDR LATCH 10C L	CDMP.L.K
CDMP ADDR LATCH 11C L	CDMP.L.K
CDMP ADDR LATCH 12C L	CDMP.L.K
CDMP ADDR LATCH 13C L	CDMP.L.K
CDMR ADDR LATCH 02D L	CDMN.R.M
CDMR ADDR LATCH 03D L	CDMN.R.M
CDMR ADDR LATCH 04D L	CDMN.R.M
CDMR ADDR LATCH 05D L	CDMN.R.M
CDMR ADDR LATCH 06D L	CDMN.R.M
CDMR ADDR LATCH 07D L	CDMN.R.M
CDMR ADDR LATCH 08D L	CDMR.M.M
CDMR ADDR LATCH 09D L	CDMR.M.M
CDMR ADDR LATCH 10D L	CDMR.M.M
CDMR ADDR LATCH 11D L	CDMR.M.M
CDMR ADDR LATCH 12D L	CDMR.M.M
CDMR ADDR LATCH 13D L	CDMR.M.M
CDMS G0 B0 PAR EVEN H	CDMS.V
CDMS G0 B0 PAR ODD H	CDMS.V
CDMS G0 B1 PAR EVEN H	CDMV.S
CDMS G0 B1 PAR ODD H	CDMV.S
CDMS G0 B2 PAR EVEN H	CDMS.V
CDMS G0 B2 PAR ODD H	CDMS.V
CDMS G0 B3 PAR EVEN H	CDMS.V
CDMS G0 B3 PAR ODD H	CDMS.V
CDMS G1 B0 PAR EVEN H	CDMS.V
CDMS G1 B0 PAR ODD H	CDMS.V
CDMS G1 B1 PAR EVEN H	CDMV.S
CDMS G1 B1 PAR ODD H	CDMV.S
CDMS G1 B2 PAR EVEN H	CDMS.V
CDMS G1 B2 PAR ODD H	CDMS.V
CDMS G1 B3 PAR EVEN H	CDMV.S
CDMS G1 B3 PAR ODD H	CDMV.S
CDMU CPT1 A H	CDMU.P.M
CDMU CPT1 A L	CDMU.M
CDMU CPT1 B H	CDMU.J
CDMU CPT1 B L	CDMU.J
CDMV CPT1 C H	CDMV.U.P
CDMV CPT1 C L	CDMV.U.P
CDMU CPT1 D H	CDMU.R
CDMU CPT1 D L	CDMU.R
CDMG CPT2 A H	CDMG.V.U
CDMU CPT2 A L	CDMU
CDMV SDMS CMNL HA H	CDMV
CIBM SDMS DEL CLOCK L	CDMV
CIBM SDMS LOAD H	CDMV

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: [illegible] DATE: 08-NOV-83
CHK'D: DATE: BOARD CAT. ON: SCALE:
DSKBIC:ATLAS:[CDMT,DOC] (08-NOV-83 08:17) NEXT HIGHER ASSEMBLY: B-DD-M2463-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: CACHE DATA MATRIX (CDMT)

SIZE	CODE	NUMBER	REV.
K	CS	M2463-0-CDMT	A

SIGNAL NAME	PAGE NUMBER(S)
CIBH SDMS SLF TST H	CDMV
CLKC LECL CPT1A2 H	CDMU
CLKC LECL CPT1A2 L	CDMU
CLKC LECL CPT1C1 H	CDMU
CLKC LECL CPT1C1 L	CDMU
CLKD LECL CPT2A2 H	CDMU
CLKD LECL CPT2A2 L	CDMU
SBMF REV PAR 0 L	CDMV.8
SBMF REV PAR 1 L	CDMV.8
SBMF REV PAR 2 L	CDMV.8
SBMF REV PAR 3 L	CDMV.8
TBMD EH CDM DATA L	CDMT.V
TBMK PA 12 H	CDMR.P,J,H
TBMK PA 13 H	CDMR.P,J,H
TMBK PA 09 H	CDMR.P,J,H
TMBK PA 10 H	CDMR.P,J,H
TMBK PA 11 H	CDMR.P,J,H

SIGNAL NAME	PAGE NUMBER(S)

SIGNAL NAME	PAGE NUMBER(S)

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

DRWN [illegible] DATE 08-NOV-83
CHK'D. DATE
ENG. DATE
SCHEMATIC VERIFICATION: DATE
DSKB:<TWILA>CDMZ.DRW 08-NOV-83 09:18
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: 8-DD-M7463-0-2

TITLE: CACHE DATA MATRIX (CDMZ)

SIZE	CODE	NUMBER	REV.
K	CS	M7463-0-CDMZ	A

SIZE	CODE	NUMBER	REV.
B	DD	M7463-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS	
	—	M7463-00	CACHE DATA MATRIX (CDM)	A1	B1
E-UA-M7463-0-0	1		UNIT ASSEMBLY	A	A
K-PL-M7463-0-DBP	2		PARTS LIST	A	B
K-PC-M7463-0-DBI	—		P.C. DATA BASE	D1	D1
D-MD-5016076-0-0	5		CIRCUIT DRILL & ETCH	A	A
E-EC-5016076-0-0	2		ETCH CUT	A	A
K-CS-M7463-0-CDMA	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMB	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMC	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMD	1		SCHEMATIC	A	A
K-CS-M7463-0-CDME	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMF	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMH	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMJ	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMK	1		SCHEMATIC	A	A
K-CS-M7463-0-CDML	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMM	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMN	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMP	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMR	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMS	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMT	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMU	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMV	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMW	1		SCHEMATIC	A	A
K-CS-M7463-0-CDMX	1		SCHEMATIC	A	A

NOTES:

REVISIONS			
REV.	A		13
CHG NO.	INIT	TW001	
DATE	11/83	2/84	

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digital

USED ON OPTION/MODEL

DRN.		2-7-1983
CHK'D		
ENG.	Jay Stuckey	11.9.83
PROD.	Mc Gillah	11-15 83

TITLE: CACHE DATA MATRIX (CDM)

SIZE	CODE	NUMBER	REV.
B	DD	M7463-0-0	B

SHEET 1 OF 2

DRB 126

TW

SIZE	CODE	NUMBER	REV.
B	DD	M7463-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7463-0-CDMY	1		SCHEMATIC	A A
K-CS-M7463-0-CDMZ	1		SCHEMATIC	A A
K-CS-M7463-0-CDM1	1		SCHEMATIC	A A
K-CS-M7463-0-DBS	—		SUDS DATA BASE	A A
B-DD-5016076-0-0	1		DRAWING DIRECTORY	A A

NOTES:

REVISIONS	REV.	CHG NO.	DATE
	B	TW001	2/84

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USED ON OPTION/MODEL

DRN.

CHK'D

ENG.

PROD.

TITLE CACHE DATA MATRIX (CDM)

SIZE	CODE	NUMBER	REV.
B	DD	M7463-0-0	B

SHEET 2 OF 2

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

1

46

49

E161 E149 E160 E159 E158 E157 E156 E155 E154 E153 E152 E151 E150 E148 E147 E146 E145 E144 E143 E142 E141 E140

E139 E138 E137 E136 E135 E134 E133 E132 E131 E130 E129 E128 E127 E126 E125 E124 E123 E122 E121 E120 E119 E118 E117 E116 E115 E114 E113 E112 E111 E110 E109 E108 E107 E106 E105 E104 E103 E102 E101 E100 E99 E98 E97 E96 E95 E94 E93 E92 E91 E90 E89 E88 E87 E86 E85 E84 E83 E82 E81 E80 E79 E78 E77 E76 E75 E74 E73 E72 E71 E70 E69 E68 E67 E66 E65 E64 E63 E62 E61 E60 E59 E58 E57 E56 E55 E54 E53 E52 E51 E50 E49 E48 E47 E46 E45 E44 E43 E42 E41 E40 E39 E38 E37 E36 E35 E34 E33 E32 E31 E30 E29 E28 E27 E26 E25 E24 E23 E22 E21 E20 E19 E18 E17 E16 E15 E14 E13 E12 E11 E10 E9 E8 E7 E6 E5 E4 E3 E2 E1

C14 C13 C12 C11 C10 C9 C8 C7 C6 C5 C4 C3 C2 C1

F E D C B A

8 7 6 5 4 3 2 1

SIGNATURES	DATE		
DRN.	4-27-77		
CHK. D.	4-27-77		
MECH. ENG.	4-27-77		
PROJ. ENG.	4-27-77		
PROD. ENG.	4-27-77		
SHT.	OF	SCALE 2/1	SIZE/CODE A

digital

TITLE TBM

NUMBER M7464-0-0 REV C

NEXT HIGHER ASSY-8 DD-M7464-0-0

ETCH REV. C1

NOTES:
1. MATING CONNECTOR
2. SQUARE I/C LOCATION IS E161,E149

STEP 1	+ Y AXIS	N/A	STEP TIMES
REPEAT	+ X AXIS	N/A	STEP TIMES

E UA M7464-0-0 C

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AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION				QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:					
1	1	D-MD-5016075-0-0	5016075-01		TRANSLATER BUFFER METRIX				1	
2	2		1010978-36		.1	MFD	50V 10%	CER	16	C15-C30
3	3		1017472-00		10	MFD	35V +50-10%	AL EL	15	C1-C14,C413
4	4		1012784-00		.047	MFD	50V +80-20%	CER	76	C31-C101,C400-C403,C412
5	5		1013466-19		470.0	MMF	50V 5%	CER	8	C404-C411
6	6		1300229-00		100.0		.25 W 5.0 %	CF	8	R449-R456
7	7	BLANK			*** THIS ITEM IS NOT USED ***				-	
8	8		1300247-00		120.0		.25 W 5.0 %	CF	11	R1-R6,R200,R201,R23-R25
9	9		1300250-00		150.0		.25 W 5.0 %	CF	8	R9-R14,R202,R203
10	10		1300295-00		330.0		.25 W 5.0 %	CF	8	R31-R36,R402,R17
11	11		1301775-00		820.0		.25 W 5.0 %	CF	56	R18,R37-R42,R401,R403-R439,
									CONT	R441-R448,R457,R500,R501
12	12		1301477-00		82.0		.25 W 5.0 %	CF	2	R119,R120
13	13		1301972-00		270.0		.25 W 5.0 %	CF	3	R26-R28
14	14		1921305-01		74F00	NAND GATE,QUAD,2-IN			6	E4,E10,E24,E32,E34,E37
15	15		1921307-01		74F04	HEX INVERTER			16	E6,E15,E36,E48,E53,E54,E58,E71,
									CONT	E79,E85,E99,E140,E150,E147,E83,
									CONT	E72
16	16		1921309-01		74F10	NAND GATE,TRIPLE,3-I			4	E3,E25,E30,E33
17	17		1921310-01		74F11	AND GATE,TRIPLE,3-IN			2	E47,E51
18	18		1921311-01		74F20	NAND GATE,DUAL,4-IN			3	E49,E64,E112
19	19		1921313-01		74F64	AND OR INVERT GATE,4-			12	E1,E14,E26-E28,E43,E67,E68,E76,
									CONT	E81,E82,E13
20	20		1921314-01		74F74	FF-D,DUAL,POS.,EDGE			1	E9
21	21		1910545-00		74S112	FF-JK DUAL,EDGE TRIG			2	E21,E23
22	22		1921319-01		74F153	MUX,DUAL,4-IN			12	E52,E86,E88,E93,E96,E107,E108,
									CONT	E110,E111,E124,E138,E139
23	23		1921320-01		74F157	MUX,QUAD,2-IN			5	E80,E90,E120,E123,E130
24	24		1921321-01		74F158	MUX,QUAD,2-IN			1	E69
25	25		1921327-01		74F194	SHIFT REG,UNIV,BIDIR			15	E29,E40,E57,E62,E65,E66,E55,E77,

REVISION HISTORY			BASIC PART NO: M7464
ENG	ECO NUMBER	REV	SECTION A OF A
---	INITIAL	A	SECTION.VARIATION INDEX
JS	M7464-TW001	B	[A] 00
JS	M7464-TW002	C	[B]
			[C]
			[D]
			[E]
			[F]
			[H]
			[J]
			[K]
			[L]
			[M]
			[N]

DRN: F.SMART	DATE: 22-MAR-83	DIGITAL	
CHK'D: F.GAROFALO	DATE: 22-MAR-83	TITLE: PARTS LIST TBM	
DES.ENG: D.BINDER	DATE: 22-MAR-83	DOCUMENT NUMBER: SIZE K; CODE PL; NUMBER M7464-0-DBP; REV C	
RESP.ENG.: D.BINDER	DATE: 22-MAR-83		
MFG.ENG.: M.KRYSAK	DATE: 22-MAR-83	RELEASE DATE: 08-MAY-84	
ASSEMBLY NUMBER: E-UA-M7464-0-0	TOP DOCUMENT NUMBER: B-DD-M7464-0-0	FILE NAME: Z3944C.PLS	EDIT # 18

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AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A2 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
						CONT	E91,E92,E95,E97,E121,E122,E125
26	26		1921318-01		74F151 MUX,8-IN	1	E38
27	27		1921324-01		74F175 FF-D,QUAD	2	E2,E7
28	28		1921720-01		10H125 TRANSLATOR ECL TO TTL	3	E70,E84,E98
29	29		1911469-00	DEC	8640 RECEIVER,BUS,QUAD,U	1	E56
30	30		1921332-01		74F280 PARITY GEN/CHECK,9-B	6	F100,F102,E113,E117,E135,E136
31	31		1921330-01		74F257 MUX,QUAD,2-IN	2	E127,E128
32	32		1921316-01		74F138 DECODER/DEMUX,1-OF-8	1	E73
33	33		1911712-00		74S51 AND-OR GATE-INVERT D	3	E22,E41,E61
34	34		1911983-00		74S133 NAND GATE-POSITIVE 1	3	E16,E75,E78
35	35		1921306-01		74F02 NOR GATE,QUAD,2-IN	5	E5,E8,E11,E39,E44
36	36		1921308-01		74F08 AND GATE,QUAD,2-IN	4	E31,E35,E50,E148
37	37		1921329-01		74F253 MUX,DUAL,4-IN	8	E87,E89,E94,E101,E103,E114,E115,
						CONT	E129
38	38		1912696-00		LS194A SHIFT REG.,4BIT BI-D	3	E116,E118,E119
39	39		1912746-00	DEC	74S37 NAND GATE-QUAD 2IN	3	E12,E20,E45
40	40		1912860-00		LS259 LATCH 8BIT	1	E132
41	41		1921322-01		74F161 BINARY COUNTER,PRESE	2	E126,E133
42	42		1921312-01		74F32 OR GATE,QUAD,2-IN	1	E18
43	43		1921010-01		74F373 OCTAL TRANSPARENT LA	3	E17,E19,E46
44	44		1913788-00		26S10 TRANSCEIVER,BUS,QUA	6	E104-E106,E131,E134,E137
45	45		1913839-00		LS165 SHIFT REG.,8BIT	4	E42,E59,E60,E74
46	46		2121818-01		MOS STATIC RAM 256X4 SEPARATE I/	16	E141-E146,E151-E160
47	47		1616653-00		DELAY= 50NS,10TAPS WITH TTLBU	1	E109
48	48		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
49	49		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
50	50		1616653-01		DELAY= 100NS,10TAPS WITH TTLBU	1	E63
51	51		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	

52 NOTE: 1. UNUSED REFERENCE DESIGNATORS = C102 - C399,R7,R8,R15,R16,R19-R22,R29
53 NOTE: R30,R43-R118,R121-R199,R204-R400,R440,R449-R456,R458-R499
54 NOTE: SPARE I.C. LOCATIONS ARE E149 AND E161.

DIGITAL	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
	TBM		K	PL	M7464-0-DBP	C

SIGNAL NAME	PAGE NUMBER(S)
BUS CS 42 H	TBMN
BUS CS 43 H	TBMN
BUS CS 44 H	TBMN
BUS CS 45 H	TBMN
BUS CS 46 H	TBMN
BUS CS 47 H	TBMN
BUS ID 00 L	TBME
BUS ID 01 L	TBME
BUS ID 02 L	TBME
BUS ID 03 L	TBME
BUS ID 04 L	TBME
BUS ID 05 L	TBME
BUS ID 06 L	TBME
BUS ID 07 L	TBME
BUS ID 08 L	TBME
BUS ID 09 L	TBME
BUS ID 10 L	TBME
BUS ID 11 L	TBME
BUS ID 12 L	TBME
BUS ID 13 L	TBME
BUS ID 14 L	TBME
BUS ID 15 L	TBME
BUS ID 16 L	TBME
BUS ID 17 L	TBME
BUS ID 18 L	TBME
BUS ID 19 L	TBME
BUS ID 20 L	TBME
BUS ID PTY 0 L	TBME
BUS ID PTY 1 L	TBME
BUS ID PTY 2 L	TBME
BUS PA 02 H	TBMN
BUS PA 03 H	TBMN
BUS PA 04 H	TBMN
BUS PA 05 H	TBMN
BUS PA 06 H	TBMN
BUS PA 07 H	TBMN
BUS PA 08 H	TBMN
BUS PA 14 H	TBMJ
BUS PA 15 H	TBMJ
BUS PA 16 H	TBMJ
BUS PA 17 H	TBMJ
BUS PA 18 H	TBMJ
BUS PA 19 H	TBMJ
BUS PA 2	TBMJ
BUS PA 21 H	TBMJ
BUS PA 22 H	TBMJ
BUS PA 23 H	TBMJ
BUS PA 24 H	TBMJ
BUS PA 25 H	TBMJ
BUS PA 26 H	TBMJ

SIGNAL NAME	PAGE NUMBER(S)
BUS PA 27 H	TBMJ
BUS PA 28 H	TBMJ
BUS PA 29 H	TBMJ
CAMH G0 AD PAR 0 EV H	TBMC,T
CAMH G0 AD PAR 1 EV H	TBMC,T
CAMJ G0 AD PAR 2 EV H	TBMC,T
CAMP G0 WRITE EN H	TBMX
CAMP G1 WRITE EN H	TBMX
CAMS G1 AD PAR 0 EV H	TBMC,T
CAMS G1 AD PAR 1 EV H	TBMC,T
CAMT G1 AD PAR 2 EV H	TBMC,T
CAMU TB GRP 0 MATCH H	TBMC,K,D,Y
CAMU TB GRP 1 MATCH H	TBMC,D,Y,K
CAMV MODIFY L	TBMY,D
CAMV PROTECT CODE 0 L	TBMY
CAMV PROTECT CODE 1 L	TBMY
CAMV PROTECT CODE 2 L	TBMY
CAMV PROTECT CODE 3 L	TBMY
CEHE CMODDADRS TRAP L	TBMU,Y
CEHE PAGE TRAP H	TBMU,Y
CIBH SDMS CLOCK L	TBMY
CIBH SDMS LOAD H	TBMY
CLKB LECL CP T0 B1 H	TBMS
CLKB LECL CP T0 B1 L	TBMS
CLKB LECL CPT1 B1 H	TBMS
CLKB LECL CPT1 B1 L	TBMS
CLKD LECL CPT2 B1 H	TBMS
CLKD LECL CPT2 B1 L	TBMS
CLKE LECL CPT3 B1 H	TBMS
CLKE LECL CPT3 B1 L	TBMS
CLKL SYS INIT B L	TBMS
DCPH VA 02 (1)H	TBMM,N
DCPH VA 03 (1)H	TBMN,M
DCPJ VA 04 (1)H	TBMN,M
DCPJ VA 05 (1)H	TBMN,M
DCPJ VA 06 (1)H	TBMN,M
DCPJ VA 07 (1)H	TBMN,M
DCPL VA 08 (1)H	TBMN,M
DDPH VAMX 09 L	TBMF,P
DDPH VAMX 10 L	TBMF,P
DDPH VAMX 11 L	TBMF,P
DDPJ VAMX 12 L	TBMF,P
DDPJ VAMX 13 L	TBMF,P
DDPJ VAMX 14 L	TBMF,P
DDPJ VAMX 15 L	TBMF,P
DDPS VAMX 31 L	TBMF
DEPN VAMX 16 L	TBMA
DEPN VAMX 17 L	TBMA
DEPN VAMX 18 L	TBMA
DEPN VAMX 19 L	TBMA

SIGNAL NAME	PAGE NUMBER(S)
DEPN VAMX 20 L	TBMA
DEPP VAMX 21 L	TBMA
DEPP VAMX 22 L	TBMA
DEPP VAMX 23 L	TBMA
DEPP VAMX 24 L	TBMA
DEPP VAMX 25 L	TBMA
DEPP VAMX 26 L	TBMA
DEPR VAMX 27 L	TBMA
DEPR VAMX 28 L	TBMA
DEPR VAMX 29 L	TBMA
DEPS VAMX 31 L	TBMF,P
ICLJ ID RIGHT ADDR 0 H	TBMD
ICLJ ID RIGHT ADDR 1 H	TBMD
ICLJ ID RIGHT ADDR 2 H	TBMD
ICLJ ID RIGHT ADDR 3 H	TBMD
ICLJ ID RIGHT ADDR 4 H	TBMD
ICLJ ID RIGHT ADDR 5 H	TBMD
ICLJ ID RIGHT WRITE L	TBMD
ICLK CS PAR ERR H	TBMY,W
IDPJ COUNT H	TBMM
IDPJ FLUSH L	TBMC,W
IRCH IB WRITE CHK	TBMN
IRCH IB WRITE CHK H	TBMY
IRCM SDMS CHNL 3A H	TBMY
SBHM SET SBI CYCLE H	TBMC
SBLB SBI PA 09 L	TBMY,K
SBLB SBI PA 10 L	TBMY,K
SBLB SBI PA 11 L	TBMY,K
SBLJ SBI PA 12 L	TBMK
SBLJ SBI PA 13 L	TBMK
SBLS IB ERR LTH H	TBMX,Y
SBLT STALL L	TBMW,N,Y
TBMA VA MUX 16 BUFF H	TBMA,J,L
TBMA VA MUX 17 BUFF H	TBML,A,J
TBMA VA MUX 18 BUFF H	TBML,J,A
TBMA VA MUX 19 BUFF H	TBMJ,L,A
TBMA VA MUX 20 BUFF H	TBML,J,A
TBMA VA MUX 21 BUFF H	TBMA,J,L
TBMA VA MUX 22 BUFF H	TBMA,L,J
TBMA VA MUX 23 BUFF H	TBMA,J,L
TBMA VA MUX 24 BUFF H	TBMA,L,J
TBMA VA MUX 25 BUFF H	TBMA,J,L
TBMA VA MUX 26 BUFF H	TBMA,J,M
TBMA VA MUX 27 BUFF H	TBMA,J,M
TBMA VA MUX 28 BUFF H	TBMA,J,M
TBMA VA MUX 29 BUFF H	TBMA,J,M
TBMB CAUSE PROT TRAP H	TBMU
TBMB IPA OVER PAGE H	TBMC
TBMB PROTECT CODE OK H	TBMU,C
TBMB PROTECT CODE OK L	TBMX

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1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. G.F.M.de | DATE 23-SEP-83 | ENG. [illegible] | DATE 10-Oct-83
CHK'D. [illegible] | DATE [illegible]
DSKC:<MISKA>TBM1.DRW 23-SEP-83 13:09 | BOARD LOCATION: AF6 | SHEET 1 OF 1
FIRST USED ON OPTION/MODEL: 11/785 | NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TBM FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBM1	A

SIZE K | CODE CS | NUMBER M7464-0-TBM1 | REV. A

SIGNAL NAME	PAGE NUMBER(S)
TBMC ADRS NOT VALID H	TBMC,V
TBMC ADRS NOT VALID L	TBMX,C
TBMC AR FLOP (0)H	TBMW,C
TBMC AR FLOP (1)H	TBMW,C,U
TBMC BC ONE H	TBMW,C
TBMC CAUSE PAR TRAP H	TBMW,T,C
TBMC ENABLE IA H	TBMC,Y
TBMC GI MATCH BUF L	TBMC,L,M
TBMC NOT SBI CYCLE A1 L	TBMC,J
TBMC NOT SBI CYCLE A2 L	TBMC,J
TBMC NOT SBI CYCLE A3 L	TBMC,D,K,N
TBMC PAR REG ENABLE H	TBMC,T
TBMC SBI CYCLE L	TBMC,D,K
TBMC TB MATCH L	TBMC,W
TBMC TB MISS L	TBMX,W,C,M
TBMC TB PAR ERR L	TBMC,U,X
TBMD CAUSE MBIT TRAP L	TBMW,D
TBMD CLR ERR REG 1 L	TBMT,D
TBMD D TO MD L	TBMD,Y
TBMD EN COM DATA L	TBMD
TBMD EN ID DRIVERS L	TBMY,D,E
TBMD EN SBI DATA L	TBMD
TBMD ER REG 0 D 06 H	TBMX,D,V
TBMD ER REG 0 D 07 H	TBMD,X,V
TBMD ERROR REG 0 SEL H	TBMD,T
TBMD LAST REF CODE 0 H	TBMD
TBMD LAST REF CODE 1 H	TBMD
TBMD MASK TO MD L	TBMD,Y
TBMD MBIT ERR H	TBMU,D
TBMD SEL ID MUX L	TBMD,V
TBMD TB WRITE ENABLE H	TBMF,D
TBMD VIRT ADRS BUF A H	TBMD,J
TBMD VIRT OR SBI L	TBMD,K
TBME +3V H	TBME,W,F,P,H,R
TBME REQ.ID 00 H	TBMT,E,F,P
TBME REC ID 01 H	TBMT,E,F,P
TBME REC ID 02 H	TBMT,E,F,P
TBME REC ID 03 H	TBMT,E,F,P
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TBME REC ID 04 H	TBME,F,P
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TBME REC ID 06 H	TBME,F,P
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TBME REC ID 10 H	TBME,H,R
TBME REC ID 11 H	TBME,H,R
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TBME REC ID 13 H	TBME,H,R
TBME REC ID 14 H	TBME,H,R

SIGNAL NAME	PAGE NUMBER(S)
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TBME REC ID 20 H	TBME,T,F,P
TBME REC ID PAR 0 H	TBME,F,P
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TBMF GRP 0 DATA 10 H	TBMV,L,K,F
TBMF GRP 0 DATA 11 H	TBMK,L,V,F
TBMF GRP 0 DATA 12 H	TBMK,L,V,F
TBMF GRP 0 DATA 13 H	TBMK,V,L,F
TBMF GRP 0 DATA 14 H	TBMV,J,L,F
TBMF GRP 0 DATA 15 H	TBMV,J,L,F
TBMF GRP 0 DATA 16 H	TBMV,J,L,F
TBMF GRP 0 DATA 25 H	TBMF,J,L
TBMF GRP 0 DATA 26 H	TBMF,J,M
TBMF GRP 0 DATA 27 H	TBMF,J,M
TBMF GRP 0 DATA 28 H	TBMF,J,M
TBMF GRP 0 DATA 29 H	TBMF,J,M
TBMF GRP 0 PAR 0 H	TBMV,F
TBMF GRP 0 RAM PAR 2 H	TBMF
TBMF GRP 0 WP L	TBMF,U,Y,H
TBMF GRP 1 WP L	TBMF,U,Y,P,R
TBMF VA MUX 09 H	TBMK,L,F,H,P,R
TBMF VA MUX 10 H	TBMK,L,F,H,P,R
TBMF VA MUX 11 H	TBMK,L,F,H,P,R
TBMF VA MUX 12 H	TBMK,L,F,H,P,R
TBMF VA MUX 13 H	TBMK,L,F,H,P,R
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TBMF VA MUX 31 H	TBMF,H,P,R
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TBMH GRP 0 DATA 19 H	TBMJ,L,H
TBMH GRP 0 DATA 20 H	TBML,J,H
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TBMH GRP 0 DATA 22 H	TBML,J,H
TBMH GRP 0 DATA 23 H	TBMJ,H,L
TBMH GRP 0 DATA 24 H	TBMH,L,J
TBMH GRP 0 RAM PAR 1 H	TBMH
TBMK DIS G0 D0 H	TBMV,K,F
TBMK DIS G0 D1 H	TBMK,H
TBMK DIS G0 D2 H	TBMK,F

SIGNAL NAME	PAGE NUMBER(S)
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TBMK PA 10 H	TBMK
TBMK PA 11 H	TBMK
TBMK PA 12 H	TBMK
TBMK PA 13 H	TBMK
TBMK PA MUX SEL 0 A1 H	TBMK,J
TBMK SEL IPA H	TBMU,K,C
TBMK SEL IPA L	TBMK,N
TBML IPA DATA IN 09 H	TBMM,L
TBML IPA DATA IN 10 H	TBMM,L
TBML IPA DATA IN 11 H	TBMM,L
TBML IPA DATA IN 12 H	TBMM,L
TBML IPA DATA IN 13 H	TBMM,L
TBML IPA DATA IN 14 H	TBMM,L
TBML IPA DATA IN 15 H	TBMM,L
TBML IPA DATA IN 16 H	TBMM,L
TBML IPA DATA IN 17 H	TBML,M
TBML IPA DATA IN 18 H	TBML,M
TBML IPA DATA IN 19 H	TBML,M
TBML IPA DATA IN 20 H	TBML,M
TBML IPA DATA IN 21 H	TBMM,L
TBML IPA DATA IN 22 H	TBML,M
TBML IPA DATA IN 23 H	TBMM,L
TBML IPA DATA IN 24 H	TBMM,L
TBML IPA DATA IN 25 H	TBMM,L
TBMM BITS 5-2 CARRY H	TBMM
TBMM ER REG 1 D 03 L	TBMX,M
TBMM IPA 02 H	TBMM,N
TBMM IPA 03 H	TBMM,N
TBMM IPA 04 H	TBMM,N
TBMM IPA 05 H	TBMM,N
TBMM IPA 06 H	TBMN,M
TBMM IPA 07 H	TBMN,M
TBMM IPA 08 H	TBMN,M
TBMM IPA 09 H	TBMM,K
TBMM IPA 10 H	TBMM,K
TBMM IPA 11 H	TBMM,K

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REVISIONS		
CHK	CHANGE NO.	REV

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DSKC:<MISKA>TBM2.DRW 23-SEP-83 13:10

FIRST USED ON OPTION/MODEL: 11/785

DRN. GJM DATE 23-SEP-83

CHK'D. S.M DATE

ENG. Jay Strahorney DATE 10-03

BOARD LOCATION: AF6

SHEET 1 OF 1

NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TBM FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBM2	A

SIZE K | CODE CS | NUMBER M7464-0-TBM2 | REV. A

SIGNAL NAME	PAGE NUMBER(S)
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TBMM IPA 13 H	TBMK,M
TBMM IPA 14 H	TBMM,J
TBMM IPA 15 H	TBMM,J
TBMM IPA 16 H	TBMM,J
TBMM IPA 17 H	TBMM,J
TBMM IPA 18 H	TBMJ,M
TBMM IPA 19 H	TBMJ,M
TBMM IPA 20 H	TBMJ,M
TBMM IPA 21 H	TBMJ,M
TBMM IPA 22 H	TBMJ,M
TBMM IPA 23 H	TBMJ,M
TBMM IPA 24 H	TBMM,J
TBMM IPA 25 H	TBMM,J
TBMM IPA 26 H	TBMJ,M
TBMM IPA 27 H	TBMJ,M
TBMM IPA 28 H	TBMM,J
TBMM IPA 29 H	TBMM,J
TBMN ABORT CYCLE FLOP L	TBMW,N
TBMN BUF IB WR CHK L	TBMN
TBMN BUF UADS L	TBMW,N
TBMN BUF UMCT 1 L	TBMN
TBMN BUF UMCT 2 L	TBMN
TBMN BUF UMCT 3 L	TBMN
TBMN BUFF UMCT 0 L	TBMN
TBMN IB WCHK H	TBMW,N,U
TBMN PAGE EDGE H	TBMN
TBMN UADS H	TBMK,W,N,U
TBMN UFS H	TBMK,W,D,N,U
TBMN UFS L	TBMN
TBMN UMCT 0 H	TBMW,D,N,U
TBMN UMCT 1 H	TBMK,W,D,N,U
TBMN UMCT 2 H	TBMK,D,W,N,U
TBMN UMCT 3 H	TBMK,D,W,N,U
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TBMP G1 DA PAR 2 OD H	TBMT,P
TBMP GRP 1 DATA 09 H	TBML,V,K,P
TBMP GRP 1 DATA 10 H	TBML,V,K,P
TBMP GRP 1 DATA 11 H	TBMK,L,V,P
TBMP GRP 1 DATA 12 H	TBMK,L,V,P
TBMP GRP 1 DATA 13 H	TBMK,L,V,P
TBMP GRP 1 DATA 14 H	TBMJ,L,V,P
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TBMP GRP 1 DATA 27 H	TBMJ,M,P
TBMP GRP 1 DATA 28 H	TBMJ,P,M
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TBMP GRP 1 PAR 0 H	TBMV,P

SIGNAL NAME	PAGE NUMBER(S)
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TBMR G1 DA PAR 1 EV H	TBMC,R
TBMR G1 DA PAR 1 OD H	TBMT,R
TBMR GRP 1 DATA 17 H	TBML,J,R
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TBMR GRP 1 DATA 22 H	TBML,J,R
TBMR GRP 1 DATA 23 H	TBMJ,L,R
TBMR GRP 1 DATA 24 H	TBML,J,R
TBMR GRP 1 RAM PAR 1 H	TBMR
TBMS +3V	TBMC
TBMS +3V H	TBMS,C,T,N,M,K
TBMS CLEAR A1 H	TBMS,D
TBMS CLEAR A1 L	TBMW,S,C,M
TBMS CLEAR A2 L	TBMX,C,S,D,N,W,T
TBMS CPT0 H	TBMX,W,C,N,S
TBMS CPT0 L	TBMD,T,S
TBMS CPT1 H	TBMS
TBMS CPT1 L	TBMX,S,W
TBMS CPT2 A H	TBMM,S
TBMS CPT2 H	TBMD,F,W,S
TBMS CPT2 L	TBMC,S
TBMS CPT3 A1 H	TBMS,M
TBMS CPT3 A2 H	TBMS
TBMS CPT3 H	TBMC,D,X,T,S
TBMS CPT3 L	TBMC,T,S
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TBMT ER REG 0 D 16 H	TBMT,V
TBMT ER REG 0 D 17 H	TBMT,V
TBMT ER REG 0 D 18 H	TBMX,T,V
TBMT ER REG 0 D 19 H	TBMX,T,V
TBMT ER REG 0 D 20 H	TBMX,V,T
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TBMT ER REG 1 D 09 H	TBMT,V
TBMT ER REG 1 D 10 H	TBMT,V
TBMT ER REG 1 D 11 H	TBMT,V
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TBMT ER REG 1 D 14 H	TBMV,T
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SIGNAL NAME	PAGE NUMBER(S)
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TBMT FORCE ERR 2 L	TBMT
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TBMT MME H	TBMT,D,V
TBMT MME L	TBMT,K
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TBMU CANCEL L	TBMU,T
TBMU ER REG 0 D 08 H	TBMU,V
TBMU ER REG 0 D 09 H	TBMU,V
TBMU ER REG 0 D 10 H	TBMU,V
TBMU ER REG 0 D 11 H	TBMU,V
TBMU ER REG 0 D 12 H	TBMU,V
TBMU ER REG 0 D 13 H	TBMU,V
TBMU ER REG 0 D 14 H	TBMU,V
TBMU ER REG 0 D 15 H	TBMU,V
TBMU ER REG 1 D 06 H	TBMU,V
TBMU PRE BC ZERO L	TBMX,W
TBMU PROT UTRAP L	TBMU
TBMU T1 A H	TBMU,W
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TBMV G0 DA PAR 0 OD H	TBMT,V
TBMV G1 DA PAR 0 EV H	TBMC,V
TBMV G1 DA PAR 0 OD H	TBMV,T
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TBMV TRANS DATA 04 H	TBMV,E
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TBMV TRANS DATA 14 H	TBMV,E
TBMV TRANS DATA 15 H	TBMV,E
TBMV TRANS DATA 16 H	TBMV,E
TBMV TRANS DATA 17 H	TBMV,E
TBMV TRANS DATA 18 H	TBME,V
TBMV TRANS DATA 19 H	TBME,V
TBMV TRANS DATA 20 H	TBMV,E
TBMW AR LATCH L	TBMU,W
TBMW BUF BC ONE	TBMX
TBMW BUF BC ONE H	TBMW
TBMW DIS PROT L	TBMW,D
TBMW EN CMODDADRS H	TBMW
TBMW EN TB PAR L	TBMW,U,C

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REVISIONS		
CHK	CHANGE NO.	REV

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DRN. GJM | DATE 10-FEB-84 | ENG. | DATE
CHK'D. | DATE | BOARD LOCATION: AF6 | SHEET 1 OF 1

DSKC:<DUVAL>TBM3.DRW 10-FEB-84 15:25 | NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: TBM FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
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SIGNAL NAME	PAGE NUMBER(S)
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TBMW FAST LOAD IPA H	TBMW,M
TBMW IB RCHK L	TBMW
TBMW LATCH CS ERR L	TBMW,W
TBMW LOAD IPA L	TBMC,W,X
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TBMW MISS UTRAP L	TBMW,W
TBMW RANDOM G1 L	TBMW,X
TBMW READ V NEWPC L	TBMW,N
TBMW SAVE CONTEXT H	TBMW,D
TBMW STOP CYCLE L	TBMW,W
TBMW TB PAR UTRAP L	TBMW,U
TBMW TEST OR NOP L	TBMW,N
TBMW U NEWPC L	TBMW,U,X,M
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TBMW UMCT 2 BUF L	TBMD,W
TBMW UMCT 3 BUF L	TBMW,D
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TBMW UVIRT L	TBMW
TBMW VIRT OPER L	TBMW
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TBMW WAS STALL L	TBMW
TBMW WOMBAT H	TBMD,W,K
TBMW WRITE CHECK H	TBMD,W
TBMX BAD IPA H	TBMX,U
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TBMX BRANCH CODE 1 H	TBMX
TBMX ER REG 1 D 00 H	TBMX,V
TBMX ER REG 1 D 01 H	TBMX,V
TBMX ER REG 1 D 02 H	TBMX,V
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SIGNAL NAME	PAGE NUMBER(S)

SIGNAL NAME	PAGE NUMBER(S)

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REVISIONS		
CHK	CHANGE NO.	REV
	1	

digital

DRN. GAM DATE 23-SEP-83 ENG. DATE
CHK'D. DATE BOARD LOCATION: AF6
SHEET 1 OF 1
DSK:<MISKA>TBM4.DRW 23-SEP-83 13:10 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7464-0-0

TITLE: TBM FORWARD REFERENCE

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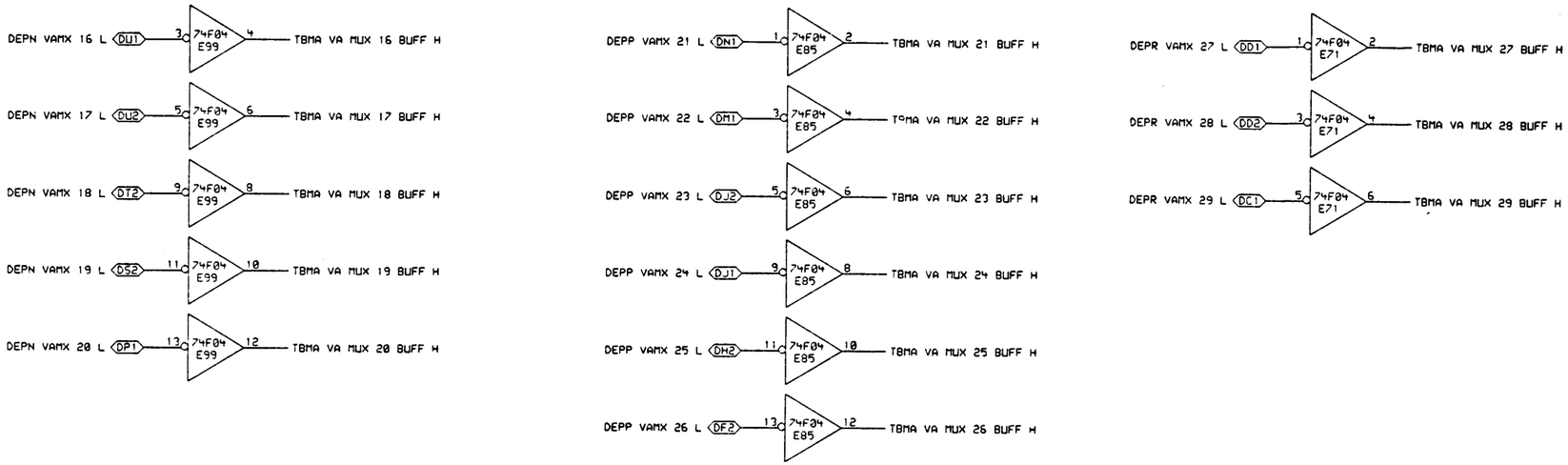
K	CS	M7464-0-TBM4	A

SIZE K | CODE CS | NUMBER M7464-0-TBM4 | REV. A



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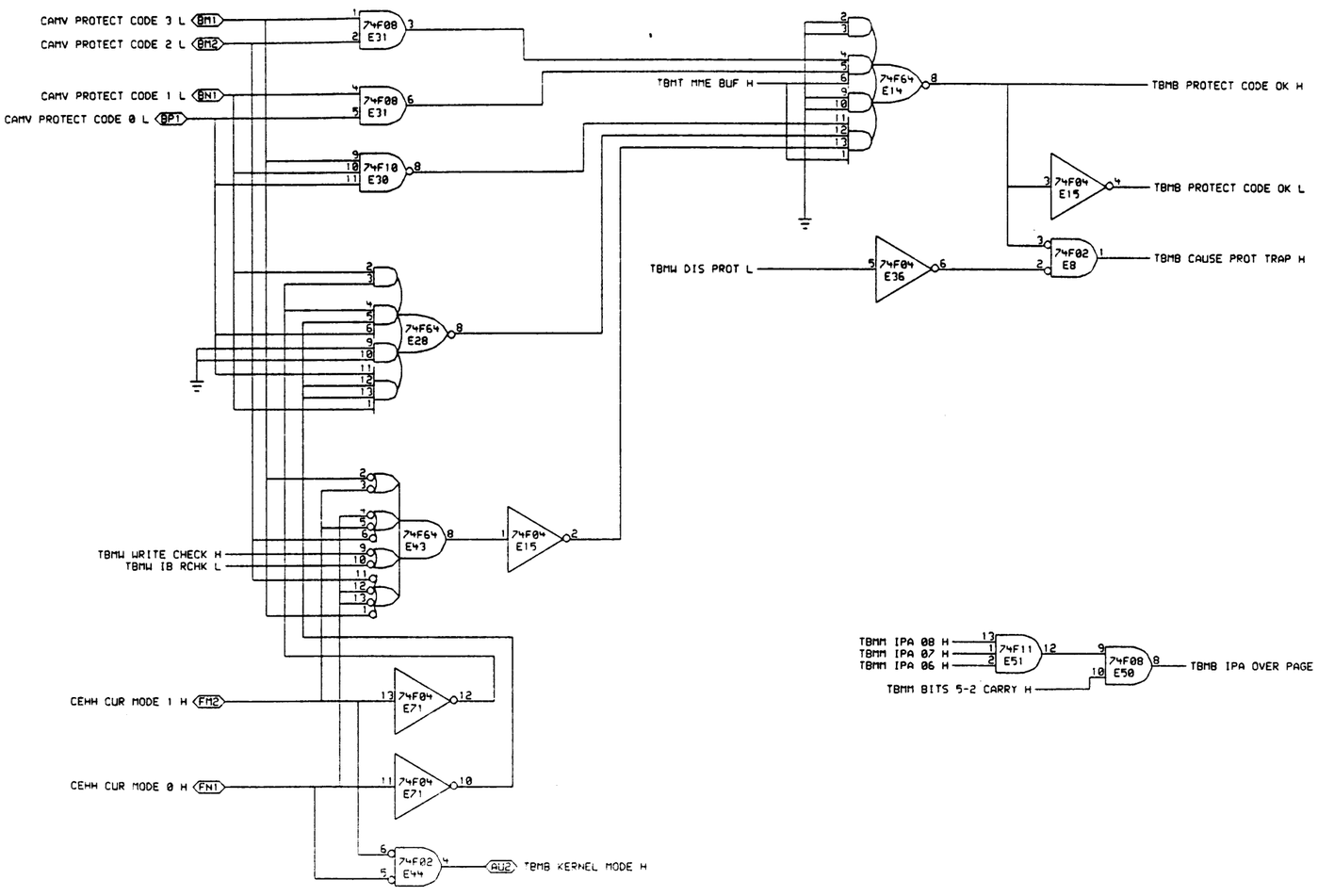
REVISIONS		
CHK	CHANGE NO.	REV

DRN: [illegible] DATE: 23-SEP-83
CHK'D. DATE
DSK: :M[SKA]TBMA.SPW [23-SEP-83 11:31]
FIRST USED ON OPTION: MODEL: 11/785
DOC. LOCATION: AF6
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMA)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMA	A

SIZE	CODE	NUMBER	REV.
B	CS	M7464-0-TBMA	A



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REVISIONS		
CHK	CHANGE NO.	REV

DRN: [illegible] DATE 30-SEP-83
CHK'D. DATE
ENG [illegible] DATE 5-OCT-83
BOARD LOCATION: AF5
SHEET 1 OF

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FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7454-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMB)

SIZE	CODE	NUMBER	REV.
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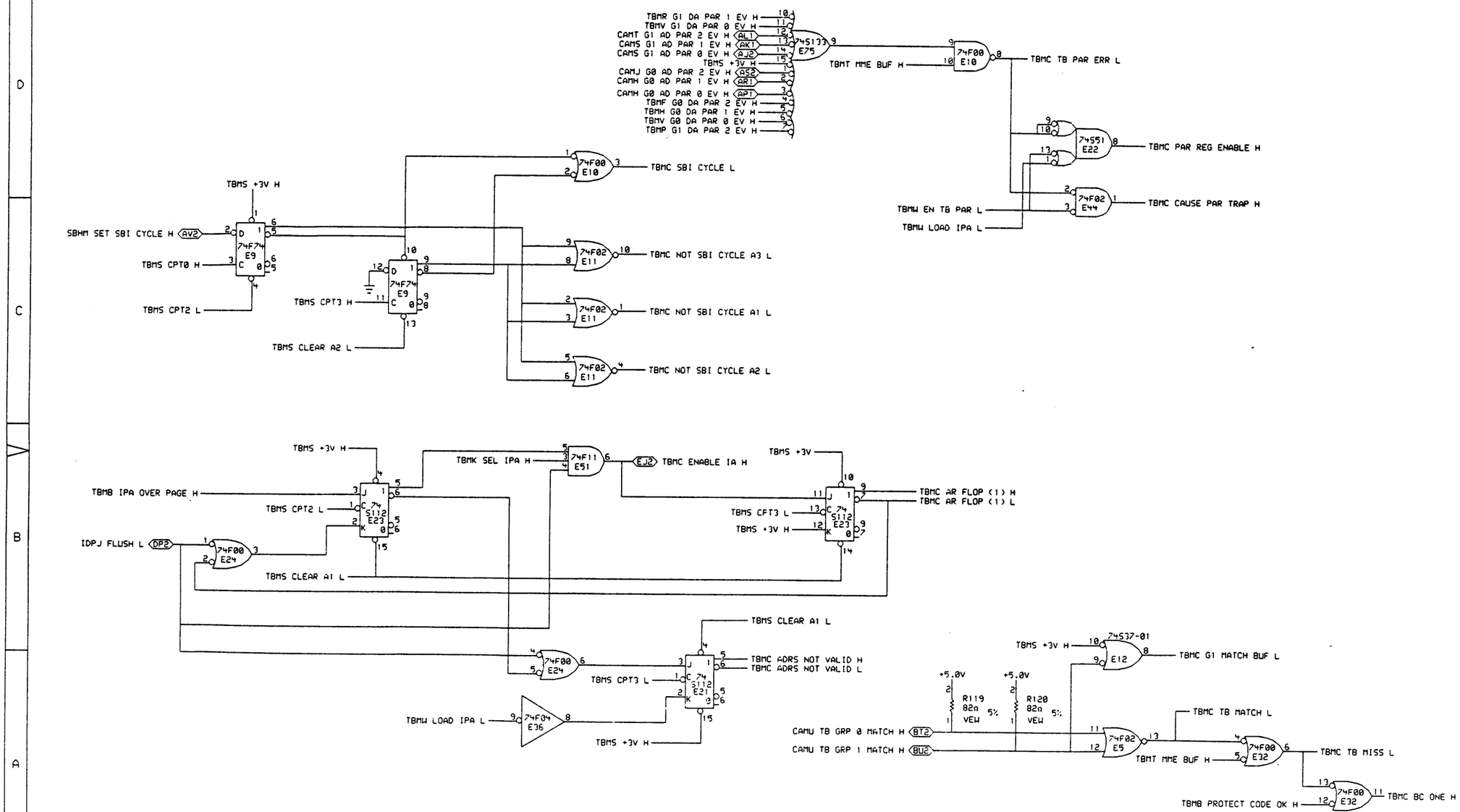

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REVISIONS		
CHK	CHANGE NO.	REV

DRN:	DATE 23-SEP-83	ENG.	DATE
CHK 'D.	DATE	BOARD LOCATION: AF5	
		SHEET 1 OF 1	

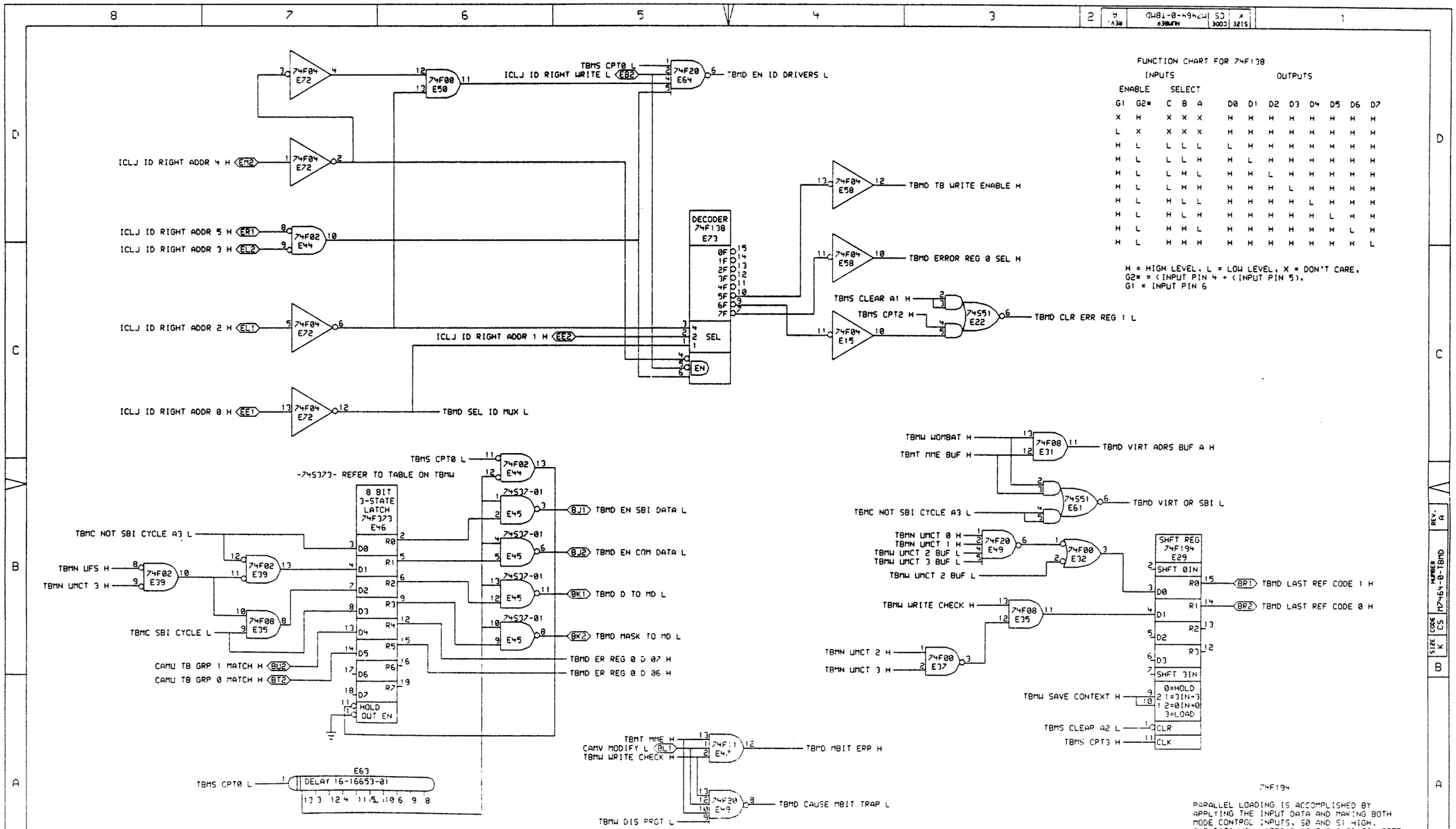
D:*.*;<MISKA>TBMC.DRW 23-SEP-83 13:1?

FIRST USED ON OPTION/MODEL: 11/785

NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMC)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMC	A



(TB ADDRESS DECODE((SLOT 6)

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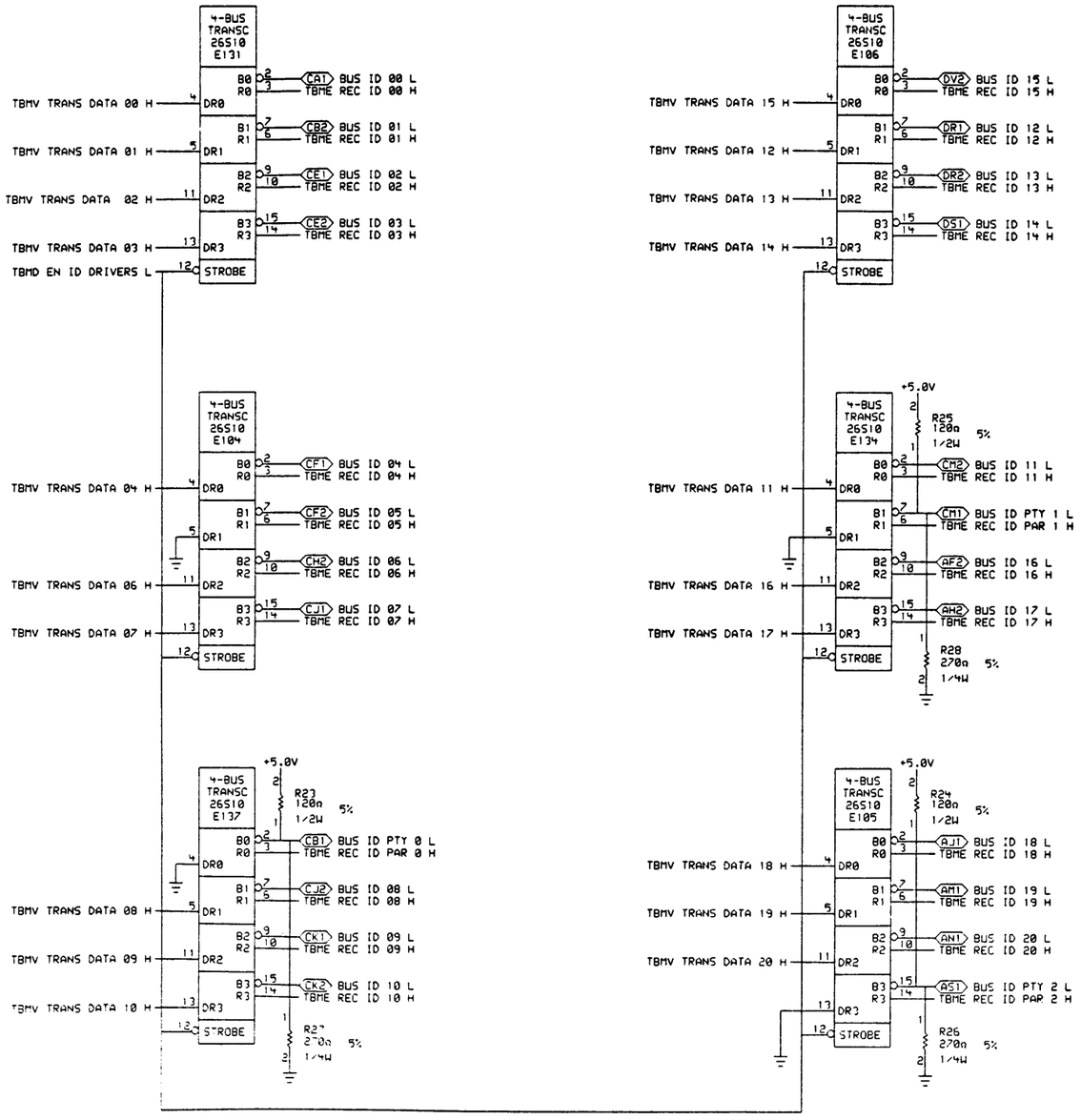
REVISIONS		
CHK	CHANGE NO.	REV

DRN: [illegible] DATE: 30-SEP-83
CHK: D. DATE: BOARD LOCATION: AF6
SHEET 1 OF
DS:C:MISKA:TBMD.DPW 30-SEP-83 15:17 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION MODEL: 11/785 B-DD-M7464-0-0

DATE: 30-SEP-83 ENG: [illegible] DATE:

TITLE: TRANSLATION BUFFER MATRIX (TBMD)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMD	A



(ID TRANSCEIVERS) (SLOT 8)

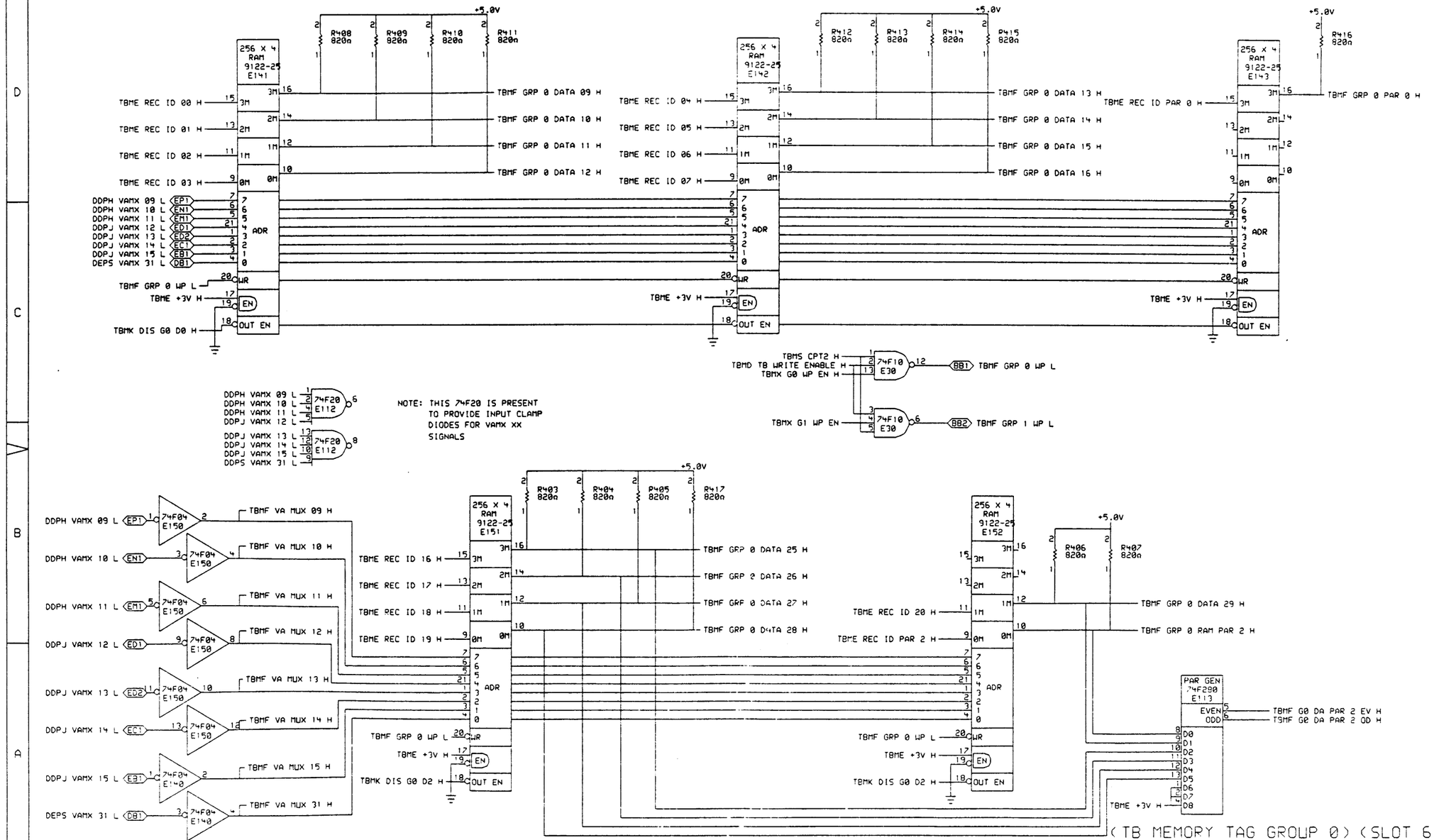
REVISIONS			
LTR	CHANGE NO.	REV.	

DRN: CHK'D: DATE: ENG: DATE: TITLE: TRANSLATION BUFFER MATRIX (TBME)

DSKL:\MISK\TBME.DPW 12-SEP-83 FIRST USED ON OPTION/MODEL: 11/29E

SIZE K | CODE CS | NUMBER M7464-2-TBME | REV. A

M7464-2-TBME A



(TB MEMORY TAG GROUP 0) (SLOT 6)

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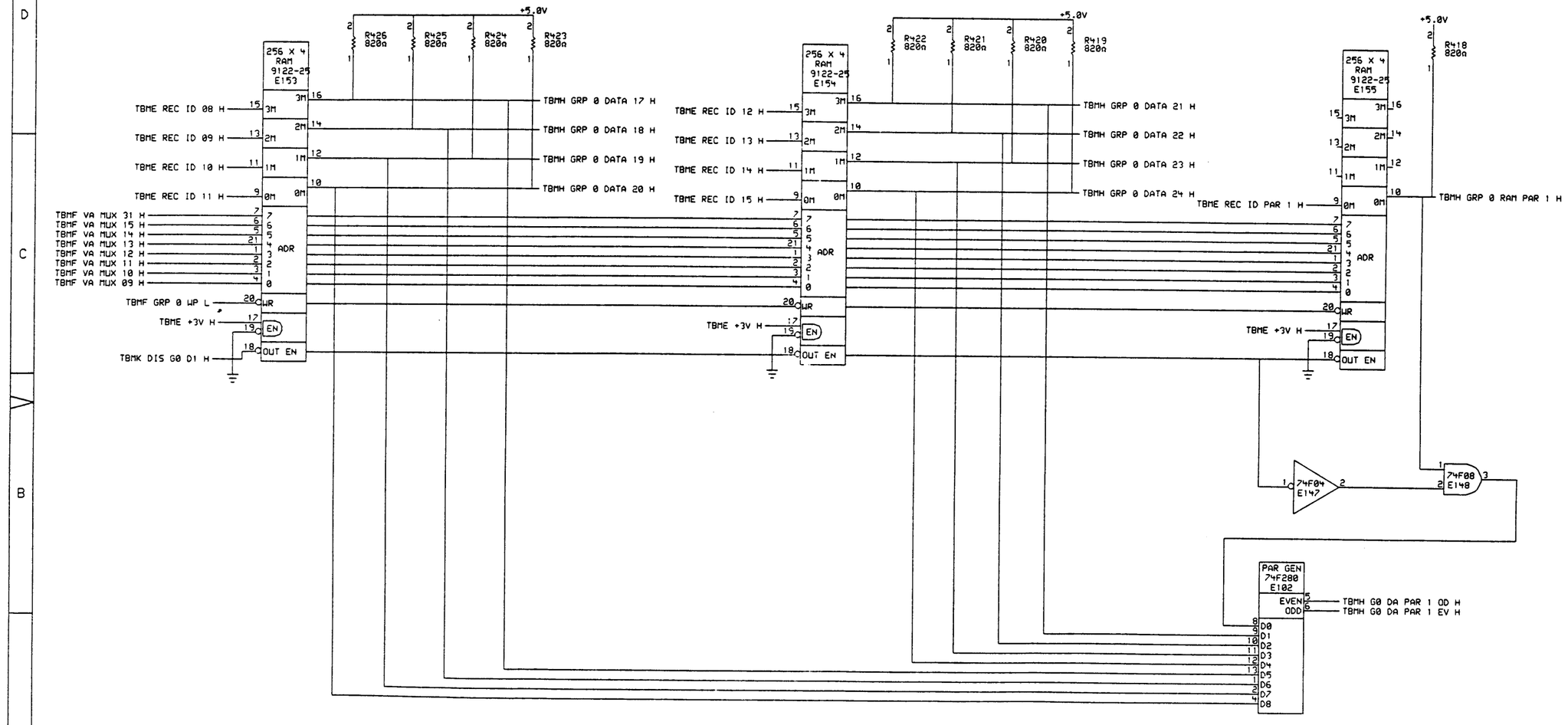
REVISIONS			
CHK	CHANGE NO.	REV

DRN:	DATE 30-SEP-83	ENG	DATE
CHK "D."	DATE	BOARD LOCATION: AF6	
	SHEET 1 OF 1		
DSKC:[MISKA]TBMF.DRW 30-SEP-83 15:09	NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0		
FIRST USED ON OPTION/MODEL: 11/785			

TITLE: TRANSLATION BUFFER MATRIX (TBMF)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMF	A



(TB MEMORY TAG GROUP 0) (SLOT 6)

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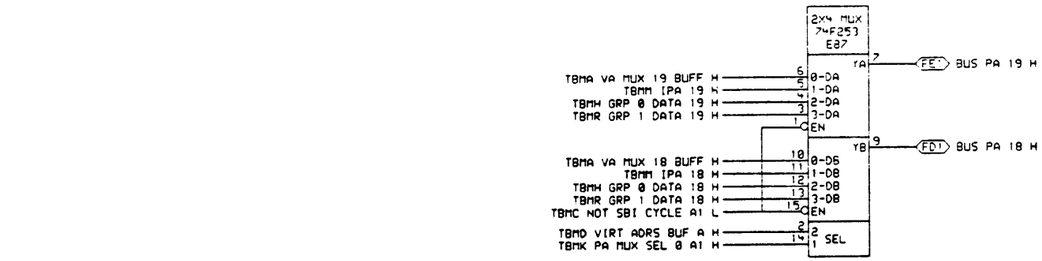
REVISIONS		
CHK	CHANGE NO.	REV

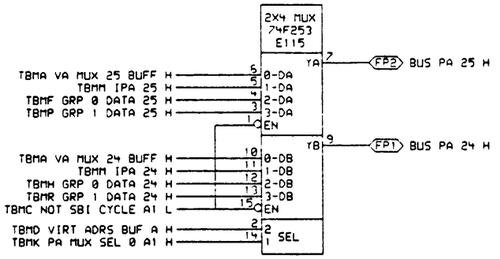
DRN: Wayne Rafa — DATE 30-SEP-83
CHK'D. — DATE
ENG: Ray Kusserow — DATE 10-OCT-83
BOARD LOCATION: AF6
SHEET 1 OF 1
DSKC:<MISKA>TBMH.DRW | 30-SEP-83 15:10 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7464-0-0

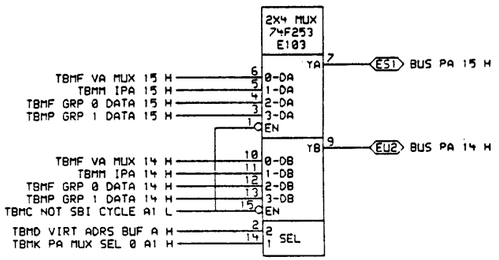
TITLE: TRANSLATION BUFFER MATRIX (TBMH)

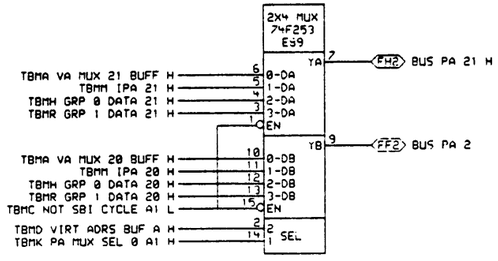
SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMH	A

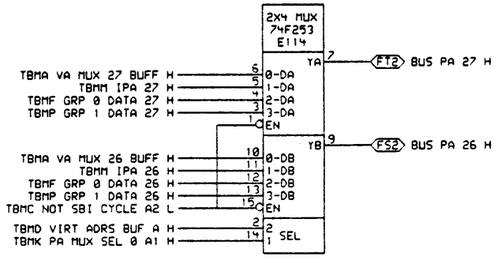
REV.	A
NUMBER	M7464-0-TBMH
CODE	CS
SIZE	K

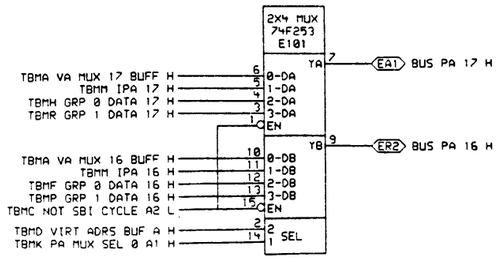


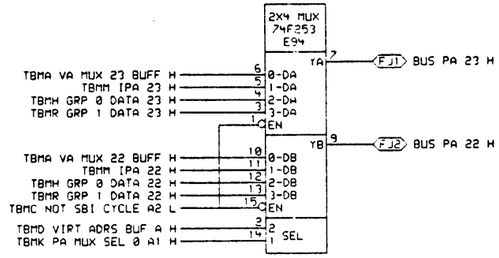


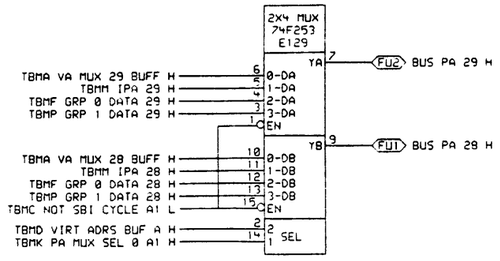












FUNCTION CHART FOR 74F253
ON TBML.

(PA MUX) (SLOT 6)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

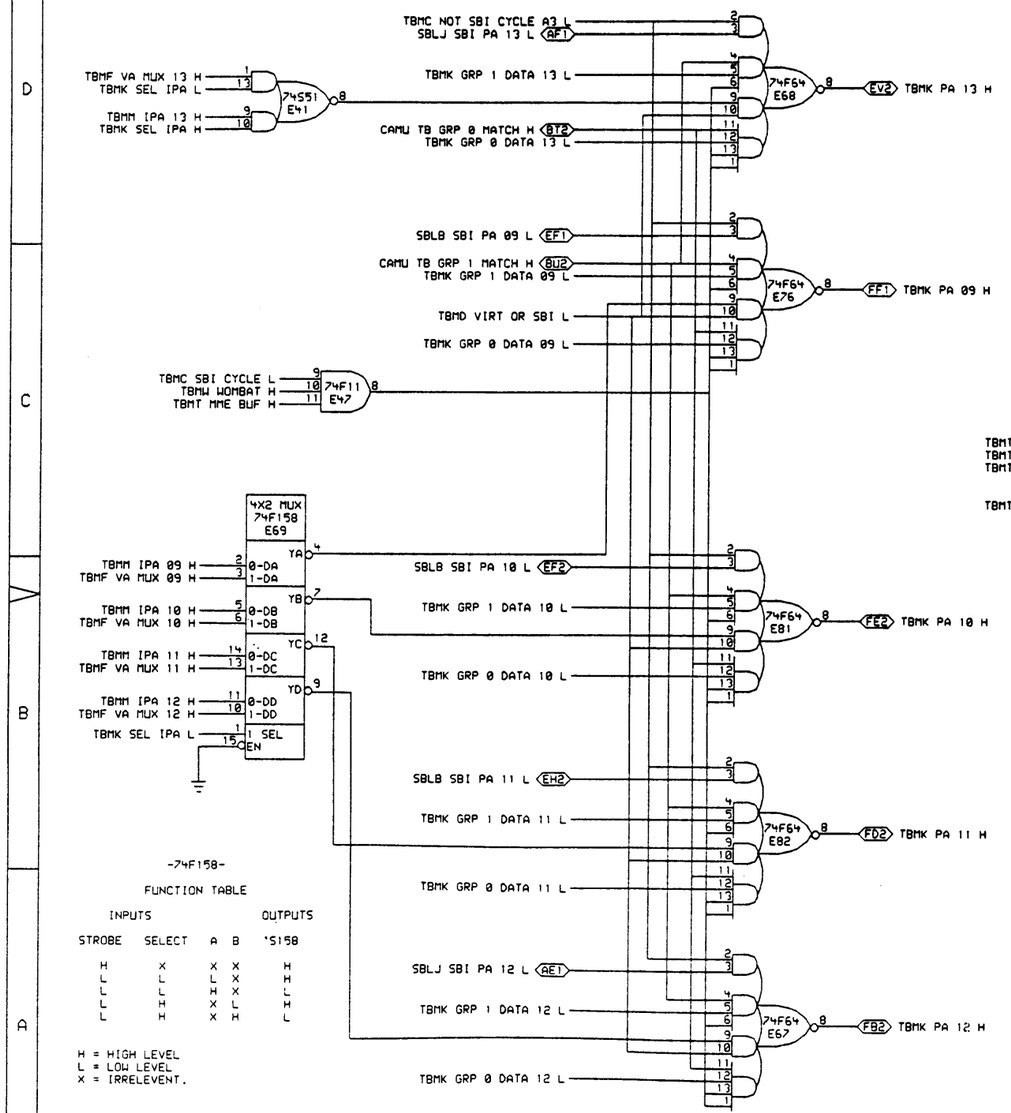
DRN: [illegible] DATE 30-SEP-83 ENG. [illegible] DATE 10-OCT-83
CHK [illegible] DATE BOARD LOCATION: MF5 SHEET 1 OF 1

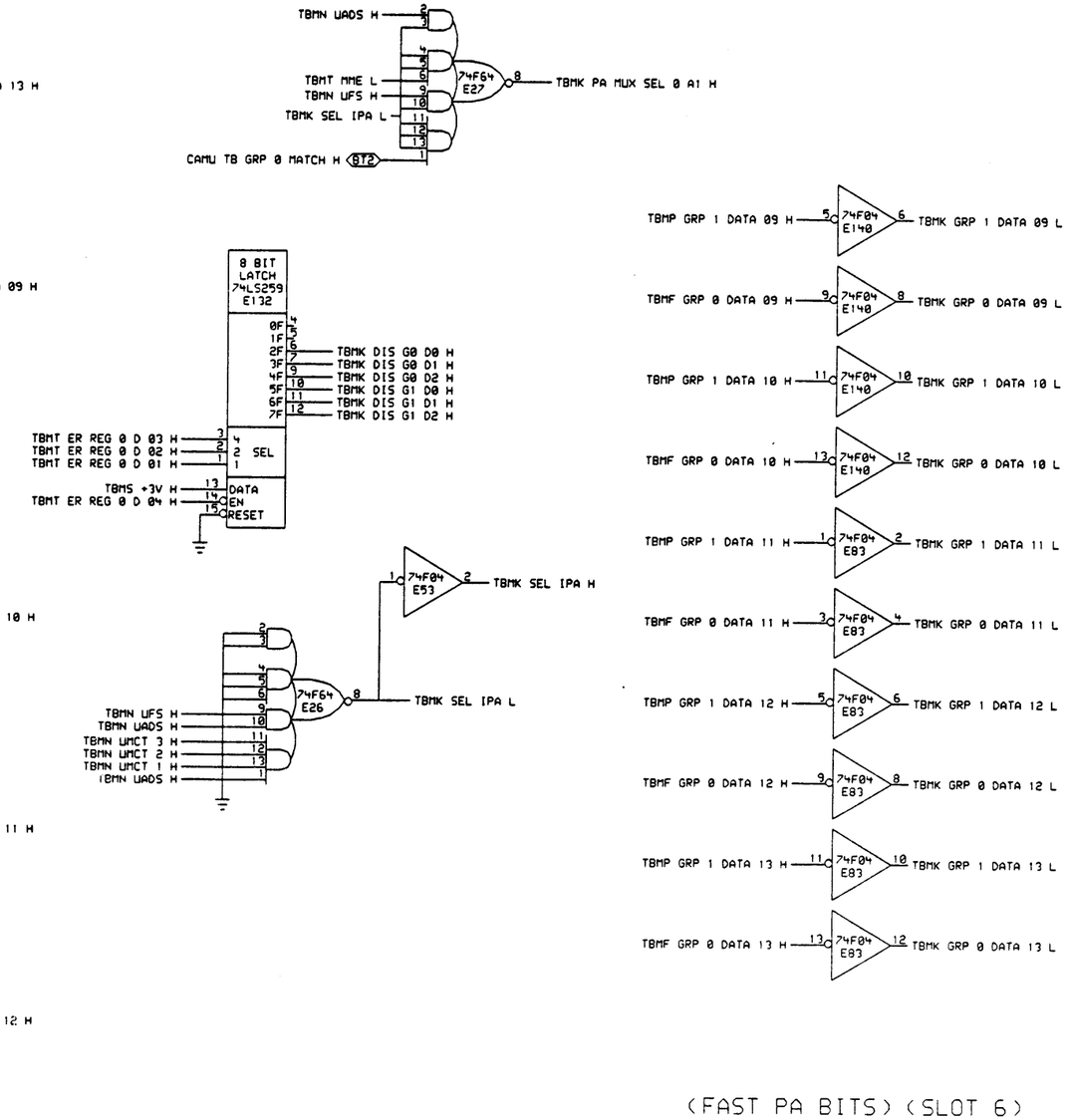
DSKC:[MISKA]TBMJ.DRW 30-SEP-83 15:11 NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0 0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: TRANSLATION BUFFER MATRIX (TBMJ)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMJ	A

REV. A
NUMBER M7464-0-TBMJ
SIZE K CODE CS





(FAST PA BITS) (SLOT 6)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: Wayne Yafa — DATE 30-SEP-83 — ENG: Bill Mcveney — DATE 22

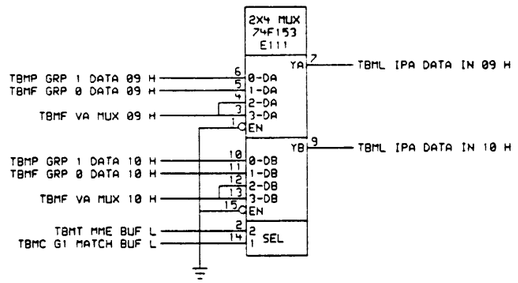
CHK D. — DATE — BOARD LOCATION: AF6 — SHEET 1 OF 1

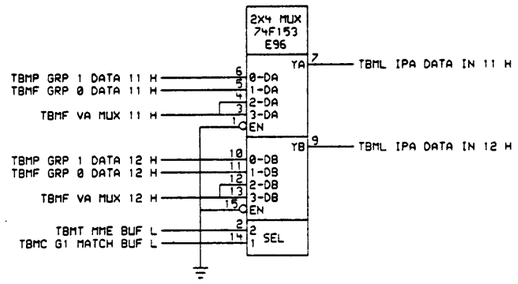
DSKC:(MISKA)TBMK.DRW 30-SEP-83 15:22 — NEXT HIGHER ASSEMBLY: B-DD-M7454-0-0

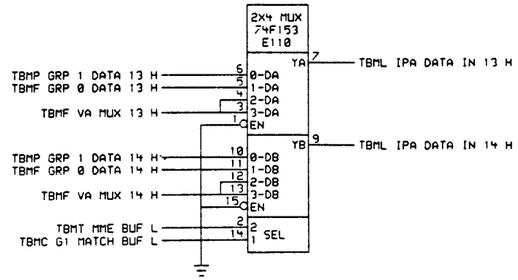
FIRST USED ON OPTION/MODEL: 11/785

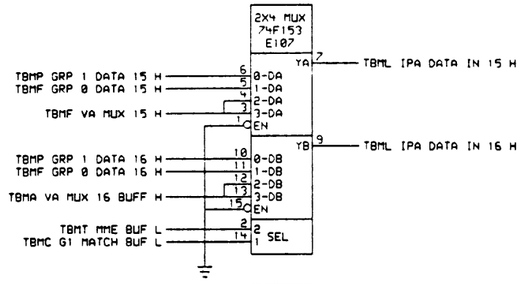
TITLE: TRANSLATION BUFFER MATRIX (TBMK)

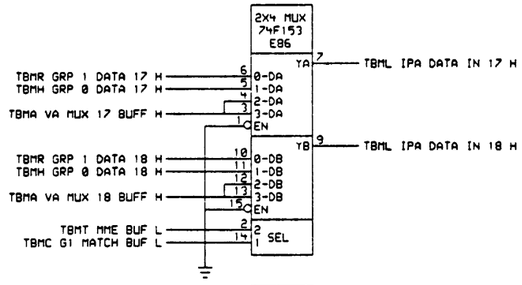
SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMK	A

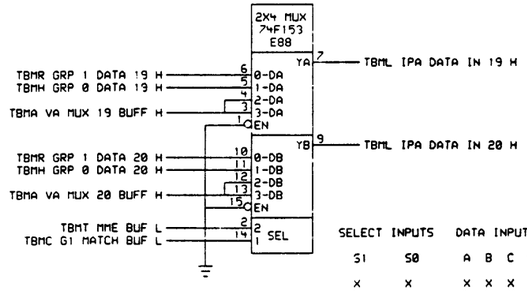


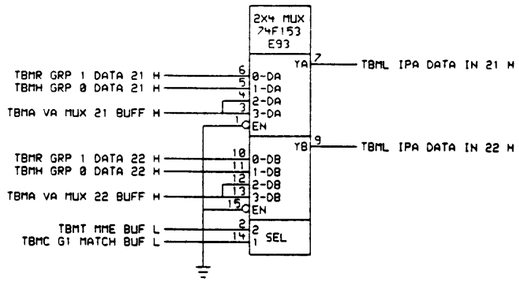


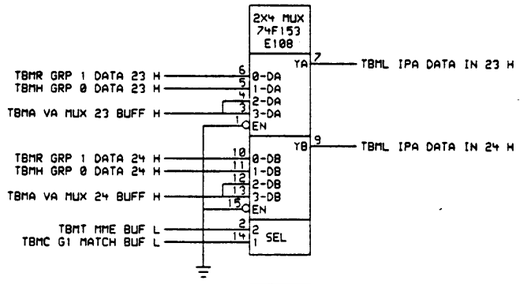


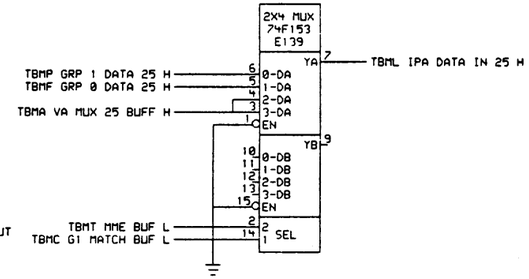












SELECT INPUTS		DATA INPUTS				STROBE	OUTPUT
S1	S0	A	B	C	D	STB	Y
X	X	X	X	X	X	H	L
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
L	H	X	L	X	X	L	L
L	H	X	H	X	X	L	H
H	L	X	X	L	X	L	L
H	L	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

FUNCTION CHART -74F153-

SELECT INPUTS S0 AND S1 ARE COMMON TO BOTH SECTIONS.
H = HIGH LEVEL
L = LOW LEVEL
X = IRRELEVENT.

(IPA MUX) (SLOT 6)

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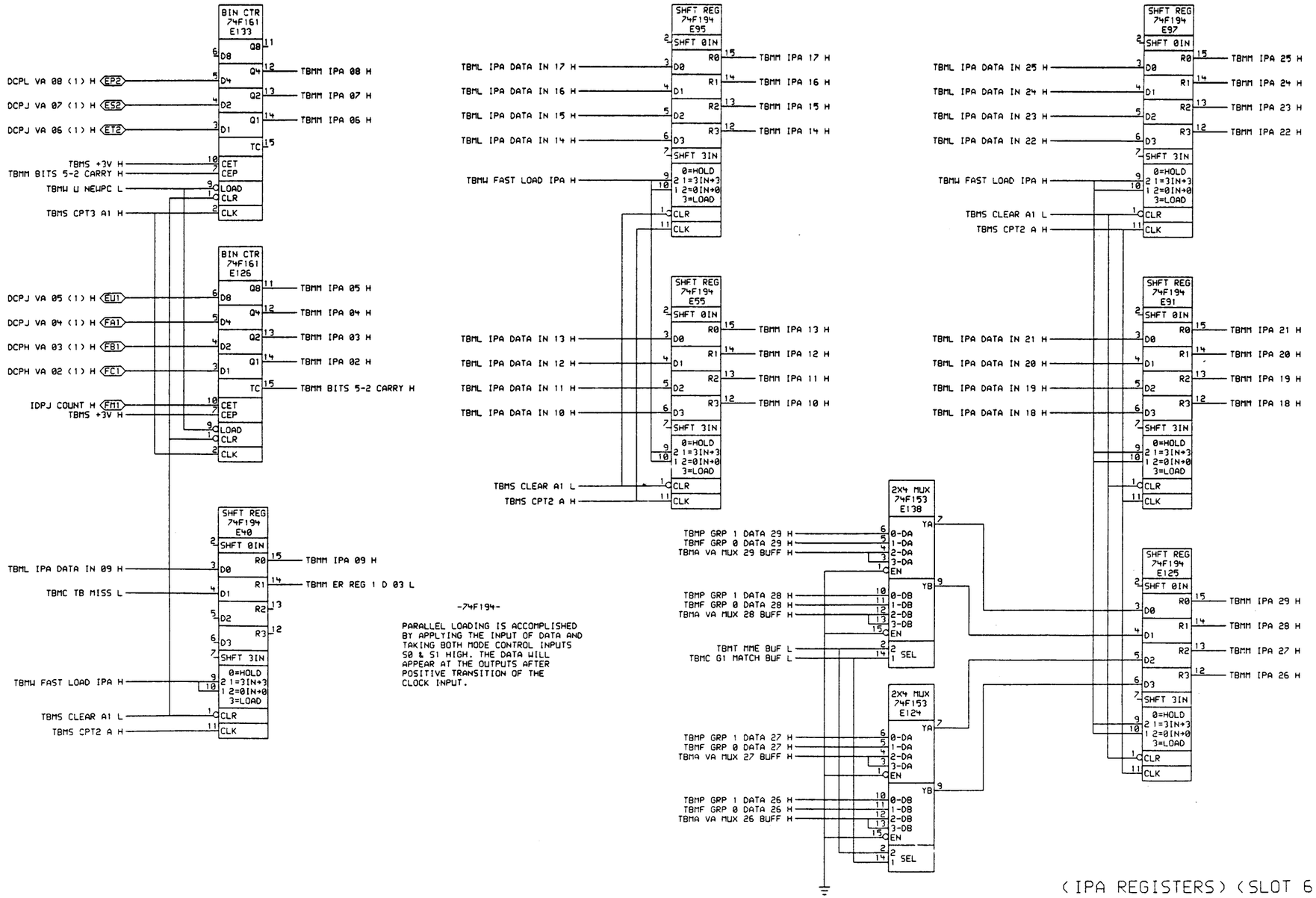
REVISIONS		
CHK	CHANGE NO.	REV

DRN: [illegible] DATE 30-SEP-83
CHK'D. DATE
ENG [illegible] DATE [illegible] 83
BOARD LOCATION: AF5
SHEET 1 OF 1
DSKC:<MISKA>TBML.DRW 30-SEP-83 15:23
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBML)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBML	A

REV. A
SIZE K CODE CS NUMBER M7464-0-TBML



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REVISIONS		
CHK	CHANGE NO.	REV

digital

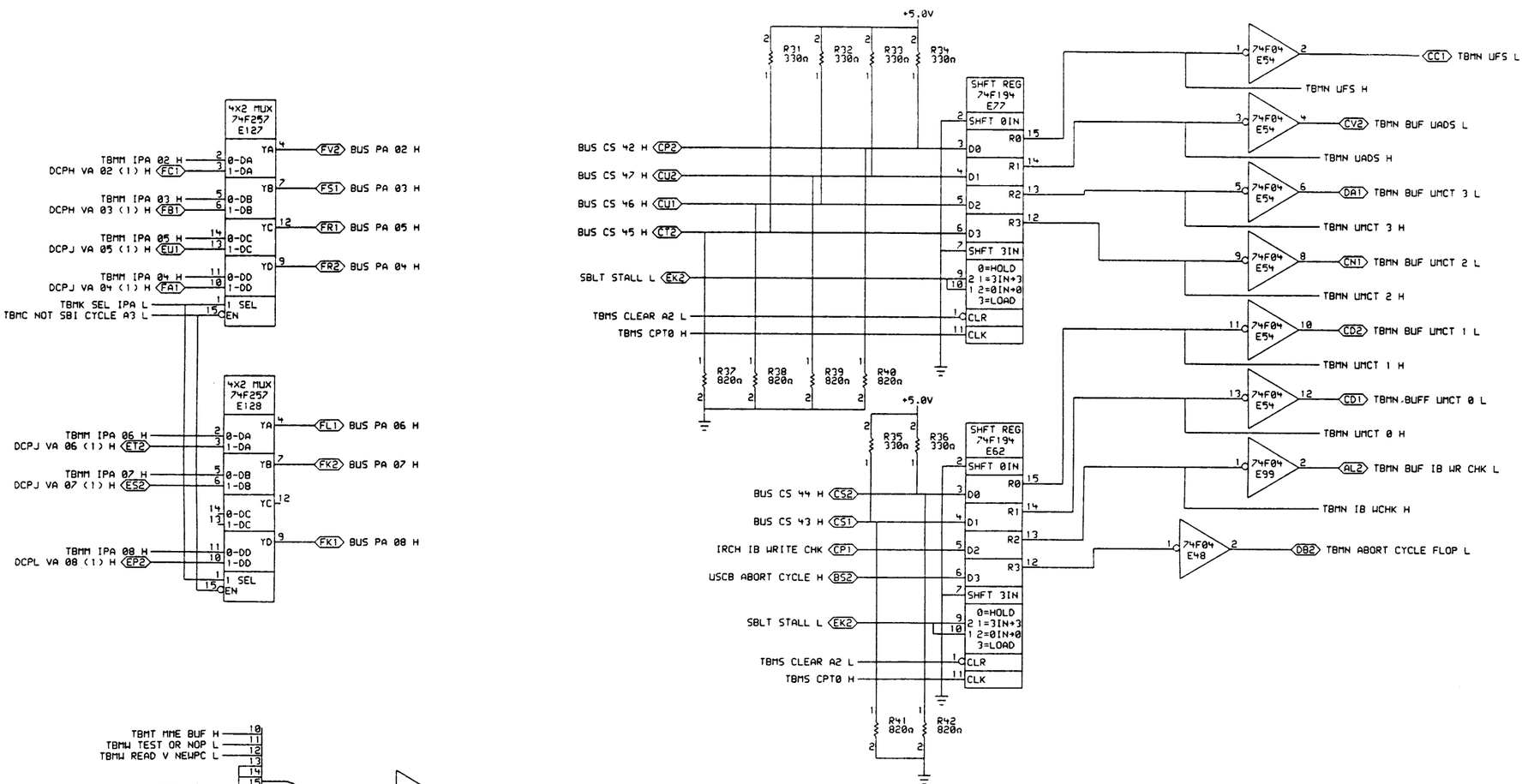
DRN: Graham Ralph — DATE: 30-SEP-83 — ENG: Jay Sheiner — DATE: 10-11-83

CHK: D. M — DATE: — BOARD LOCATION: AF6 — SHEET 1 OF 1

DSKC:<MISKA>TBMM.DRW | 30-SEP-83 15:25 | NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0 | FIRST USED ON OPTION/MODEL: 11/785

TITLE: TRANSLATION BUFFER MATRIX (TBMM)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMM	A



(CS ADDRESS RECEIVE REGISTERS) (SLOT 6)

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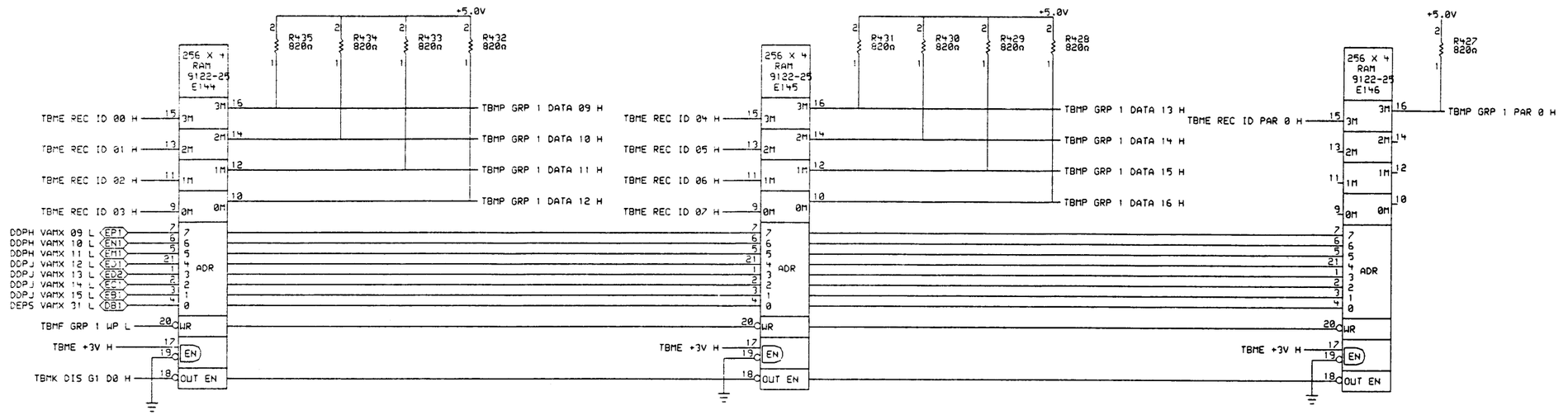
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: Wayne Viola — DATE: 23-SEP-83
CHK'D: — DATE:
ENG: Jay Lucarini — DATE: 9-...-83
BOARD LOCATION: AF6
SHEET 1 OF 1
DSKL:<MISKA>TBMN.DRW 27-SEP-83 11:41
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMN)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMN	A



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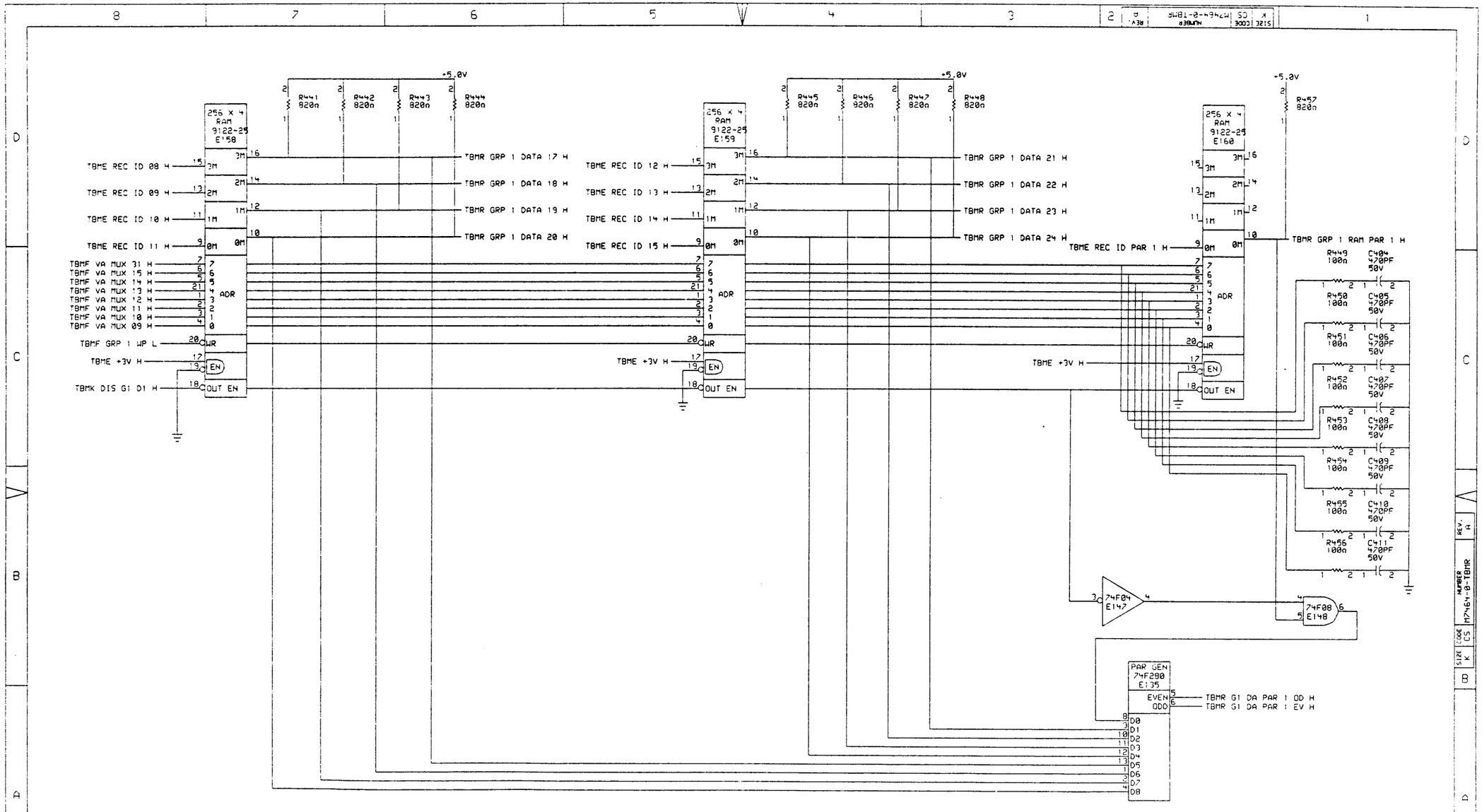
REVISIONS		
CHK	CHANGE NO.	REV

DRN: Wayne Tufo	DATE 30-SEP-83	ENG: [illegible]	DATE 10.11.83	TITLE: TRANSLATION BUFFER MATRIX (TBMP)
CHK 'D.'	DATE	BOARD LOCATION: AF6		
DSKC:<MISKA>TBMP.DRW 30-SEP-83 15:26		NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0		SIZE K / CODE CS / NUMBER M7464-0-TBMP / REV. A
FIRST USED ON OPTION/MODEL: 11/785				SHEET 1 OF 1

SIZE K | CODE CS | NUMBER M7464-0-TBMP | REV. A



(TB MEMORY TAG GROUP 1) (SLOT 5)

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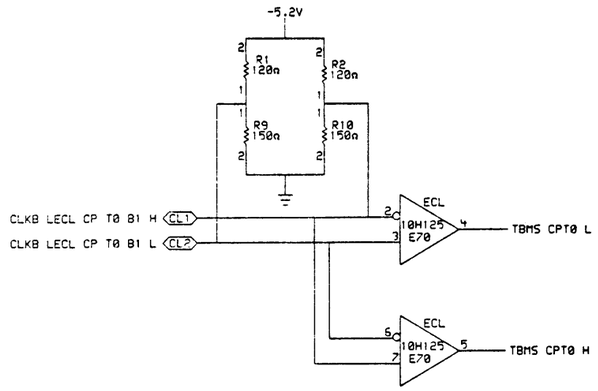
REVISIONS		
CHK	CHANGE NO.	REV

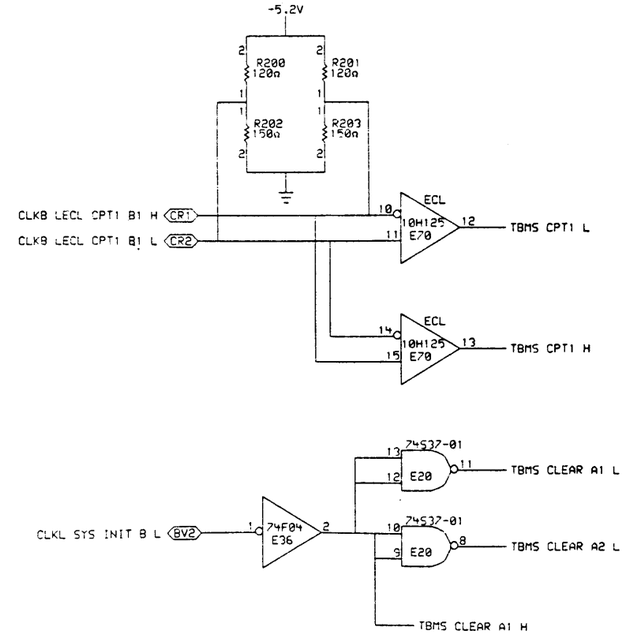
DRN: [illegible] DATE: 30-SEP-83
CHK: D. [illegible] DATE: [illegible]
ENG: [illegible] DATE: [illegible]
BOARD LOCATION: MF5
SHEET 1 OF 1

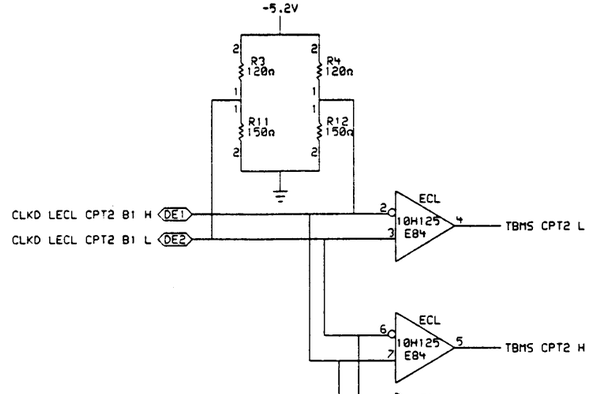
DSKC:(MISKA)TBMR.DRW 30-SEP-83 15:28
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

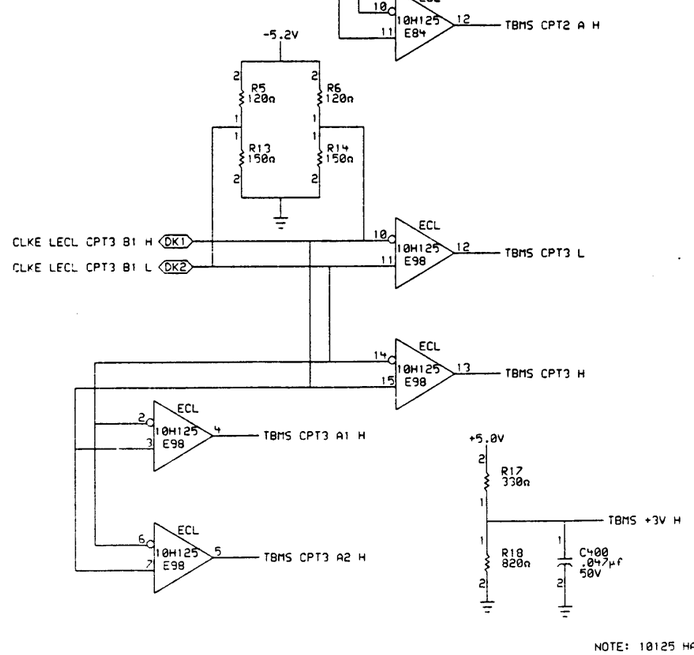
TITLE: TRANSLATION BUFFER MATRIX (TBMR)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMR	A









NOTE: 10125 HAS +5 ON PIN 9, -5.2 ON PIN 8, GND ON PIN 6

(CLOCK RECEIVERS) (SLOT 6)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN: Wayne R Wafer DATE 30-SEP-83
CHK'D: DATE
ENG. Art Stutsman DATE 10-11-83
BOARD LOCATION: AFS
SHEET 1 OF 1
DSKC:<MISKA>TBMS.DRW 30-SEP-83 15:29
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMS)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMS	A

CAMJ G0 AD PAR 2 EV H (AS2) → 74F04 E79
CAMH G0 AD PAR 1 EV H (AR1) → 74F04 E79
CAMH G0 AD PAR 0 EV H (AP1) → 74F04 E79
CAMS G1 AD PAR 0 EV H (AJ2) → 74F04 E79

SHFT REG 74F194 E122
SHFT 0IN
D0 → R0 → TBMT ER REG 1 D 12 H
D1 → R1 → TBMT ER REG 1 D 11 H
D2 → R2 → TBMT ER REG 1 D 10 H
D3 → R3 → TBMT ER REG 1 D 09 H
SHFT 3IN
TBMC PAR REG ENABLE H → 0=HOLD 2 1=3IN+3 1 2=0IN+0 3=LOAD
TBMD CLR ERR REG 1 L → CLR
TBMS CPT3 H → CLK

SHFT REG 74F194 E121
SHFT 0IN
TBMP G1 DA PAR 2 OD H → D0 → R0 → TBMT ER REG 1 D 20 H
TBMR G1 DA PAR 1 OD H → D1 → R1 → TBMT ER REG 1 D 19 H
TBMV G1 DA PAR 0 OD H → D2 → R2 → TBMT ER REG 1 D 18 H
TBMF G0 DA PAR 2 OD H → D3 → R3 → TBMT ER REG 1 D 17 H
SHFT 3IN
TBMC PAR REG ENABLE H → 0=HOLD 2 1=3IN+3 1 2=0IN+0 3=LOAD
TBMD CLR ERR REG 1 L → CLR
TBMS CPT3 H → CLK

NOTE:SEE TBMM FOR 74LS194 FUNCTION.

CAMT G1 AD PAR 2 EV H (AL1) → 74F04 E79

SHFT REG 74F194 E92
SHFT 0IN
TBMH G0 DA PAR 1 OD H → D0 → R0 → TBMT ER REG 1 D 16 H
TBMV G0 DA PAR 0 OD H → D1 → R1 → TBMT ER REG 1 D 15 H
D2 → R2 → TBMT ER REG 1 D 14 H
CAMS G1 AD PAR 1 EV H (AK1) → 74F04 E79 → D3 → R3 → TBMT ER REG 1 D 13 H
SHFT 3IN
TBMC PAR REG ENABLE H → 0=HOLD 2 1=3IN+3 1 2=0IN+0 3=LOAD
TBMD CLR ERR REG 1 L → CLR
TBMS CPT3 H → CLK

TBMS +3V H → J
TBMC CAUSE PAR TRAP H
TBMS CPT3 L → C 74 S112 E21 K
J → TBMT ER REG 1 D 08 H
TBMD CLR ERR REG 1 L → K

SHFT REG 74LS194A E119
SHFT 0IN
TBME REC ID 19 H → 0D → 0R → TBMT ER REG 0 D 19 H
TBME REC ID 18 H → 1D → 1R → TBMT ER REG 0 D 18 H
TBME REC ID 17 H → 2D → 2R → (AT2) TBMT ER REG 0 D 17 H
TBME REC ID 16 H → 3D → 3R → (AUT) TBMT ER REG 0 D 16 H
SHFT 3IN
TBMD ERROR REG 0 SEL H → 0=HOLD 2 1=0IN+0 1 2=3IN+3 3=LOAD
TBMS CLEAR A2 L → CLR
TBMS CPT3 H → CLK

SHFT REG 74LS194A E118
SHFT 0IN
0D → 0R
1D → 1R
TBME REC ID 20 H → 2D → 2R → TBMT ER REG 0 D 20 H
TBME REC ID 04 → 3D → 3R → TBMT ER REG 0 D 04 H
SHFT 3IN
0=HOLD 2 1=0IN+0 1 2=3IN+3 3=LOAD
CLR
CLK

74F04 E6 → 74F02 E5 → (AD1) TBMT FORCE ERR 2 L
74F02 E5 → (AC1) TBMT FORCE ERR 1 L
74F02 E5 → (AB1) TBMT FORCE ERR 0 L

SHFT REG 74LS194A E116
SHFT 0IN
0D → 0R → TBMT ER REG 0 D 03 H
1D → 1R → TBMT ER REG 0 D 02 H
TBME REC ID 03 H → 2D → 2R → TBMT ER REG 0 D 01 H
TBME REC ID 02 H → 3D → 3R → TBMT MME H
TBME REC ID 01 H
TBME REC ID 00 H
SHFT 3IN
0=HOLD 2 1=0IN+0 1 2=3IN+3 3=LOAD
CLR
CLK

74F04 E6 → TBMT MME L
74S37-01 E12 → TBMT MME BUF H
74S37-01 E20 → TBMT MME BUF L

(TB ERROR REGISTERS) (SLOT 6)

REVISIONS			
	CHK	CHANGE NO.	REV

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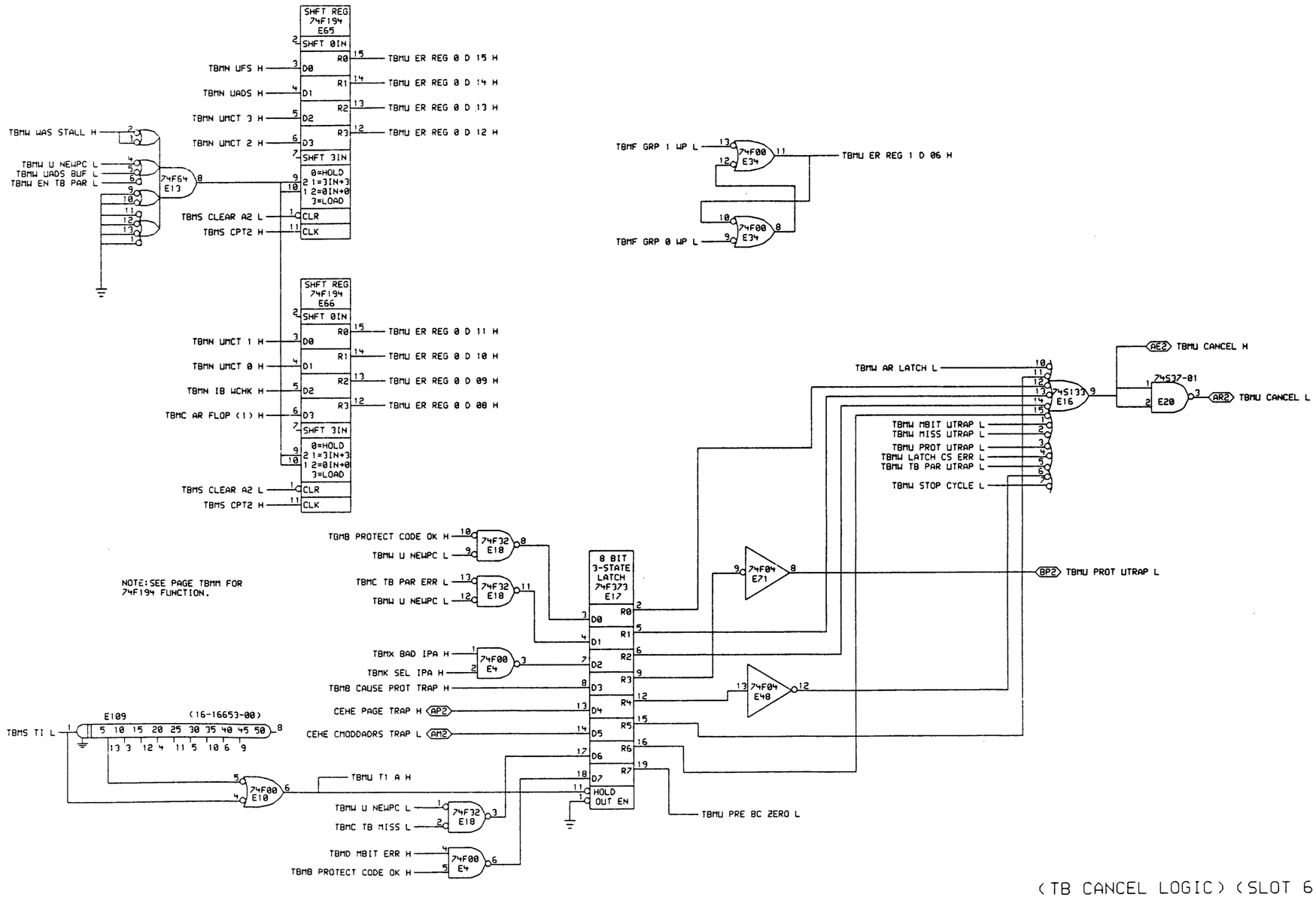
digital

DRN: [illegible] DATE 23-SEP-83
CHK'D. ENG. DATE
BOARD LOCATION: AF5
SHEET OF
TITLE: TRANSLATION BUFFER MATRIX (TBMT)
DSK::MISKA>TBMT.DRW 23-SEP-83 12:21
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: 9-00-M7464-0-0
SIZE K | CODE CS | NUMBER M7464-0-TBMT | REV. A

REV. A | NUMBER M7464-0-TBMT | SIZE K | CODE CS



(TB CANCEL LOGIC) (SLOT 6)

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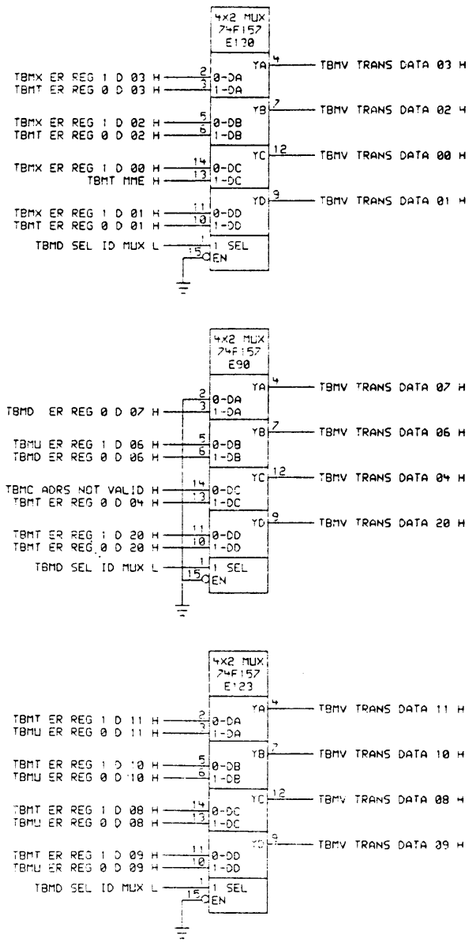
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: [illegible] DATE 10-FEB-84
CHK D. DATE
ENG. DATE
BOARD LOCATION: AF6
SHEET 1 OF 1
DSKC:<DUVAL>TBMU.DRW 10-FEB-84 15:19
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMU)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMU	B



74F157

INPUTS				OUTPUTS
STROBE	SELECT	A	B	74F157
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

H = HIGH LEVEL
L = LOW LEVEL
X = IRREVELENT

(ID MUX & MEMORY PARITY CHECK) (SLOT 6)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

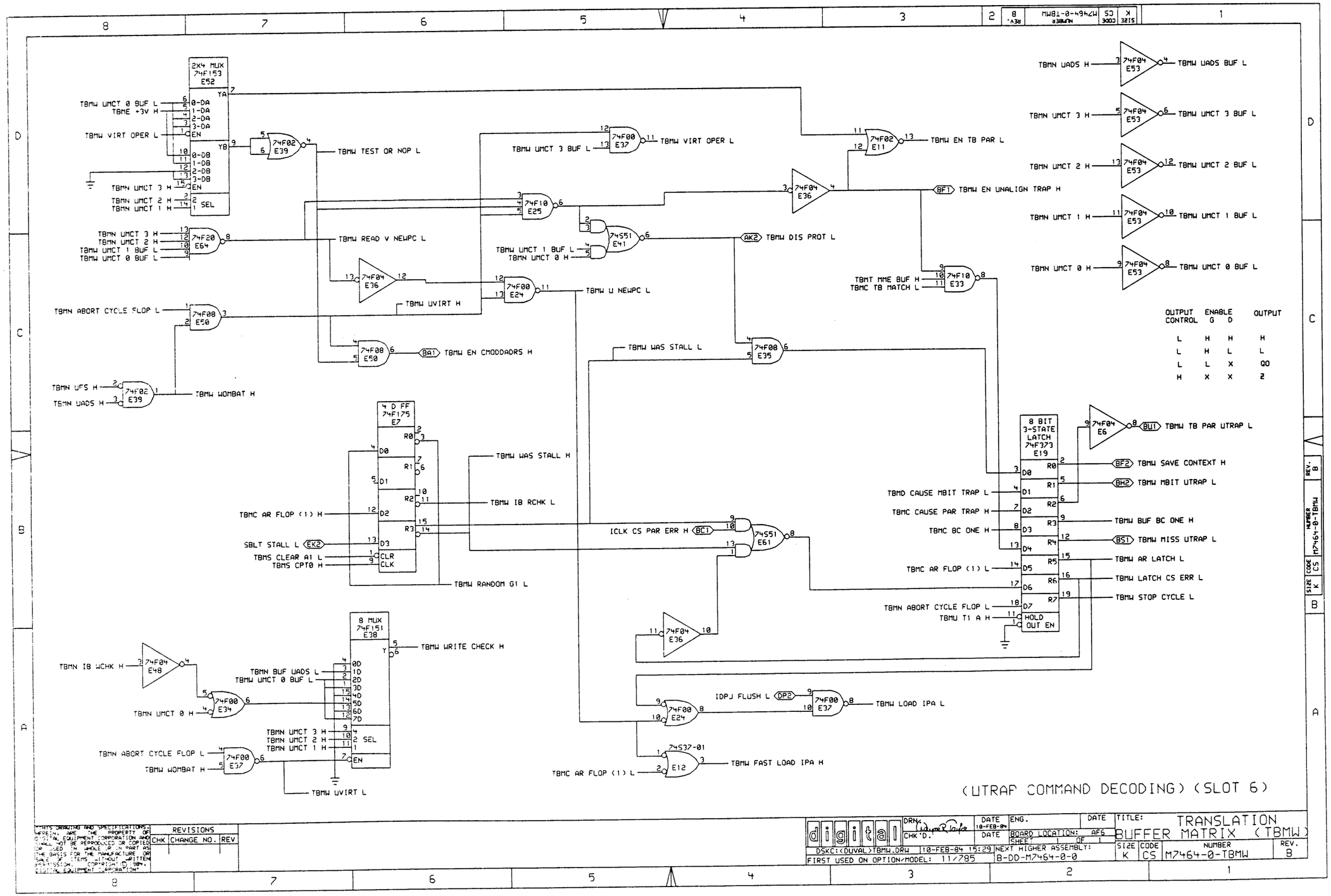
DRN [illegible] DATE 30-SEP-83
CHK [illegible] DATE
ENG [illegible] DATE 1-NOV-83
BOARD LOCATION: AF6
SHEET 1 OF 1

DSKC:<M1SKA>TBMV.DRW 30-SEP-83 15:53
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMV)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMV	A

REV. A
NUMBER M7464-0-TBMV
CODE CS
SIZE K



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: Wayne Taylor
CHK 'D.

DATE	ENG.	DATE
10-FEB-84		
DATE	BOARD LOCATION: AF5	
	SHEET 1 OF 1	

DSKC:<DUVAL>TBMW.DRW 10-FEB-84 15:29
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMW)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMW	B

TBMD ER REG 0 D 06 H — 74F04 E48

TBMW RANDOM G1 L — 74F02 E8
TBMT ER REG 0 D 18 H — 74F02 E8
TBMT ER REG 0 D 19 H — 74F02 E8

74F00 E34 → 74F10 E33 → TBMX G0 WP EN H

74F32 E18 → 74F10 E33 → TBMX G1 WP EN H

TBMD ER REG 0 D 07 H — 74F04 E48

TBMT ER REG 0 D 20 H — 74F04 E48

TBMW LOAD IPA L — 74F04 E58

TBMM ER REG 1 D 03 L — 74F04 E58 → TBMX ER REG 1 D 03 H

SHFT REG 74F194 E57

TBMC TB PAR ERR L — D1
TBMB PROTECT CODE OK L — D2
TBMW U NEWPC L — D3
TBMS CLEAR A2 L — CLR
TBMS CPT3 H — CLK

SHFT 0IN — R0
SHFT 3IN — R3
0=HOLD
2 1=3IN+3
1 2=0IN+0
3=LOAD

74F04 E58 → TBMX ER REG 1 D 02 H

74F00 E4 → 74F10 E3 → TBMX ER REG 1 D 01 H
TBMX ER REG 1 D 00 H

SBLS IB ERR LTH H (EJ1) — 74F04 E72

TBMC ADRS NOT VALID L — 74F10 E3 → TBMX BAD IPA H

4 D FF 74F175 E2

TBMW BUF BC ONE — D0 D1 D2 D3
TBMS CLEAR A2 L — CLR
TBMS CPT0 H — CLK

R0 (BE2) TBMX BRANCH CODE 0 H
R1 (BE1) TBMX BRANCH CODE 1 H
R2 (BD2) TBMX IB ERR L
R3 (BD1) TBMX IB MISS L

TBMU PRE BC ZERO L — 74F00 E4
TBMC TB MISS L — 74F00 E4

CAMP G0 WRITE EN H (AA1)
CAMP G1 WRITE EN H (AB2)
TBMS CPT1 L
74F64 E1 → 74F04 E6 → (AD2) TBMX WRITE PULSE L

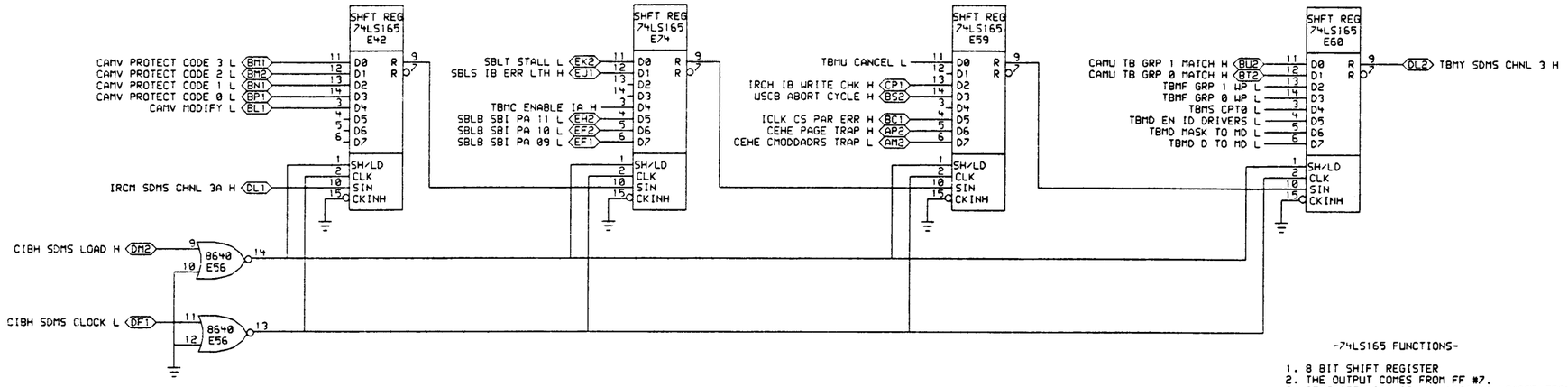
-74F175 FUNCTIONS-

THE INFORMATION AT D INPUT IS TRANSFERRED TO R OUTPUT OF THE FLOP ON THE POSITIVE GOING EDGE OF THE CLOCK PULSE.
LOW INPUT TO PRESET SETS R OUTPUT TO A HIGH LEVEL, LOW INPUT TO CLEAR SETS R OUTPUT TO A LOW LEVEL. PRESET AND CLEAR ARE INDEPENDENT OF THE CLOCK.

(TB WRITE PULSE) (SLOT 6)

REVISIONS
CHANGE NO. | REV

DRN: | DATE 10-FEB-81 | ENG | DATE | TITLE: TRANSLATION BUFFER MATRIX (TBMX)
CHK | DATE | BOARD LOCATIONS: | DATE
DSKC: MIGRA TBMX.DRW | 10-FEB-81 15:15 | NEXT ASSEMBLY | SIZE A | CODE CS | NUMBER M7464-0-TBMX | REV A
FIRST USED ON OPTION MODEL: | SYSTEM: | M-00-M7464-0-0 | PAGE



-74LS165 FUNCTIONS-

1. 8 BIT SHIFT REGISTER
2. THE OUTPUT COMES FROM FF #7.
3. IF SHIFT LOAD IS LOW DATA IS LOADED FROM D INPUTS REGARDLESS OF THE CLOCK.
4. OTHERWISE DATA IS SHIFTED FROM 0 TWOARD 7 ON CLOCK RISING EDGE.

(V BUS REGISTERS) (SLOT 6)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN: [illegible] DATE 23-SEP-83
CHK 'D. DATE
ENG. DATE
BOARD LOCATION: AF5
SHEET 1 OF 1
DSKC:<MISKA>TBMY.DRW 23-SEP-83 11:42
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBMY)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBMY	A

NUMBER M7464-0-TBMY REV. A
SIZE K CODE CS

AA2
AV1
BA2
BV1
CA2
CV1
DA2
DV1
EA2
EV1
FA2
FV1

+5.0V

C15 .1μF 50V
C16 .1μF 50V
C17 .1μF 50V
C18 .1μF 50V
C19 .1μF 50V
C20 .1μF 50V
C21 .1μF 50V
C22 .1μF 50V
C23 .1μF 50V
C25 .1μF 50V
C26 .1μF 50V
C27 .1μF 50V
C28 .1μF 50V
C29 .1μF 50V
C24 .1μF 50V

GND

AC2
BC2
CC2
DC2
EC2
FC2
AT1
BT1
CT1
DT1
ET1
FT1
AM1
BM1
CM1
DM1
EM1
FM1
AN2
BN2
CN2
DN2
EN2
FN2

C31 .047μF 50V
C32 .047μF 50V
C33 .047μF 50V
C34 .047μF 50V
C35 .047μF 50V
C36 .047μF 50V
C37 .047μF 50V
C38 .047μF 50V
C39 .047μF 50V
C40 .047μF 50V
C41 .047μF 50V
C42 .047μF 50V
C43 .047μF 50V
C44 .047μF 50V
C45 .047μF 50V
C46 .047μF 50V
C47 .047μF 50V
C48 .047μF 50V
C49 .047μF 50V
C50 .047μF 50V
C51 .047μF 50V
C52 .047μF 50V
C53 .047μF 50V
C54 .047μF 50V

C55 .047μF 50V
C56 .047μF 50V
C57 .047μF 50V
C58 .047μF 50V
C59 .047μF 50V
C60 .047μF 50V
C61 .047μF 50V
C62 .047μF 50V
C63 .047μF 50V
C64 .047μF 50V
C65 .047μF 50V
C66 .047μF 50V
C67 .047μF 50V
C68 .047μF 50V
C69 .047μF 50V
C70 .047μF 50V
C71 .047μF 50V
C72 .047μF 50V
C73 .047μF 50V
C74 .047μF 50V
C75 .047μF 50V
C76 .047μF 50V
C77 .047μF 50V
C78 .047μF 50V

C79 .047μF 50V
C80 .047μF 50V
C81 .047μF 50V
C82 .047μF 50V
C83 .047μF 50V
C85 .047μF 50V
C86 .047μF 50V
C87 .047μF 50V
C88 .047μF 50V
C89 .047μF 50V
C400 .047μF 50V
C401 .047μF 50V
C1 10μF 35V
C2 10μF 35V
C3 10μF 35V
C4 10μF 35V
C5 10μF 35V
C6 10μF 35V
C7 10μF 35V
C8 10μF 35V
C9 10μF 35V
C10 10μF 35V
C11 10μF 35V
C12 10μF 35V

C13 10μF 35V
C14 10μF 35V

C90 10μF 35V
C402 .047μF 50V
C403 .047μF 50V
C412 .047μF 50V

-5.2V GL2

REVISIONS		
HK	CHANGE NO.	REV
	1	

digital

DRN [signature] DATE 23-SEP-83
CHK'D. DATE
ENG [signature] DATE 6-OCT-83
BOARD LOCATION: AF6
SHEET 1 OF 1
DSK:C:MISKA>TBM2.DRW 23-SEP-83 11:32
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7464-0-0

TITLE: TRANSLATION BUFFER MATRIX (TBM2)

SIZE	CODE	NUMBER	REV.
K	CS	M7464-0-TBM2	A

SIZE	CODE	NUMBER	REV.
B	DD	M7464-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7464-00	PART REVISION	A B B2
E-UA-M7464-0-0	2		UNIT ASSEMBLY	A B C
K-PL-M7464-0-DBP	2		PARTS LIST	A B C
K-PC-M7464-0-DBI	—		P C DATA BASE	B1 B1 C
B-DD-5016075-0-0	1		DRAWING DIRECTORY	A B C
K-CS-M7464-0-DBS	—		SUD DATA-BASE	A B C
K-CS-M7464-0-TBMA	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMB	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMC	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMD	1		SCHEMATIC	A A A
K-CS-M7464-0-TBME	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMF	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMH	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMJ	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMK	1		SCHEMATIC	A A A
K-CS-M7464-0-TBML	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMM	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMN	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMP	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMR	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMS	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMT	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMU	1		SCHEMATIC	A B B
K-CS-M7464-0-TBMV	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMW	1		SCHEMATIC	A B B
K-CS-M7464-0-TBMX	1		SCHEMATIC	A A A

NOTES:

REVISIONS	REV.	CHG NO.	DATE
	A	INIT	9/83
	B	TW0001	2/84
	C	TWX02	4/84

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USED ON OPTION/MODEL			

DRN.		9-27-83
CHK'D		9-27-83
ENG.	Jay Buckney	10-11-83
PROD		10-11-83

TITLE: TBM

SIZE	CODE	NUMBER	REV.
B	DD	M7464-0-0	C

SHEET 1 OF 2

DRB 126

SIZE	CODE	NUMBER	REV.
B	DD	M7464-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7464-0-TBMY	1		SCHEMATIC	A A A
K-CS-M7464-0-TBMZ	1		SCHEMATIC	A A B
K-CS-M7464-0-TBM1	1		SCHEMATIC	A A A
K-CS-M7464-0-TBM2	1		SCHEMATIC	A A A
K-CS-M7464-0-TBM3	1		SCHEMATIC	A B B
K-CS-M7464-0-TBM4	1		SCHEMATIC	A A A
K CS M7464 0 TBM5	1		SCHEMATIC	- - A

NOTES:

REVISIONS	REV.	CHG NO.	DATE

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USED ON OPTION/MODEL		

DRN.	[illegible]	26-SEP-83
CHK'D	[illegible]	9-27-83
ENG	Jay Stuckey	10 11 83
PROD	[illegible]	10-11-83

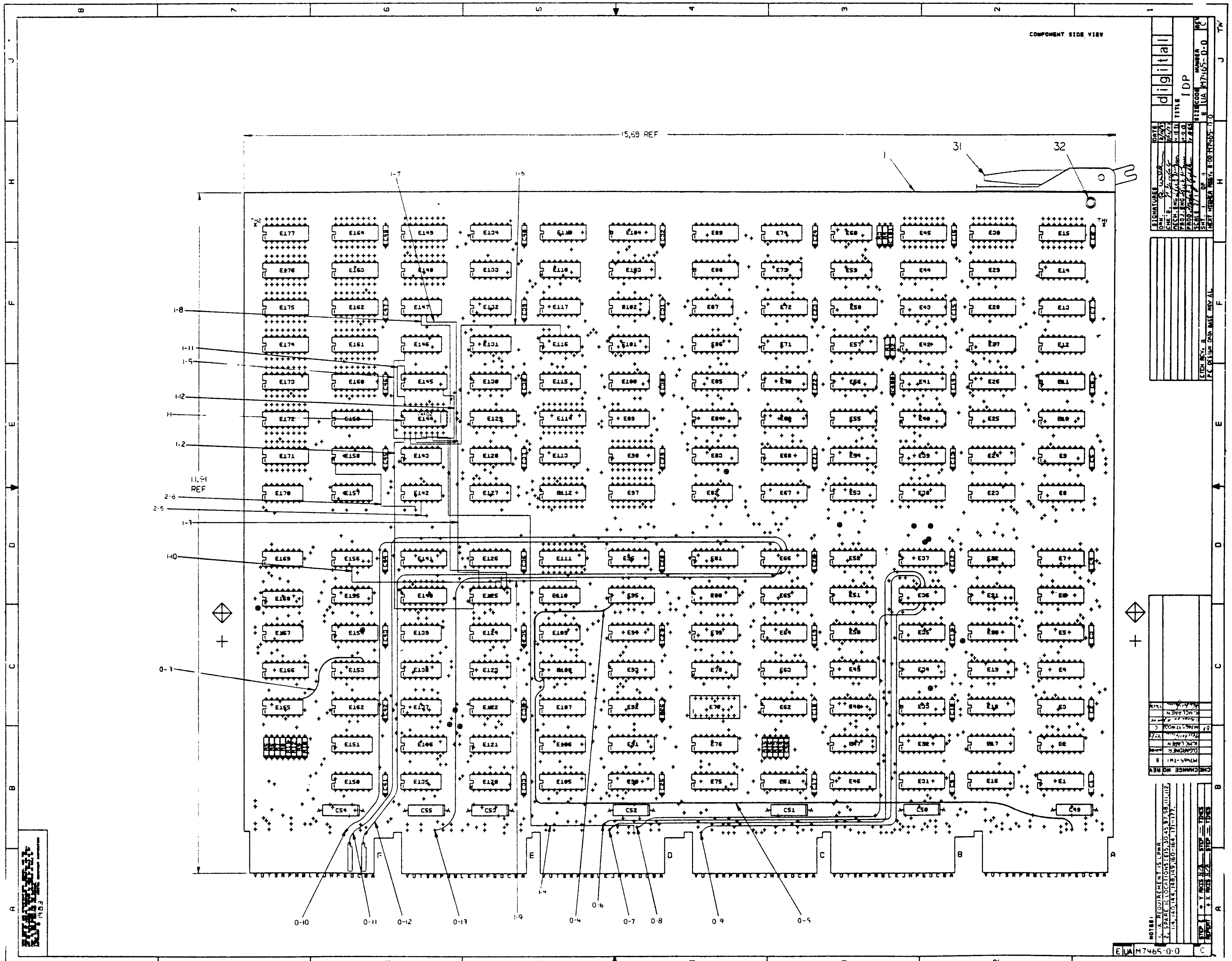
TITLE: TBM

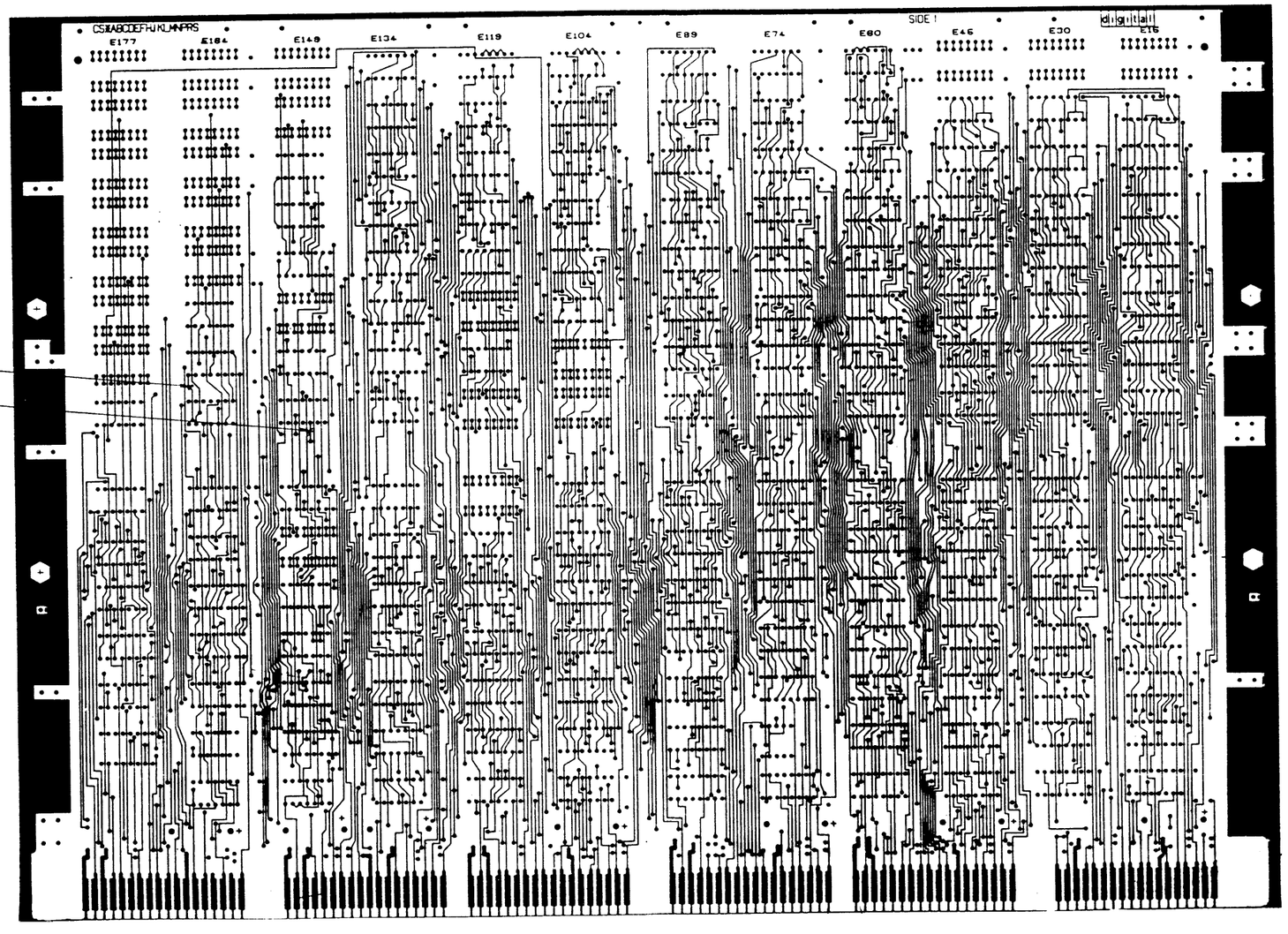
SIZE	CODE	NUMBER	REV.
B	DD	M7464-0-0	C

SHEET 2 OF 2

DRB 128

TW


COMPONENT SIDE VIEW
15.59 REF
11.91 REF
digital
IDP
M7465-0-0
NOTES:
1. A REQUIREMENT IS LPWR.
2. SPARE IC LOCATIONS: E15, 30, 45, 97, 98, 111, 112, 114, 140, 144, 148, 149, 160-164, 171-177.
M7465-TW1
D.GARDNER
K.MC LAREN
CHG CHANGE NO REV
E UA M7465-0-0 C



TITLE	INSTR DATA PATH	
SIZE	CODE	NUMBER
	E UA	M7-6550-0
SCALE 2-1	SHEET 2 OF 4	DRT

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INSTRUCTION DATA PATH M8223 5012668 SIDE 2

2-3
2-4

0-1
0-2

REVISIONS		
ZONE	CHANGE NO.	REV

TITLE: INSTR DATA PATH	SIZE: E	CODE: UA	NUMBER: M47465-00	REV: C
SCALE: 2 - 1	SHEET: 3 OF 4		DWG.	

TW 1

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REWORK INSTRUCTIONS

ETCH CUT-SIDE 2

0-1 AT PTH BELOW E95-16
0-2 AT E108-1

WIRE ADDS-SIDE 1

0-3 E153-11 TO E165-8
0-4 E95-1 TO E108-1
0-5 E108-1 TO PTH AT (SLIGHTLY ABOVE) FINGER AF1.
0-6 E36-13 TO PTH THAT CONNECTS TO FINGER DK2
0-7 E36-12 TO PTH THAT CONNECTS TO FINGER DK1
0-8 E36-5 TO PTH THAT CONNECTS TO FINGER DE1
0-9 E36-4 TO PTH THAT CONNECTS TO FINGER CU2
0-10 E66-13 TO PTH THAT CONNECTS TO FINGER FD2
0-11 E66-12 TO FINGER FD1
0-12 E66-5 TO FINGER FB1
0-13 E66-4 TO PTH THAT CONNECTS TO FINGER ER2

REWORK INSTRUCTIONS PER ECO #M7465-TW001

COMPONENT ADDS

1-1 ADD IC 74F02 TO SPARE LOCATION E144(LEFT JUSTIFIED)

WIRE ADDS-SIDE 1

1-2 E144-1 TO E125-1
1-3 E125-8 TO E144-8
1-4 E144-14 TO PTH THAT CONNECTS TO I/O PIN DE2
1-5 E140-1 TO E144-5
1-6 E144-2 TO E110-11
1-7 E144-3 TO E147-5
1-8 E125-13 TO E147-4
1-9 E125-10 TO E110-8
1-10 E125-9 TO E156-4
1-11 E145-16 TO E144-14
1-12 E145-8 TO E144-7

REWORK INSTRUCTIONS ECO #2

ETCH CUTS-SIDE 1

2-1 E158 PIN 1 (IDPM DELTA PC 2 H)
2-2 E142 PIN 5 (IDPM DELTA PC 2 L)

ETCH CUTS-SIDE 2

2-3 E142 PIN 6 (IDPM DELTA PC 2 H)
2-4 CONNECTING E142 PIN 4 AND PIN 5 (IDPM DELTA PC 2 L)

WIRE ADDS

2-5 E142 PIN 4 TO PTH BELOW E142 PIN 5 (IDPM DELTA PC 2 L)
2-6 E158 PIN 1 TO PTH BELOW E142 PIN 3 (IDPM CMX R23 DEL H)

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE	INSTR DATA PATH	
DOCUMENT NUMBER	SUB TOOL: E / UA — NUMBER: M7465-0-0 — REV: 2	
SCALE	SHEET 4 OF 4	

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T —

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	E-MD-5012565-0-0	5012565-00	M8223 IDP	1	
2	2		1012784-00	.047 MFD 50V +80-20% CER	51	C1-C48,C56,C100,C101
3	3		1012084-01	8 MFD 25V +75-10% AL EL	7	C49-C55
4	4		1301972-00	270.0 .25 W 5.0 % CF	2	R1,R3
5	5		1301890-00	560.0 .25 W 5.0 % CF	2	R2,R4
6	6		1300247-00	120.0 .25 W 5.0 % CF	2	R13,R14
7	7		1300250-00	150.0 .25 W 5.0 % CF	2	R15,R16
8	8		1300295-00	330.0 .25 W 5.0 % CF	4	R5,R7,R9,R11
9	9		1301775-00	820.0 .25 W 5.0 % CF	4	R6,R8,R10,R12
10	10		1921305-01	74F00 NAND GATE,QUAD,2-IN	7	E74,E100,E126,E130,E137,E139,
						CONT E155
11	11		1921307-01	74F04 HEX INVERTER	7	E96,E102,E118,E120,E127,E142,
						CONT E170
12	12		1921308-01	74F08 AND GATE,QUAD,2-IN	4	E124,E134,E138,E158
13	13		1921309-01	74F10 NAND GATE,TRIPLE,3-I	6	E99,E109,E116,E117,E151,E159
14	14		1921310-01	74F11 AND GATE,TRIPLE,3-IN	6	E82,E121,E131,E132,E156,E168
15	15		1921311-01	74F20 NAND GATE,DUAL,4-IN	2	E123,E169
16	16		1910541-00	74S40 BUFFER,POS-NAND,DUAL	3	E101,E110,E122
17	17		1911712-00	74S51 AND-OR GATE-INVERT D	7	E125,E128,E133,E143,E146,E147,
						CONT E157
18	18		1921313-01	74F64 AND OR INVERT GATE,4-	8	E59,E60,E73,E113,E115,E135,E150,
						CONT E165
19	19		1921314-01	74F74 FF-D,DUAL,POS.,EDGE	2	E87,E167
20	20		1921319-01	74F153 MUX,DUAL,4-IN	37	E7,E8,E10-E14,E25-E29,E43,E44,
						CONT E52,E56-E58,E62,E63,E70-E72,E78,
						CONT E79,E81,E85,E86,E88,E89,E91,E92,
						CONT E103,E104,E106,E107,E119
21	21		1921321-01	74F158 MUX,QUAD,2-IN	2	E95,E108
22	22		1921320-01	74F157 MUX,QUAD,2-IN	22	E4-E6,E9,E17,E20,E21,E23,E24,
						CONT E32,E37,E40,E42,E47,E51,E54,E55,

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A

BASIC PART NO: M7465

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN:	J.FERGUSON	DATE: 04-FEB-83
CHK'D:	T.MCCULLOUGH	DATE: 04-FEB-83
DES.ENG:	K.MCLAREN	DATE: 16-AUG-83
RESP.ENG.:	K.MCLAREN	DATE: 16-AUG-83
MFG.ENG.:	M.KRYSAK	DATE: 16-AUG-83
ASSEMBLY NUMBER: E-UA-M7465-0-0	TOP DOCUMENT NUMBER: B-DD-M7465-0-0	FILE NAME: Z3951A.PLS

D I G I T A L

TITLE: PARTS LIST
INSTRUCTION DATA PATH (I.D.P.)

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M7465-0-DBP	A

EDIT # 14

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AUTOMATED BY PRTLST.4Q(50) P A R T S L I S T SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					CONT	E64,E65,E68,E69,E84
23	23		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	1	E166
24	24		1913788-00	26S10 TRANSCEIVER,BUS,QUA	8	E1,E16,E31,E46,E61,E75,E76,E105
25	25		1921334-01	74F350 SHIFTER,4-BIT	8	E2,E3,E18,E19,E33,E34,E48,E49
26	26		1921720-01	10H125 TRANSLATOR ECL TO TTL QUA	1	E77
27	27		1921323-01	74F174 FF-D,HEX	8	E22,E35,E38,E39,E41,E50,E53,E83
28	28		1921324-01	74F175 FF-D,QUAD	7	E36,E66,E67,E80,E129,E136,E145
29	29		1913839-00	LS165 SHIFT REG.,8BIT	6	E93,E94,E141,E152-E154
30	30		1921327-01	74F194 SHIFT REG,UNIV,BIDIR	1	E90
31	31		1216988-02	HANDLE,MODULE,HEX TWO EJECTORS	1	
32	32		9000024-01	EYELET,ROLLED 0.1210DX0.192	12	
33	33		9105740-55	WIRE(WRAP) 30AWG KYNAR UL14	A/R	

34 NOTE: 1. SPARE IC'S E15,E30,E45,E97,E98,E111,E112,E114
35 NOTE: E140,E144,E148,E149,E160-E164,E171-E177

D	I	G	I	T	A	L	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
							INSTRUCTION DATA PATH (I.D.P.)	A OF A	K	PL	M7465-0-DBP	A

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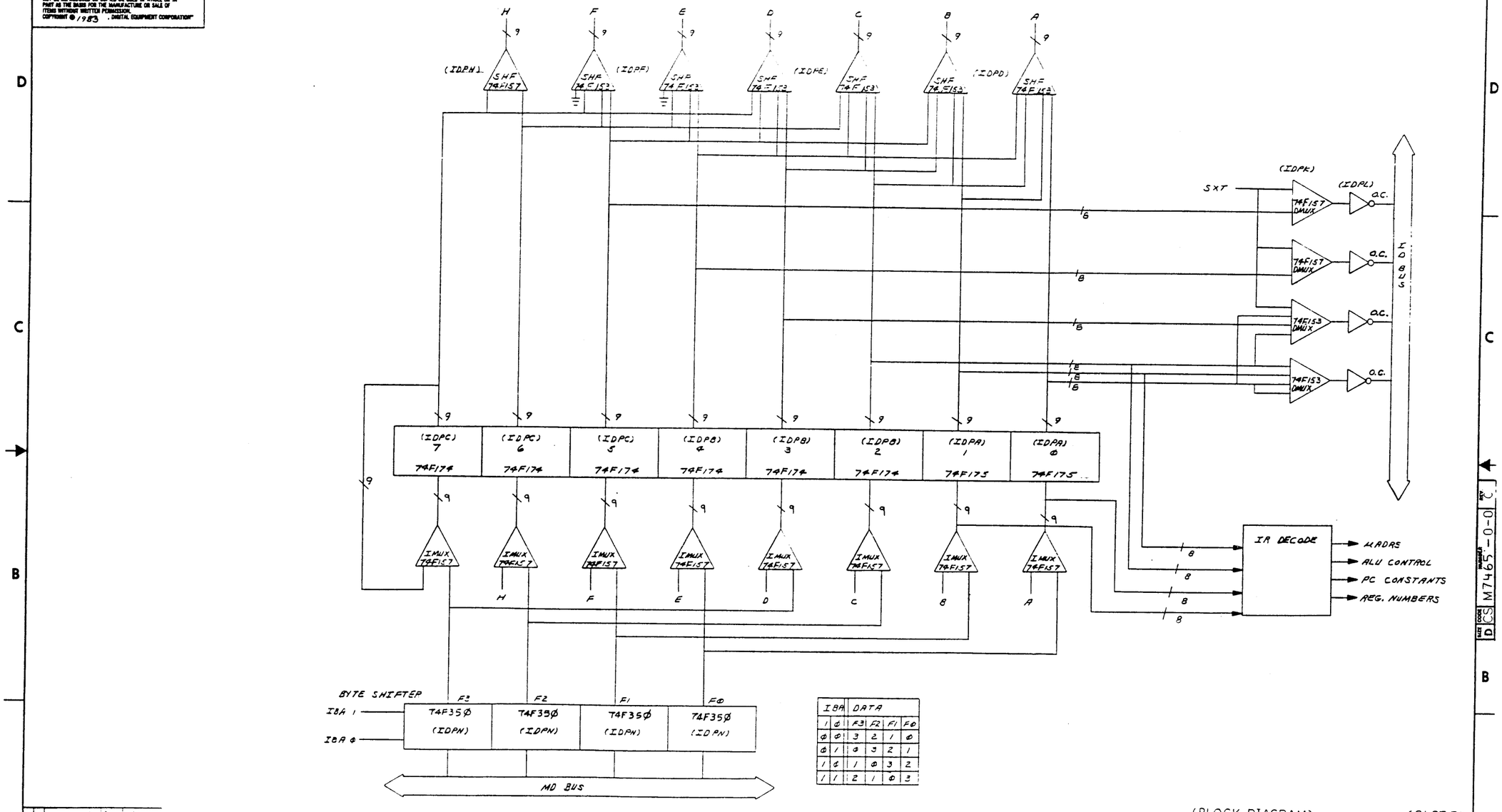

IBA	DATA			
	F3	F2	F1	F0
0 0	3	2	1	0
0 1	0	3	2	1
1 0	1	0	3	2
1 1	2	1	0	3

(BLOCK DIAGRAM) (SLOT 7)

REVISIONS		
CHK	CHANGE NO	REV
	M7465-TWO01	B
	D.GARDNER 2-5-84	
	K.MCLAREN	
	M7465-TWO02 D.GARDNER 2-5-84 K.MCLAREN	C

DRN. Tim Gleason	6 JUL 83
CHK'D	6-JUL-83
ENG.	10-JUL-83
PROJ. ENG.	10-JUL-83
PROD	10-JUL-83
NEXT HIGHER ASSY.	
B-DD-M7465-0-0	
SCALE	
SHEET 1 OF 15	

FIRST USED ON

digital

TITLE

INSTRUCTION DATA PATH (IDP)

SIZE	CODE	NUMBER	REV
D	CS	M7465-0-0	C

DIST.

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+5V R1 270 CM1 +3VA C1 .047 R2 560

+5V R3 270 +3V C2 .047 R4 560

IDPB BUF B2-0 (1) H
IDPB BUF B2-1 (1) H
IDPB BUF B2-2 (1) H
IDPB BUF B2-3 (1) H
74F27 E123

IDPB BUF B2-5 (1) H
74F04 E127

IDPB BUF B2-7 (1) H
74F04 E127

IDPB BUF B2-4 (1) H
IDPB BUF B2-6 (1) H
74F08 E126

74F26 E123

74F04 E127 → FE2 IDPA DST A MODE H (IDPP, IRC3, SLOT 28)

74S40 E116 → EC2 IDPA VAX L (IDPJ, M, N) (IRCB, C, D, E, F, H, J)

74S40 E116 → FF2 IDPA VAX H (IDPJ, M, P) (IRCB, D, E, F, H, J)

+3V CENP PSL CMP H → EC1

CU2 IDPA Imx B1-3 H (IRCD)
CX1 IDPA Imx B1-2 H (IRCD)
CX1 IDPA Imx B1-1 H (IRCD)
CX2 IDPA Imx B1-0 H (IRCD)

74F157 E21
IDPN AMD B1-3 H, IDPD SHF B1-3 H
IDPN AMD B1-2 H, IDPD SHF B1-2 H
IDPN AMD B1-1 H, IDPD SHF B1-1 H
IDPN AMD B1-0 H, IDPD SHF B1-0 H
SE STB

74F175 E36
D0 A0(1) → CO1 IDPA BUF B1-3 (1) H (IDPD, K, M, P) (IRCA, D, M)
A0(0) → BS2 IDPA BUF B1-3 (0) H (IRCD, M)
D1 A1(1) → DP1 IDPA BUF B1-2 (1) H (IDPD, K, M, P) (IRCA, C, M)
A1(0) → BS1 IDPA BUF B1-2 (0) H (IRCD, M)
D2 A2(1) → DN1 IDPA BUF B1-1 (1) H (IDPD, K, M, P) (IRCA, D, M)
A2(0) → BF1 IDPA BUF B1-1 (0) H (IRCD, M)
D3 A3(1) → DB2 IDPA BUF B1-0 (1) H (IDPD, K, N, P) (IRCA, D, J, M)
A3(0) → BT2 IDPA BUF B1-0 (0) H (IRCM)
CLK CLR

IDPJ SHF B1-VAL L

74F157 E51
IDPN AMD B1-7 H, IDPD SHF B1-7 H
IDPN AMD B1-6 H, IDPD SHF B1-6 H
IDPN AMD B1-5 H, IDPD SHF B1-5 H
IDPN AMD B1-4 H, IDPD SHF B1-4 H
S0 STB

EH2 IDPA Imx B1-7 H (IRCD)
EH1 IDPA Imx B1-6 H (IRCD)
ED1 IDPA Imx B1-5 H (IRCD)
ED2 IDPA Imx B1-4 H (IRCD)

74F175 E66
D0 A0(1) → EB1 IDPA BUF B1-7 (1) H (IDPD, K, N, P) (IRCA, D, M)
A0(0) → CO2 IDPA BUF B1-7 (0) H (IDPM, IRCD, M)
D1 A1(1) → DA1 IDPA BUF B1-6 (1) H (IDPD, K, P) (IRCA, D, M)
A1(0) → BU2 IDPA BUF B1-6 (0) H (IDPM, IRCD, M)
D2 A2(1) → DU2 IDPA BUF B1-5 (1) H (IDPD, K, P) (IRCA, D, M)
A2(0) → BU1 IDPA BUF B1-5 (0) H (IRCD, M)
D3 A3(1) → DF2 IDPA BUF B1-4 (1) H (IDPD, K, F) (IRCA, D, M)
A3(0) → FM2 IDPA BUF B1-4 (0) H (IDPM, IRCD, M)
CLK CLR

74F157 E5
IDPN AMD B0-3 H, IDPD SHF B0-3 H
IDPN AMD B0-2 H, IDPD SHF B0-2 H
IDPN AMD B0-1 H, IDPD SHF B0-1 H
IDPN AMD B0-0 H, IDPD SHF B0-0 H
SE STB

CM1 IDPA IMX B0-3 H (IRCC)
BV2 IDPA IMX B0-2 H (IRCC)
CC1 IDPA IMX B0-1 H (IRCC)
CN1 IDPA IMX B0-0 H (IRCC)

74F175 E67
D0 A0(1) → IDPA BUF B0-3 (1) H (IDPD, K, M, P)
A0(0) → IDPA BUF B0-3 (0) H (IDPM)
D1 A1(1) → IDPA BUF B0-2 (1) H (IDPD, K, M, H, P)
A1(0) → IDPA BUF B0-2 (0) H (IDPM)
D2 A2(1) → IDPA BUF B0-1 (1) H (IDPD, K, M, N, P)
A2(0) → IDPA BUF B0-1 (0) H (IDPM)
D3 A3(1) → IDPA BUF B0-0 (1) H (IDPD, K, N, P)
A3(0)
CLK CLR

74F157 E65
IDPN AMD B0-7 H, IDPD SHF B0-7 H
IDPN AMD B0-6 H, IDPD SHF B0-6 H
IDPN AMD B0-5 H, IDPD SHF B0-5 H
IDPN AMD B0-4 H, IDPD SHF B0-4 H
S0 STB

CU1 IDPA IMX B0-7 H (IRCC)
CT2 IDPA IMX B0-6 H (IRCC)
CS1 IDPA IMX B0-5 H (IRCC)
CV2 IDPA IMX B0-4 H (IRCC)

74F175 E80
D0 A0(1) → IDPA BUF B0-7 (1) H (IDPD, M, P)
A0(0) → IDPA BUF B0-7 (0) H (IDPM)
D1 A1(1) → IDPA BUF B0-6 (1) H (IDPD, K, M, P)
A1(0) → IDPA BUF B0-6 (0) H (IDPM)
D2 A2(1) → IDPA BUF B0-5 (1) H (IDPD, K, M, P)
A2(0)
D3 A3(1) → IDPA BUF B0-4 (1) H (IDPD, K, M, P)
A3(0)
CLK CLR

IDPJ SHF B0-VAL L
IDPL A CPU T0 H

CLKL SYS INIT H → ED1 74F04 E118 → IDPA INIT L (IDPH, J)

(BUFFER BYTES 0 & 1) (SLOT 7)

REVISIONS

CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPA)	D	CS	M7465-0-0	-

SCALE — SHEET 7 OF 15 DIST

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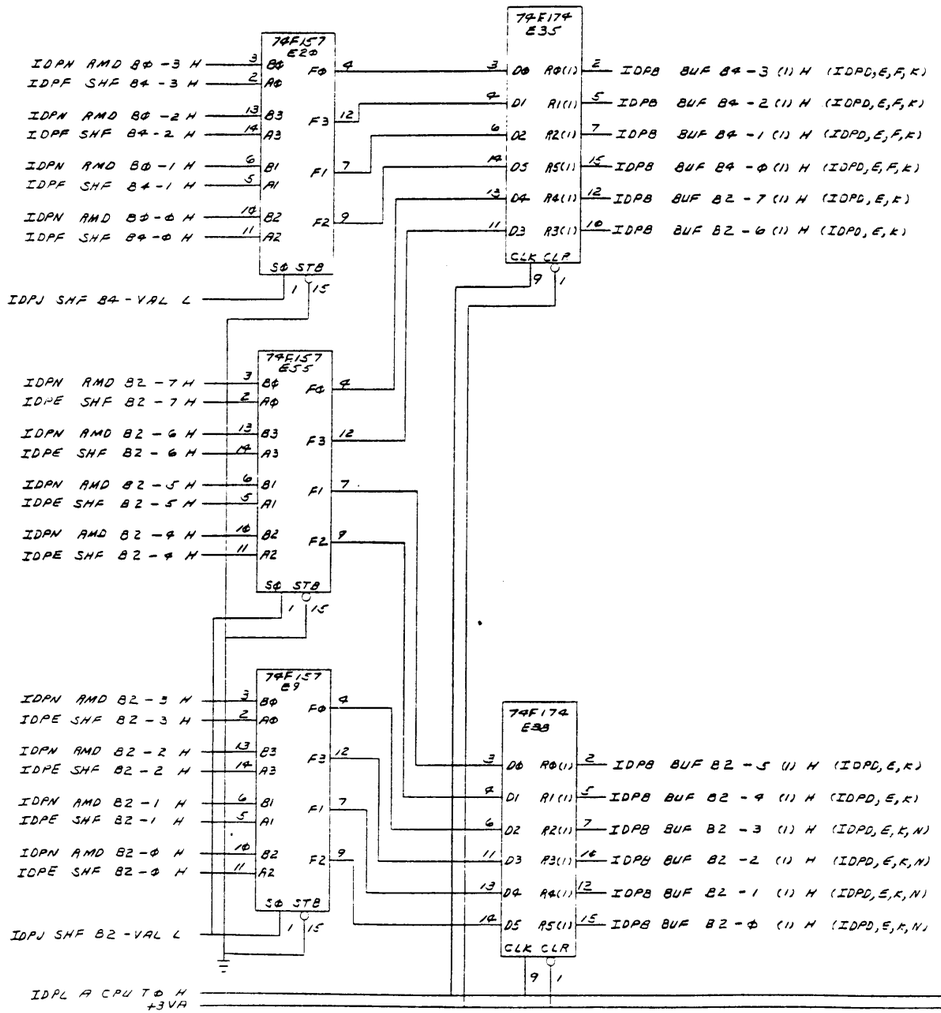

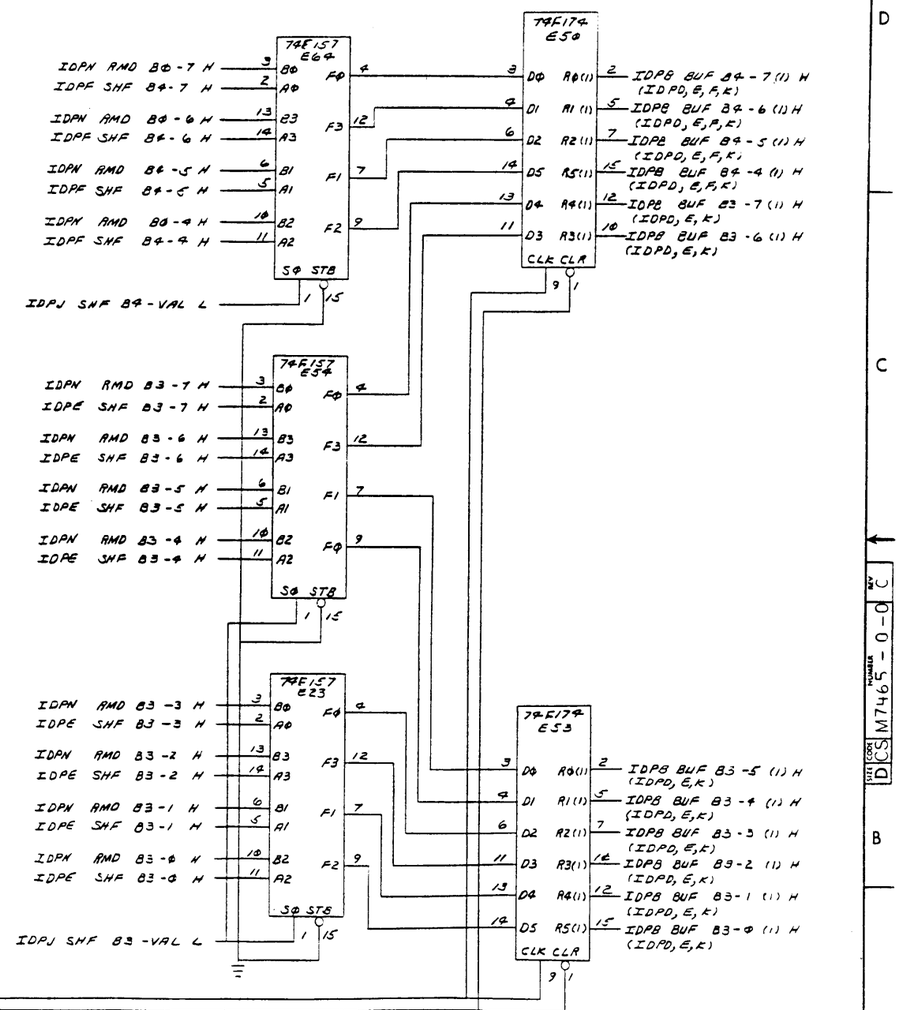

(BUFFER BYTES 2 & 3 & 4) (SLOT 7)

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPB)	D	CS	M7465-0-0	C
SCALE	SHEET 3 OF 15	DIST.		

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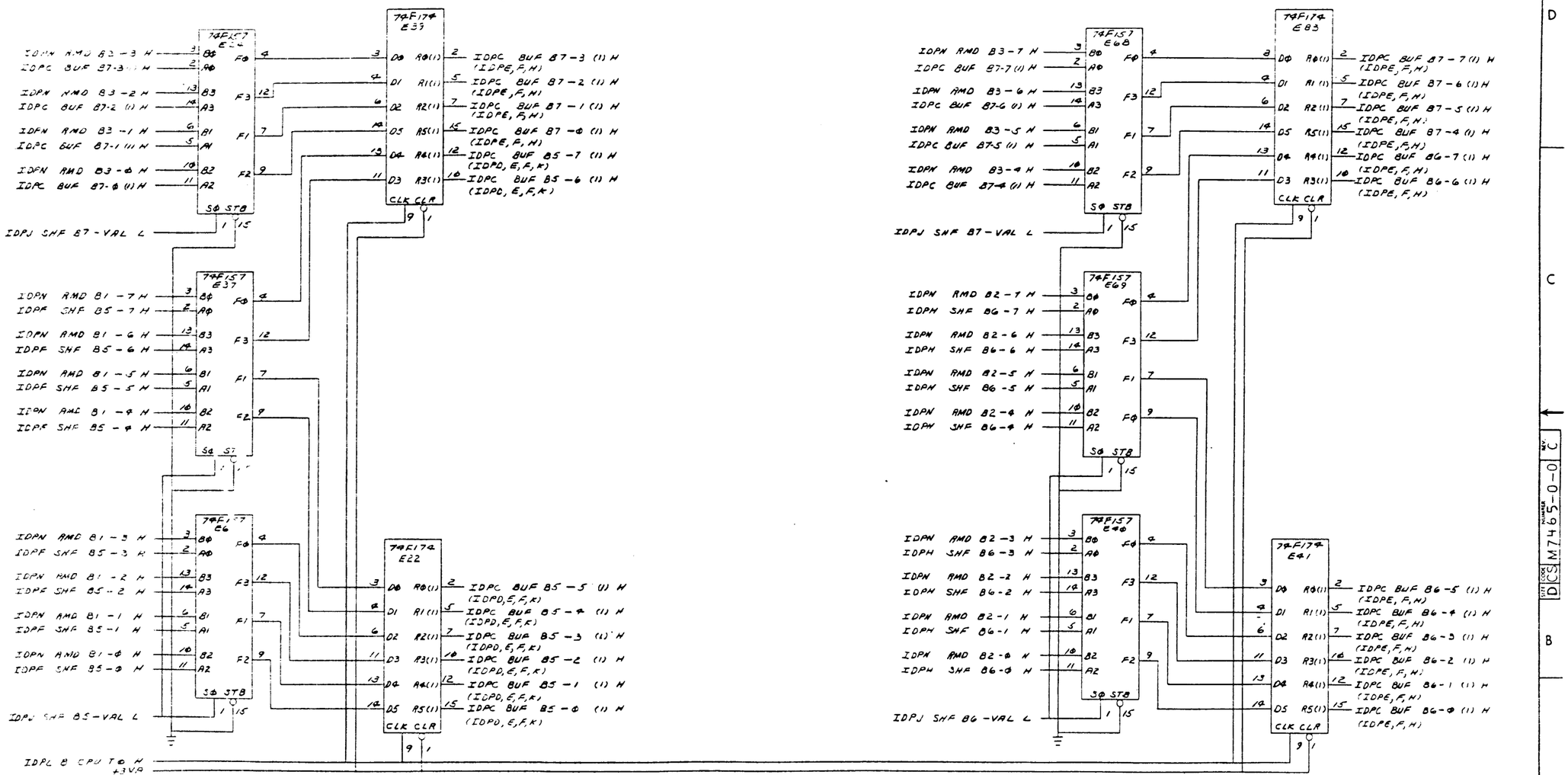

(BUFFER BYTES 5&6&7) (SLOT 7)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPC)	D	CS	M7465-0-0	C
SCALE	SHEET 4 OF 15	DIST.		

DEC/CSD/M7465-0-0 REV C

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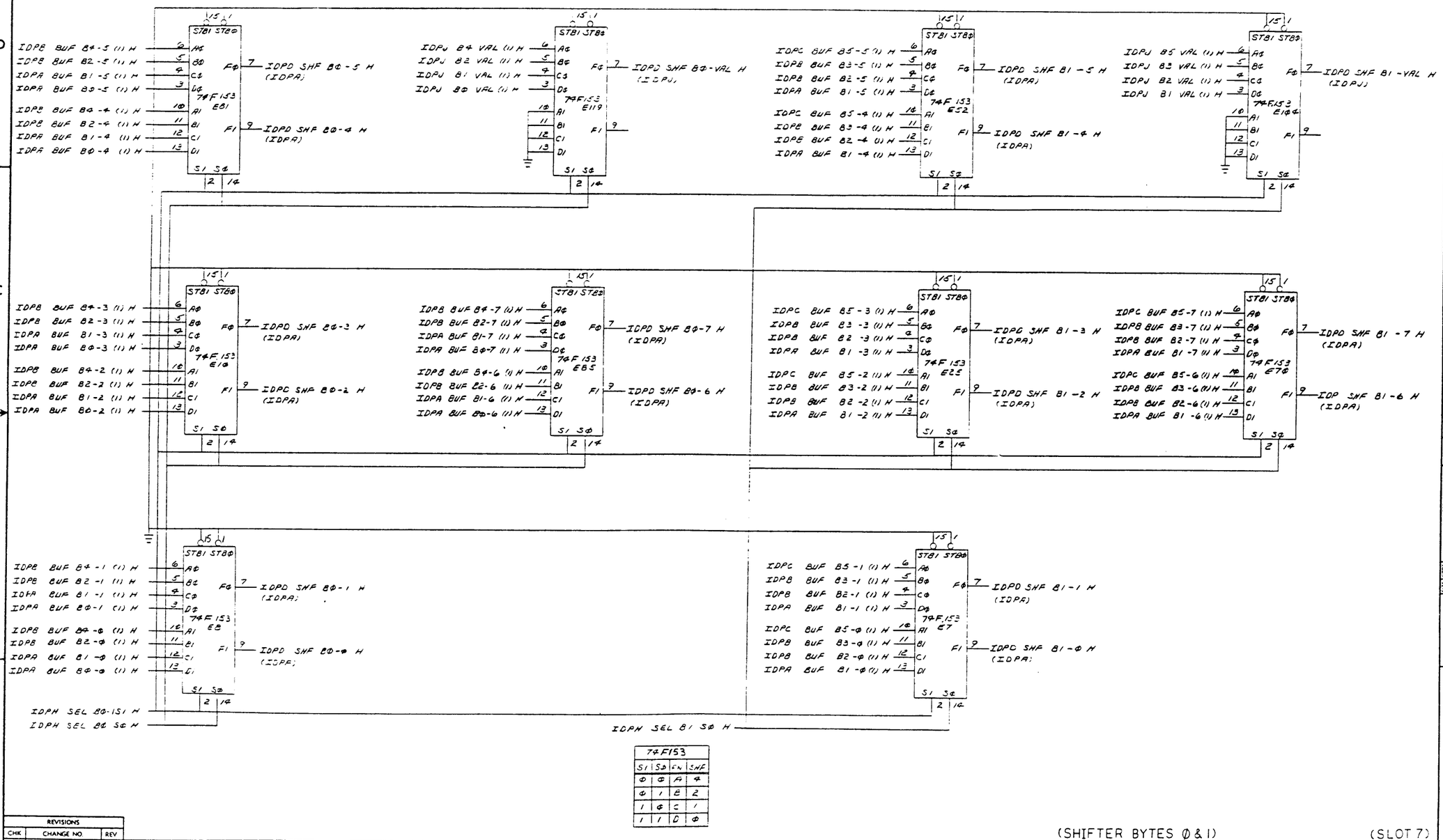

REVISIONS		
CHK	CHANGE NO.	REV

TITLE		SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH	(IDPD)	D	CS	M7465-0-0	C
SCALE	SHEET 5 OF 15	DIST.			

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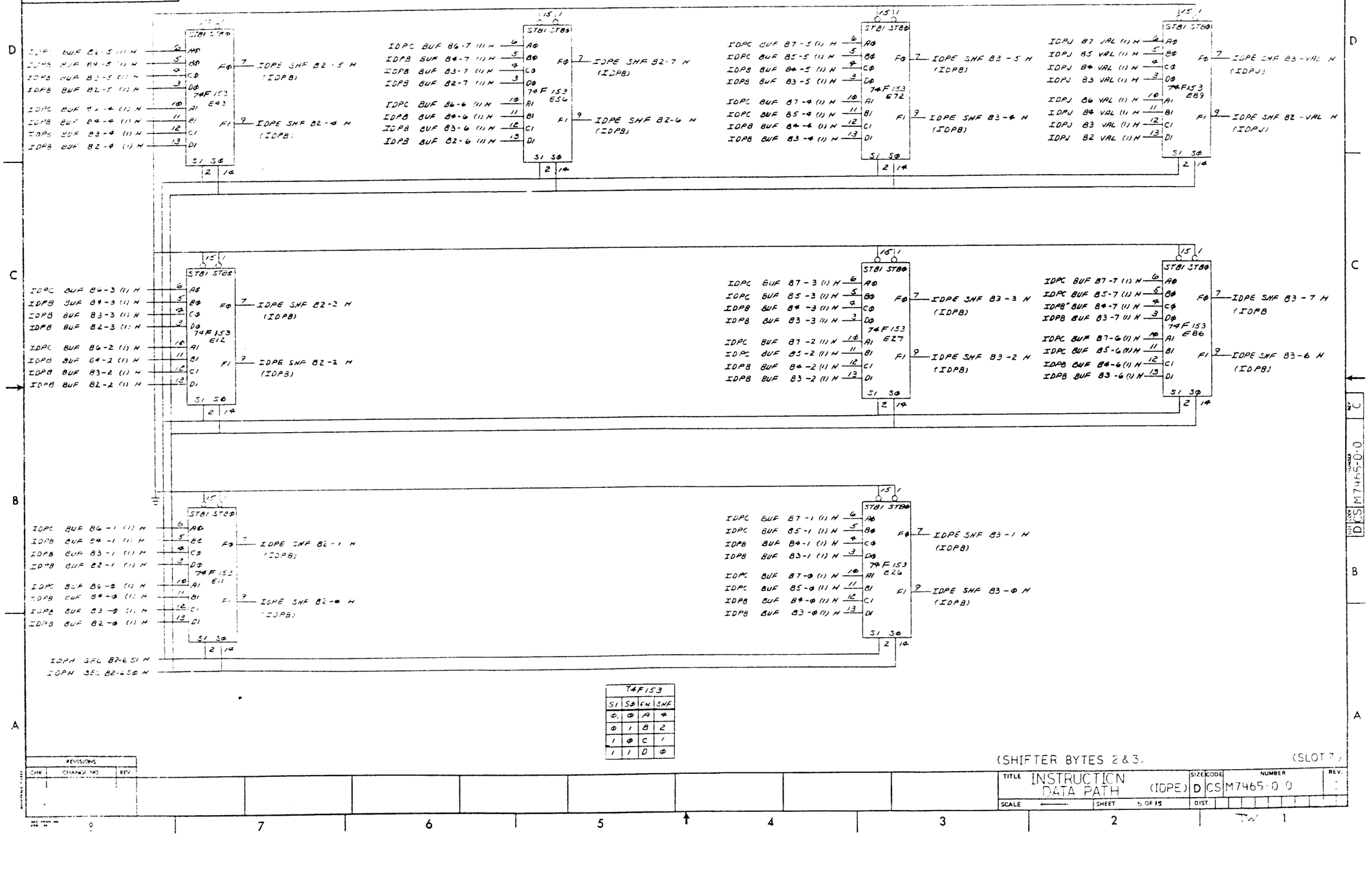

REVISIONS		
CHK	CHANGE NO	REV

TITLE	INSTRUCTION DATA PATH (IDPE)	SIZE D	CODE CS
		NUMBER M7465-0 0	REV.
SCALE	SHEET 5 OF 15	DIST.	

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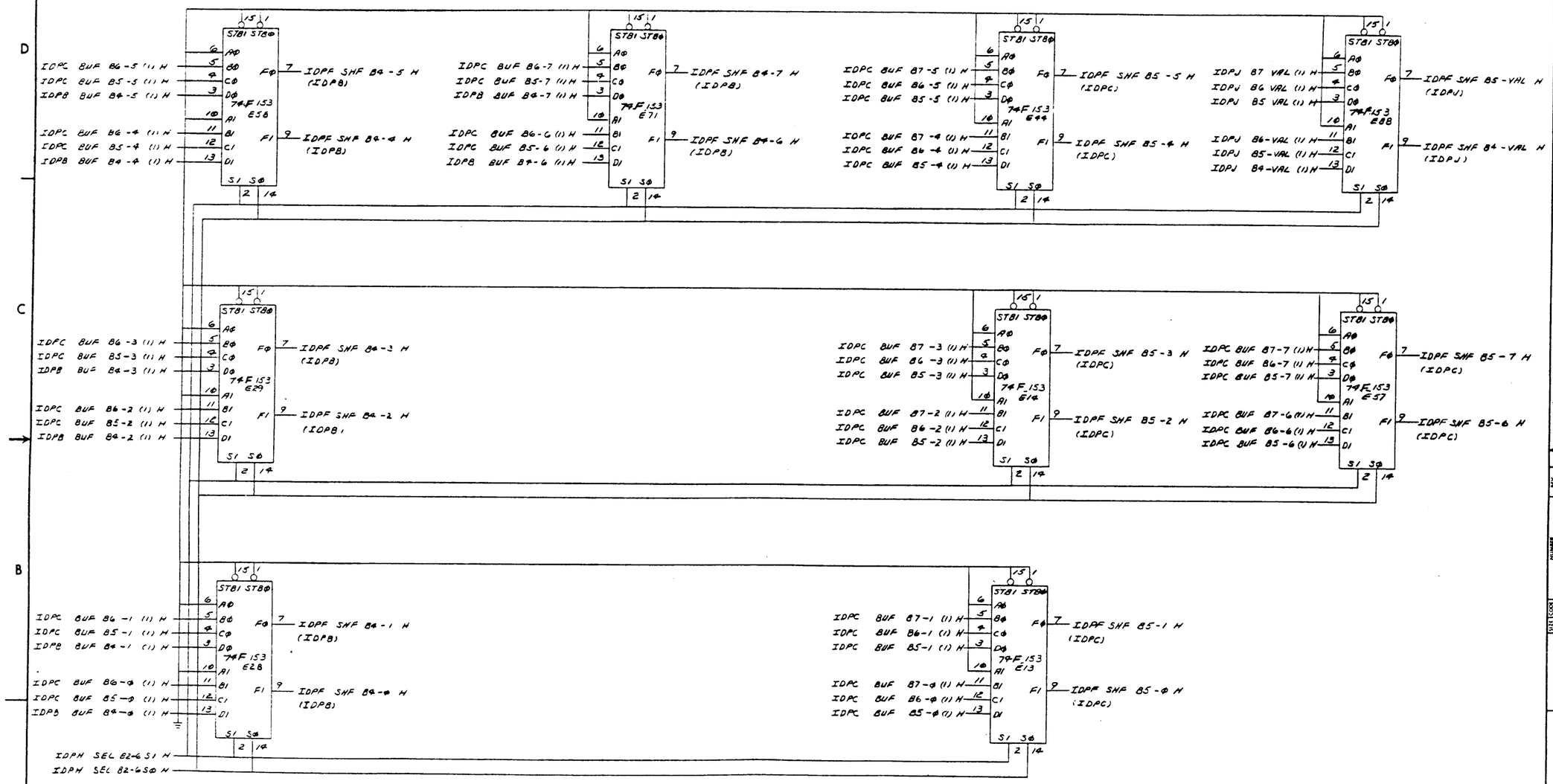

74F153			
S1	S0	FN	SHF
0	0	A	0
0	1	B	2
1	0	C	1
1	1	D	0

REVISIONS		
CHK	CHANGE NO.	REV

(SHIFTER BYTES 4&5) (SLOT 7)

TITLE		SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPF)		D	CS	M7465-0 0	C
SCALE	SHEET 7 OF 15	DIST.			

TW 1

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74F153 E103
ST2 ST1
D0 C0 B0 A0 D1 C1 B1 A1
F0 F1
IDPH SHF 87-VAL H (IDPJ)
IDPJ B0 VAL (1) H
IDPJ B7 VAL (1) H
IDPH SHF 86-VAL H (IDPJ)
IDPH SEL 82-6S1 H
S1 S0

74F157 E89
IDPC BUF 87-7 (1) H
IDPC BUF 86-7 (1) H
IDPH SHF 86-7 H (IDPC)
IDPC BUF 87-6 (1) H
IDPC BUF 86-6 (1) H
IDPH SHF 86-6 H (IDPC)
IDPC BUF 87-5 (1) H
IDPC BUF 86-5 (1) H
IDPH SHF 86-5 H (IDPC)
IDPC BUF 87-4 (1) H
IDPC BUF 86-4 (1) H
IDPH SHF 86-4 H (IDPC)
S0 STB

74F157 E42
IDPC BUF 87-3 (1) H
IDPC BUF 86-3 (1) H
IDPH SHF 86-3 H (IDPC)
IDPC BUF 87-2 (1) H
IDPC BUF 86-2 (1) H
IDPH SHF 86-2 H (IDPC)
IDPC BUF 87-1 (1) H
IDPC BUF 86-1 (1) H
IDPH SHF 86-1 H (IDPC)
IDPC BUF 87-0 (1) H
IDPC BUF 86-0 (1) H
IDPH SHF 86-0 H (IDPC)
S0 STB
IDPH SEL 82-6S0 H
IDPH SEL 82-6S1 L

UIBC CODES			
0	NOP	8	NOT USED
1	STOP	9	NOT USED
2	FLUSH * LD VIBA	A	NOT USED
3	START	B	NOT USED
4	0, 1	C	0
5	2, 3	D	1
6	NOT USED	E	0, 1, 2, 3
7	BDEST	F	1-5 COND

+5V
74F175 E136
R11 330 R9 330 R7 330 R5 330
R6 820 R8 820 R10 820 R12 820
BUS CS 95 H FP2
BUS CS 94 H FP1
BUS CS 93 H FU2
BUS CS 92 H FU1
D0 D1 D2 D3 CLR CLA
R0(1) IDPH IBC 3 (1) H (IDPD)
R0(0) IDPH IBC 3 (0) H (IDPJ, M)
R1(1) IDPH IBC 2 (1) H (IDPJ, M, P)
R1(0) IDPH IBC 2 (0) H (IDPJ)
R2(1) IDPH IBC 1 (1) H (IDPJ, M, P)
R2(0) IDPH IBC 1 (0) H
R3(1) IDPH IBC 0 (1) H (IDPD)
R3(0) IDPH IBC 0 (0) H (IDPJ)
IDPH CLR U WORD (0) H (IDPJ)

+3V
74F74 E167
USCB CLR UWORD H FV2
IDPL C CPU T0 H
IDPH T1 L
IRCN CPU T1 H EJ1
74F04 E127

74F00 E137
74F00 E100
74S40 E101
74S51 E128
74F10 E99
74F08 E138
74F32 E139
74F02 E170
74F11 E168
74F00 E102
74F10 E159
74F11 E166
74F11 E121
74S112 E166
74F04 E162
ILPM DELTA PC 0 H
IDPM DELTA PC 1 H
IDPM DELTA PC 2 L
IDPM PC 1 EN B L
IDPM PC 1 EN A L
IDPH IBC 1 (1) H
IDPH IBC 0 (1) H
IDPH IBC 3 (1) H
IRCE SAVE H FP1
IDPH IBC 2 (1) H
IDPH IBC 1 (0) H
IDPH IBC 0 (0) H
IRCN CPU T1 H EJ1
IDPH IBC 2 (0) H
IDPJ CLR VALID L
IDPH T1 L
IDPA INIT L
IDPH SEL 82-6S1 H (IDPE, F, M)
IDPH SEL 82-6S1 L (IDPM)
IDPH SEL 82-6S0 H (IDPE, F, M)
IDPH SEL 82-6S0 L (IDPM)
IDPH SEL 81S0 H (IDPD)
IDPH SEL 81S0 L
IDPH SEL B0-1S1 H (IDPD)
IDPH CLR B1 H (IACC, F)
IDPH SEL B0S0 H (IDPD)
IDPH CLR 0 L (IDPB, IACC)
IDPH IB RUN (1) H (IDPJ)

S1	S0	SHF
3	3	4
3	1	2
1	3	1
1	1	0

REVISIONS
CHK | CHANGE NO | REV

(SHIFTER BYTE 6 & SHIFT CONTROL) (SLOT 7)

TITLE INSTRUCTION DATA PATH (IDPH)
SIZE D | CODE CS | NUMBER M7465-0-0 | REV. C
SCALE | SHEET 9 OF 15 | DIST.

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IDPH IBC 0 (0) H
IDPH IBC 1 (1) H
IDPH IBC 2 (0) H
IDPH CLR V WORD (0) H
74LS24 E169
74F04 E102
IDPJ FLUSH H (IDPM)
FC1
IDPJ FLUSH L (IDPM,F)(DCPJ)(TBMF,W)(SBLS)
IDPH IBC 2 (1) H
IDPH IBC 1 (0) H
74F00 E126
IDPJ B7 VAL (1) H
IDPH IBC 3 (0) H
74F00 E155
74F66 E165
FP1
IRCE SAVE H
IDPJ IB REQ H (SBLS)
+3V
IDPH IB RUN (1) H
SBLR IB READ DATA L
FU2
74F74 E167
IDPL C CPU T0 H
IDPA INIT L
+3V
74F11 E156
EV2
IDPJ COUNT H (IDPP)(DCPH,J) (TBMM)
IDPM PC EVEN L
74F00 E74
74F175 E145
D0 R0(1) IDPJ B7 VAL (1) H (IDPE,F,H)
R0(0)
D1 R1(1) IDPJ B6 VAL (1) H (IDPE,F,H)
R1(0)
D2 R2(1) ESI IDPJ B5 VAL (1) H (IRCE)(IDPD,E,F,M,P)
R2(0)
D3 R3(1) EPI IDPJ B4 VAL (1) H (IRCE)(IDPD,E,F,P)
R3(0)
CLR CLK
74F175 E129
D0 R0(1) EP2 IDPJ B3 VAL (1) H (IDPD,E)
R0(0) IDPJ B3 VAL (0) H (IDPD,IRCE)
D1 R1(1) IDPJ B2 VAL (1) H (IDPD,E,M)
R1(0) ES2 IDPJ B2 VAL (0) H (IDPM,IRCE) (SLOT 2B)
D2 R2(1) IDPJ B1 VAL (1) H (IDPD,M)
R2(0) EP1 IDPJ B1 VAL (0) H (IRCE) (SLOT 2B)
D3 R3(1) IDPJ B0 VAL (1) H (IDPD)
R3(0) E42 IDPJ B0 VAL (0) H (IRCE,F)(USCR,S)
CLR CLK

IDPD SHF B1-VAL H
IDPM IBA 1 H
IDPE SHF B2-VAL H
IDPM IBA 0 L
IDPM IBA 1 L
IDPD SHF B0-VAL H
IDPM IBA 0 H
IDPE SHF B3-VAL H
IDPF SHF B4-VAL H
IDPF SHF B5-VAL H
IDPH SHF B6-VAL H
IDPH SHF B7-VAL H
74F04 E102
74F11 E132
74F00 E130
74F10 E117
74F08 E134
74F10 E116
74F08 E118
74F10 E116
74F00 E130
74F11 E131
74F11 E131
74F04 E118

IDPJ SHF B1-VAL L (IDPA)
IDPJ MARK B2 VAL L
IDPJ SHF B2-VAL L (IDPB)
IDPJ MARK B3 VAL L
IDPJ MARK B4 VAL L
IDPJ SHF B3-VAL L (IDPB)
IDPJ MARK B5 VAL L
IDPJ SHF B4-VAL L (IDPB)
IDPJ MARK B6 VAL L
IDPJ SHF B5-VAL L (IDPC)
IDPJ MARK B7-VAL L
IDPJ SHF B6-VAL L (IDPC)
IDPJ SHF B7-VAL L (IDPC)(SLOT 7)

74S51 E128
74S51 E146
74S51 E133
74S51 E147
74S51 E129
74S51 E133
74F11 E156
74F00 E130
74F00 E130
74F04 E118

IDPM IBA 1 H
IDPM IBA 0 H
IDPJ MARK B1 VAL L
IDPL C CPU T0 H
IDPJ FLUSH H
IRCN CPU T1 H
EJ1
IDPJ CLR VALID L (IDPH)
IDPD SHF B0-VAL H
IDPJ SHF B0-VAL L (IDPA)

IDPA VAX H
IDPJ MARK B1 VAL L
IDPJ SHF B1-VAL L
IDPA VAX L
IDPJ SHF B0-VAL L
74F02 E144
74S51 E129
74F02 E144
DE2
IDPJ CM X CYC STALL H (IRCF)

(BUFFER VALID BITS, REQUEST) (SLOT 7)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPJ)	D	CS	M7465-0-0	C
SCALE	SHEET 9 OF 15	DIST.		

DCS M7465-0-0 REV C

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IDPB BUF B4-3 (1) H
IDPB BUF B4-2 (1) H
IDPB BUF B4-1 (1) H
IDPB BUF B4-0 (1) H
74F157 E41
IDPK DMX B2-3 H (IDPL)
IDPK DMX B2-2 H (IDPL)
IDPK DMX B2-1 H (IDPL)
IDPK DMX B2-0 H (IDPL)

IDPB BUF B4-7 (1) H
IDPB BUF B4-6 (1) H
IDPB BUF B4-5 (1) H
IDPB BUF B4-4 (1) H
74F157 E51
IDPK DMX B2-7 H (IDPL)
IDPK DMX B2-6 H (IDPL)
IDPK DMX B2-5 H (IDPL)
IDPK DMX B2-4 H (IDPL)

IDPC BUF B5-3 (1) H
IDPC BUF B5-2 (1) H
IDPC BUF B5-1 (1) H
IDPC BUF B5-0 (1) H
74F157 E32
IDPK DMX B3-3 H (IDPL)
IDPK DMX B3-2 H (IDPL)
IDPK DMX B3-1 H (IDPL)
IDPK DMX B3-0 H (IDPL)

IDPC BUF B5-7 (1) H
IDPC BUF B5-6 (1) H
IDPC BUF B5-5 (1) H
IDPC BUF B5-4 (1) H
74F157 E42
IDPK DMX B3-7 H (IDPL)
IDPK DMX B3-6 H (IDPL)
IDPK DMX B3-5 H (IDPL)
IDPK DMX B3-4 H (IDPL)

S0 STB
IDPM DMX B23 SEL H

IDPA BUF B1-5 (1) H
IDPB BUF B3-1 (1) H
IDPB BUF B2-1 (1) H
IDPA BUF B1-4 (1) H
IDPB BUF B3-0 (1) H
IDPB BUF B2-0 (1) H
74F153 E91
IDPK DMX B1-1 H (IDPL)
IDPK DMX B1-0 H (IDPL)

IDPB BUF B3-3 (1) H
IDPB BUF B2-3 (1) H
IDPB BUF B3-2 (1) H
IDPB BUF B2-2 (1) H
74F153 E92
IDPK DMX B1-3 H (IDPL)
IDPK DMX B1-2 H (IDPL)

IDPB BUF B3-5 (1) H
IDPB BUF B2-5 (1) H
IDPB BUF B3-4 (1) H
IDPB BUF B2-4 (1) H
74F153 E106
IDPK DMX B1-5 H (IDPL)
IDPK DMX B1-4 H (IDPL)

IDPB BUF B3-7 (1) H
IDPB BUF B2-7 (1) H
+3V
IDPB BUF B3-6 (1) H
IDPB BUF B2-6 (1) H
74F153 E107
IDPK DMX B1-7 H (IDPL)
IDPK DMX B1-6 H (IDPL)

IDFN SXT H
IDPM DMX B1S1 H
IDFM DMX B1S0 H

IDPB BUF B2-1 (1) H
IDPA BUF B1-1 (1) H
IDPA BUF B0-0 (1) H
IDPB BUF B2-0 (1) H
IDPA BUF B1-0 (1) H
74F153 E63
IDPK DMX B0-1 H (IDPL)
IDPK DMX B0-0 H (IDPL)

IDPB BUF B2-3 (1) H
IDPA BUF B1-3 (1) H
IDPA BUF B2-2 (1) H
IDPB BUF B2-2 (1) H
IDPA BUF B1-2 (1) H
74F153 E62
IDPK DMX B0-3 H (IDPL)
IDPK DMX B0-2 H (IDPL)

IDPA BUF B1-4 (1) H
IDPB BUF B2-5 (1) H
IDPA BUF B1-5 (1) H
IDPA BUF B0-4 (1) H
IDPA BUF B1-0 (1) H
IDPB BUF B2-4 (1) H
IDPA BUF B1-4 (1) H
IDPA BUF B0-3 (1) H
74F153 E78
IDPK DMX B0-5 H (IDPL)
IDPK DMX B0-4 H (IDPL)

IDPA BUF B1-3 (1) H
IDPB BUF B2-7 (1) H
IDPA BUF B1-7 (1) H
IDPA BUF B0-6 (1) H
IDPA BUF B1-2 (1) H
IDPB BUF B2-6 (1) H
IDPA BUF B1-6 (1) H
IDPA BUF B0-5 (1) H
74F153 E79
IDPK DMX B0-7 H (IDPL)
IDPK DMX B0-6 H (IDPL)

IDPM DMX B0S1 H
IDPM DMX B0S0 H

BYTE 0

S1	S0	
0	0	CM BR
0	1	B1
1	0	B2
1	1	FP

BYTE 1

S1	S0	
0	0	SXT
0	1	B2
1	0	B3
1	1	FP

REVISIONS

CHK	CHANGE NO.	REV

(DMUX) (SLOT 7)

TITLE INSTRUCTION DATA PATH (IDPK)
SIZE D CODE CS NUMBER M7465-0[illegible] REV C
SCALE SHEET 10 OF 15 DIST.

M7465-0-0 REV C DXS

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CLKB LECL CPT Φ B2 L
CLKB LECL CPT Φ B2 H
-5.2 V
R13 120
R14 120
R15 150
R16 150
C55 .01µF
C56 .01µF
10H125 E77
IDPL A CPU TΦ H (IDPA,B)
IDPL B CPU TΦ H (IDPC,M)
IDPL C CPU TΦ H (IDPH,U,N)
IDPL A CPU TΦ L

IDPK UMX B1-7 H
IDPK DMX B1-6 H
IDPK DMX B1-5 H
IDPK DNX B1-4 H
IDPK DMX B1-3 H
IDPK DMX B1-2 H
IDPK DMX B1-1 H
IDPK DMX B1-Φ H
IDPK DMX BΦ-7 H
IDPK DMX BΦ-6 H
IDPK DMX BΦ-5 H
IDPK DMX BΦ-4 H
IDPK DMX BΦ-3 H
IDPK DMX BΦ-2 H
IDPK DMX BΦ-1 H
IDPK DMX BΦ-Φ H
26S10 E105
26S10 E76
26S10 E73
26S10 E61
BUS ID D15 L
BUS ID D14 L
BUS ID D13 L
BUS ID D12 L
BUS ID D11 L
BUS ID D10 L
BUS ID D09 L
BUS ID D08 L
BUS ID D07 L
BUS ID D06 L
BUS ID D05 L
BUS ID D04 L
BUS ID D03 L
BUS ID D02 L
BUS ID D01 L
BUS ID D00 L

IDPK DMX B3-7 H
IDPK DMX B3-6 H
IDPK DMX B3-5 H
IDPK DMX B3-4 H
IDPK DMX B3-3 H
IDPK DMX B3-2 H
IDPK DMX B3-1 H
IDPK DMX B3-Φ H
IDPK DMX B2-7 H
IDPK DMX B2-6 H
IDPK DMX B2-5 H
IDPK DMX B2-4 H
IDPK DMX B2-3 H
IDPK DMX B2-2 H
IDPK DMX B2-1 H
IDPK DMX B2-Φ H
26S10 E46
26S10 E31
26S10 E16
26S10 E1
BUS ID D31 L
BUS ID D30 L
BUS ID D29 L
BUS ID D28 L
BUS ID D27 L
BUS ID D26 L
BUS ID D25 L
BUS ID D24 L
BUS ID D23 L
BUS ID D22 L
BUS ID D21 L
BUS ID D20 L
BUS ID D19 L
BUS ID D18 L
BUS ID D17 L
BUS ID D16 L

ICLJ ID RIGHT ADDR 5 H
ICLJ ID RIGHT ADDR 4 H
ICLJ ID RIGHT ADDR 3 H
ICLJ ID RIGHT ADDR 2 H
ICLJ ID RIGHT ADDR 1 H
ICLJ ID RIGHT ADDR Φ H
ICLJ ID RIGHT ADDR Φ H
ICLJ ID RIGHT WRITE L
IDPL A CPU TΦ L
74F04 E12Φ
74F11 E121
74F08 E124
74F11 E156
74S40 E122
IDPL REG SEL H (IACM)
IDPL ID BUS XCVR EN L (IDPP)

REVISIONS
CMK | CHANGE NO. | REV.

(CLOCKS, ADR DECODE, BUS DRIVERS) (SLOT 7)

TITLE INSTRUCTION DATA PATH (IDPL)
SIZE D | CODE CS | NUMBER M7465-C-0 | REV. C
SCALE | SHEET 11 OF 15 | DIST.

DCS M7465-C-0 REV C

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IDPA BUF B6-3 (2) H
IDPA BUF B6-2 (1) H
IDPA BUF B6-1 (0) H
74F1 E62
IDPA BUF B2-6 (1) H
IDPA BUF B2-7 (2) H
IDPA BUF B2-4 (3) H
IDPA BUF B2-2 (1) H
IDPA BUF B2-1 (0) H
74F11 E66
IDPM IBC 3 (2) H
IDPM IBC 2 (1) H
IDPM IBC 1 (0) H
74F04 E172
FM1
IDPM BDEST H (IDPP) (IRCD)
74F00 E137
74S51 E133
EF2
IDPM BDEST L (IRCD, E)
74F00 E155
FH2
IRCD PC MODE H
IDPM REAL PC MODE L
IDPA BUF B6-5 (1) H
74F64 E113
IDPA BUF B6-3 (0) H
+3V
IRCE CTX 3 L
IRCD SEL LONG L
FL2
74S51 E193
IDPM DMX B23 SEL H (IDPK)
IDPM REAL PC MODE L
74F04 E192
IDPM DMX B1 S2 L (IDPM)
74F00 E139
IDPM DMX B1 S0 H (IDPK)
74F04 E196
IDPM DMX B0 S1 L (IDPM)
IRCH FPSL L
EU1
74F00 E139
IDPM DMX B0 S1 H (IDPK)
74F04 E196
IDPM DMX B3 S2 L (IDPM)
IDPM BDEST L
IDPM VAX3L L
74F00 E139
IDPM DMX B0 S2 H (IDPK,N)
IDPM 16 BIT BDEST L
IRCD SEL BYTE H
FF1
74F00 E155
IDPM BYTE 2 EXT L (IDPM)
IDPA BUF B1-7 (2) H
IDPA BUF B1-6 (1) H
IDPA VAX H
74F10 E116
EU2
IDPM VAX3L L (IDPK, IRCD, "CLK" 2E)
IDPM REAL PC MODE L
74F64 E135
IDPM DMX B1 S1 H (IDPE)
IRCE CTX 2 L
IRCE CTX 3 L
IRCD SEL WORD L
IRCH FPSL L
FL1
FE1
EU1
IDPM IBA 1 H
DCPJ VA B1 (1) H
74S51 E157
IDPM DIBA 1 L
IDPJ FLUSH L
IDPM IBA E H
IDPJ FLUSH H
DCPJ VA B1 (1) H
FF2
74S51 E157
IDPM DIBA 0 L
IRCE SAVE H
FA1
74F22 E118
IDPM DELTA PC 2 L (IDPM)
74F08 E158
EN1
IDPM BDELTA PC 2 H (IDPP, DCPM)
IDPM DMX B23 SEL H
74F02 E102
IDPA BUF B1-4 (0) H
74F10 E151
IDPM PC 1 EN B L (IDPM)
IRCD SEL LONG L
FM1
74F00 E137
IDPM DELTA PC 1 H (IDPM)
IRCD SEL BYTE H
FF1
74F10 E151
IDPM PC 1 EN A L (IDPM)
74F08 E156
ET2
IDPM BDELTA PC 1 H (IDPP, DCPM)
IRCE CTX 3 L
IRCE CTX 2 L
FL2
FL1
74F08 E158
FA1
IDPM 8 DELTA PC 0 H (IDPP, DCPM)
IDPM REAL PC MODE L
74F64 E150
IDPM DELTA PC 0 H (IDPM)
IDPA VAX L
IRCD SEL WORD L
FE1
IDPM SEL B2-6 S1 H
IDPM SEL B2-6 S0 L
IDPM SEL B2-6 S0 H
IDPM SEL B2-6 S1 L
74F64 E73
+3V
74F79 E67
IDPJ B CPU 70 H
74F04 E96
IDPM IBA 1 H (IDPJ)
IDPM IBA 1 L (IDPJ)
74F64 E59
IDPM BIBA 1 H (IDPN)
74F00 E72
IDPM PC EVEN L (IDPJ)
IDPM BIBA 0 H (IDPN)
IDPM IBA 0 L (IDPJ)
74F64 E60
IDPM IBA 0 H (IDPJ)

(DMX SELECTS, BDEST, DELTA PC, IBA 0 & 1) (SLOT 7)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPM)	D	CS	M7465-0 0	C
SCALE	SHEET 12 OF 15	DIST.		

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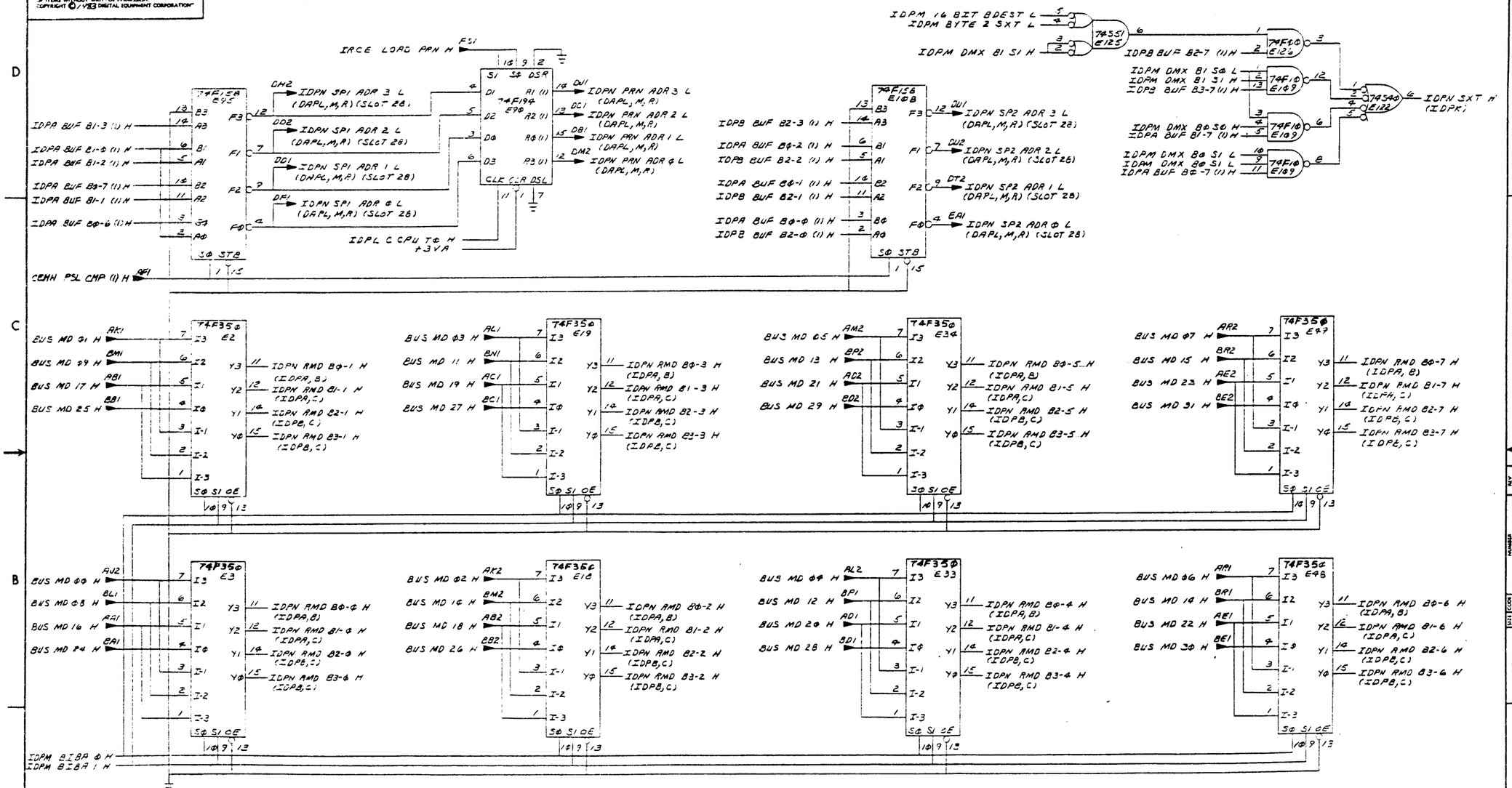

S1	SΦ	OUTP/BYTES
Φ	Φ	3210
Φ	1	3321
1	Φ	1Φ32
1	1	21Φ3

(REG ADRS, SXT, MD BYTE SHIFTER) (SLOT 7)

REVISIONS		
CHK	CHANGE NO.	REV

TITLE	SIZE	CODE	NUMBER	REV.
INSTRUCTION DATA PATH (IDPN)	D	CS	M7465-0-0	C
SCALE	SHEET 13 OF 15	DIST		

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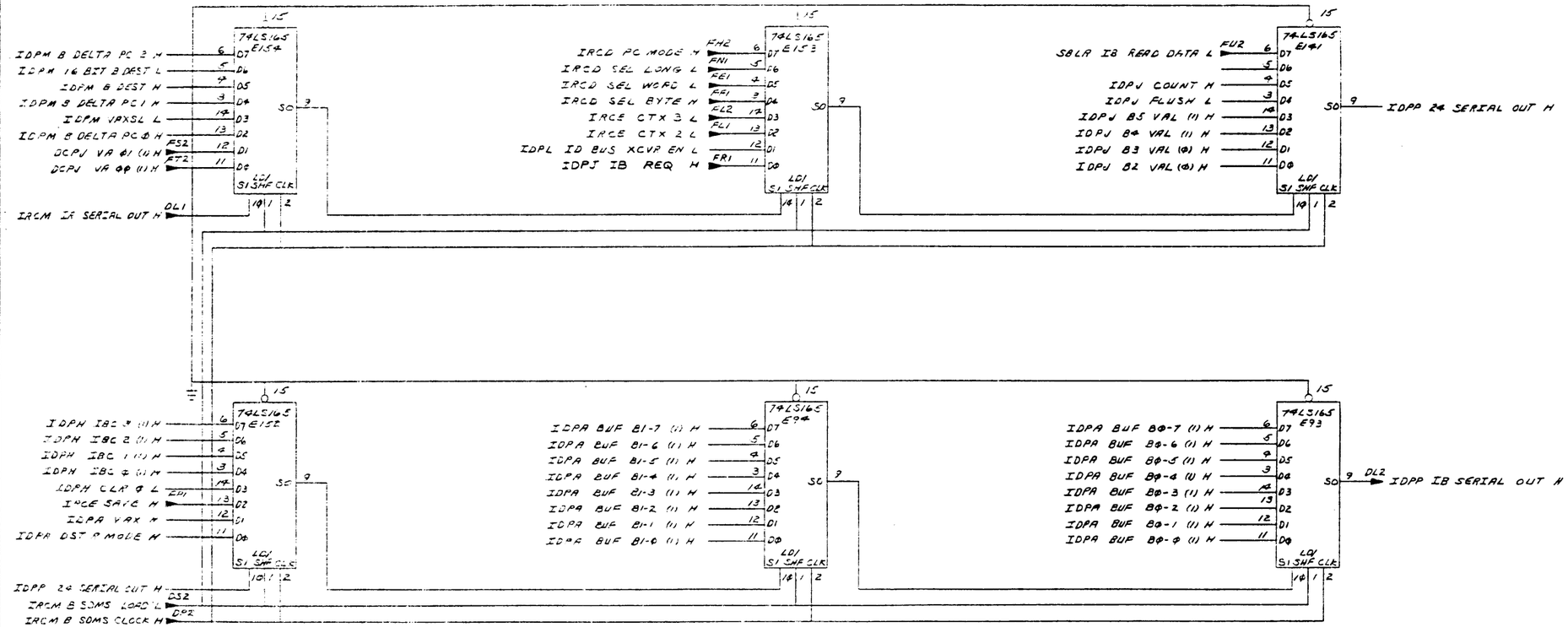

REVISIONS		
CHK	CHANGE NO	REV

(V-BUS) (SLOT 7)

TITLE	SIZE	CODE	NUMBER	REV
INSTRUCTION DATA PATH (IDPP)	D	CS	M7465-0-0	C
SCALE ⟷ SHEET 14 OF 15	DIST			

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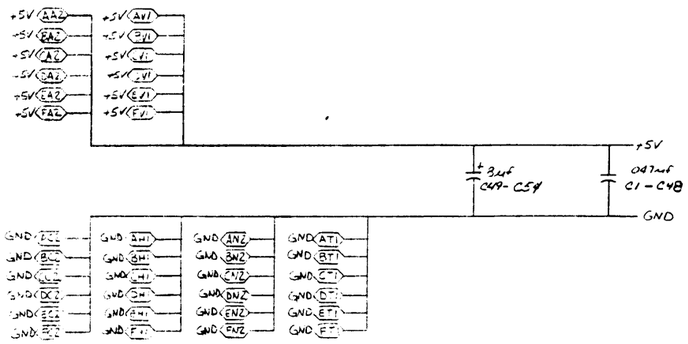

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE: INSTRUCTION DATA PATH

DOCUMENT NUMBER			
SIZE	CODE	NUMBER	REV
D	CS	M7465-0-0	C

SCALE 1/1 SHEET 15 OF 15

SIZE	CODE	NUMBER	REV.
B	DD	M7465-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	–	M7465-00	IDP PART REVISION	A B C
E-UA-M7465-0-0	4		UNIT ASSEMBLY	A B C
D-CS-M7465-0-0	15		CIRCUIT SCHEMATIC	A B C
K-PL-M7465-0-DBF	2		PARTSLIST	A B C
K-PC-M7465-0-DBC	–		PC DATABASE	B B B
	–	5012565-00	ETCHED BOARD	B B B
E-MD-5012565-0-0	5		DRILL & ETCH DWG.	A A A

NOTES:

REVISIONS			
DATE	CHG NO.	REV.	
7/83	INIT	A	
2/84	TW001	B	
2/84	TW002	C	

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USED ON OPTION/MODEL

DRN	Thomas Fowler	7-15-83
CHK'D	[illegible]	8-16-83
ENG.	Kirk McInnis	10-18-83
PROD	[illegible]	10-18-83

TITLE: IDP

SIZE	CODE	NUMBER	REV.
B	DD	M7465-0-0	C

SHEET 1 OF 1

DRB 126

TW

NHA24AUTOMATED BY PRTLST.5R(55) P A R T S L I S T SHEET A1 0

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 A1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	D-MD-5016073-0-0	5016073-01		DATA PATH (31:16)	1	
2	2		1017472-00		10 MFD 35V +50-10% AL EL	8	C48-C55
3	3		1012784-00		.047 MFD 50V +80-20% CER	56	C1-C44,C56-C64,C201-C203
4	4		1300247-00		120.0 .25 W 5.0 % CF	8	R3,R4,R6,R8,R10,R12-R14
5	5		1300250-00		150.0 .25 W 5.0 % CF	8	R1,R2,R5,R7,R9,R11,R15,R16
6	6		1300447-00		4.70 K .25 W 5.0 % CF	33	R23-R55
7	7		1301890-00		560.0 .25 W 5.0 % CF	3	R18,R20,R22
8	8		1301972-00		270.0 .25 W 5.0 % CF	3	R17,R19,R21
9	9		1813951-00		OSCILLATOR, XTAL 1.0 KHZ	1	E9
10	10		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	4	E12,E23,E135,E136
11	11		1921323-01		74F174 FF-D,HEX	1	E132
12	12		1921324-01		74F175 FF-D,QUAD	1	E117
13	13		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	2	E60,E87
14	14		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E5
15	15		1911712-00		74S51 AND-OR GATE-INVERT D	7	E21,E41,E53,E67,E95,E126,E134
16	16		1911983-00		74S133 NAND GATE-POSITIVE 1	4	E6,E20,E34,E62
17	17		1912867-00		LS298 MUX 1 OF 4,2IN W/S	8	E2,E16,E30,E44,E58,E72,E85,E99
18	18		1913788-00		26S10 TRANSCEIVER,BUS,QUA	8	E1,E15,E29,E43,E57,E71,E84,E98
19	19		1913839-00		LS165 SHIFT REG.,8BIT	2	E74,E141
20	20		1921305-01		74F00 NAND GATE,QUAD,2-IN	10	E19,E26,E35,E38,E97,E112,E115,
21	21		1921307-01		74F04 HEX INVERTER	12	CONT E119,E144,E150
22	22		1921308-01		74F08 AND GATE,QUAD,2-IN	6	E22,E52,E63,E68,E70,E94,E101,
23	23		1921309-01		74F10 NAND GATE,TRIPLE,3-I	13	CONT E114,E128,E138,E143,E146
24	24		1921310-01		74F11 AND GATE,TRIPLE,3-IN	6	E25,E46,E56,E113,E137,E142
25	25		1921311-01		74F20 NAND GATE,DUAL,4-IN	4	E24,E28,E47,E49,E54,E88,E107,
26	26		1921313-01		74F64 AND OR INVERT GATE,4-	27	CONT E118,E129,E148,E151,E155,E159
							E14,E42,E50,E69,E130,E149
							E55,E139,E164,E170
							E65,E66,E90-E93,E104,E105,E110,
							CONT E116,E120,E121,E131,E133,

REVISION HISTORY			BASIC PART NO: M7466			
ENG	ECO NUMBER	REV	SECTION A OF A			
---	INITIAL	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	DRN: S.MANSOR	DATE: 24-SEP-83	D I G I T A L
				CHK'D: F.GAROFALO	DATE: 24-SEP-83	TITLE PARTS LIST INSTRUCTION DECODE (IRC)
				DES.ENG: B.HALL	DATE: 24-SEP-83	DOCUMENT NUMBER
				RESP.ENG.: B.HALL	DATE: 24-SEP-83	SIZE K / CODE PL / NUMBER M7466-0-DBP / REV A
				MFG.ENG.: M.KRYSAK	DATE: 24-SEP-83	RELEASE DATE: 17-NOV-83
				ASSEMBLY NUMBER: E-UA-M7466-0-0	TOP DOCUMENT NUMBER: B-DD-M7466-0-0	FILE NAME: Z8058A.PLS / EDIT #: 3

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COMPONENT SIDE VIEW

digital

TITLE

SIZE CODE NUMBER REV

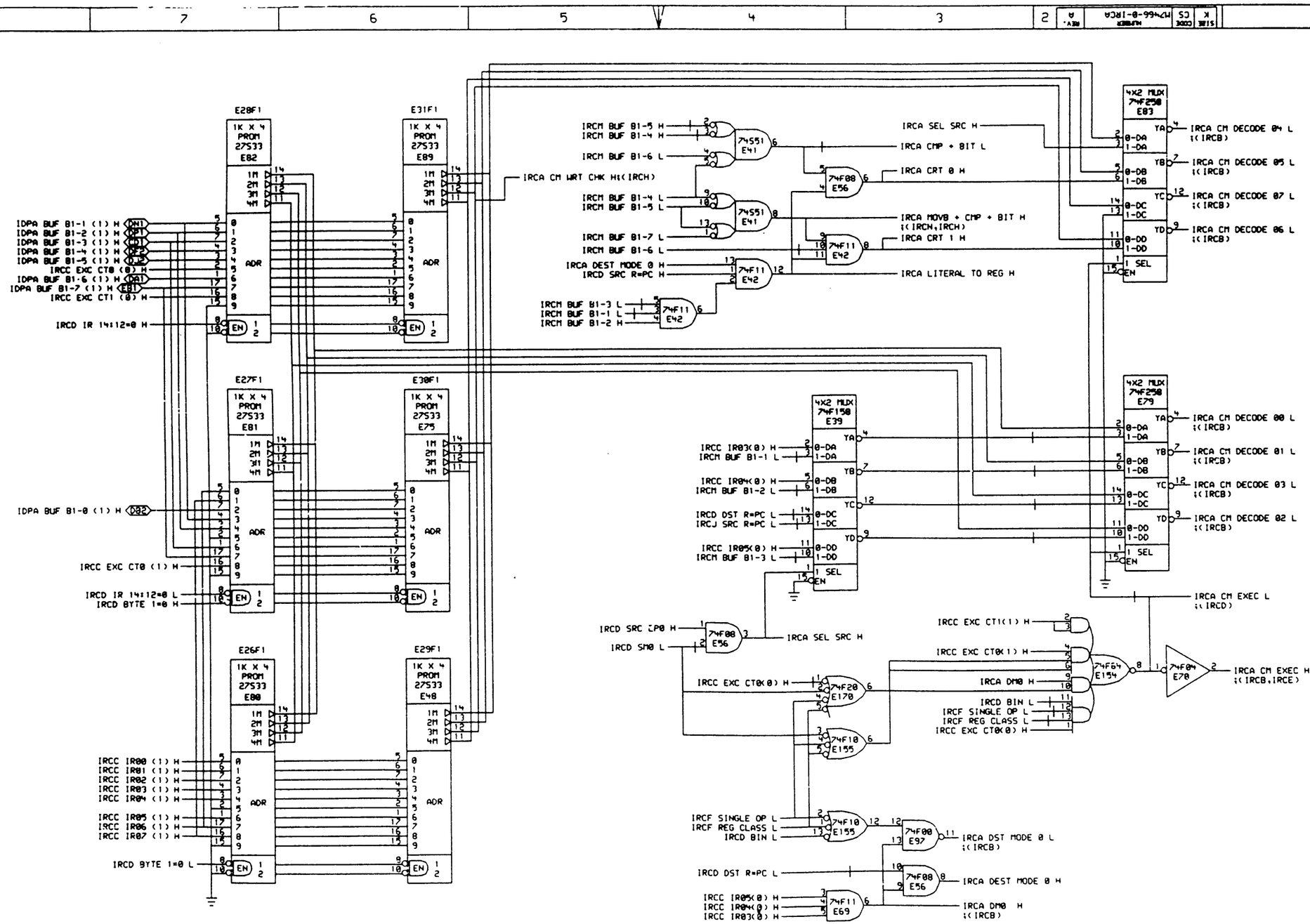
SIGNATURES
DRAWN
ENG
MECH. ENG
PROJ. ENG
PROD
SCALE
SHT OF
NEXT HIGHER ASSY

AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:	A1	
							CONT E152-E154,E156-E158,E160,E161,
							CONT E163,E165,E167-E169
27	27		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	7	E13,E51,E61,E76,E77,E96,E166
28	28		1921318-01		74F151 MUX,8-IN	2	E8,E36
29	29		1921321-01		74F158 MUX,QUAD,2-IN	5	E18,E32,E39,E40,E78
30	30		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	3	E4,E7,E33
31	31		1921331-01		74F258 MUX,QUAD,2-IN	4	E79,E83,E127,E145
32	32		1921674-01		74F352 MULTIPLEXER,DUAL 4-IN	2	E27,E37
33	33		2113907-00		MM 74C160 COUNTER-DECADE,ASYNC	1	E11
34	34		2113908-00		MM 74C161 COUNTER,ASYNCH.BINAR	8	E3,E17,E31,E45,E59,E73,E86,E100
35	35		2114018-00		MM 74C74 FF-D DUAL 10MHZ,CMOS	1	E10
36	36	BLANK			*** THIS ITEM IS NOT USED ***	-	
37	37		23E14F1-00		F1-04	1	E108
38	38		23E29F1-00		F1-05	1	E48
39	39	BLANK			*** THIS ITEM IS NOT USED ***	-	
40	40		23137J5-00		J5-03 PAL,LOGIC	1	E111
41	41		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
42	42		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
43	43		23E32F1-00		F1-05	1	E103
44	44		23E26F1-00		F1-05	1	E80
45	45		23E27F1-00		F1-05	1	E81
46	46		23E28F1-00		F1-05	1	E82
47	47		23E30F1-00		F1-05	1	E75
48	48		23E31F1-00		F1-05	1	E89
49	49		23E22F1-00		F1-05	1	E122
50	50		23E23F1-00		F1-05	1	E123
51	51		23E24F1-00		F1-05	1	E124
52	52		23E25F1-00		F1-05	1	E125
53	53		23E19F1-00		F1-04	1	E109
54	54		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14 A/R		

55 NOTE: SPARE I.C. LOCATIONS ARE: E64,E106,E140,E147,E162,E102
56 NOTE: REF. DES. NOT USED ARE: C65-C200,C45-C47,R56,R57



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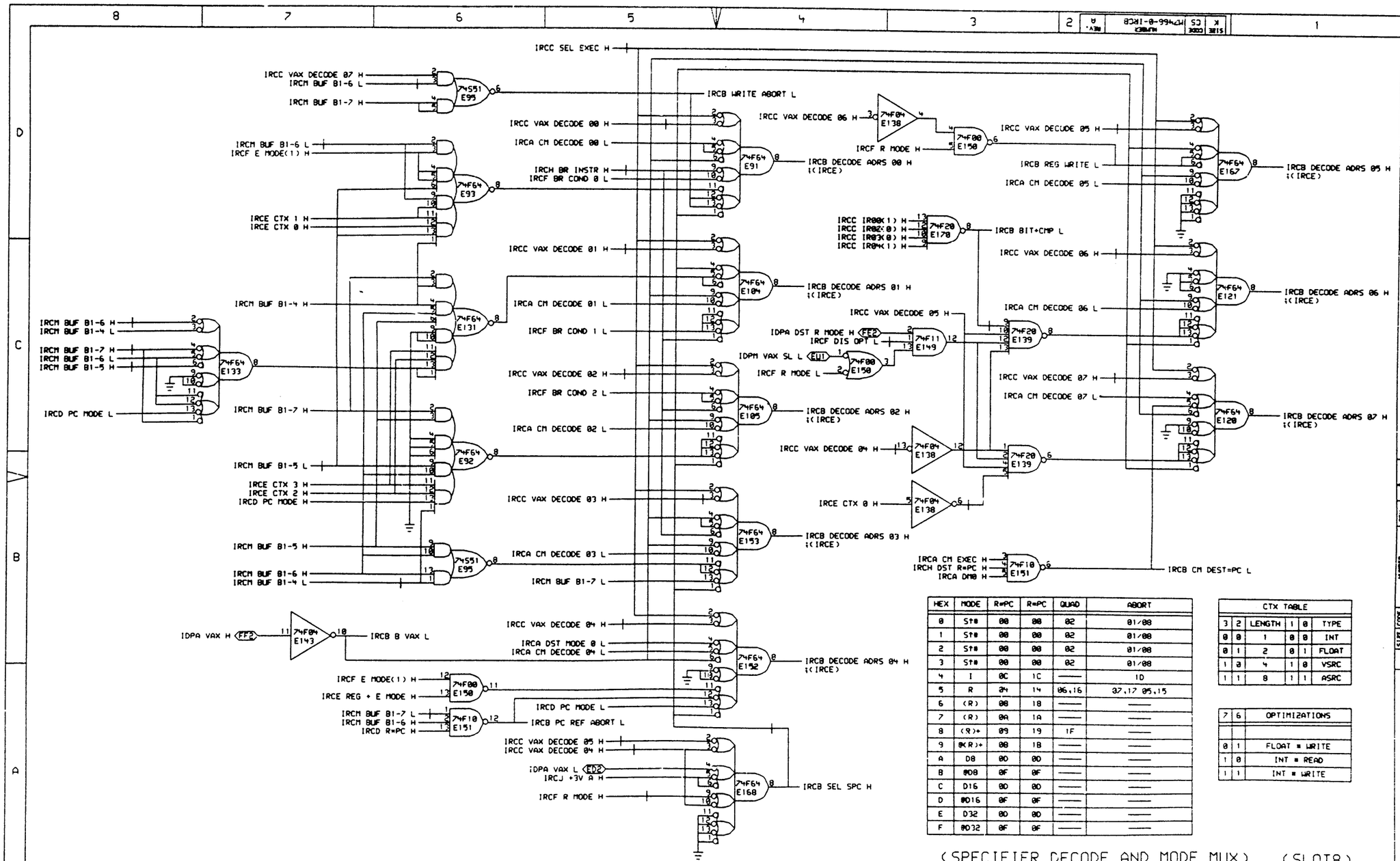
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN.		DATE 29-DEC-83	ENG.	DATE	TITLE: INSTRUCTION DECODE (IRCA)
CHK'D.		DATE	BOARD LOCATION:	SHEET 1 OF 1	
DSAD:(CORCRAN)IRCA.DRW 20-OCT-83 16:44			NEXT HIGHER ASSEMBLY:		SIZE K / CODE CS / NUMBER M7466-0-IRCA / REV. A
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7466-0-0		



HEX	MODE	R=PC	R=PC	QUAD	ABORT
0	S#	00	00	02	01/00
1	S#	00	00	02	01/00
2	S#	00	00	02	01/00
3	S#	00	00	02	01/00
4	I	0C	1C	——	1D
5	R	24	14	06,16	37,17 05,15
6	(R)	08	18	——	——
7	(R)	0A	1A	——	——
8	(R)+	09	19	1F	——
9	@(R)+	08	18	——	——
A	D8	0D	0D	——	——
B	@D8	0F	0F	——	——
C	D16	0D	0D	——	——
D	@D16	0F	0F	——	——
E	D32	0D	0D	——	——
F	@D32	0F	0F	——	——

CTX TABLE					
3	2	LENGTH	1	0	TYPE
0	0	1	0	0	INT
0	1	2	0	1	FLOAT
1	0	4	1	0	VSRC
1	1	8	1	1	ASRC

7	6	OPTIMIZATIONS
0	1	FLOAT = WRITE
1	0	INT = READ
1	1	INT = WRITE

(SPECIFIER DECODE AND MODE MUX) (SLOT8)

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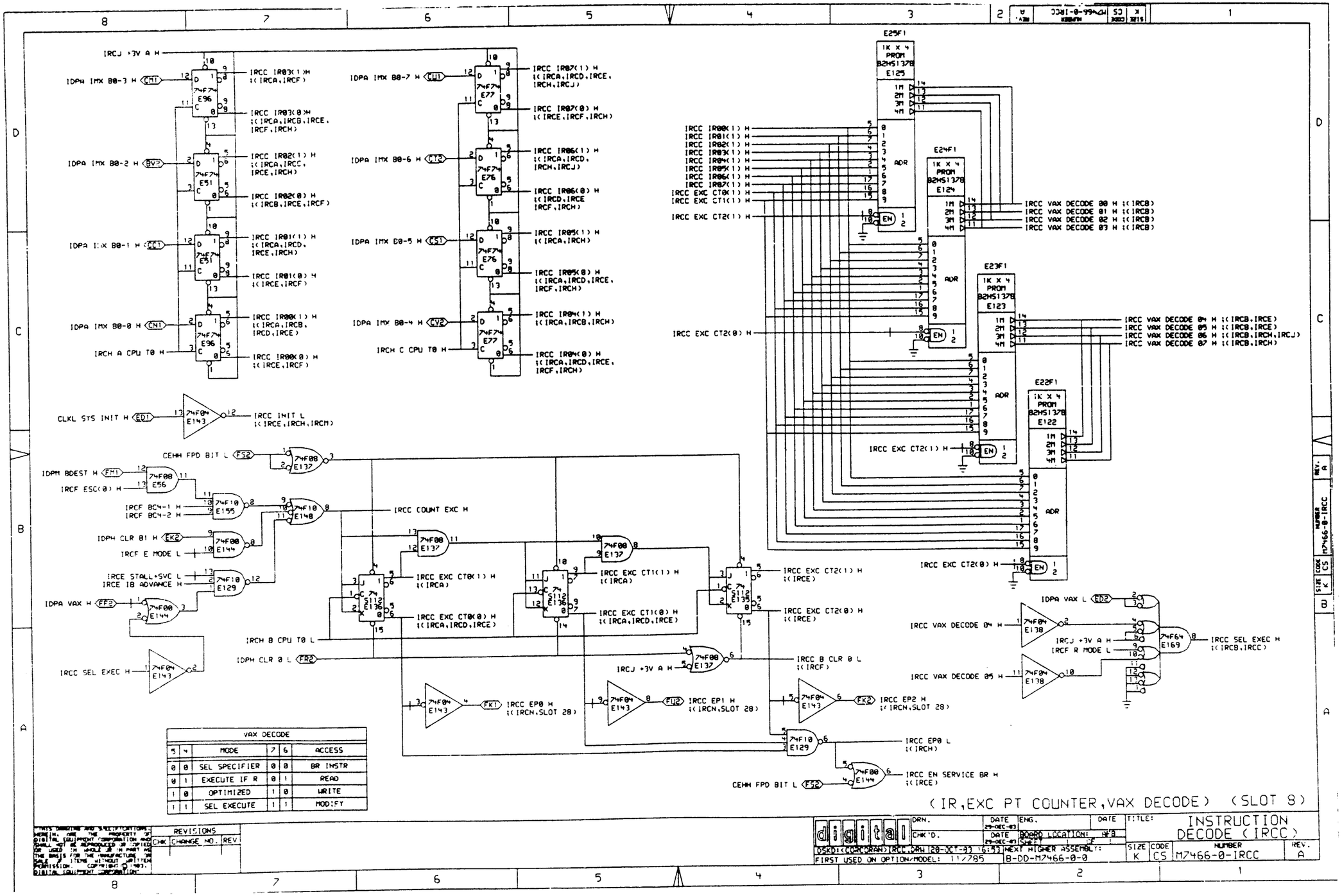
REVISIONS		
CHK	CHANGE NO.	REV

DRN. | DATE 29-DEC-83 | ENG. | DATE | TITLE: INSTRUCTION DECODE (IRCB)
CHK'D. | DATE 29-DEC-83 | BOARD LOCATION: A23
DSKD:<CORCORAN>IRCB.DRW 22-SEP-83 15:19 | NEXT HIGHER ASSEMBLY: | SHEET 1 OF 1
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7466-0-0

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCB	A



VAX DECODE					
5	4	MODE	7	6	ACCESS
0	0	SEL SPECIFIER	0	0	BR INSTR
0	1	EXECUTE IF R	0	1	READ
1	0	OPTIMIZED	1	0	WRITE
1	1	SEL EXECUTE	1	1	MODIFY

(IR,EXC PT COUNTER,VAX DECODE) (SLOT 8)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN.	DATE 29-DEC-83	ENG.	DATE
CHK'D.	DATE 29-DEC-83	BOARD LOCATION: M'8	
DSKD:(COMCRAN)IRCC.DRW;28 20-OCT-83 16:55		NEXT HIGHER ASSEMBLY: B-DD-M7466-0-0	
FIRST USED ON OPTION/MODEL: 11/785			

TITLE: INSTRUCTION DECODE (IRCC)

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCC	A

IRCC EXC CT1(0) H
IRCC EXC CT0(0) H
IRCD BIN H
74F11 E130
IRCD SRC EP0 H ;(IRCA)

IRCJ SRC R=PC L
IDPA BUF B1-3(0) H (BS2)
IDPA BUF B1-2(0) H (BS1)
IRCJ +3V B H
74S51 E67
IRCD SRC NEEDS 23 H

IRCA CM EXEC L
IRCD DST NEEDS 20 H
74S51 E67

IDPA BUF B1-0 (1) H (DB2)
IRCC IR07 (1) H
IRCC IR06 (1) H
74F11 E130
IRCD SRC R=PC H ;(IRCA,M)

IRCC IR02(1) H
IRCC IR01(1) H
IRCC IR00(1) H
74F10 E118
IRCD DST R=PC L ;(IRCA,IRCM)

IRCD SRC EP0 H
IRCD SM0 L
IRCC IR05(0) H
IRCC IR04(0) H
IRCJ +3V B H
74F64 E118
IRCD BIN L
IRCF REG CLASS L
IRCM MTP L
IRCF SINGLE OP L

IDPM 16 BIT B DEST L (FB1)
IDPM BDEST H (FM1)
IDPA VAX H (FF2)
IDPA VAX L (ED2)
74F64 E157
(FF1) IRCD SEL BYTE H ;(IRCE,IDBM)

IRCD PC MODE L
IDPM BDEST L (EF2)

IDPA BUF B1-6(1) H (DA1)
IRCM B BUF B1-7 H
74S51 E134
IDPA BUF B1-5(1) H (DJ2)
IRCD DISP MODE L

IRCM B BUF B1-7 H
IDPA BUF B1-6(1) H (DA1)
74F00 E119
IRCD D16 + D32 L

IDPA VAX H (FF2)
IDPM BDEST H (FM1)
74F64 E163
IDPA VAX L (ED2)
IRCD SEL WORD H ;(IRCE)
74F04 E146
(FB1) IRCD SEL WORD L ;(IDPM)

IDPA BUF B1-4(1) H (DF2)
IRCD PC MODE H
74F00 E119
IRCD ABSOLUTE MODE L

IRCD REG CLASS L ;(IRCF)

IDPA IMX B1-0 H (DJ0)
IDPA IMX B1-1 H (DJ1)
IDPA IMX B1-2 H (DJ2)
IDPA IMX B1-3 H (DJ3)
IDPA IMX B1-4 H (DJ4)
IDPA IMX B1-5 H (DA1)
IDPA IMX B1-6 H (DJ6)
IDPA IMX B1-7 H (DA2)
IDPA IMX B0-6 H (DJ7)
IDPA IMX B0-7 H (DJ8)
13/35 16L8 E111
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9
R Y Y Y Y Y Y Y R

4 D FF 74F175 E117
R0 D0 R1 D1 R2 D2 R3 D3 CLR CLK
IRCD BYTE 1=0 L ;(IRCA)
IRCD BYTE 1=0 H ;(IRCA)
IRCD IR 14:12=0 L ;(IRCA,F)
IRCD IR 14:12=0 H ;(IRCA,E,H)
IRCD BIN L ;(IRCA,D)
IRCD BIN H ;(IRCD)
IRCD SM0 L ;(IRCA,D)
IRCJ +3V B H
IRCH A CPU T0 H
74F00 E97
IRCD SINGLE OP L ;(IRCF)

IDPA VAX L (ED2)
IRCJ +3V B H
IDPM BDEST H (FM1)
IRCD PC MODE L
74F64 E165
IRCD SEL LONG H ;(IRCE)
74F04 E146
(FN1) IRCD SEL LONG L ;(IDPM)

IDPA BUF B1-4(0) H (FH2)
IRCM B BUF B1-7 H
IDPA BUF B1-6(1) H (DA1)
IDPA BUF B1-5(1) H (DJ2)
74F10 E107
IRCD D32 L

74F04 E146
IRCD R=PC H ;(IRCB)

IDPA BUF B1-0(1) H (DB2)
IDPA BUF B1-1(1) H (DN1)
IDPA BUF B1-2(1) H (DF1)
IDPA BUF B1-3(1) H (DD1)
74F20 E164
IRCD R=PC L ;(IRCF,IRCJ)

IDPA BUF B1-7(1) H (EB1)
IDPA BUF B1-5(0) H (BU1)
IDPA BUF B1-6(0) H (BU2)
74F11 E149
IRCD MODE 8+9 H

IDPA VAX H (FF2)
74F10 E118
IRCD PC MODE L ;(IRCB,IRCM)
74F04 E146
(FH2) IRCD PC MODE H ;(IDPM,IRCB,IRCE)

IRCD R=PC H
IRCM BUF B1-4 L
74F10 E118
(BL1) IRCD IMMED L ;(SLOT 28)

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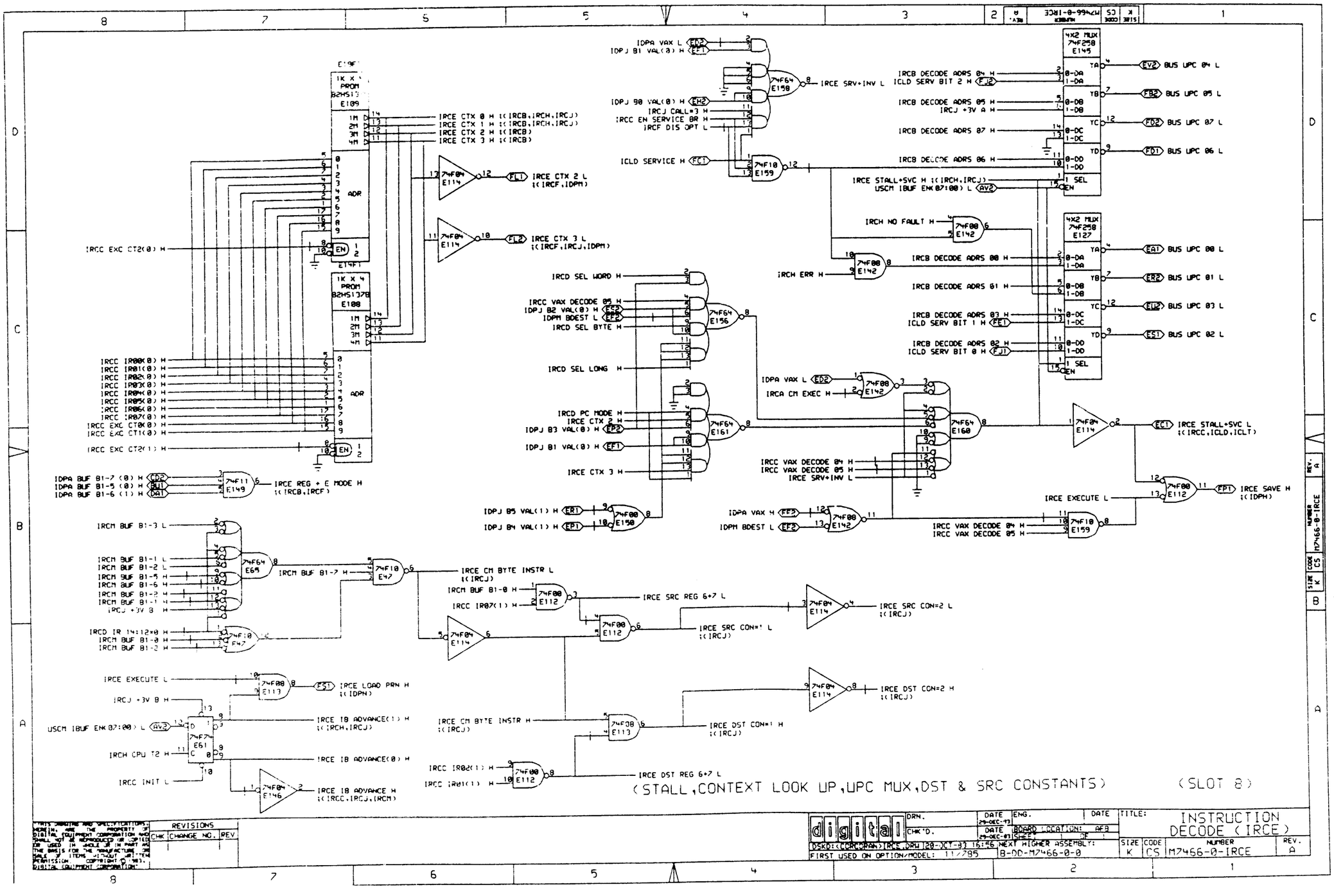
REVISIONS		
CHK	CHANGE NO.	REV

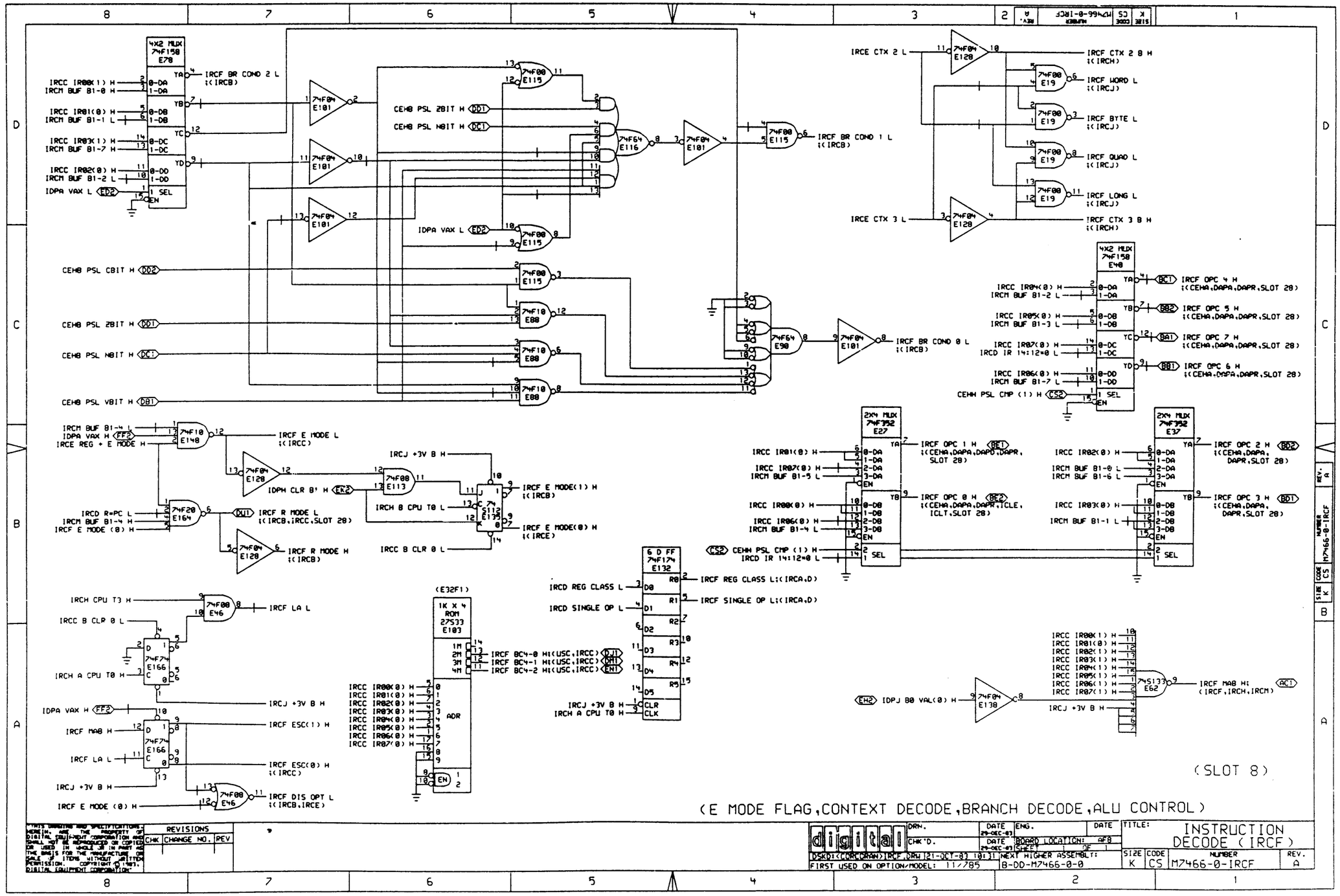
DRN. | DATE 29-DEC-83 | ENG. | DATE
CHK'D. | DATE 29-DEC-83 | BOARD LOCATION: AF8 | SHEET 2 OF 2

DSKD:(CORCORAN)IRCD.DRW 28-OCT-83 17:19Z in:EXT WIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7466-0-0

TITLE: INSTRUCTION DECODE (IRCD)

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCD	A


IDPA VAX L (ED2)
IDPJ B1 VAL(0) H (EF1)
74F64 E158
IRCE SRV+INV L
IDPJ B0 VAL(0) H (EH2)
IRCJ CALL*3 H
IRCC EN SERVICE BR H
IRCF DIS OPT L
ICLD SERVICE H (FC1)
74F10 E159
4X2 MUX 74F258 E145
IRCB DECODE ADRS 04 H
ICLD SERV BIT 2 H (FJ2)
IRCB DECODE ADRS 05 H
IRCJ +3V A H
IRCB DECODE ADRS 07 H
IRCB DECODE ADRS 06 H
IRCE STALL+SVC H ;(IRCH,IRCJ)
USCM IBUF ENA(7:0) L (AV2)
BUS UPC 04 L (EV2)
BUS UPC 05 L (FB2)
BUS UPC 07 L (FD2)
BUS UPC 06 L (FD1)
IRCH NO FAULT H
74F08 E142
IRCH ERR H
4X2 MUX 74F258 E127
IRCB DECODE ADRS 00 H
IRCB DECODE ADRS 01 H
IRCB DECODE ADRS 03 H
ICLD SERV BIT 1 H (FE1)
IRCB DECODE ADRS 02 H
ICLD SERV BIT 0 H (FJ1)
BUS UPC 00 L (EA1)
BUS UPC 01 L (ER2)
BUS UPC 03 L (EW2)
BUS UPC 02 L (ES1)
IRCE CTX 0 H ;(IRCB,IRCH,IRCJ)
IRCE CTX 1 H ;(IRCB,IRCH,IRCJ)
IRCE CTX 2 H ;(IRCB)
IRCE CTX 3 H ;(IRCB)
1K X 4 PROM 82HS137B E109
ADR
IRCC EXC CT2(0) H
74F04 E114
IRCE CTX 2 L ;(IRCF,IDPM)
IRCE CTX 3 L ;(IRCF,IRCJ,IDPM)
1K X 4 PROM 82HS137B E108
IRCC IR00(0) H
IRCC IR01(0) H
IRCC IR02(0) H
IRCC IR03(0) H
IRCC IR04(0) H
IRCC IR05(0) H
IRCC IR06(0) H
IRCC IR07(0) H
IRCC EXC CT0(0) H
IRCC EXC CT1(0) H
IRCC EXC CT2(1) H
IRCD SEL WORD H
IRCC VAX DECODE 05 H
IDPJ B2 VAL(0) H (EF3)
IDPM BDEST L (EF2)
IRCD SEL BYTE H
74F64 E156
IRCD SEL LONG H
IRCD PC MODE H
IRCE CTX 2 H
IDPJ B3 VAL(0) H (EF2)
IDPJ B1 VAL(0) H (EF1)
IRCE CTX 3 H
74F64 E161
IDPA VAX L (ED2)
IRCA CM EXEC H
74F08 E142
74F64 E160
IRCC VAX DECODE 04 H
IRCC VAX DECODE 05 H
IRCE SRV+INV L
74F04 E114
IRCE STALL+SVC L ;(IRCC,ICLD,ICLT)
IRCE EXECUTE L
74F08 E112
IRCE SAVE H ;(IDPH)
IDPJ B5 VAL(1) H (ER1)
IDPJ B4 VAL(1) H (EP1)
74F08 E150
IDPA VAX H (FF3)
IDPM BDEST L (EF2)
74F08 E142
IRCC VAX DECODE 04 H
IRCC VAX DECODE 05 H
74F10 E159
IDPA BUF B1-7 (0) H (CD2)
IDPA BUF B1-5 (0) H (BJ1)
IDPA BUF B1-6 (1) H (DA1)
74F11 E149
IRCE REG + E MODE H ;(IRCB,IRCF)
IRCM BUF B1-3 L
IRCM BUF B1-1 L
IRCM BUF B1-2 L
IRCM BUF B1-5 H
IRCM BUF B1-6 H
IRCM BUF B1-0 H
IRCM BUF B1-4 H
IRCJ +3V B H
74F64 E69
IRCM BUF B1-7 H
74F10 E47
IRCD IR 14:12=0 H
74F10 E47
IRCE CM BYTE INSTR L ;(IRCJ)
IRCM BUF B1-0 H
IRCC IR07(1) H
74F00 E112
IRCE SRC REG 6+7 L
IRCE SRC CON=1 L ;(IRCJ)
74F04 E114
IRCE SRC CON=2 L ;(IRCJ)
IRCE EXECUTE L
74F08 E113
IRCE LOAD PRN H ;(IDPN)
IRCJ +3V B H
USCM IBUF ENA(7:0) L (AV2)
74F74 E61
IRCE IB ADVANCE(1) H ;(IRCH,IRCJ)
IRCH CPU T2 H
IRCE IB ADVANCE(0) H
IRCC INIT L
74F04 E146
IRCE IB ADVANCE H ;(IRCC,IRCJ,IRCH)
IRCE CM BYTE INSTR H ;(IRCJ)
74F08 E113
IRCE DST CON=1 H ;(IRCJ)
74F04 E114
IRCE DST CON=2 H ;(IRCJ)
IRCC IR02(1) H
IRCC IR01(1) H
74F00 E112
IRCE DST REG 6+7 L
(STALL,CONTEXT LOOK UP,UPC MUX,DST & SRC CONSTANTS)
(SLOT 8)
REVISIONS
CHK CHANGE NO. REV
digital
DRN.
DATE 29-DEC-83
ENG.
DATE
CHK'D.
DATE 29-DEC-83
BOARD LOCATION: AF8
SHEET 1 OF 1
DSKD:(CORCRAN)IRCE.DPU 20-OCT-83 16:56
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
8-DD-M7466-0-0
TITLE: INSTRUCTION DECODE (IRCE)
SIZE K
CODE CS
NUMBER M7466-0-IRCE
REV. A



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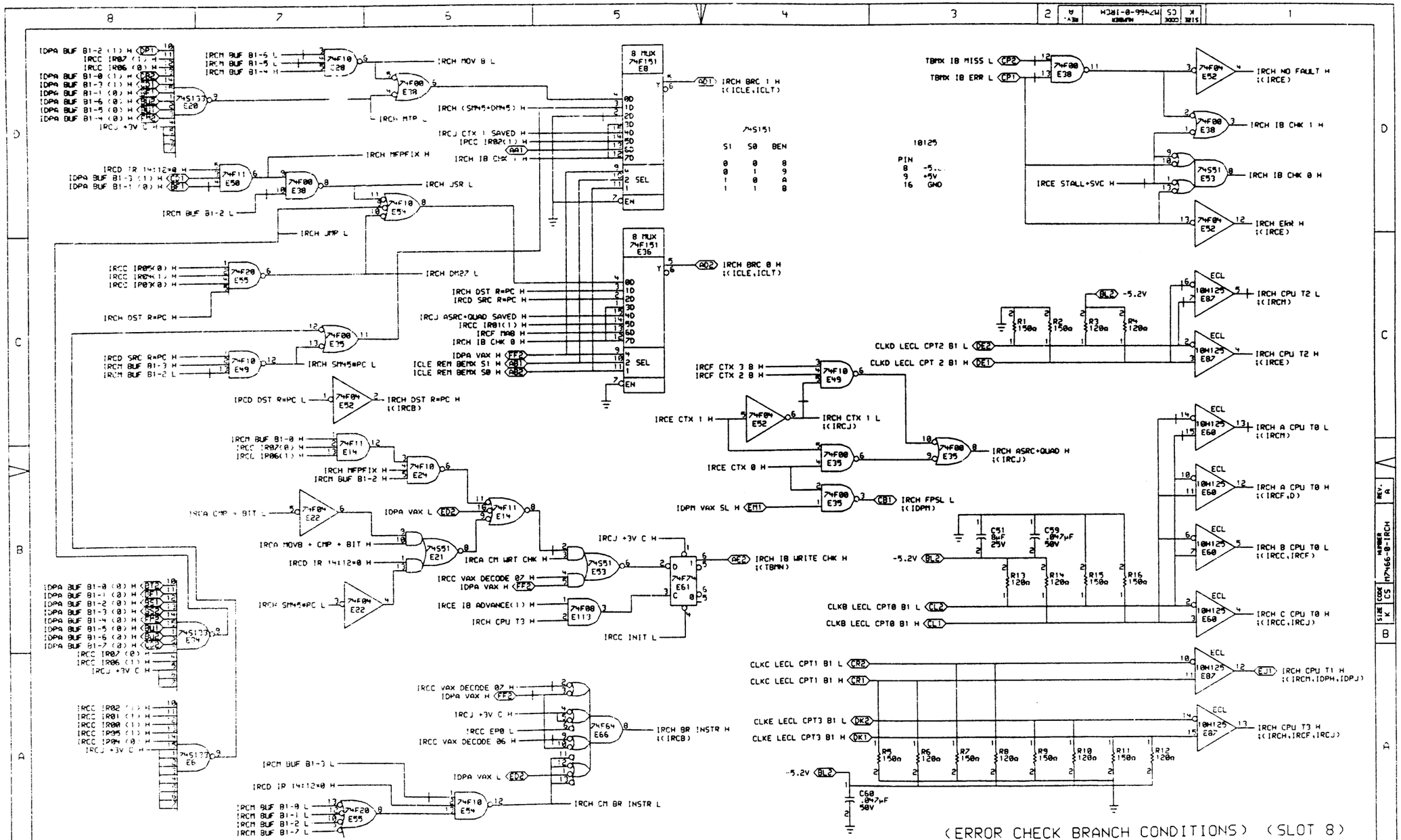
REVISIONS

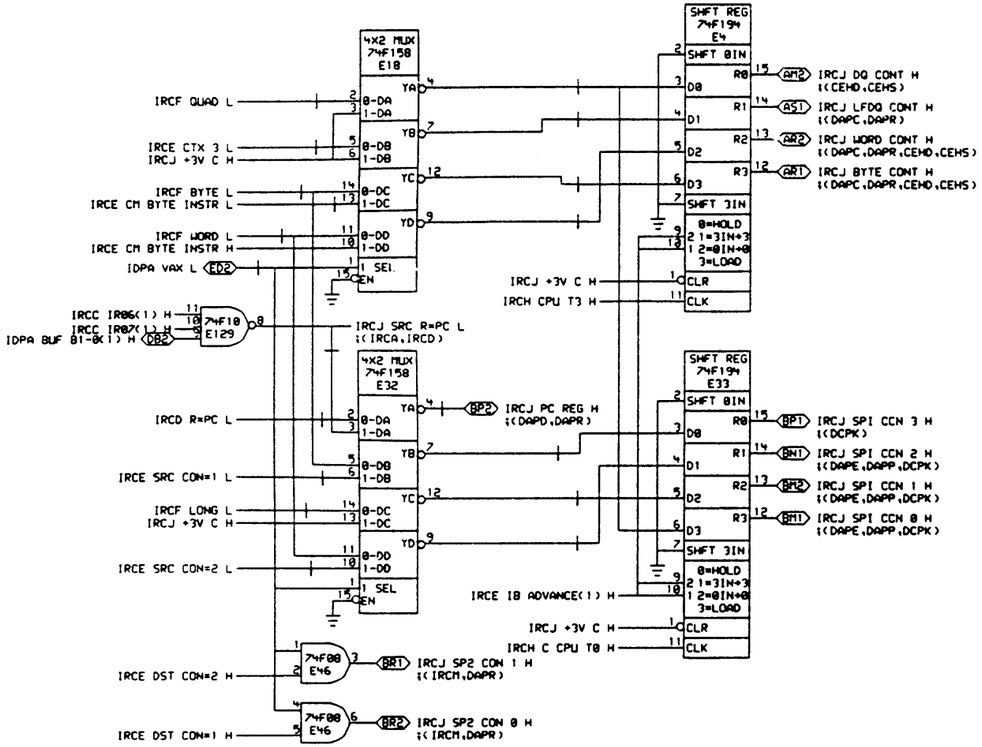
CHK	CHANGE NO.	REV

DRN.		DATE 29-DEC-83	ENG.	DATE	TITLE: INSTRUCTION DECODE (IRCF)
CHK'D.		DATE 29-DEC-83	BOARD LOCATION:	AF8	
DSKD:(CORCORAN)IRCF.DRW 21-OCT-83 10:31			NEXT HIGHER ASSEMBLY:	SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7466-0-0		SIZE K · CODE CS · NUMBER M7466-0-IRCF · REV. A



REVISIONS			
CHK	CHANGE NO.	REV.	

digital	DRN.	DATE 23-DEC-83	ENG.	DATE	TITLE: INSTRUCTION DECODE (IRCH)
	CHK'D.	DATE 23-DEC-83	BOARD LOCATION: AF9 SHEET OF 1		
DSKD1:<CRCORAN>IRCH.SRU 22-SEP-83 23:19			NEXT HIGHER ASSEMBLY: B-DD-M7466-0-0		SIZE K / CODE CS / NUMBER M7466-0-IRCH / REV. A
FIRST USED ON OPTION/MODEL: 11/785					



(CONTEXT SAVE,SP1 AND SP2 CON) (SLOT 8)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN.	DATE 29-DEC-83	ENG.	DATE	TITLE:	INSTRUCTION DECODE (IRCJ)
CHK'D.	DATE 29-DEC-83	BOARD LOCATION: AF3 SHEET 1 OF 1			
DSKD:[CRCCRAN]IRCJ.DRW 22-SEP-83 05:39		NEXT HIGHER ASSEMBLY: B-DD-M7466-0-0		SIZE K	CODE CS
FIRST USED ON OPTION/MODEL: 11/785				NUMBER M7466-0-IRCJ	REV. A

NOTE: THIS SYMBOL DENOTES THOSE CHIPS THAT ARE TO HAVE THEIR +5V CONNECTED TO FINGER PIN AJ2.

+5.0V

4X2 MUX 4 D FF 74LS298 E58
R27 4.7K R28 4.7K R29 4.7K R30 4.7K
IRCN B ID 00 H
IRCN B ID 01 H
IRCN B ID 02 H
IRCN B ID 03 H
IRCK DAY 00 H ((IRCN)
IRCK DAY 01 H ((IRCN)
IRCK DAY 02 H ((IRCN)
IRCK DAY 03 H ((IRCN)
IRCN ID SEL L
IRCM LOAD DAY CLK L

4X2 MUX 4 D FF 74LS298 E72
R23 4.7K R24 4.7K R25 4.7K R26 4.7K
IRCN B ID 04 H
IRCN B ID 05 H
IRCN B ID 06 H
IRCN B ID 07 H
IRCK DAY 04 H ((IRCN)
IRCK DAY 05 H ((IRCN)
IRCK DAY 06 H ((IRCN)
IRCK DAY 07 H ((IRCN)

4B CNTR BINARY 74C161 E59
4B CNTR BINARY 74C161 E73
CRYO
IRCK T08 EN H

4X2 MUX 4 D FF 74LS298 E85
R35 4.7K R36 4.7K R37 4.7K R38 4.7K
IRCN B ID 08 H
IRCN B ID 09 H
IRCN B ID 10 H
IRCN B ID 11 H
IRCK DAY 08 H ((IRCN)
IRCK DAY 09 H ((IRCN)
IRCK DAY 10 H ((IRCN)
IRCK DAY 11 H ((IRCN)

4X2 MUX 4 D FF 74LS298 E99
R31 4.7K R32 4.7K R33 4.7K R34 4.7K
IRCN B ID 12 H
IRCN B ID 13 H
IRCN B ID 14 H
IRCN B ID 15 H
IRCK DAY 12 H ((IRCN)
IRCK DAY 13 H ((IRCN)
IRCK DAY 14 H ((IRCN)
IRCK DAY 15 H ((IRCN)

4B CNTR BINARY 74C161 E86
4B CNTR BINARY 74C161 E100
IRCK T08 EN H
IRCK T16 EN H ((IRCL)

IRCM 10 MS PLT EN H
IRCM LOAD DAY CNT(@) H
BAT DCLO L (AF1)
IRCM 1 MS CLK H

(DAY CLOCK 15:00)
(SLOT 8)

REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. | DATE 29-DEC-83 | ENG. | DATE
CHK'D. | DATE 29-DEC-83 | BOARD LOCATION: AF8

DSKD:(CORCRAN) IRCK.DRW 22-SEP-83 09:39 | NEXT HIGHER ASSEMBLY: B-DD-M7466-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: INSTRUCTION DECODE (IRCK)

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCK	A

NOTE: THIS SYMBOL DENOTES THOSE CHIPS THAT GET THEIR +5V FROM FINGER PIN AJ2

+5.0V

4X2 MUX 4 D FF 74LS298 E2

R43 4.7K, R44 4.7K, R45 4.7K, R46 4.7K

IRCN B ID 16 H
IRCN B ID 17 H
IRCN B ID 18 H
IRCN B ID 19 H

0-DA 1-DA
0-DB 1-DB
0-DC 1-DC
0-DD 1-DD

YA
YB
YC
YD

IRCL DAY 16 H ((IRCN)
IRCL DAY 17 H ((IRCN)
IRCL DAY 18 H ((IRCN)
IRCL DAY 19 H ((IRCN)

IRCN ID SEL L
IRCN LOAD DAY CLK L

1 SEL
CLK

48 CNTR BINARY 74C161 E3

8D 8R
4D 4R
2D 2R
1D 1R

CRYO
CLK
LD
CLR
ENCNT
ENCRY

IRCK T16 EN H

E3

+5.0V

4X2 MUX 4 D FF 74LS298 E16

R39 4.7K, R40 4.7K, R41 4.7K, R42 4.7K

IRCN B ID 20 H
IRCN B ID 21 H
IRCN B ID 22 H
IRCN B ID 23 H

IRCL DAY 20 H ((IRCN)
IRCL DAY 21 H ((IRCN)
IRCL DAY 22 H ((IRCN)
IRCL DAY 23 H ((IRCN)

48 CNTR BINARY 74C161 E17

IRCL T24 EN H

E17

IRCM 10 MS P&T EN H
IRCM LOAD DAY CNT(0) H
BAT DCLO L AF1
IRCM 1 MS CLK H

+5.0V

4X2 MUX 4 D FF 74LS298 E30

R51 4.7K, R52 4.7K, R53 4.7K, R54 4.7K

IRCN B ID 24 H
IRCN B ID 25 H
IRCN B ID 26 H
IRCN B ID 27 H

IRCL DAY 24 H ((IRCN)
IRCL DAY 25 H ((IRCN)
IRCL DAY 26 H ((IRCN)
IRCL DAY 27 H ((IRCN)

IRCN ID SEL L
IRCM LOAD DAY CLK L

48 CNTR BINARY 74C161 E31

IRCL T24 EN H

E31

+5.0V

4X2 MUX 4 D FF 74LS298 E44

R47 4.7K, R48 4.7K, R49 4.7K, R50 4.7K

IRCN B ID 28 H
IRCN B ID 29 H
IRCN B ID 30 H
IRCN B ID 31 H

IRCL DAY 28 H ((IRCN)
IRCL DAY 29 H ((IRCN)
IRCL DAY 30 H ((IRCN)
IRCL DAY 31 H ((IRCN)

48 CNTR BINARY 74C161 E45

E45

(DAY CLOCK 31:16)

(SLOT 8)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN.	DATE 29-DEC-83	ENG.	DATE
CHK'D.	DATE 29-DEC-83	BOARD LOCATION: SHEET 1 OF 1	AF8

TITLE: INSTRUCTION DECODE (IRCL)

DSKD:[CORCORAN]IRCL.DRW 22-SEP-83 09:19

NEXT HIGHER ASSEMBLY:

FIRST USED ON OPTION/MODEL: 11/785

B-DD-M7466-0-0

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCL	A

NOTE: THE +5 VOLTS OF THE FOLLOWING IC'S GO TO I/O PIN AJ2. E11,E18,E9,E3,E17,E31,E45,E59,E73,E86, E100.

THIS SYMBOL DENOTES THOSE CHIPS WITH THEIR +5V TO AJ2.

+8 CNTR DECADE 74C160 E11

DAY CLOCK +5 (AJ2)

IRCM 1MS CLK H (AK2)
BAT DCLO L (AF1)

CRYO → IRCM 10 MS PLT EN H ((IRCK,IRCL)

1KHZ CRYSTAL OSC E9

CLK (AK1) IRCM 1 MS CLK H ((IRCK,IRCL)

+5.0V
R55 4.7K

IRCJ +3V C H
IRCM SET START H
IRCM 8 CPU T2 H

74C74 S112 E12
74C74 E18

IRCM LOAD DAY CNT(1) H
IRCM LOAD DAY CNT(0) H ((IRCK,IRCL)

IRCM 1 MS CLK H

CLKR PS DCLO L (AJ2)

74F04 E22

8640 E5

IRCM LOAD DAY CNT(1) H

74F74 E13

IRCM DONE(1) H

IRCM BUSY(1) H

IRCH CPU T2 L

74F04 E22

74F10 E24

IDPL REG SEL H (FP2)

IRCM BUSY(0) H

74F08 E26

IRCM DONE(1) H

IRCM SET START H

74F11 E14

IRCM BUSY(1) H

74S112 E23

IRCM 8 CPU T2 H
IRCM BUSY(0) H

IRCC INIT L

74F08 E29

IRCM CPU T1 H

74S51 E21

IRCM LOAD DAY CLK L ((IRCK,IRCL)

IRCM CPU T2 L

ICLJ ID RIGHT WRITE L (EB2)

74F08 E25

IRCM ID SEL L ((IRCK,IRCL)

IRCH A CPU T0 L

IRCM DATA EN L ((IRCN)

IDPA BUF B1-3(1) H (CD1) → 74F04 E94 → IRCM BUF B1-3 L ((IRCA,IRCE,IRCF,IRCH)

IDPA BUF B1-3(0) H (BS2) → 74F04 E63 → IRCM BUF B1-3 H ((IRCH)

IDPA BUF B1-2(1) H (DF1) → 74F04 E68 → IRCM BUF B1-2 L ((IRCA,IRCE,IRCF,IRCH)

IDPA BUF B1-2(0) H (BS1) → 74F04 E63 → ((IRCA,IRCE,IRCH)

IDPA BUF B1-1(1) H (DN1) → 74F04 E68 → IRCM BUF B1-1 L ((IRCA,IRCE,IRCF,IRCH)

IDPA BUF B1-1(0) H (BF1) → 74F04 E63 → IRCM BUF B1-1 H ((IRCE)

IDPA BUF B1-0(1) H (DB2) → 74F04 E68 → IRCM BUF B1-0 L ((IRCA,IRCF,IRCH)

IDPA BUF B1-0(0) H (BT2) → 74F04 E63 → IRCM BUF B1-0 H ((IRCE,IRCF,IRCH)

IDPA BUF B1-7(0) H (CD2) → 74F04 E94 → IRCM 8 BUF B1-7 H ((IRCD)

IDPA BUF B1-7(1) H (EB1) → 74F04 E94 → IRCM BUF B1-7 L ((IRCA,IRCB,IRCE,IRCF,IRCH)

IDPA BUF B1-7(0) H (CD2) → 74F04 E94 → IRCM BUF B1-7 H ((IRCB,IRCE,IRCF,IRCH)

IDPA BUF B1-6(1) H (DA1) → 74F04 E68 → IRCM BUF B1-6 L ((IRCA,IRCB,IRCF,IRCH)

IDPA BUF B1-6(0) H (BA2) → 74F04 E63 → IRCM BUF B1-6 H ((IRCB,IRCE,IRCH)

IDPA BUF B1-5(1) H (DJ2) → 74F04 E68 → IRCM BUF B1-5 L ((IRCA,IRCB,IRCE,IRCF,IRCH)

IDPA BUF B1-5(0) H (BJ1) → 74F04 E63 → IRCM BUF B1-5 H ((IRCA,IRCB,IRCE,IRCH)

IDPA BUF B1-4(1) H (DF2) → 74F04 E68 → IRCM BUF B1-4 L ((IRCA,IRCB,IRCD,IRCH)

IDPA BUF B1-4(0) H (FH2) → 74F04 E94 → IRCM BUF B1-4 H ((IRCA,IRCB,IRCF,IRCH)

SHFT REG 74LS165 E74

IRCM DATA EN L
IRCJ SP2 CON 0 H
IRCJ SP2 CON 1 H
IRCE IB ADVANCE H
IRCF MAB H
CEHH FPD BIT L (FP3)
TBMX IB MISS L (CP2)
TBMX IB ERR L (CP1)

D0 D1 D2 D3 D4 D5 D6 D7 → (DL2) IRCM IR SERIAL OUT H ((IDPP)

SH/LD CLK SIN CKINH

IRCN IRC SERIAL H

CIBH SDMS LOAD H (DM2) → 8640 E5 → (DS2) IRCM B SDMS LOAD L ((IRCN,IDPP)

CIBH SDMS DEL CLK L (DF1) → 8640 E5 → (DP2) IRCM B SDMS CLOCK H ((IRCN,IDPP)

+5.0V
R56 N/A
BAT DCLO L (AF1)
R57 N/A

8640 E5 → (AL1) IRCM BAT DCLO H ((CLKK)

NOTE: R56 & R57 ARE SPARES.

(DAY CLOCK CONTROL,BYTE 1 BUFFERS) (SLOT 8)

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REVISIONS

CHK	CHANGE NO.	REV

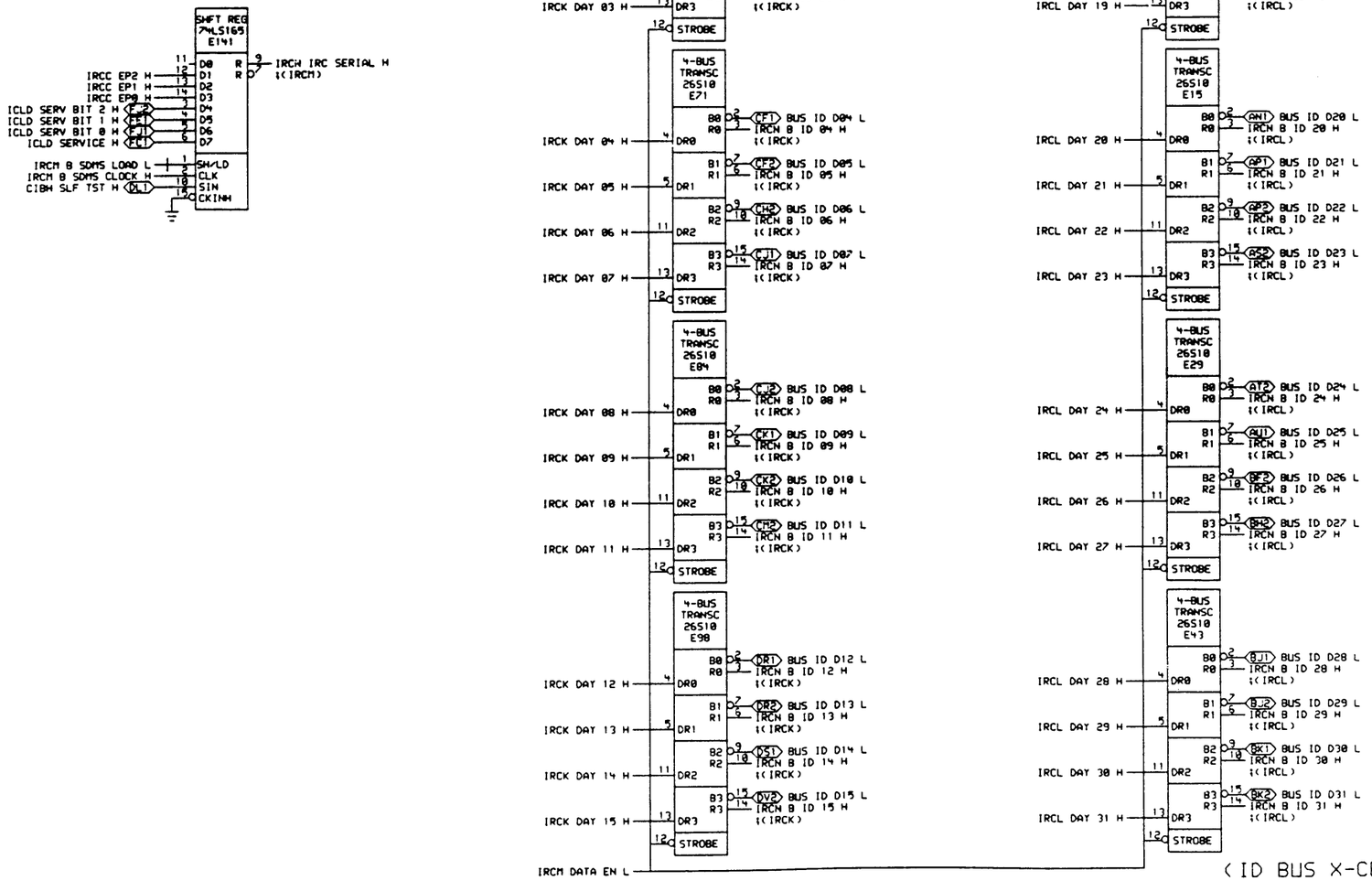
DRN.	DATE 29-DEC-83	ENG.	DATE
CHK'D.	DATE 29-DEC-83	BOARD LOCATION: SHEET	AF8 OF 1

DSKD1:<CRDCRAN>IRCM.DRW 28-OCT-83 16:05 NEXT HIGHER ASSEMBLY: B-DD-M7466-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: INSTRUCTION DECODE (IRCM)

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCM	A



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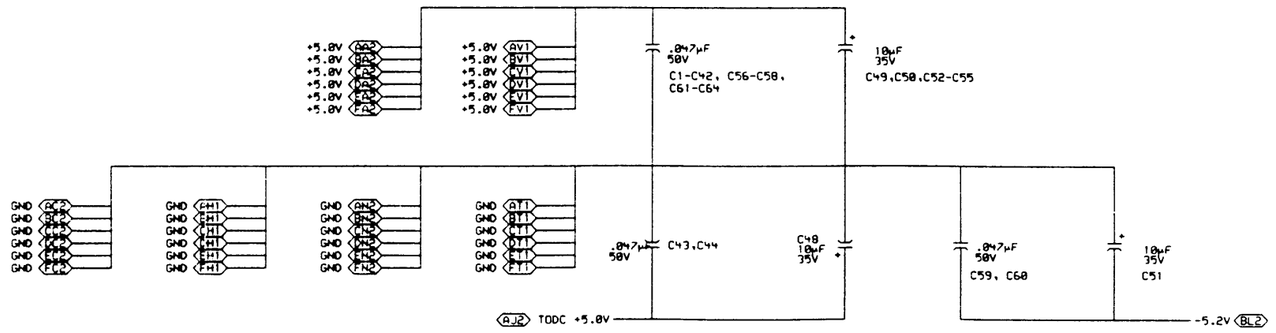
REVISIONS		
CHK	CHANGE NO.	REV

DRN.		DATE 29-DEC-83	ENG. DATE
CHK'D.		DATE 29-DEC-83	BOARD LOCATION: AF8 SHEET 1 OF 1
DSKD1(CRRCDRAN) IRCN.DRW 22-SEP-83 15:19			NEXT HIGHER ASSEMBLY: B-DD-M7466-0-0
FIRST USED ON OPTION/MODEL: 11/785			

digital

TITLE: INSTRUCTION DECODE (IRCN)

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCN	A



REVISIONS		
CHK	CHANGE NO.	REV

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DRN		DATE 29-DEC-83	ENG. DATE
CHK D.		DATE	BOARD LOCATION: 4F8
DSKD1:[CORCORAN]IRCP.DRW 21-OCT-83 15:19			NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785			8-DD-M7466-0-0

TITLE: IRC POWER/GROUND

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCP	A

SIGNAL NAME	PAGE NUMBER(S)
%AF8 AA1	IRCH
BAT DCLO L	IRCL,M,K
BUS ID D00 L	IRCN
BUS ID D01 L	IRCN
BUS ID D02 L	IRCN
BUS ID D03 L	IRCN
BUS ID D04 L	IRCN
BUS ID D05 L	IRCN
BUS ID D06 L	IRCN
BUS ID D07 L	IRCN
BUS ID D08 L	IRCN
BUS ID D09 L	IRCN
BUS ID D10 L	IRCN
BUS ID D11 L	IRCN
BUS ID D12 L	IRCN
BUS ID D13 L	IRCN
BUS ID D14 L	IRCN
BUS ID D15 L	IRCN
BUS ID D16 L	IRCN
BUS ID D17 L	IRCN
BUS ID D18 L	IRCN
BUS ID D19 L	IRCN
BUS ID D20 L	IRCN
BUS ID D21 L	IRCN
BUS ID D22 L	IRCN
BUS ID D23 L	IRCN
BUS ID D24 L	IRCN
BUS ID D25 L	IRCN
BUS ID D26 L	IRCN
BUS ID D27 L	IRCN
BUS ID D28 L	IRCN
BUS ID D29 L	IRCN
BUS ID D30 L	IRCN
BUS ID D31 L	IRCN
BUS UPC 00 L	IRCE
BUS UPC 01 L	IRCE
BUS UPC 02 L	IRCE
BUS UPC 03 L	IRCE
BUS UPC 04 L	IRCE
BUS UPC 05 L	IRCE
BUS UPC 06 L	IRCE
BUS UPC 07 L	IRCE
CEM0 PSL CBIT H	IRCF
CEM0 PSL MBIT H	IRCF
CEM0 PSL VBIT H	IRCF
CEM0 PSL ZBIT H	IRCF
CEMH FPD BIT L	IRCM,C
CEMH PSL CMP (1)H	IRCF
CIBH SDMS DEL CLK L	IRCM
CIBH SDMS LOAD H	IRCM

SIGNAL NAME	PAGE NUMBER(S)
CIBH SLF TST H	IRCN
CLKB LECL CPT0 B1 H	IRCH
CLKB LECL CPT0 B1 L	IRCH
CLKC LECL CPT1 B1 H	IRCH
CLKC LECL CPT1 B1 L	IRCH
CLKD LECL CPT 2 B1 H	IRCH
CLKD LECL CPT2 B1 L	IRCH
CLKE LECL CPT3 B1 H	IRCH
CLKE LECL CPT3 B1 L	IRCH
CLKL SYS INIT H	IRCC
CLKR PS DCLO L	IRCM
DAY CLOCK +5	IRCM
ICLD SERV BIT 0 H	IRCE,N
ICLD SERV BIT 1 H	IRCE,N
ICLD SERV BIT 2 H	IRCN,E
ICLD SERVICE H	IRCN,E
ICLE REM BEMX S0 H	IRCH
ICLE REM BEMX S1 H	IRCH
ICLJ ID RIGHT WRITE L	IRCM
IDPA BUF B1-0 (0)H	IRCH,M
IDPA BUF B1-0 (1)H	IRCH,M,A,J,D
IDPA BUF B1-1 (0)H	IRCH,M
IDPA BUF B1-1 (1)H	IRCM,A,D
IDPA BUF B1-2 (0)H	IRCH,M,D
IDPA BUF B1-2 (1)H	IRCH,M,A,D
IDPA BUF B1-3 (0)H	IRCH,M,D
IDPA BUF B1-3 (1)H	IRCH,A,M,D
IDPA BUF B1-4 (0)H	IRCH,M,D
IDPA BUF B1-4 (1)H	IRCH,A,D
IDPA BUF B1-5 (0)H	IRCH,M,E,D
IDPA BUF B1-5 (1)H	IRCM,A,D
IDPA BUF B1-6 (0)H	IRCH,M,D
IDPA BUF B1-6 (1)H	IRCM,A,D,E
IDPA BUF B1-7 (0)H	IRCH,M,E
IDPA BUF B1-7 (1)H	IRCA,M,D
IDPA DST R MODE H	IRCB
IDPA IMX B0-0 H	IRCC
IDPA IMX B0-1 H	IRCC
IDPA IMX B0-2 H	IRCC
IDPA IMX B0-3 H	IRCC
IDPA IMX B0-4 H	IRCC
IDPA IMX B0-5 H	IRCC
IDPA IMX B0-6 H	IRCC,D
IDPA IMX B0-7 H	IRCC,D
IDPA IMX B1-0 H	IRCD
IDPA IMX B1-1 H	IRCD
IDPA IMX B1-2 H	IRCD
IDPA IMX B1-3 H	IRCD
IDPA IMX B1-4 H	IRCD
IDPA IMX B1-5 H	IRCD

SIGNAL NAME	PAGE NUMBER(S)
IDPA IMX B1-6 H	IRCD
IDPA IMX B1-7 H	IRCD
IDPA VAX H	IRCH,J,D,E,B,C,F
IDPA VAX L	IRCH,J,F,E,D,B,C
IDPH CLR 0 L	IRCC
IDPH CLR B1 H	IRCF,C
IDPJ B0 VAL (0)H	IRCF,E
IDPJ B1 VAL (0)H	IRCE
IDPJ B2 VAL (0)H	IRCE
IDPJ B3 VAL (0)H	IRCE
IDPJ B4 VAL (1)H	IRCE
IDPJ B5 VAL (1)H	IRCE
IDPL REG SEL H	IRCM
IDPM 16 BIT B DEST L	IRCD
IDPM BDEST H	IRCC,D
IDPM BDEST L	IRCE,D
IDPM VAX SL H	IRCH
IDPM VAX SL L	IRCB
IRCA CM DECODE 00 L	IRCA,B
IRCA CM DECODE 01 L	IRCA,B
IRCA CM DECODE 02 L	IRCA,B
IRCA CM DECODE 03 L	IRCA,B
IRCA CM DECODE 04 L	IRCA,B
IRCA CM DECODE 05 L	IRCA,B
IRCA CM DECODE 06 L	IRCA,B
IRCA CM DECODE 07 L	IRCA,B
IRCA CM EXEC H	IRCA,E,B
IRCA CM EXEC L	IRCD,A,
IRCA CM WRT CHK H	IRCA,H
IRCA CMP + BIT L	IRCH,A
IRCA CRT 0 H	IRCA
IRCA CRT 1 H	IRCA
IRCA DEST MODE 0 H	IRCA
IRCA DM0 H	IRCA,B
IRCA DST MODE 0 L	IRCA,B
IRCA LITERAL TO REG H	IRCA
IRCA MOVB + CMP + BIT H	IRCH,A
IRCA SEL SRC H	IRCA
IRCB 8 VAX L	IRCB
IRCB BIT+CMP L	IRCB
IRCB CM DEST=PC L	IRCB
IRCB DECODE ADRS 00 H	IRCB,E
IRCB DECODE ADRS 01 H	IRCB,E
IRCB DECODE ADRS 02 H	IRCB,E
IRCB DECODE ADRS 03 H	IRCE,B
IRCB DECODE ADRS 04 H	IRCE,B
IRCB DECODE ADRS 05 H	IRCE,B
IRCB DECODE ADRS 06 H	IRCB,E
IRCB DECODE ADRS 07 H	IRCB,E
IRCB PC REF ABORT L	IRCB

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN.	DATE 29-DEC-87	ENG. DATE
	CHK'D.	DATE	BOARD LOCATION: AF8 SHEET 1 OF 1
OSKD::CCRCDRAWS[RC2.DRW]21-OCT-87 15:01			NEXT HIGHER ASSEMBLY: B-DD-M7466-0
FIRST USED ON OPTION/MODEL: 11/785			

TITLE: FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCR	A

SIGNAL NAME	PAGE NUMBER(S)
IRCB REG WRITE L	IRCB
IRCB SEL SPC H	IRCB
IRCB WRITE ABORT L	IRCB
IRCC B CLR 0 L	IRCF,C
IRCC COUNT EXC H	IRCC
IRCC EN SERVICE BR H	IRCC,E
IRCC EP0 H	IRCH,C
IRCC EP0 L	IRCH,C
IRCC EP1 H	IRCH,C
IRCC EP2 H	IRCH,C
IRCC EXC CT0 (0)H	IRCA,E,C,D
IRCC EXC CT0 (1)H	IRCA,C
IRCC EXC CT1 (0)H	IRCA,E,C,D
IRCC EXC CT1 (1)H	IRCC,A
IRCC EXC CT2 (0)H	IRCE,C
IRCC EXC CT2 (1)H	IRCE,C
IRCC INIT L	IRCH,M,E,C
IRCC IR00 (0)H	IRCF,C,E
IRCC IR00 (1)H	IRCH,A,F,C,D,B
IRCC IR01 (0)H	IRCF,C,E
IRCC IR01 (1)H	IRCH,A,C,E,D
IRCC IR02 (0)H	IRCF,C,E,B
IRCC IR02 (1)H	IRCH,A,C,F,E,D
IRCC IR03 (0)H	IRCF,A,H,C,E,B
IRCC IR03 (1)H	IRCA,F,C
IRCC IR04 (0)H	IRCH,A,F,C,E,D
IRCC IR04 (1)H	IRCA,H,F,C,B
IRCC IR05 (0)H	IRCA,F,H,C,E,D
IRCC IR05 (1)H	IRCH,A,F,C
IRCC IR06 (0)H	IRCH,F,C,E
IRCC IR06 (1)H	IRCH,A,F,C,J,D
IRCC IR07 (0)H	IRCH,F,C,E
IRCC IR07 (1)H	IRCH,A,F,C,E,J,D
IRCC SEL EXEC H	IRCB,C
IRCC VAX DECODE 00 H	IRCB,C
IRCC VAX DECODE 01 H	IRCB,C
IRCC VAX DECODE 02 H	IRCB,C
IRCC VAX DECODE 03 H	IRCC,B
IRCC VAX DECODE 04 H	IRCC,B,E
IRCC VAX DECODE 05 H	IRCC,B,E
IRCC VAX DECODE 06 H	IRCJ,H,B,C
IRCC VAX DECODE 07 H	IRCH,B,C
IRCD ABSOLUTE MODE L	IRCD
IRCD BIN H	IRCD
IRCD BIN L	IRCD,A
IRCD BYTE I=0 H	IRCA,D
IRCD BYTE I=0 L	IRCA,D
IRCD D16 + D32 L	IRCD
IRCD D32 L	IRCD
IRCD DISP MODE L	IRCD

SIGNAL NAME	PAGE NUMBER(S)
IRCD DST NEEDS 28 H	IRCD
IRCD DST R=PC L	IRCA,H,D
IRCD IMMED L	IRCD
IRCD IR 14:12=0 H	IRCH,E,A,D
IRCD IR 14:12=0 L	IRCF,A,D
IRCD MODE 8+9 H	IRCD
IRCD PC MODE H	IRCB,D,E
IRCD PC MODE L	IRCD,B
IRCD R=PC H	IRCD,B
IRCD R=PC L	IRCJ,D,F
IRCD REG CLASS L	IRCD,F
IRCD SEL BYTE H	IRCE,D
IRCD SEL LONG H	IRCD,E
IRCD SEL LONG L	IRCD
IRCD SEL WORD H	IRCD,E
IRCD SEL WORD L	IRCD
IRCD SINGLE OP L	IRCD,F
IRCD SM0 L	IRCA,D
IRCD SRC EP0 H	IRCA,D
IRCD SRC NEEDS 23 H	IRCD
IRCD SRC R=PC H	IRCH,A,D
IRCE CM BYTE INSTR H	IRCJ,E
IRCE CM BYTE INSTR L	IRCJ,E
IRCE CTX 0 H	IRCH,J,B,E
IRCE CTX 1 H	IRCJ,H,B,E
IRCE CTX 2 H	IRCB,E
IRCE CTX 2 L	IRCF,E
IRCE CTX 3 H	IRCB,E
IRCE CTX 3 L	IRCJ,F,E
IRCE DST CON=1 H	IRCJ,E
IRCE DST CON=2 H	IRCJ,E
IRCE DST REG 6+7 L	IRCE
IRCE EXECUTE L	IRCE
IRCE IB ADVANCE (0)H	IRCE
IRCE IB ADVANCE (1)H	IRCJ,E,H
IRCE IB ADVANCE H	IRCJ,M,C,E
IRCE LOAD PRN H	IRCE
IRCE REG + E MODE H	IRCF,E,B
IRCE SAVE H	IRCE
IRCE SRC CON=1 L	IRCJ,E
IRCE SRC CON=2 L	IRCJ,E
IRCE SRC REG 6+7 L	IRCE
IRCE SRV+INV L	IRCE
IRCE STALL+SVC H	IRCH,E,J
IRCE STALL+SVC L	IRCE,C
IRCF BC4-0 H	IRCF
IRCF BC4-1 H	IRCF,C
IRCF BC4-2 H	IRCF,C
IRCF BR COND 0 L	IRCB,F
IRCF BR COND 1 L	IRCB,F

SIGNAL NAME	PAGE NUMBER(S)
IRCF BR COND 2 L	IRCF,B
IRCF BYTE L	IRCJ,F
IRCF CTX 2 B H	IRCF,H
IRCF CTX 3 B H	IRCF,H
IRCF DIS OPT L	IRCF,B,E
IRCF E MODE (0)H	IRCF
IRCF E MODE (1)H	IRCB,F
IRCF E MODE L	IRCF,C
IRCF ESC (0)H	IRCC,F
IRCF ESC (1)H	IRCF
IRCF LA L	IRCF
IRCF LONG L	IRCF,J
IRCF MA8 H	IRCH,F,M
IRCF OPC 0 H	IRCF
IRCF OPC 1 H	IRCF
IRCF OPC 2 H	IRCF
IRCF OPC 3 H	IRCF
IRCF OPC 4 H	IRCF
IRCF OPC 5 H	IRCF
IRCF OPC 6 H	IRCF
IRCF OPC 7 H	IRCF
IRCF QUAD L	IRCJ,F
IRCF R MODE H	IRCF,B
IRCF R MODE L	IRCF,B,C
IRCF REG CLASS L	IRCD,F,A
IRCF SINGLE OP L	IRCD,F,A
IRCF WORD L	IRCJ,F
IRCH (SM=5+DM=5) H	IRCH
IRCH A CPU T0 H	IRCC,H,D,F
IRCH A CPU T0 L	IRCM,H
IRCH ASRC+QUAD H	IRCJ,H
IRCH B CPU T0 L	IRCH,C,F
IRCH BR INSTR H	IRCH,B
IRCH BRC 0 H	IRCH
IRCH BRC 1 H	IRCH
IRCH C CPU T0 H	IRCJ,H,C
IRCH CM BR INSTR L	IRCH
IRCH CPU T1 H	IRCM,H
IRCH CPU T2 H	IRCE,H
IRCH CPU T2 L	IRCM,H
IRCH CPU T3 H	IRCJ,F,H
IRCH CTX 1 L	IRCH,J
IRCH DM27 L	IRCH
IRCH DST R=PC H	IRCH,B
IRCH ERR H	IRCH,E
IRCH FPSL L	IRCH
IRCH IB CHK 0 H	IRCH
IRCH IB CHK 1 H	IRCH
IRCH IB WRITE CHK H	IRCH
IRCH JMP L	IRCH

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J. Smith 29-DEC-83 | ENG. | DATE
CHK D. | DATE | BOARD LOCATION: AF8 | SHEET 1 OF 1
DSKD:<CSRCORAN>IRCS.SAV;31-OCT-83 15:01 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7466-0

TITLE: FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCS	A

SIGNAL NAME	PAGE NUMBER(S)
IRCH JSR L	IRCH
IRCH MFPFIX H	IRCH
IRCH MOV B L	IRCH
IRCH MTP L	IRCH,D
IRCH NO FAULT H	IRCH,E
IRCH SM45=PC L	IRCH
IRCJ +3V A H	IRCJ,C,E,B
IRCJ +3V B H	IRCJ,E,F,D
IRCJ +3V C H	IRCJ,H,M
IRCJ ASRC+QUAD SAVED H	IRCJ,M
IRCJ BYTE CONT H	IRCJ
IRCJ CALL=3 H	IRCJ,E
IRCJ CTX 1 SAVED H	IRCJ,H
IRCJ DQ CONT H	IRCJ
IRCJ FLOT H	IRCJ
IRCJ IB CALL H	IRCJ
IRCJ LFDQ CONT H	IRCJ
IRCJ PC REG H	IRCJ
IRCJ READ OP H	IRCJ
IRCJ SP2 CON 0 H	IRCJ,M
IRCJ SP2 CON 1 H	IRCJ,M
IRCJ SPI CCN 0 H	IRCJ
IRCJ SPI CCN 1 H	IRCJ
IRCJ SPI CCN 2 H	IRCJ
IRCJ SPI CCN 3 H	IRCJ
IRCJ SRC R=PC L	IRCJ,A,D
IRCJ WORD CONT H	IRCJ
IRCK DAY 00 H	IRCN,K
IRCK DAY 01 H	IRCN,K
IRCK DAY 02 H	IRCN,K
IRCK DAY 03 H	IRCN,K
IRCK DAY 04 H	IRCN,K
IRCK DAY 05 H	IRCN,K
IRCK DAY 06 H	IRCN,K
IRCK DAY 07 H	IRCN,K
IRCK DAY 08 H	IRCN,K
IRCK DAY 09 H	IRCN,K
IRCK DAY 10 H	IRCN,K
IRCK DAY 11 H	IRCN,K
IRCK DAY 12 H	IRCN,K
IRCK DAY 13 H	IRCN,K
IRCK DAY 14 H	IRCN,K
IRCK DAY 15 H	IRCN,K
IRCK T00 EN H	IRCK
IRCK T16 EN H	IRCL,K
IRCL DAY 16 H	IRCN,L
IRCL DAY 17 H	IRCN,L
IRCL DAY 18 H	IRCN,L
IRCL DAY 19 H	IRCN,L
IRCL DAY 20 H	IRCN,L

SIGNAL NAME	PAGE NUMBER(S)
IRCL DAY 21 H	IRCN,L
IRCL DAY 22 H	IRCN,L
IRCL DAY 23 H	IRCN,L
IRCL DAY 24 H	IRCN,L
IRCL DAY 25 H	IRCN,L
IRCL DAY 26 H	IRCN,L
IRCL DAY 27 H	IRCN,L
IRCL DAY 28 H	IRCN,L
IRCL DAY 29 H	IRCN,L
IRCL DAY 30 H	IRCN,L
IRCL DAY 31 H	IRCN,L
IRCL T24 EN H	IRCL
IRCM 1 MS CLK H	IRCL,M,K
IRCM 10 MS P&T EN H	IRCL,M,K
IRCM 1MS CLK H	IRCM
IRCM B BUF B1-7 H	IRCM,D
IRCM B CPU T2 H	IRCM
IRCM B SDMS CLOCK H	IRCM,N
IRCM B SDMS LOAD L	IRCM,N
IRCM BAT DCLO H	IRCM
IRCM BUF B1-0 H	IRCH,E,M,F
IRCM BUF B1-0 L	IRCF,H,M
IRCM BUF B1-1 H	IRCM,E
IRCM BUF B1-1 L	IRCF,A,H,E,M
IRCM BUF B1-2 H	IRCH,A,E,M
IRCM BUF B1-2 L	IRCH,A,F,E,M
IRCM BUF B1-3 H	IRCH,M
IRCM BUF B1-3 L	IRCA,F,H,E,M
IRCM BUF B1-4 H	IRCH,A,B,M,F
IRCM BUF B1-4 L	IRCF,A,M,B,D
IRCM BUF B1-5 H	IRCA,M,E,B
IRCM BUF B1-5 L	IRCF,H,A,M,B
IRCM BUF B1-6 H	IRCM,E,B
IRCM BUF B1-6 L	IRCH,F,A,M,B
IRCM BUF B1-7 H	IRCE,F,B,M
IRCM BUF B1-7 L	IRCF,A,H,M,B
IRCM BUSY (0)H	IRCM
IRCM BUSY (1)H	IRCM
IRCM DATA EN L	IRCN,M
IRCM DONE (1)H	IRCM
IRCM ID SEL L	IRCL,M,K
IRCM IR SERIAL OUT H	IRCM
IRCM LOAD DAY CLK L	IRCL,M,K
IRCM LOAD DAY CNT (0)H	IRCL,M,K
IRCM LOAD DAY CNT (1)H	IRCM
IRCM SET START H	IRCM
IRCN B ID 00 H	IRCN,K
IRCN B ID 01 H	IRCN,K
IRCN B ID 02 H	IRCN,K
IRCN B ID 03 H	IRCN,K

SIGNAL NAME	PAGE NUMBER(S)
IRCN B ID 04 H	IRCN,K
IRCN B ID 05 H	IRCN,K
IRCN B ID 06 H	IRCN,K
IRCN B ID 07 H	IRCN,K
IRCN B ID 08 H	IRCN,K
IRCN B ID 09 H	IRCN,K
IRCN B ID 10 H	IRCN,K
IRCN B ID 11 H	IRCN,K
IRCN B ID 12 H	IRCN,K
IRCN B ID 13 H	IRCN,K
IRCN B ID 14 H	IRCN,K
IRCN B ID 15 H	IRCN,K
IRCN B ID 16 H	IRCN,L
IRCN B ID 17 H	IRCN,L
IRCN B ID 18 H	IRCN,L
IRCN B ID 19 H	IRCN,L
IRCN B ID 20 H	IRCN,L
IRCN B ID 21 H	IRCN,L
IRCN B ID 22 H	IRCN,L
IRCN B ID 23 H	IRCN,L
IRCN B ID 24 H	IRCN,L
IRCN B ID 25 H	IRCN,L
IRCN B ID 26 H	IRCN,L
IRCN B ID 27 H	IRCN,L
IRCN B ID 28 H	IRCN,L
IRCN B ID 29 H	IRCN,L
IRCN B ID 30 H	IRCN,L
IRCN B ID 31 H	IRCN,L
IRCN IRC SERIAL H	IRCM,N
TBMX IB ERR L	IRCH,M
TBMX IB MISS L	IRCH,M
USCL CALL=3 L	IRCJ
USCM IBUF ENK(07:00) L	IRCE

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

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DRW. [signature] DATE 29-DEC-83 ENG. DATE
CHK D. DATE BOARD LOCATION: AF8
SHEET 1 OF 1
DSKD1:<CORCORAN>IRCT.DRW;21-OCT-83 15:31 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7466-0

TITLE: FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7466-0-IRCT	A

SIZE	CODE	NUMBER	REV.
B	DD	M7466-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		M7466-00	IRC PART REVISION	A1 B1 B2
E-UA-M7466-0-0	2		UNIT ASSEMBLY	A B C
K-PL-M7466-0-DBP	2		PARTS LIST	A A A
K-PC-M7466-0-DBI	–		P.C. DATA BASE	C C D
B-DD-5016073-0-0	1		DRAWING DIRECTORY	A B C
K-CS-M7466-0-DBS	–		SUDS DATA BASE	A B B
K-CS-M7466-0-IRCA	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCB	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCC	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCD	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCE	1		SCHEMATIC	A B B
K-CS-M7466-0-IRCF	1		SCHEMATIC	A B B
K-CS-M7466-0-IRCH	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCJ	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCK	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCL	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCM	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCN	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCP	1		SCHEMATIC	A A A
K-CS-M7466-0-IRCR	1		SCHEMATIC	A B B
K-CS-M7466-0-IRCS	1		SCHEMATIC	A B B
K-CS-M7466-0-IRCT	1		SCHEMATIC	A A A

NOTES:

REVISIONS			
REV.	A	B	C
CHG NO.	INIT	TW001	TW002
DATE	11/83	2/84	4/84

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USED ON OPTION/MODEL

DRN.	[illegible]	4-NOV-83
CHK'D	[illegible]	4-NOV-83
ENG.	Bernie Hall	9-NOV-83
PROD	[illegible]	15-NOV-83

TITLE: INSTRUCTION DECODE (IRC)

SIZE	CODE	NUMBER	REV.
B	DD	M7466-0-0	C

SHEET 1 OF 1

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

TH2

TH1

E151 E138 E125 E112 E99 E86 E73 E60 E47 E34 E12
E150 E137 E124 E111 E98 E85 E72 E59 E46
E149 E136 E123 E110 E97 E84 E71 E58 E45 E33 E11
E148 E135 E122 E109 E96 E83 E70 E57 E44 E32 E22 E10
E147 E134 E121 E108 E95 E82 E69 E56 E43 E31 E21 E9
E146 E133 E120 E107 E94 E81 E68 E55 E42 E30 E20 E8
E145 E132 E119 E106 E93 E80 E67 E54 E41 E29 E19 E7
E144 E131 E118 E105 E92 E79 E66 E53 E40 E28 E18 E6
E143 E130 E117 E104 E91 E78 E65 E52 E39 E27 E17 E5
E142 E129 E116 E103 E90 E77 E64 E51 E38 E26 E16 E4
E141 E128 E115 E102 E89 E76 E63 E50 E37 E25 E15 E3
E140 E127 E114 E101 E88 E75 E62 E49 E36 E24 E14 E2
E139 E126 E113 E100 E87 E74 E61 E48 E35 E23 E13 E1

C7 CG+ +C3 C5 C4 C2 +C1

F E D C B A

VUTSHPNMLKJHFEDCBA

1
4
35

SIGNATURES	DATE
DWN. D. Fraser	Sept 20
CHK. D. Fraser	Sept 20
MECH. ENG. Randy Thurber	9-22-94
PROJ. ENG. Randy Thurber	9-22-94
PROD. MGR. Wayne Mac	9-26-94
QUAL. MGR. Wayne Mac	9-26-94

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TITLE DATA ALIGNER (DBP)

SIZE CODE IDENT NUMBER E 10A1 M7467.0.0 REV B

SHT. 1 OF 1

NEXT HIGHER ASSY - B-00-M7467.7-0

ECN# REV. DESCRIPTION

NOTES:
1. UP RATING IS LEVER
2. SPARE LOCATIONS: E7, E19, E29, E30, E20, E8, E18, E28, E27, E17, E5, E16, E26, E25, E15, E3, E14, E24, E23, E13, E1

STEP #	1	2
± X MILS	N/A	N/A
± Y MILS	.5	.5

E 10A1 M7467.0-0 B

AUTOMATED BY PRTLST,5R(55) — P A R T S L I S T —

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 A1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1		5016072-01		DATA PATH	1	
2	2		1017472-00		10 MFD 35V +50-10% AL EL	7	C1-C7
3	3		1012704-00		.047 MFD 50V +80-20% CER	56	C8-C63
4	4		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
5	5		1300247-00		120.0 .25 W 5.0 % CF	2	R12,R14
6	6		1300250-00		150.0 .25 W 5.0 % CF	2	R11,R13
7	7		1300295-00		330.0 .25 W 5.0 % CF	5	R1,R3,R5,R7,R9
8	8		1301424-00		680.0 .25 W 5.0 % CF	1	R10
9	9		1301775-00		820.0 .25 W 5.0 % CF	4	R2,R4,R6,R8
10	10		1911712-00		74S51 AND-OR GATE-INVERT D	2	E144,E125
11	11		1912746-01		74S37-1BUFFER-GATE	1	E147
12	12		1912796-00		74148 ENCODER,PRIORITY,8 T	4	E76,E79,E62,E91
13	13		1913788-00		26S10 TRANSCEIVER,BUS,QUA	1	E48
14	14		1921008-01		74F240 BUFFER/LINE DRIVER,I	1	E84
15	15		1921009-01		74F241 BUFFER/LINE DRIVER,N	5	E39,E52,E51,E114,E66
16	16		1921010-01		74F373 OCTAL TRANSPARENT LA	1	E119
17	17		1921305-01		74F00 NAND GATE,QUAD,2-IN	2	E131,E149
18	18		1921307-01		74F04 HEX INVERTER	9	E65,E54,E78,E103,E89,E53,E82,
						CONT	E126,E148
19	19		1921308-01		74F08 AND GATE,QUAD,2-IN	4	E106,E130,E129,E140
20	20		1921309-01		74F10 NAND GATE,TRIPLE,3-I	1	E104
21	21		1921310-01		74F11 AND GATE,TRIPLE,3-IN	1	E9
22	22		1921311-01		74F20 NAND GATE,DUAL,4-IN	2	E107,E102
23	23		1921313-01		74F64 AND OR INVERT GATE,4-	3	E92,E142,E143
24	24		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	1	E118
25	25		1921316-01		74F138 DECODER/DEMUX,1-OF-8	3	E105,E146,E141
26	26		1921318-01		74F151 MUX,8-IN	5	E124,E101,E100,E87,E74
27	27		1921319-01		74F153 MUX,DUAL,4-IN	19	E77,E90,E8,E28,E18,E40,E80,F69,
						CONT	E55,E68,E83,E94,E96,E95,E81,E44,
						CONT	E6,E31,E43

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A

BASIC PART NO: M7467

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: S.MANSOR	DATE: 14-OCT-83	D I G I T A L
CHK'D: E.T.GERRY	DATE: 14-OCT-83	TITLE PARTS LIST DATA ALIGNER (DBP)
DES.ENG: KEITH MCLAREN	DATE: 14-OCT-83	DOCUMENT NUMBER
RESP.ENG.: KEITH MCLAREN	DATE: 14-OCT-83	SIZE: K; CODE: PL; NUMBER: M7467-0-DBP; REV: A
MFG.ENG.: M.KRYSAK	DATE: 14-OCT-83	RELEASE DATE: 14-OCT-83
ASSEMBLY NUMBER: E-UA-M7467-0-0	TOP DOCUMENT NUMBER: B-DD-M7467-0-0	FILE NAME: Z3945A.PLS; EDIT #: 1

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AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	QTY PER VARIATION A1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:			
28	28		1921321-01		74F158 MUX,QUAD,2-IN	2		E61,E128
29	29		1921324-01		74F175 FF-D,QUAD	1		E139
30	30		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	8		E4,E17,E64,E116,E63,E117,E27,E5
31	31		1921332-01		74F280 PARITY GEN/CHECK,9-B	4		E21,E29,E75,E115
32	32		1921334-01		74F350 SHIFTER,4-BIT	52		E14,E16,E38,E49,E121,E134,E132,
							CONT	E109,E3,E15,E24,E25,E135,E133,
							CONT	E136,E97,E1,E26,E36,E37,E110,
							CONT	E58,E57,E13,E50,E23,E2,E122,E56,
							CONT	E70,E35,E60,E99,E150,E120,E108,
							CONT	E85,E59,E137,E111,E86,E72,E123,
							CONT	E73,E22,E10,E45,E98,E46,E32,E71,
							CONT	E47
33	33		1921417-01		74F521 COMPARATOR,IDENTITY,	4		E88,E42,E20,E127
34	34		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	1		E113
35	35		9000024-01		EYELET,ROLLED 0.1210DX0.192	12		
36	36		9107688-55		WIRE(WRAP) 24AWG KYNAR UL13	A/R		

37 NOTE: SPARE I.C. LOCATIONS ARE:E7,E11,E12,E19,E30,E33,E34,E41,
38 NOTE: E67,E93,E112,E138,E145,E151

D	I	G	I	T	A	L	TITLE DATA ALIGNER (DBP)	SECTION A OF A	SIZE K	CODE PL	DOCUMENT NUMBER M7467-0-DBP	REV A

SIGNAL NAME	PAGE NUMBER(S)
DDPF QREG08 H	DBPM
DDPF QREG09 H	DBPM
DDPF QREG10 H	DBPM
DDPF QREG11 H	DBPM
DDPF QREG12 H	DBPM
DDPF QREG13 H	DBPM
DDPF QREG14 H	DBPM
DDPF QREG15 H	DBPM
DDPR SC00 H	DBPL
DDPR SC01 H	DBPL
DDPR SC02 H	DBPL
DDPR SC03 H	DBPL
DDPR SC04 H	DBPL
DDPS SC NE 0 H	DBPV
DEPE QREG16 H	DBPN
DEPE QREG17 H	DBPN
DEPE QREG18 H	DBPN
DEPE QREG19 H	DBPN
DEPE QREG20 H	DBPN
DEPE QREG21 H	DBPN
DEPE QREG22 H	DBPN
DEPE QREG23 H	DBPN
DEPE QREG24 H	DBPM
DEPE QREG25 H	DBPM
DEPE QREG26 H	DBPM
DEPE QREG27 H	DBPM
DEPE QREG28 H	DBPM
DEPE QREG29 H	DBPM
DEPE QREG30 H	DBPM
DEPE QREG31 H	DBPM,V
ICLC ACLO BRANCH H	DBPV
ICLC INTERN REQ H	DBPV
ICLE BR BIT0 <18:14> H	DBPV
ICLE BR BIT1 <18:14> H	DBPV
ICLE BR BIT2 <18:14> H	DBPV
ICLE BR BIT3 <18:14> H	DBPV
ICLE UBEN 0 (1) H	DBPV
ICLE UBEN 1 (1) H	DBPV
ICLE UBEN 2 (0) H	DBPV

SIGNAL NAME	PAGE NUMBER(S)

SIGNAL NAME	PAGE NUMBER(S)

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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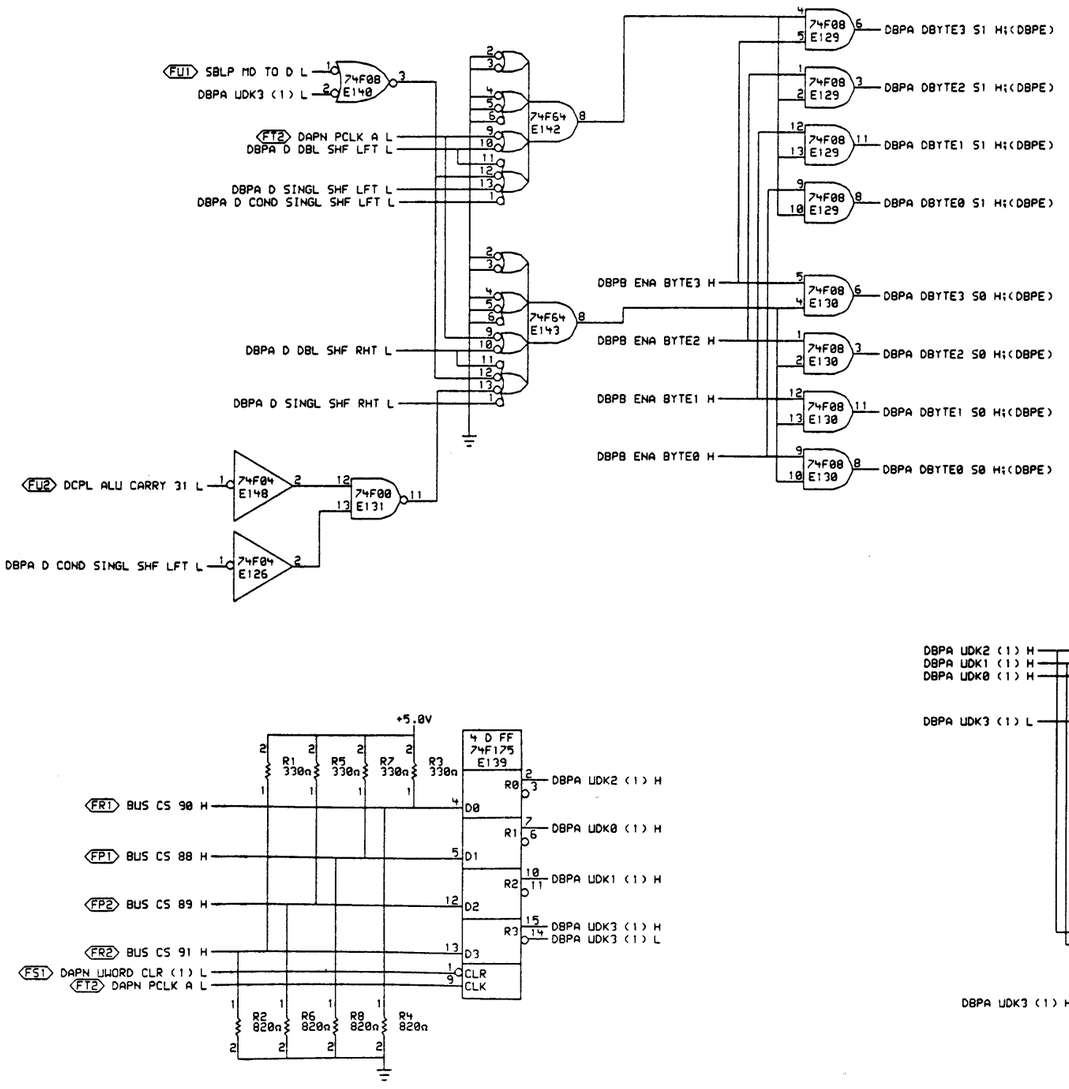
REVISIONS		
CHK	CHANGE NO.	REV

DRN: Loomis | DATE: 29-SEP-83 | ENG: Jack Neumann | DATE: 9/83 | TITLE: DBP FORWARD REFERENCE
CHK'D. | DATE | BOARD LOCATION: AF3
SHEET 1 OF 2
DSKB:ZAGARELLA]DBP1.DRW;29-SEP-83 11:06 | NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBP1	A

SIZE K | CODE CS | NUMBER M7467-0-DBP1 | REV. A



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REVISIONS		
CHK	CHANGE NO.	REV

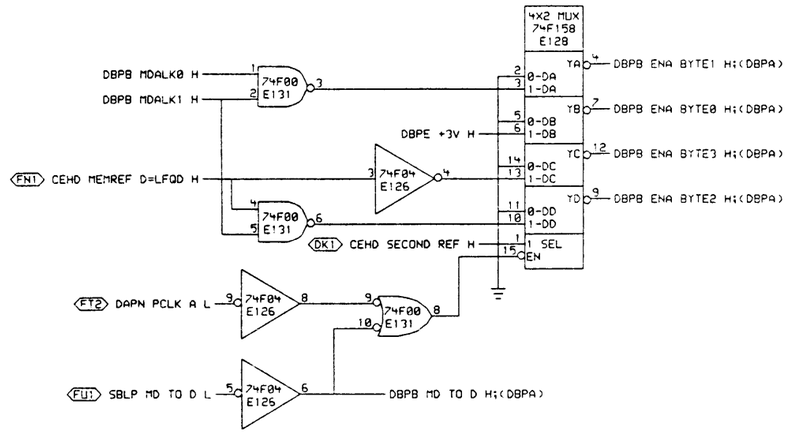
digital

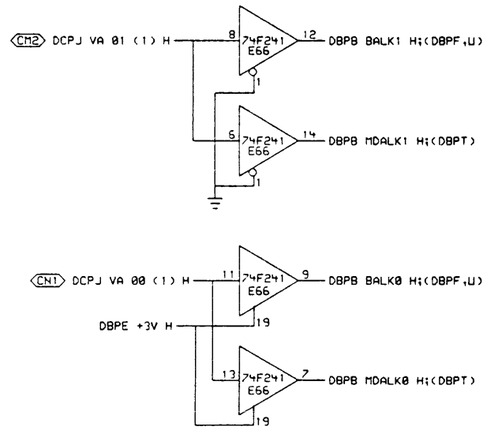
DRW. [illegible] DATE 14-SEP-83 ENG. [illegible] DATE [illegible]
CHK D. [illegible] DATE BOARD LOCATION: AF5
SHEET 1 OF 1

DSKB:<TAYLOR>DBPA.DRW 13-SEP-83 13:59 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7467-0-0

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPA	A





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REVISIONS		
CHK	CHANGE NO.	REV

digital

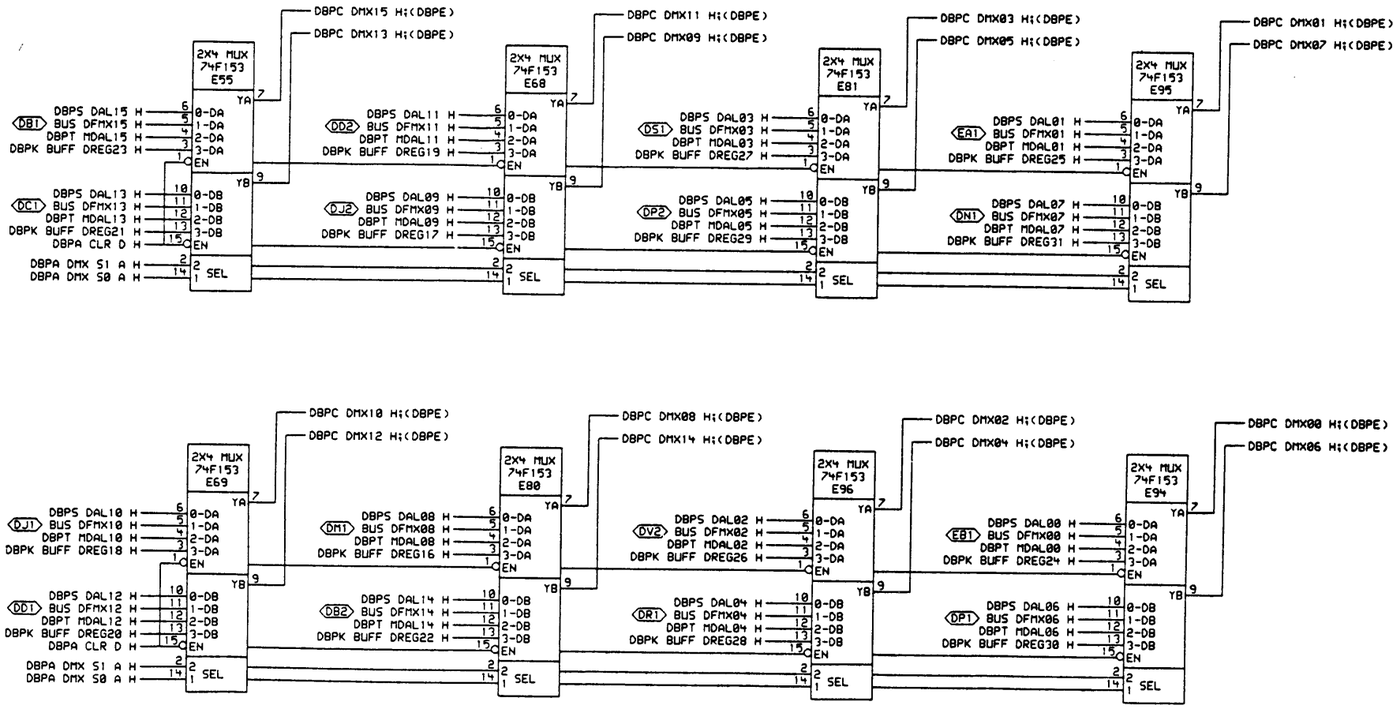
DRN. [illegible] DATE 14-SEP-83
CHK'D. DATE
ENG. [illegible] DATE 10-11-83
BOARD LOCATION: AF9
SHEET 1 OF 1

DSKB:<TAYLOR>DBPB.DRW 13-SEP-83 13:59
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPB	A

REV. A
NUMBER M7467-0-DBPB
CODE CS
SIZE K
B



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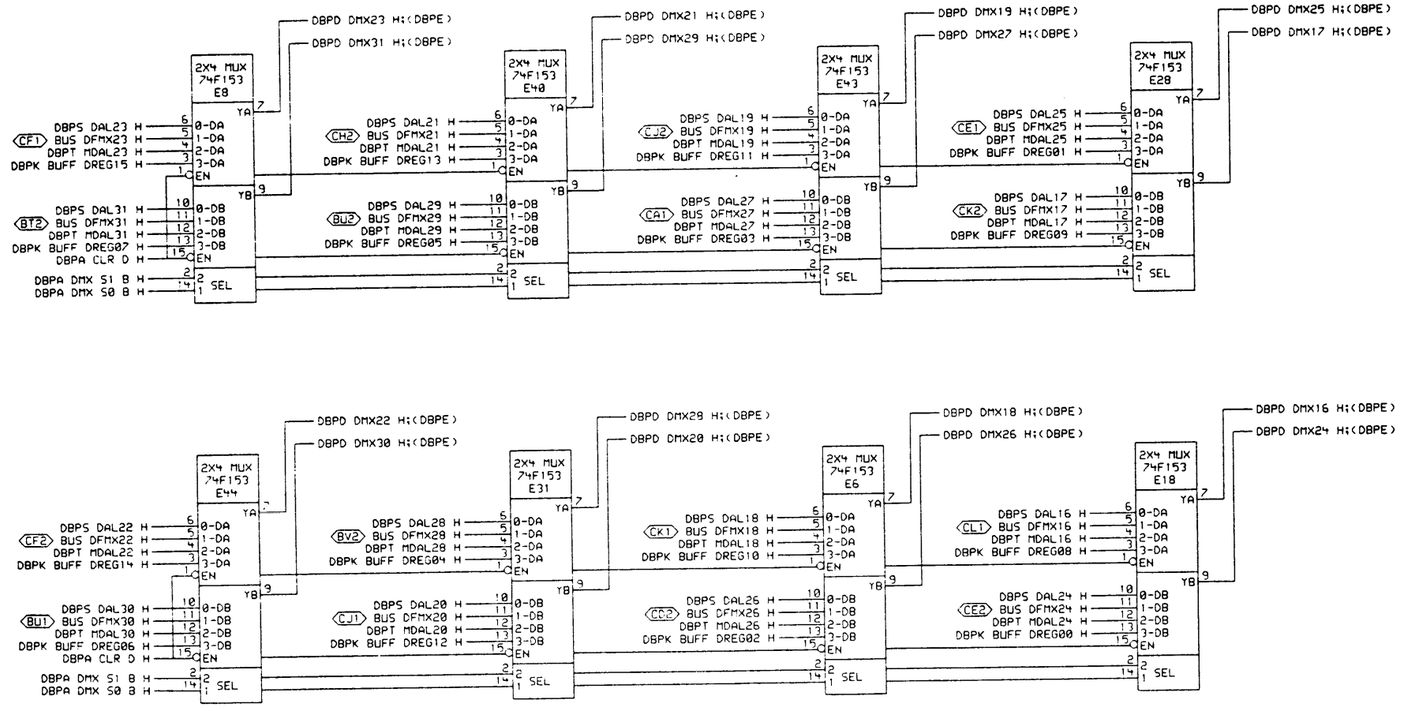
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. L Toomey
CHK D.
ENG.
DATE 14-SEP-83
DATE
DATE 2-11-83
BOARD LOCATION: AF9
SHEET 1 OF 1
DSKB:<TAYLOR>DBPC.DRW 13-SEP-83 13:59
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPC	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. [illegible] DATE 14-SEP-83 ENG. [illegible] DATE [illegible]
CHK 'D. [illegible] DATE [illegible] BOARD LOCATION: AF9
SHEET 1 OF 1

DSKB::TAYLOR>DBPD.DRW 13-SEP-83 14:00 NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
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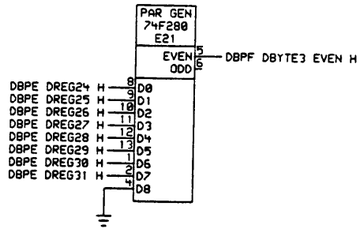

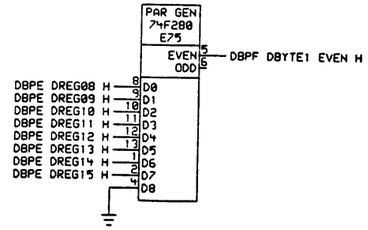

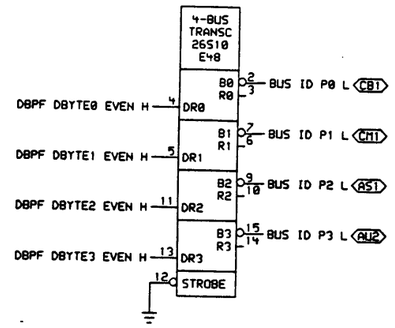

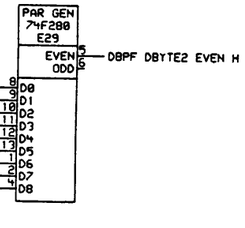

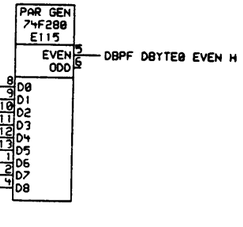

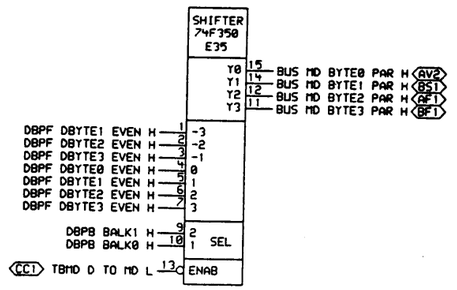

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REVISIONS		
CHK	CHANGE NO.	REV

DRW. J. Cooley 14-SEP-83
CHK'D. DATE
ENG. DATE 19-1-83
BOARD LOCATION: AF9
SHEET 1 OF 1
DSKB:<TAYLOR>DBPF.DRW 13-SEP-83 14:00
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPF	A

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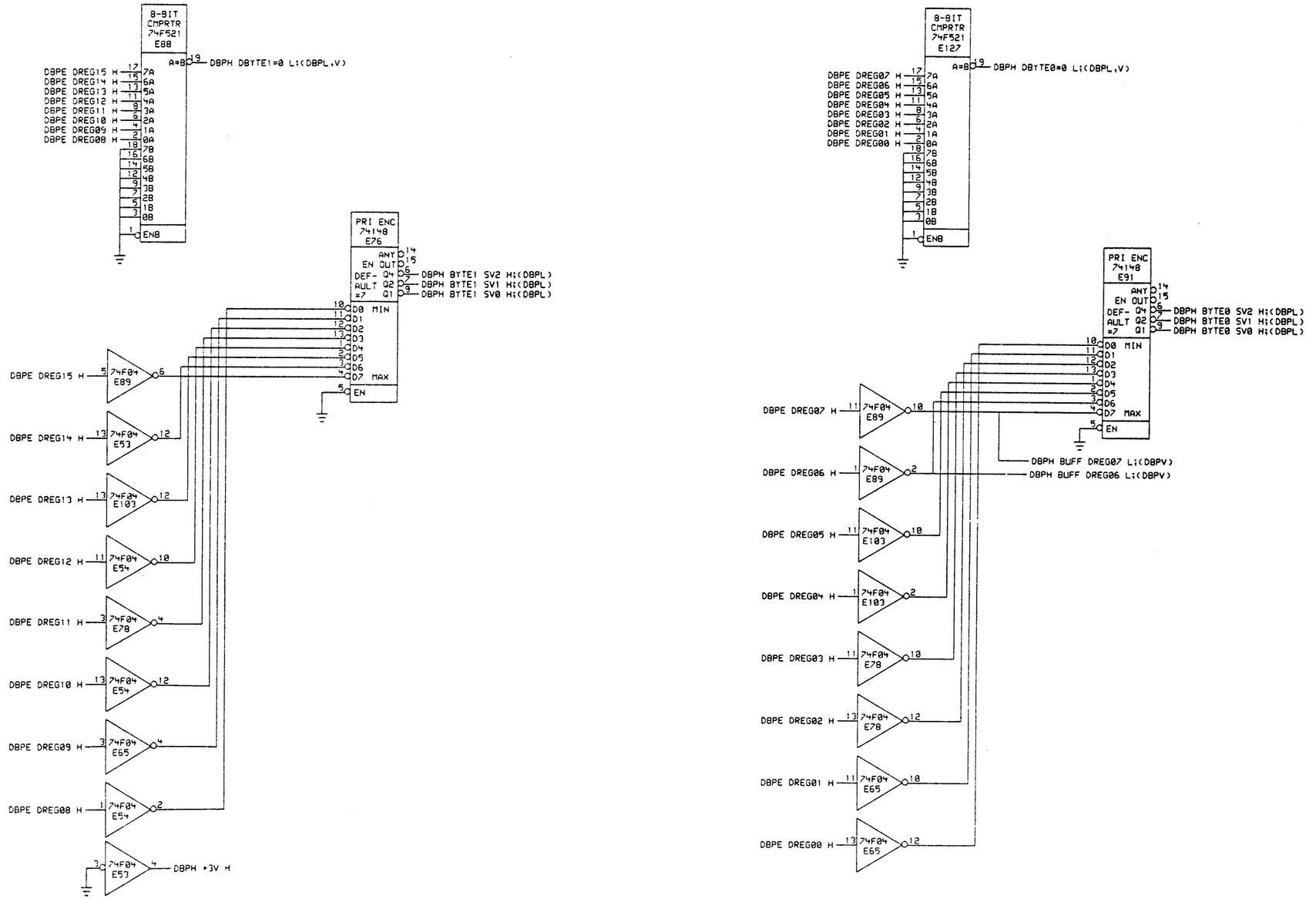
REVISIONS		
CHK	CHANGE NO.	REV

DRAWN: DAPHNE TAYLOR 13-SEP-83 14:30
CHK'D:
ENG.
DATE 13-SEP-83
DATE
DATE
EQUIP LOCATION: AP3
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-3
FIRST USED ON OPTION MODEL: 11/785

TITLE: DATA ALIGNER DRP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPE	A



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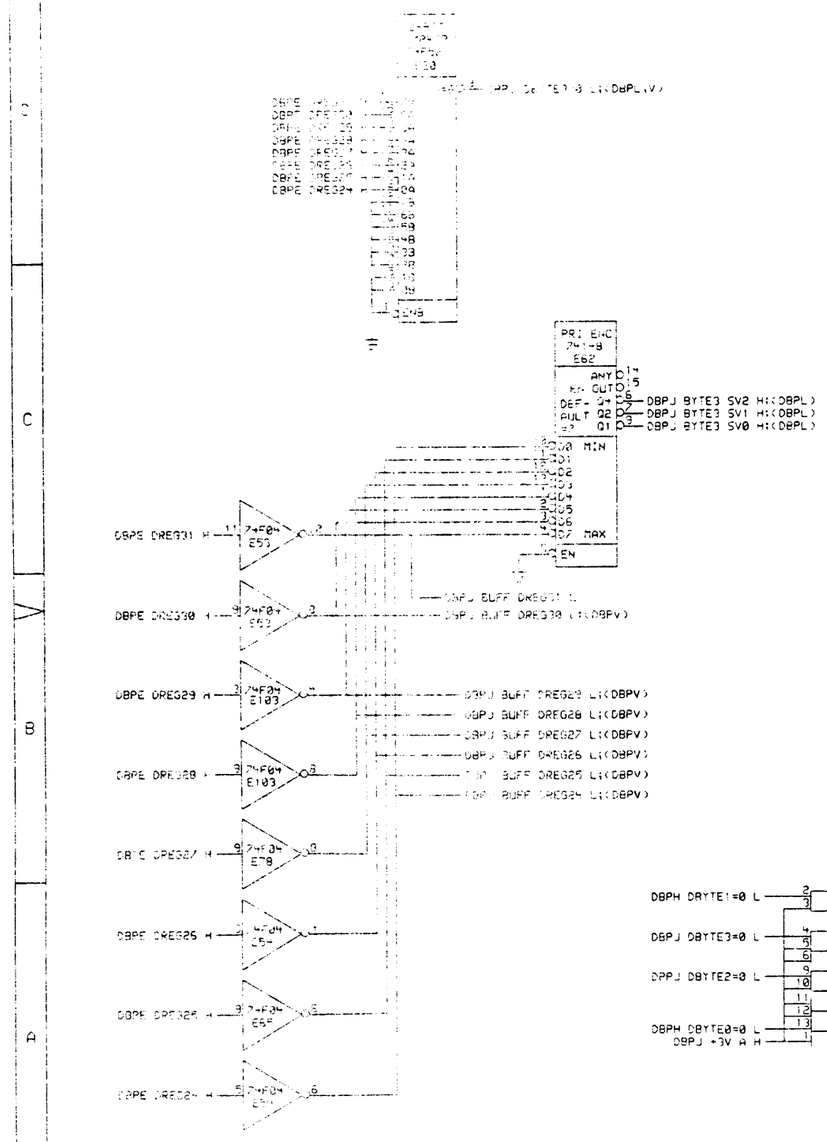
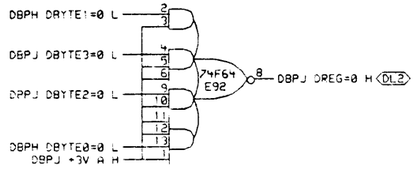
REVISIONS		
CHK	CHANGE NO.	REV

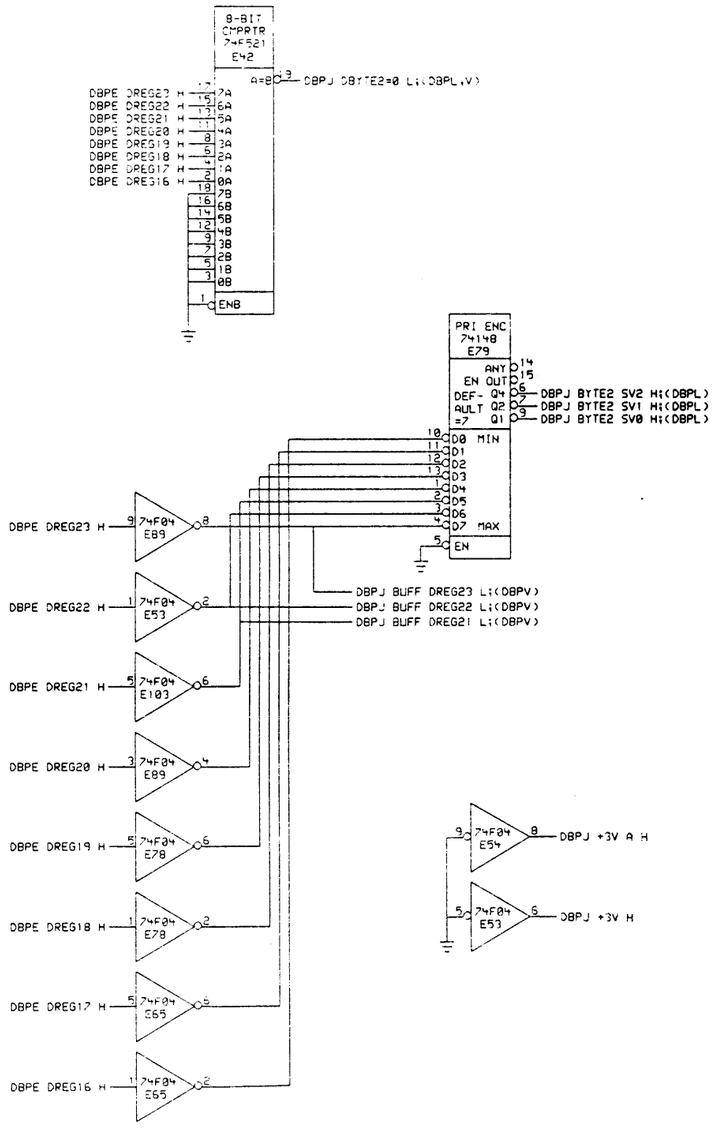
digital	DRN: Tommy	DATE 14-SEP-93	ENG: [illegible] DATE [illegible]
	CHK'D.	DATE	BOARD LOCATION: AF9
			SHEET 1 OF 1
DSKB:<TAYLOR>DBPH.DRW 13-SEP-93 14:00		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7467-0-0	

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPH	A



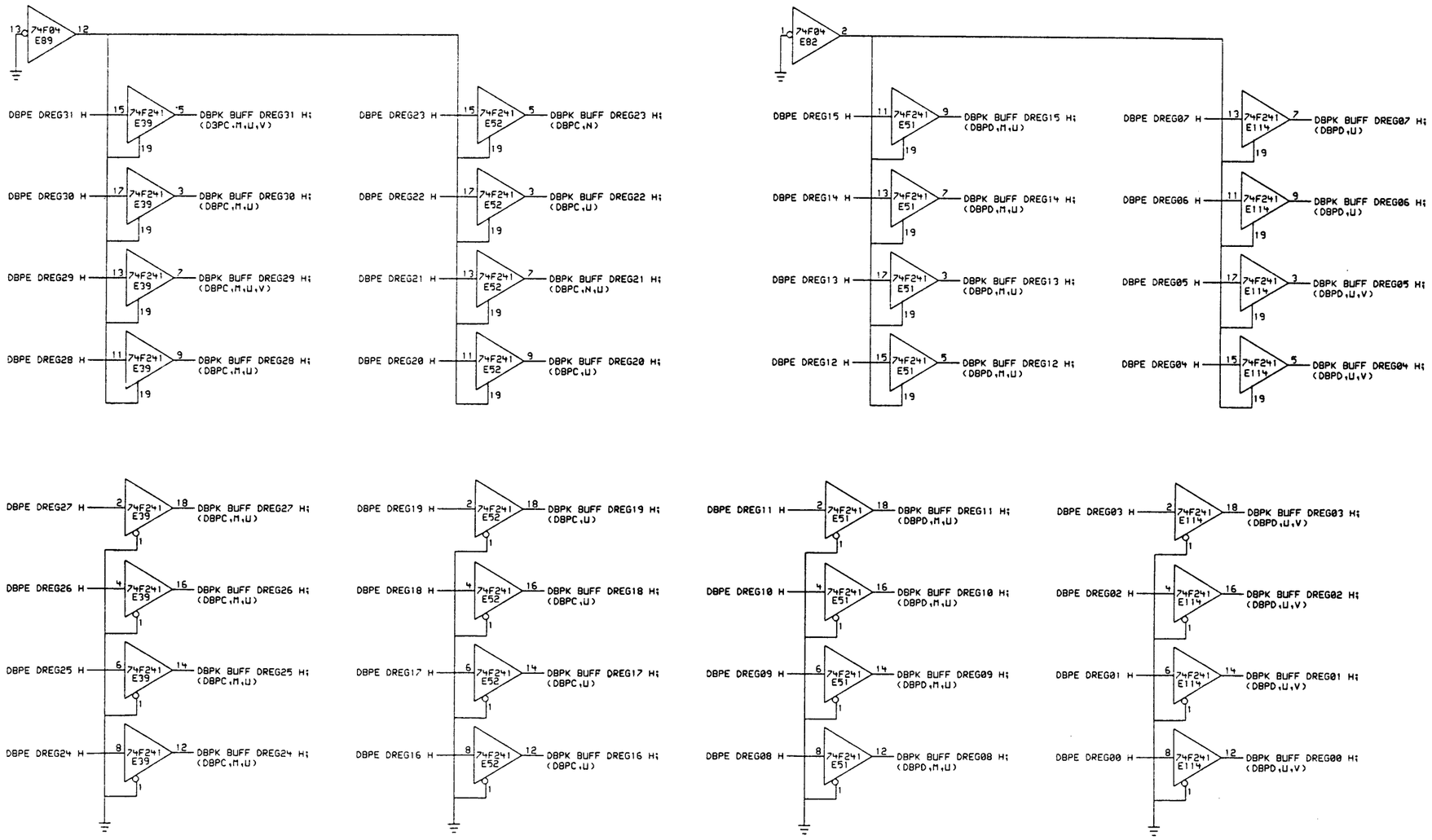




REVISIONS			
DESCRIPTION	CHANGE NO.	REV	

digital	DRN:	DATE 14-SEP-93	ENG.	DATE	TITLE: DATA ALIGNER DBP
	CHK'D.	DATE	BOARD LOCATION: A29		
DSKB:<TAYLOR>DBPJ.DRW 13-SEP-93 14:00			SHEET 2		
FIRST USED ON OPTION/MODEL: 11/785			NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0		

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPJ	A



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REVISIONS		
CHK	CHANGE NO.	REV

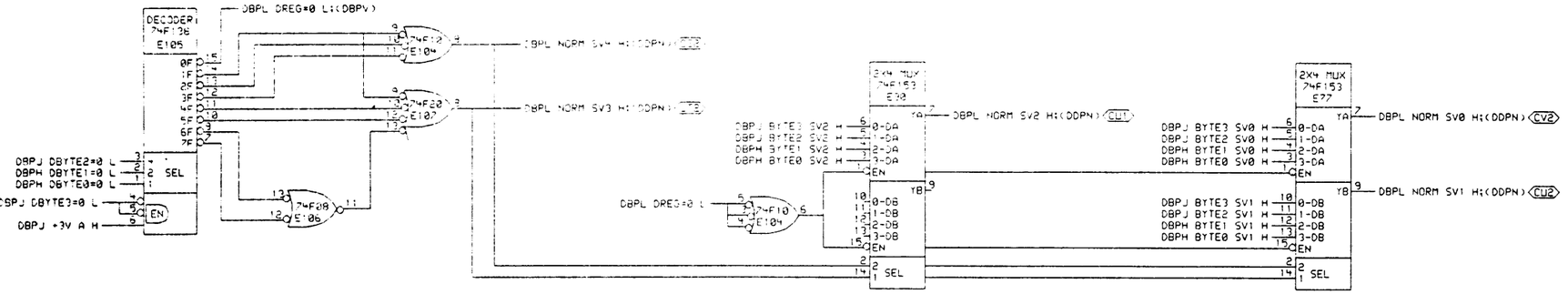
digital

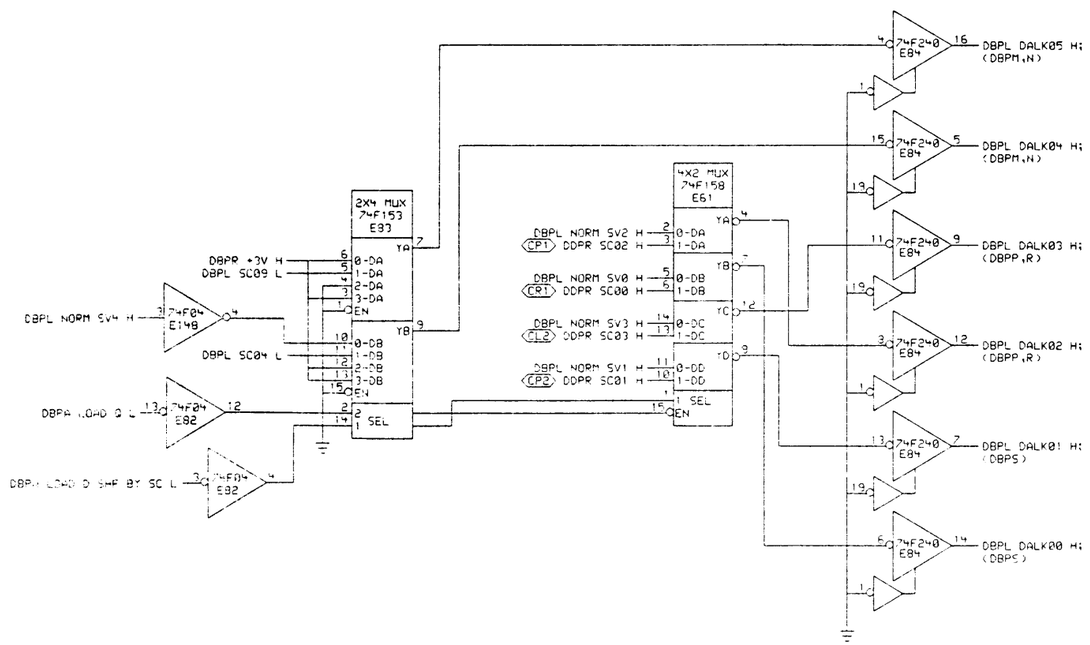
DRW. S. Tooley — DATE 14-SEP-83 — ENG. — DATE 10-Oct-83
CHK'D. — DATE — BOARD LOCATION: AF9
SHEET 1 OF 1
DSKB:<TAYLOR>DBPK.DRW 13-SEP-83 14:00 — NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

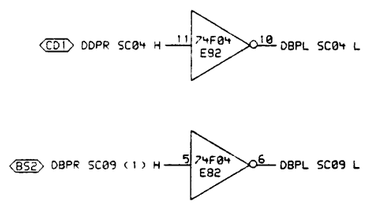
TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPK	A

SIZE K | CODE CS | NUMBER M7467-0-DBPK | REV. A

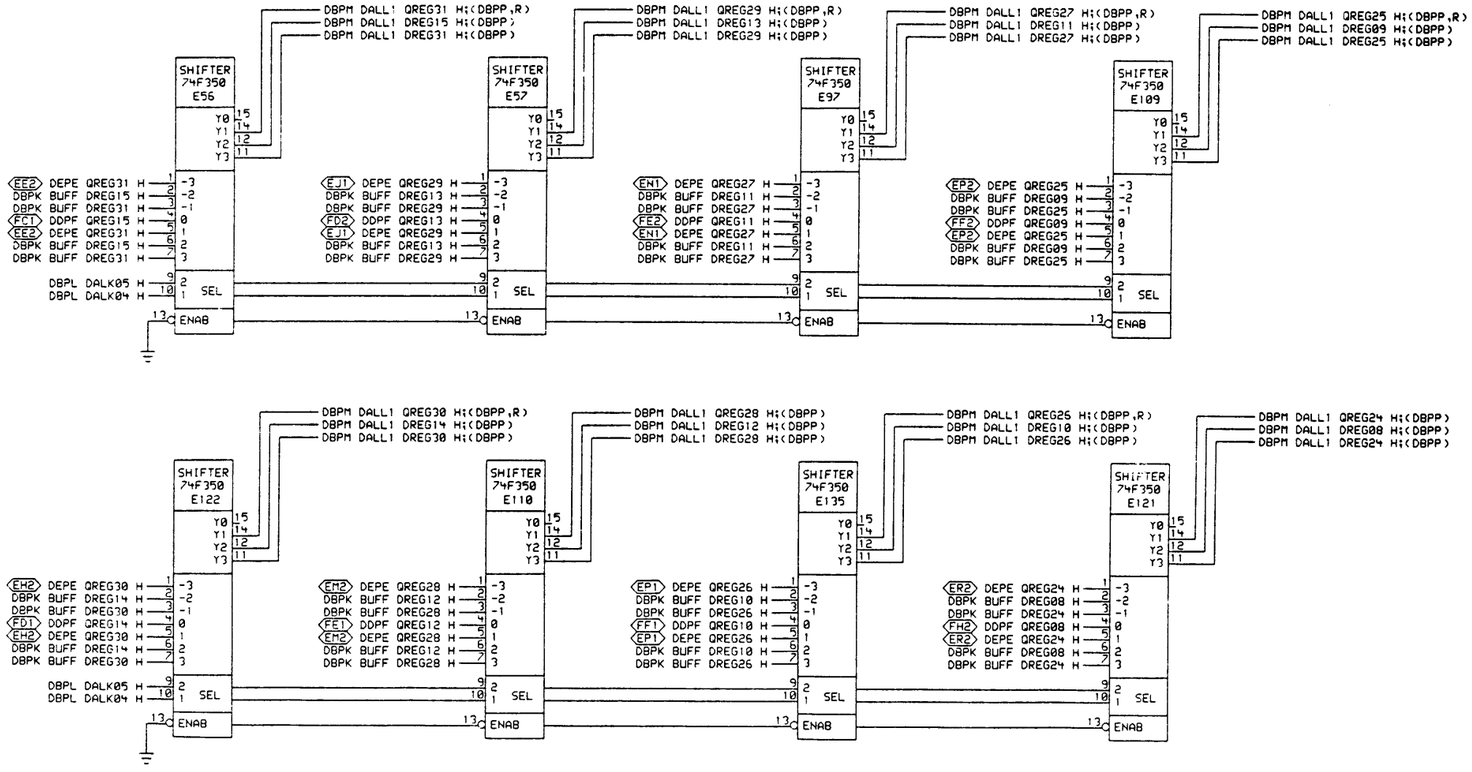






REVISIONS		
CHK	CHANGE NO.	REV

DRN T.Toomey	DATE 28-SEP-83	ENG	DATE	TITLE:	DATA ALIGNER DBP
CHK D.	DATE	BOARD LOCATION: AF9			
		SHEET 1 OF 1			
DSKB:<ZAQ.ARELLA>DBPL.DPW 29-SEP-83 10:56		NEXT HIGHER ASSEMBLY:		SIZE K	CODE CS
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7467-0-0		NUMBER M7467-0-DBPL	REV. A



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REVISIONS		
CHK	CHANGE NO.	REV

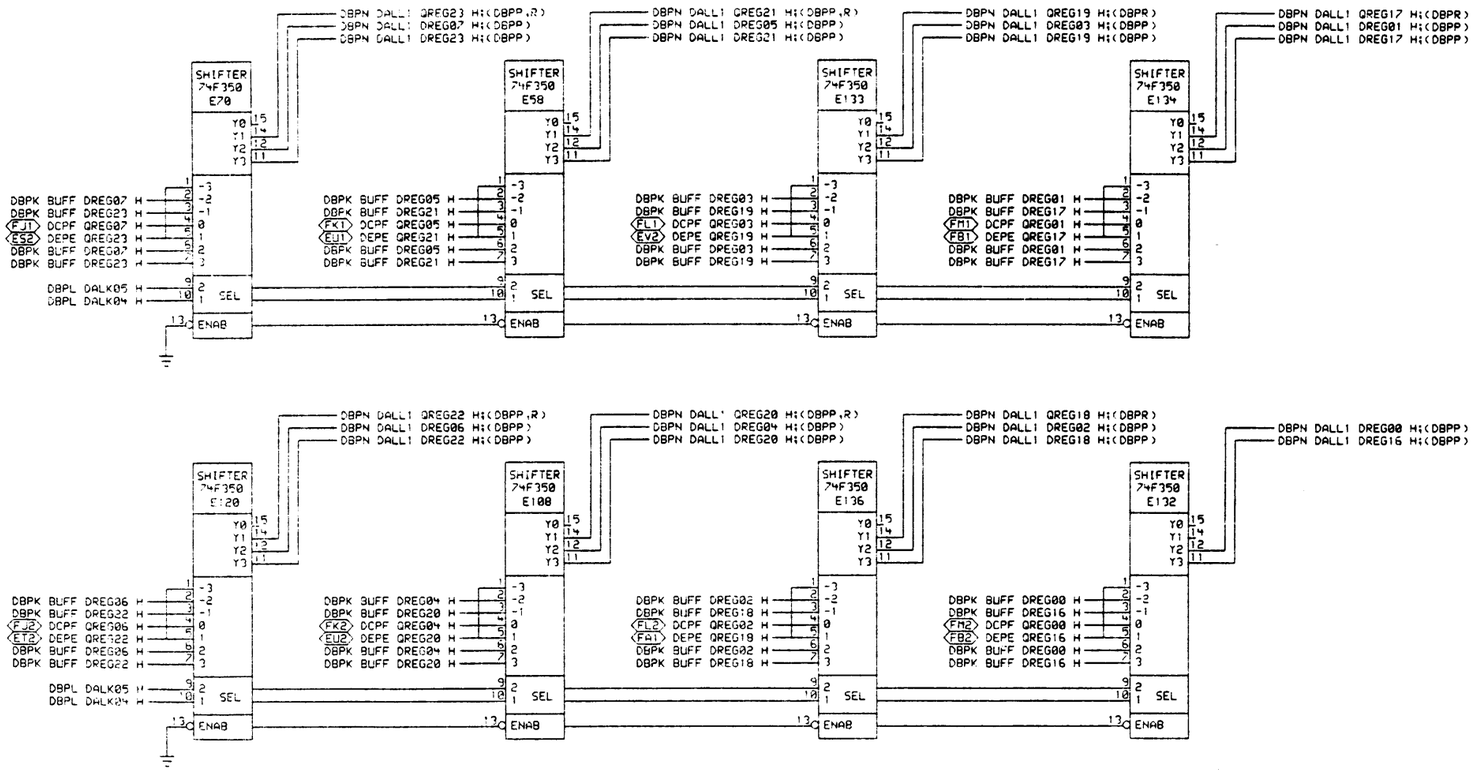
digital

DRW. Tsunday 14-SEP-83
CHK'D.
ENG. [illegible] 19-[illegible]-83
DATE
DATE
BOARD LOCATION: AF9
SHEET 1 OF 1

DSKB:<TAYLOR>DBPM.DRW 13-SEP-83 14:00
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0

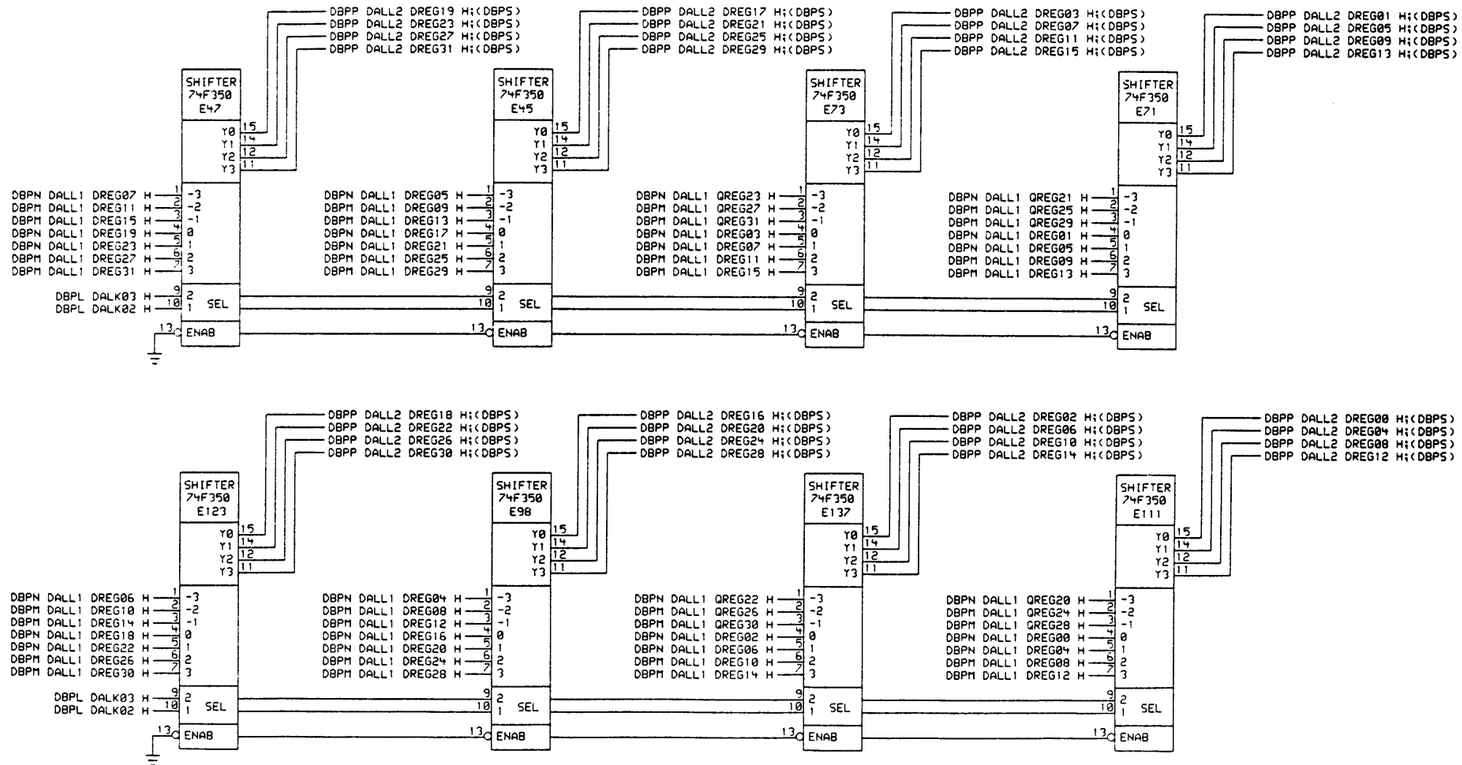
TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPM	A



REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN:	DATE 13-SEP-93	ENG:	DATE	TITLE: DATA ALIGNER DBP
	CHK'D:	DATE	BOARD LOCATION: AF9		
			SHEET 1 OF 1		
DSKB:<TAYLOR>DBPN.DRW 13-SEP-93 14:00			NEXT HIGHER ASSEMBLY:	SIZE K	CODE CS
FIRST USED ON OPTION/MODEL: 11.785			B-DD-M7467-0-0	NUMBER M7467-0-DBPN	REV. A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. [illegible] DATE 14-SEP-83 ENG. [illegible] DATE [illegible]

CHK'D. DATE BOARD LOCATION: AF9

SHEET 1 OF 1

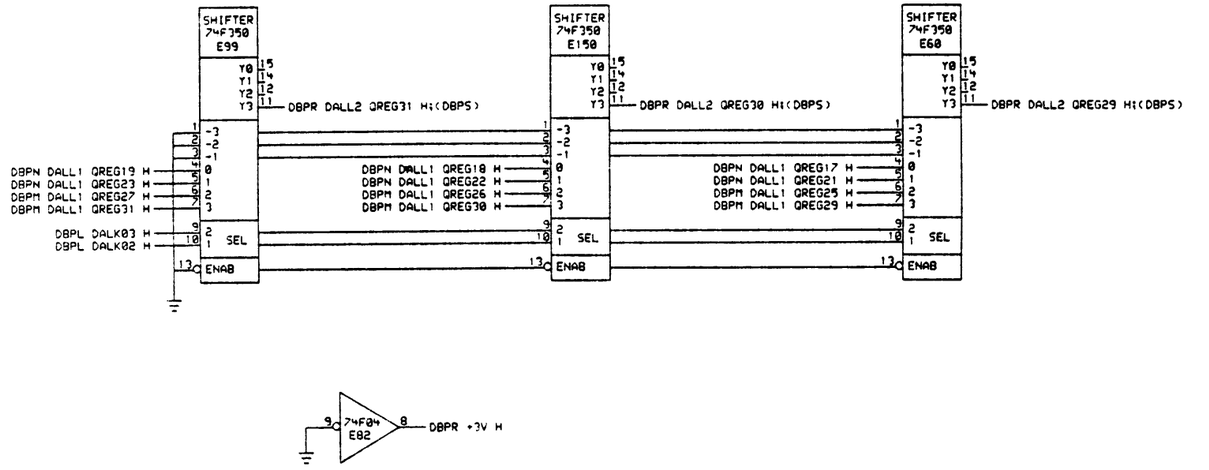
DSKB:<TAYLOR>DBPP.DRW 13-SEP-83 14:00 NEXT HIGHER ASSEMBLY:

FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7467-0-0

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPP	A

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPP	A

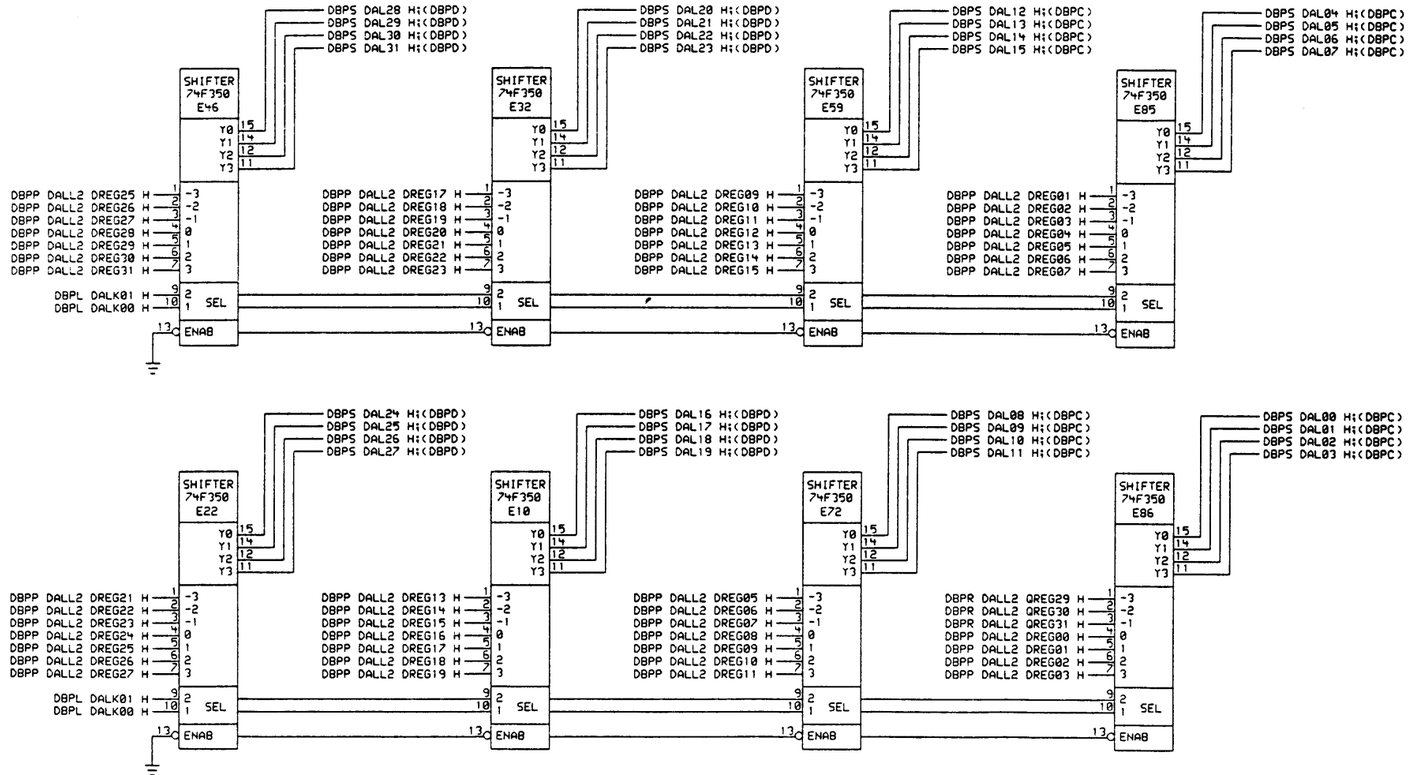


REVISIONS		
CHK	CHANGE NO.	REV

DRW. L. Landry
CHK D.
DATE 14-SEP-83
ENG.
DATE
DATE
BOARD LOCATION: AF9
SHEET 1 OF 1
DSKB:<TAYLOR>DBPR.DRW 13-SEP-83 14:00
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPR	A



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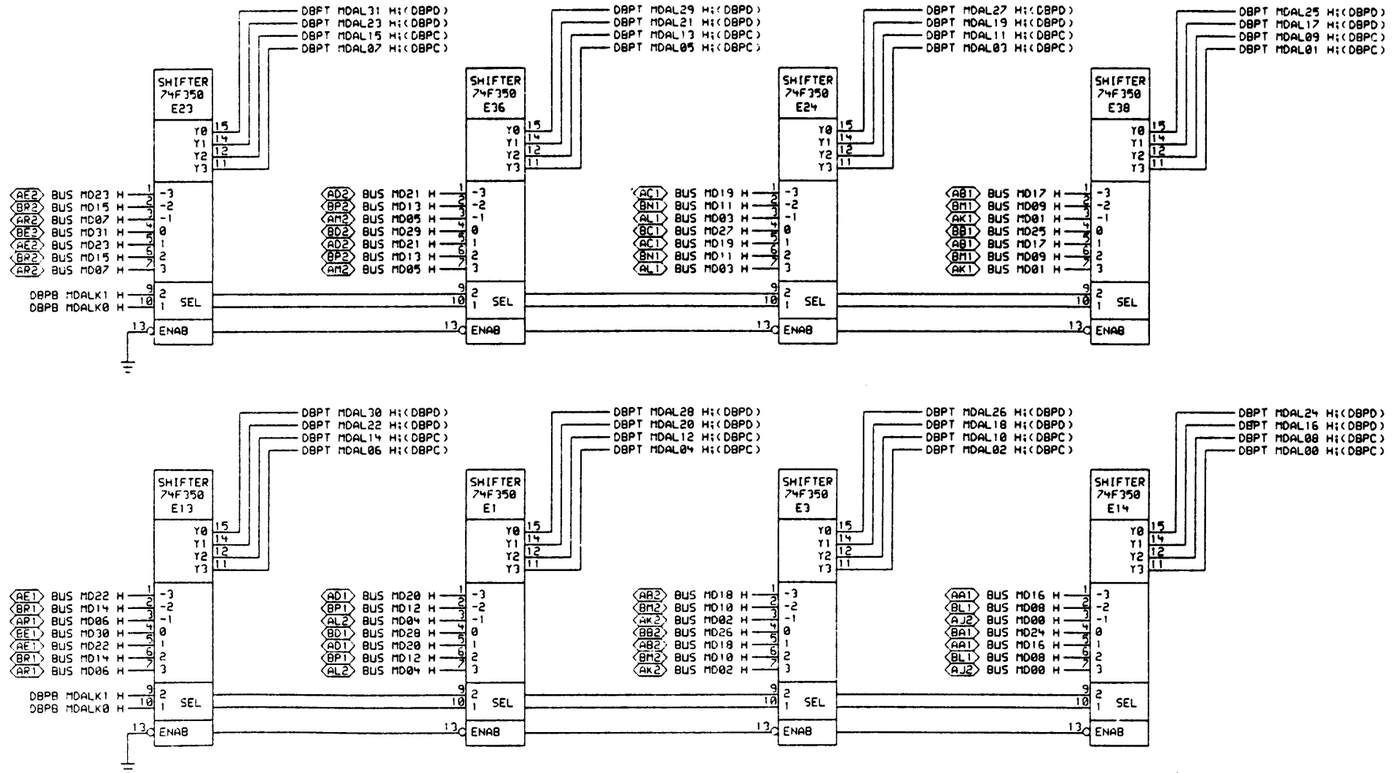
REVISIONS		
CHK	CHANGE NO.	REV

DSKB:<TAYLOR>DBPS.DRW | 13-SEP-83 14:00 | NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

DRN. | DATE 14-SEP-83 | ENG. | DATE
CHK'D. | DATE | BOARD LOCATION: AF9 | SHEET 1 OF 1

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBPS	A



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REVISIONS		
CHK	CHANGE NO.	REV
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DRN.	DATE 14-SEP-83	ENG. DATE
CHK'D.	DATE	BOARD LOCATION: AF9
		SHEET 1 OF 1
DSKB:<TAYLOR>DBPT.DRW 17-SEP-83 14:00		NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7467-0-0

TITLE: DATA ALIGNER DBP

SIZE	CODE	NUMBER	REV.
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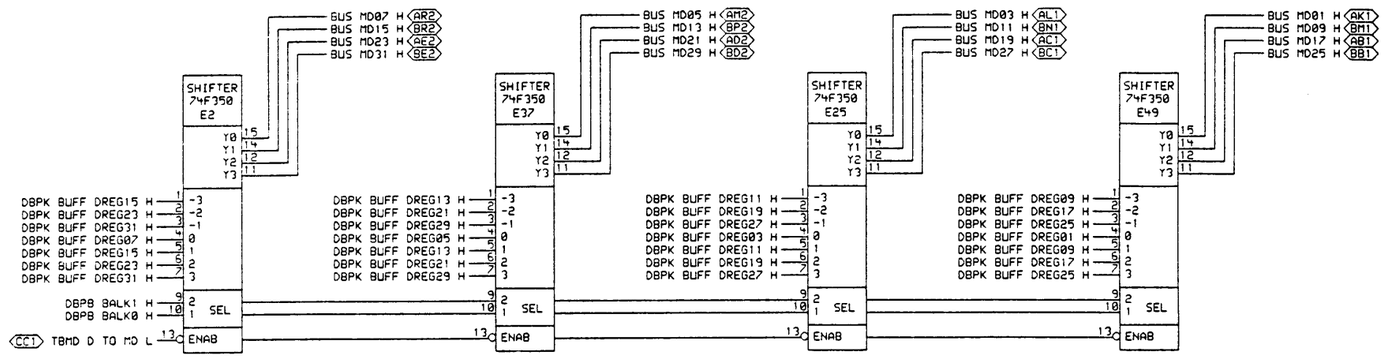

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DRN. S Toomey | DATE 14-SEP-83 | ENG. | DATE | TITLE: DATA ALIGNER DBP

CHK'D. | DATE | BOARD LOCATION: AF9 | SHEET 1 OF 1

DSKB:<TAYLOR>DBPU.DRW 13-SEP-83 14:00 | NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0

FIRST USED ON OPTION/MODEL: 11/785

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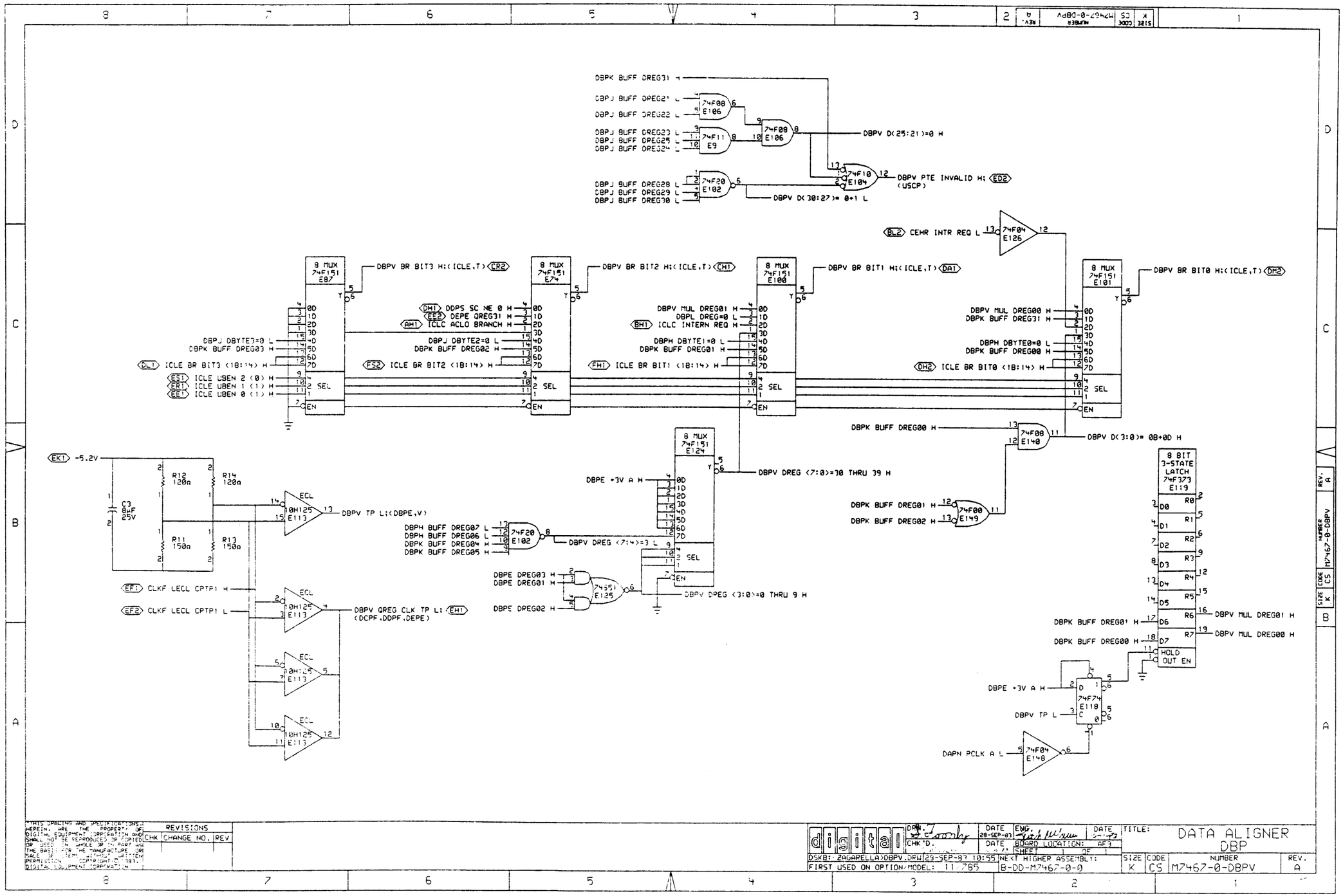

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CHK	CHANGE NO.	REV

DRN.	DATE 28-SEP-83	ENG.	DATE	TITLE: DATA ALIGNER DBP
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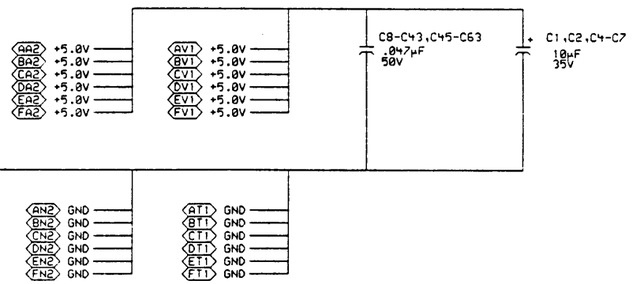

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DRW. J. Doorley — DATE 14-SEP-83
CHK'D. — DATE
ENG. — DATE
BOARD LOCATION: AF9
SHEET 1 OF 1
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NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: POWER/GROUND DBP

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-TBMD D TO MD H	DBPU,F
BUS CS 88 H	DBPA
BUS CS 89 H	DBPA
BUS CS 90 H	DBPA
BUS CS 91 H	DBPA
BUS DFMX00 H	DBPC
BUS DFMX01 H	DBPC
BUS DFMX02 H	DBPC
BUS DFMX03 H	DBPC
BUS DFMX04 H	DBPC
BUS DFMX05 H	DBPC
BUS DFMX06 H	DBPC
BUS DFMX07 H	DBPC
BUS DFMX08 H	DBPC
BUS DFMX09 H	DBPC
BUS DFMX10 H	DBPC
BUS DFMX11 H	DBPC
BUS DFMX12 H	DBPC
BUS DFMX13 H	DBPC
BUS DFMX14 H	DBPC
BUS DFMX15 H	DBPC
BUS DFMX16 H	DBPD
BUS DFMX17 H	DBPD
BUS DFMX18 H	DBPD
BUS DFMX19 H	DBPD
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BUS DFMX21 H	DBPD
BUS DFMX22 H	DBPD
BUS DFMX23 H	DBPD
BUS DFMX24 H	DBPD
BUS DFMX25 H	DBPD
BUS DFMX26 H	DBPD
BUS DFMX27 H	DBPD
BUS DFMX28 H	DBPD
BUS DFMX29 H	DBPD
BUS DFMX30 H	DBPD
BUS DFMX31 H	DBPD
BUS ID P0 L	DBPF
BUS ID P1 L	DBPF
BUS ID P2 L	DBPF
BUS ID P3 L	DBPF
BUS MD BYTE0 PAR H	DBPF
BUS MD BYTE1 PAR H	DBPF
BUS MD BYTE2 PAR H	DBPF
BUS MD BYTE3 PAR H	DBPF
BUS MD00 H	DBPT,U
BUS MD01 H	DBPT,U
BUS MD02 H	DBPT,U
BUS MD03 H	DBPT,U

SIGNAL NAME	PAGE NUMBER(S)
BUS MD04 H	DBPT,U
BUS MD05 H	DBPT,U
BUS MD06 H	DBPT,U
BUS MD07 H	DBPU,T
BUS MD08 H	DBPT,U
BUS MD09 H	DBPT,U
BUS MD10 H	DBPT,U
BUS MD11 H	DBPT,U
BUS MD12 H	DBPT,U
BUS MD13 H	DBPT,U
BUS MD14 H	DBPT,U
BUS MD15 H	DBPU,T
BUS MD16 H	DBPT,U
BUS MD17 H	DBPT,U
BUS MD18 H	DBPT,U
BUS MD19 H	DBPT,U
BUS MD20 H	DBPT,U
BUS MD21 H	DBPT,U
BUS MD22 H	DBPT,U
BUS MD23 H	DBPU,T
BUS MD24 H	DBPT,U
BUS MD25 H	DBPT,U
BUS MD26 H	DBPT,U
BUS MD27 H	DBPT,U
BUS MD28 H	DBPT,U
BUS MD29 H	DBPT,U
BUS MD30 H	DBPT,U
BUS MD31 H	DBPU,T
CEHD MEMREF D=LFQD H	DBPB
CEHD SECOND REF H	DBPB
CEHR INTR REQ L	DBPV
CLKF LECL CPTP1 H	DBPV
CLKF LECL CPTP1 L	DBPV
DAPH D SHIFT INPUT H	DBPE
DAPN PCLK A L	DBPB,A,V
DAPN UWORD CLR (0)H	DBPA
DAPP DFMX UNPACK L	DBPA
DBPA CLR D H	DBPD,C,A
DBPA D COND SINGL SHF LFT L	DBPA
DBPA D DBL SHF LFT L	DBPA
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SIGNAL NAME	PAGE NUMBER(S)
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DBPA DMX S1 A H	DBPC,A
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DBPA UDK1 (1)H	DBPA
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DBPB BALK1 H	DBPU,F,B
DBPB ENA BYTE0 H	DBPB,A
DBPB ENA BYTE1 H	DBPB,A
DBPB ENA BYTE2 H	DBPB,A
DBPB ENA BYTE3 H	DBPB,A
DBPB MD TO D H	DBPB,A
DBPB MDALK0 H	DBPT,B
DBPB MDALK1 H	DBPT,B
DBPC DMX00 H	DBPC,E
DBPC DMX01 H	DBPC,E
DBPC DMX02 H	DBPC,E
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DBPC DMX04 H	DBPC,E
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CHK	CHANGE NO.	REV

DRN. J. Doherty DATE 22-SEP-83
CHK'D. DATE
ENG. DATE
BOARD LOCATION: AF9
SHEET 1 OF 1

DSK:<MISKA>DBPX.DRW 20-SEP-83 13:38
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0

TITLE: DBP FORWARD REFERENCE

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DBPD DMX31 H	DBPE,D
DBPE +3V A H	DBPE,V
DBPE +3V H	DBPA,B,E
DBPE DREG00 H	DBPH,K,F,E
DBPE DREG01 H	DBPH,K,F,E,V
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DBPE DREG03 H	DBPH,K,F,E,V
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DBPE DREG07 H	DBPE,H,K,F
DBPE DREG08 H	DBPK,H,E,F
DBPE DREG09 H	DBPK,E,H,F
DBPE DREG10 H	DBPK,H,E,F
DBPE DREG11 H	DBPK,E,F,H
DBPE DREG12 H	DBPK,H,E,F
DBPE DREG13 H	DBPK,E,F,H
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DBPE DREG15 H	DBPE,K,F,H
DBPE DREG16 H	DBPE,F,J,K
DBPE DREG17 H	DBPE,F,J,K
DBPE DREG18 H	DBPE,F,J,K
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DBPE DREG31 H	DBPE,J,F,K
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DBPF DBYTE2 EVEN H	DBPF
DBPF DBYTE3 EVEN H	DBPF
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DBPH BUFF DREG07 L	DBPH,V
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SIGNAL NAME	PAGE NUMBER(S)
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DBPH DBYTE1=0 L	DBPH,J,V,L
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DBPJ +3V H	DBPJ
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DBPJ BUFF DREG22 L	DBPJ,V
DBPJ BUFF DREG23 L	DBPV,J
DBPJ BUFF DREG24 L	DBPV,J
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DBPJ BUFF DREG27 L	DBPJ
DBPJ BUFF DREG28 L	DBPJ,V
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DBPJ BUFF DREG31 L	DBPJ
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DBPJ DBYTE3=0 L	DBPJ,V,L
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DBPK BUFF DREG01 H	DBPD,U,V,K,N
DBPK BUFF DREG02 H	DBPD,U,V,K,N
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SIGNAL NAME	PAGE NUMBER(S)
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DBPK BUFF DREG26 H	DBPU,K,C,M
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DBPK BUFF DREG31 H	DBPU,K,M,C,V
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DBPL DALK01 H	DBPS,L
DBPL DALK02 H	DBPP,R,L
DBPL DALK03 H	DBPP,R,L
DBPL DALK04 H	DBPM,N,L
DBPL DALK05 H	DBPM,N,L
DBPL DREG=0 L	DBPV,L
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DBPM DALL1 DREG30 H	DBPM,P
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DBPM DALL1 QREG26 H	DBPM,P,R
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DBPM DALL1 QREG28 H	DBPM,P
DBPM DALL1 QREG29 H	DBPM,R,P
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CHK'D. [illegible] 10-OCT-83
ENG.
DATE
BOARD LOCATION: AF3
SHEET 1 OF 1
DSKC:<MISKA>DBPY.DPW 20-SEP-83 13:28
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: DBP FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
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DBPN DALL1 DREG06 H	DBPN,P
DBPN DALL1 DREG07 H	DBPP,N
DBPN DALL1 DREG16 H	DBPP,N
DBPN DALL1 DREG17 H	DBPP,N
DBPN DALL1 DREG18 H	DBPP,N
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DBPN DALL1 DREG22 H	DBPN,P
DBPN DALL1 DREG23 H	DBPP,N
DBPN DALL1 QREG17 H	DBPR,N
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DBPN DALL1 QREG19 H	DBPR,N
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DBPN DALL1 QREG22 H	DBPN,P,R
DBPN DALL1 QREG23 H	DBPN,P,R
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DBPP DALL2 DREG16 H	DBPS,P
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SIGNAL NAME	PAGE NUMBER(S)
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DBPP DALL2 DREG31 H	DBPS,P
DBPR +3V H	DBPR,L
DBPR DALL2 QREG29 H	DBPR,S
DBPR DALL2 QREG30 H	DBPS,R
DBPR DALL2 QREG31 H	DBPS,R
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DBPS DAL03 H	DBPC,S
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SIGNAL NAME	PAGE NUMBER(S)
DBPT MDAL08 H	DBPT,C
DBPT MDAL09 H	DBPT,C
DBPT MDAL10 H	DBPT,C
DBPT MDAL11 H	DBPT,C
DBPT MDAL12 H	DBPT,C
DBPT MDAL13 H	DBPT,C
DBPT MDAL14 H	DBPT,C
DBPT MDAL15 H	DBPT,C
DBPT MDAL16 H	DBPT,D
DBPT MDAL17 H	DBPD,T
DBPT MDAL18 H	DBPT,D
DBPT MDAL19 H	DBPT,D
DBPT MDAL20 H	DBPT,D
DBPT MDAL21 H	DBPT,D
DBPT MDAL22 H	DBPT,D
DBPT MDAL23 H	DBPD,T
DBPT MDAL24 H	DBPT,D
DBPT MDAL25 H	DBPD,T
DBPT MDAL26 H	DBPT,D
DBPT MDAL27 H	DBPT,D
DBPT MDAL28 H	DBPT,D
DBPT MDAL29 H	DBPT,D
DBPT MDAL30 H	DBPT,D
DBPT MDAL31 H	DBPD,T
DBPV BR BIT0 H	DBPV
DBPV BR BIT1 H	DBPV
DBPV BR BIT2 H	DBPV
DBPV BR BIT3 H	DBPV
DBPV (25:21)=0 H	DBPV
DBPV (30:27)= 0+1 L	DBPV
DBPV (3:0)= 08+0D H	DBPV
DBPV DREG (3:0)=0 THRU 9 H	DBPV
DBPV DREG (7:0)=30 THRU 39 H	DBPV
DBPV DREG (7:4)=3 L	DBPV
DBPV MUL DREG00 H	DBPV
DBPV MUL DREG01 H	DBPV
DBPV PTE INVALID H	DBPV
DBPV QREG CLK TP L	DBPV
DBPV TP L	DBPE,V
DCPF QREG00 H	DBPN
DCPF QREG01 H	DBPN
DCPF QREG02 H	DBPN
DCPF QREG03 H	DBPN
DCPF QREG04 H	DBPN
DCPF QREG05 H	DBPN
DCPF QREG06 H	DBPN
DCPF QREG07 H	DBPN
DCPJ VA 00 (1)H	DBPB
DCPJ VA 01 (1)H	DBPB
DCPL ALU CARRY 31 L	DBPA

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DSKB:<ZAGARELLA>DBP2.DRU 28-SEP-83 11:01

DRN. T. Toomey DATE 28-SEP-83
CHK'D. DATE
ENG. DATE 10-1-83
BOARD LOCATION: AF9
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7467-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: DBP FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7467-0-DBP2	A

SIZE	CODE	NUMBER	REV.
B	DD	M7469-0-0	D

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7469-00	PART REVISON (DDP)	A1 B1 C1 C2
E-UA-M7469-0-0	4		UNIT ASSEMBLY	A B C –
K-PL-M7469-0-DBP	2		PARTS LIST	A A A –
D-CS-M7469-0-0	20		SCHEMATIC	A B C –
K-PC-M7469-0-DBC	—		PC DESIGN DATA BASE	A A A –
	—	5012599-00	ETCHED BOARD	C C C –
		5017503-01	ETCHED BOARD	– – – A1
K-PC-M7469-0-DBI	–		PC DATA BASE	– – – A
B-DD-5017503-0-0	1		DRAWING DIRECTORY	– – – A
K-CS-M7469-0-DBS	1		SUDS DATA BASE	– – – A
K-CS-M7469-0-DDPA	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPB	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPC	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPD	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPE	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPF	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPH	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPJ	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPK	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPL	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPM	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPN	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPP	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPR	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPS	1		SCHEMATIC	– – – A
K-CS-M7469-0-DDPT	1		SCHEMATIC	– – – A

NOTES:

REVISIONS				
REV.	A	B	C	D
CHG NO.	INIT.	TW002	TW003	
DATE	9/83	2/84	6/84	10/84

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DRB 126

USED ON OPTION/MODEL

DRN.		9-23-83
CHK'D		9-23-83
ENG.		10-18-83
PROJ.		10-18-83

TITLE: DATA PATH 15:08 (DDP)

SIZE	CODE	NUMBER	REV.
B	DD	M7469-0-0	D

SHEET 1 OF 2

TW

SIZE	CODE	NUMBER	REV
B	DD	M7469-0-0	D

DRAWING NO.	NO OF SHTS	PART NO.	DESCRIPTION	REVISIONS
K-PL-M7469-0-DBPI	2		PARTS LIST	– – – A
E-UA-M7469-0-1	1		UNIT ASSEMBLY	– – – A

NOTES:

REVISION HISTORY		
REV.		D
ECO NO		10/84TW003
DATE		

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USED ON OPTION/MODEL

DRN.		DATE
CHK'D		DATE
DES. ENG.		DATE
RESP. ENG.		DATE
MFG. ENG.		DATE

TITLE DATA PATH 15:08 (DDP)

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV.
B	DD	M7469-0-0	D

SHEET 2 OF 2

TM

SIZE	CODE	NUMBER	REV.
B	DD	M7467-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS	
	—	M7467-00	DATA ALIGNER (DBP)	A1	A2
E-UA-M7467-0-0	2		UNIT ASSEMBLY	A	B
K-PL-M7467-0-DBP	2		PARTS LIST	A	A
K-PC-M7467-0-DBI	—		PC DESIGN DATA BASE	A1	B
B-DD-5016072-0-0	1		DRAWING DIRECTORY	A	B
K-CS-M7467-0-DBS	—		SUDS DATA BASE	A	A
K-CS-M7467-0-DBPA	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPB	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPC	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPD	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPE	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPF	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPH	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPJ	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPK	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPL	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPM	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPN	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPP	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPR	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPS	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPT	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPU	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPV	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPW	1		SCHEMATIC	A	A
K-CS-M7467-0-DBPX	1		SCHEMATIC	A	A

NOTES:

REVISIONS			
DATE	CHG NO.	REV.	
9/83	INIT	A	
3/84	TWO01	B	

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USED ON OPTION/MODEL			

DRN. M. NORMAN	9-27-83	
CHK'D J. Karafotis	9-27-83	
ENG. Eric Mc. Thru	10-11-83	
APPD Michael J. Grygiel	10-11-83	

TITLE DATA ALIGNER (DBP)

SIZE	CODE	NUMBER	REV.
B	DD	M7467-0-0	B

SHEET 1 OF 2

DRB 126

TW

SIZE	CODE	NUMBER	REV.
B	DD	M7467-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7467-0-DBPY	1		SCHEMATIC	A A
K-CS-M7467-0-DBPZ	1		SCHEMATIC	A A
K-CS-M7467-0-DBP1	1		SCHEMATIC	A A

NOTES:

REVISIONS		
REV.	A	B
CHG NO.	INIT	TW001
DATE	9/83	3/84

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USED ON OPTION/MODEL

DRN.	M. NORMAN	9-27-83
CHK'D		9-27-83
ENG.		
PROD.		

TITLE DATA ALIGNER (DBP)

SIZE	CODE	NUMBER	REV.
B	DD	M7467-0-0	B

SHEET 2 OF 2

DRB 126

TW

COMPONENT SIDE VIEW

19.63 REF

11.91 REF

TH2

TH1

E122 E111 E100 E89 E78 E67 E57 E46 E35 E23 E11

E121 E110 E99 E88 E77 E66 E56 E45 E34 E22 E10

E120 E109 E98 E87 E76 E65 E55 E44 E33 E21 E9

E119 E108 E97 E86 E75 E64 E54 E43 E32 E20 E8

E118 E107 E96 E85 E74 E63 E53 E42 E31 E19 E7

E30 E18

E117 E106 E95 E84 E73 E62 E52 E41 E29 E17 E6

E116 E105 E94 E83 E72 E61 E51 E40 E28 E16 E5

E115 E104 E93 E82 E71 E60 E50 E39 E27 E15 E4

E114 E103 E92 E81 E70 E59 E49 E38 E26 E14 E3

E113 E102 E91 E80 E69 E58 E48 E37 E25 E13 E2

E112 E101 E90 E79 E68 E47 E36 E24 E12 E1

C7 C6 C5 C4 C3 C2 C1

32 33 1

digital

TITLE CPU DATA

SIZE C DWG NO 54-15000-01 REV C

SCALE 1/2 NEXT HIGHER ASSY

SHT 1 OF 1

ETCH REV N

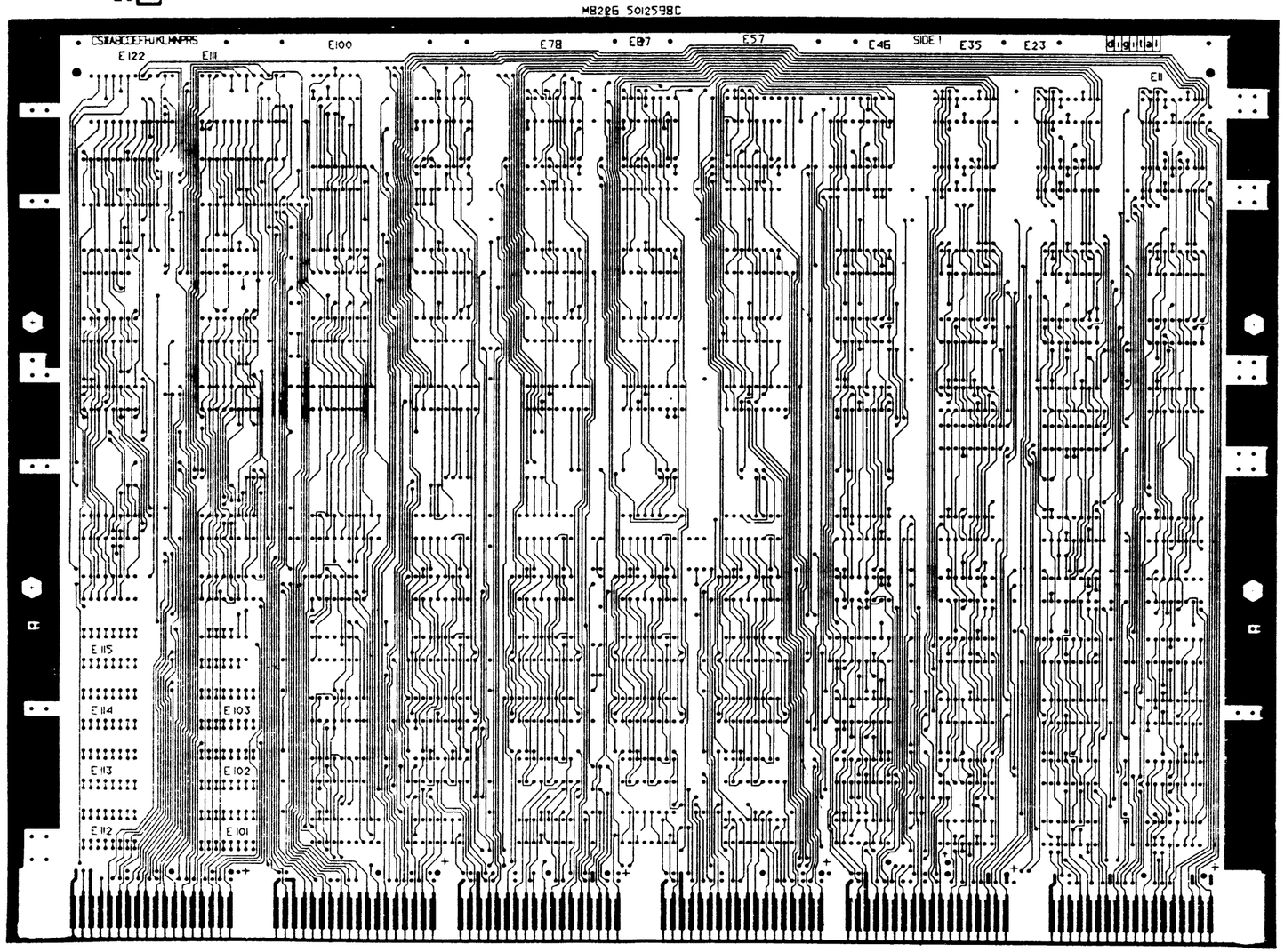
NOTES
1. ALL SOLDERMENT TO BE LEAD FREE
2. FINISH TO BE ENIG

SIZE | TRIS | N/A | STEP | TIMES
IN PROM | TRIS | N/A | STEP | TIMES

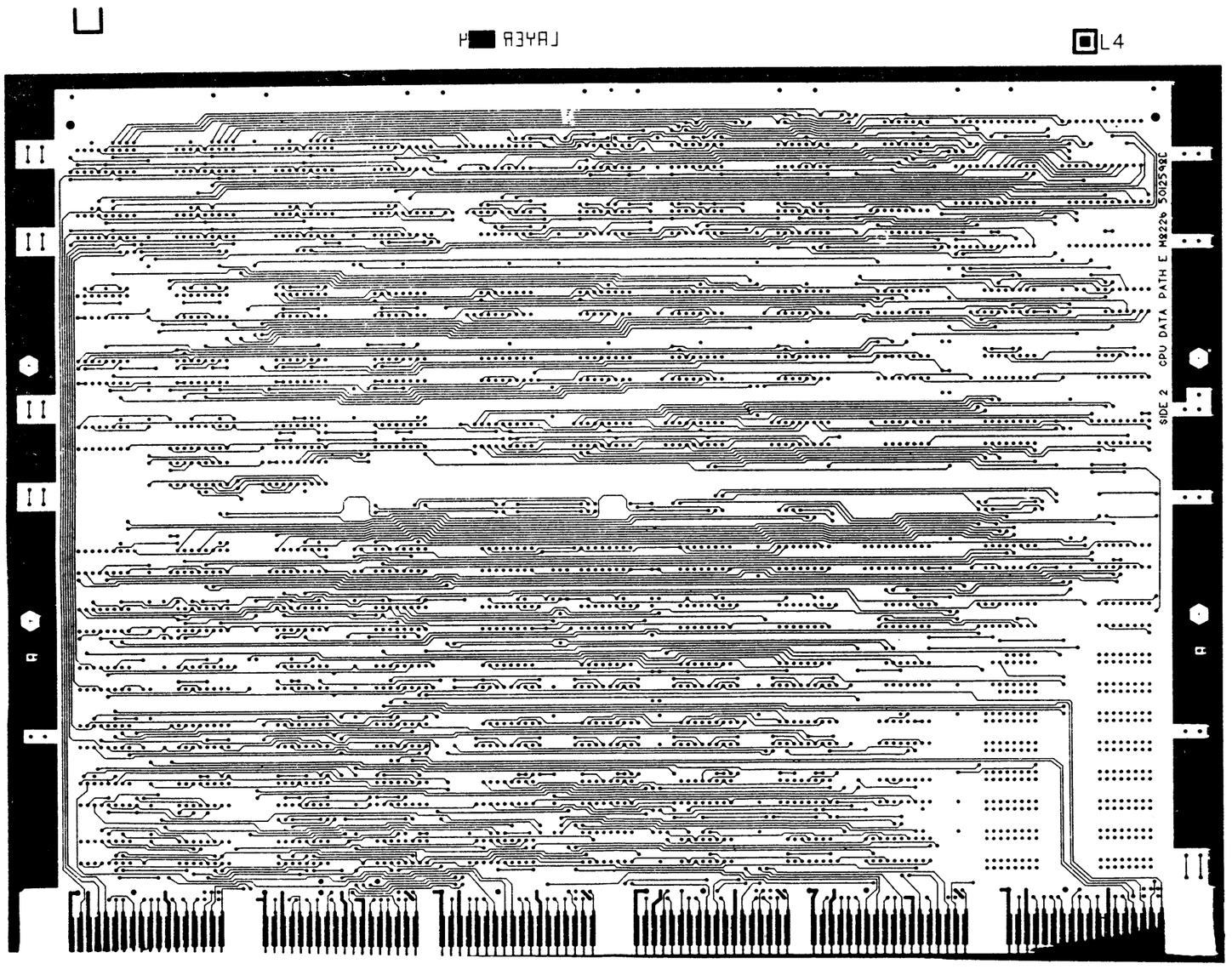
AM7400-0

L1

LAYER 1



TITLE: CPU DATA PATH E	SIZE: E	CODE: UA	NUMBER: M7468-0-0	REV: B
SCALE:	SHEET: OF 4	DIST:		



TITLE	SIZE	DWG NUMBER	REV
CPU DATA PATH E	E LA	M7468-0-0	B
SCALE 2:1	SHEET 3 OF 4		

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REWORK INSTRUCTIONS ECO #1

COMPONENT DELETED:
1-1 REMOVE R17 (680 OHM RESISTOR)
1-2 REMOVE R12 (330 OHM RESISTOR)
1-3 REMOVE C41 (.047 UF CAP)

WIRE ADD:
1-4 PTH CONNECTED TO I/O PIN F01 TO PTH BELOW AND CONNECTED TO E84 PIN 7

REVISION HISTORY

DATE	ECO NUMBER	REV

TITLE: CPU DATA PATH E

DOCUMENT NUMBER: EUA M7468-0-0 B

SCALE: SHEET 4 OF 7

M7468-0-0 B

AUTOMATED BY PRTLST.5R(55) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 / VARIATION REVISION LEVEL: B1	REFERENCE DESIGNATOR
1	1	E-MD-5012598-0-0	5012598-00		M8226	1	
2	2		1012084-01		8 MFD 25V +75-10% AL EL	7	C1-C7
3	3		1012784-00		.047 MFD 50V +80-20% CER	36	C8-C40,C42-C44
4	4		1300247-00		120.0 .25 W 5.0 % CF	4	R1,R3,R6,R8
5	5		1300250-00		150.0 .25 W 5.0 % CF	4	R2,R4,R5,R7
6	6		1300295-00		330.0 .25 W 5.0 % CF	4	R9-R11,R13
7	7		1301424-00		680.0 .25 W 5.0 % CF	4	R14-R16,R18
8	8	BLANK			*** THIS ITEM IS NOT USED ***	-	
9	9		1921325-01		74F181 ALU,4-BIT	4	E110,E111,E121,E122
10	10		1921307-01		74F04 HEX INVERTER	5	E79,E99,E100,E120,E104
11	11		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	2	E91,E92
12	12		1921321-01		74F158 MUX,QUAD,2-IN	4	E48,E58,E69,E80
13	13		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	4	E5,E16,E28,E40
14	14		1921319-01		74F153 MUX,DUAL,4-IN	16	E1,E2,E14,E15,E26,E27,E36,E37,
						CONT	E105-E108,E116-E119
15	15		1921320-01		74F157 MUX,QUAD,2-IN	12	E6,E7,E17,E19,E29,E31,E41,E42,
						CONT	E51,E61,E72,E83
16	16		1921318-01		74F151 MUX,8-IN	16	E8,E9,E20,E21,E32,E33,E43,E44,
						CONT	E54,E55,E64,E65,E75,E76,E86,E87
17	17		1921720-01		10H125 TRANSLATOR ECL TO TTL	2	E47,E68
18	18		1921330-01		74F257 MUX,QUAD,2-IN	8	E3,E4,E38,E39,E57,E67,E78,E89
19	19		1921316-01		74F138 DECODER/DEMUX,1-OF-8	2	E18,E30
20	20		1911712-00		74S51 AND-OR GATE-INVERT D	1	E93
21	21		1911983-00		74S133 NAND GATE-POSITIVE 1	1	E98
22	22		1921326-01		74F182 CARRY LOOKAHEAD GEN.	1	E109
23	23		1921308-01		74F08 AND GATE,QUAD,2-IN	1	E94
24	24		1912586-01		85S68A REGISTER,16x4 EDGE T	12	E10,E11,E22,E23,E34,E35,E45,E46,
						CONT	E53,E63,E74,E85
25	25		1921329-01		74F253 MUX,DUAL,4-IN	1	E97
26	26		1921334-01		74F350 SHIFTER,4-BIT	4	E56,E66,E77,E88

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A
KM	M7468-TW001	B

BASIC PART NO: M7468

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: S.MANSOR — DATE: 17-OCT-83

CHK'D: T.MCCULLOUGH — DATE: 17-OCT-83

DES.ENG: KEITH MCLAREN — DATE: 17-OCT-83

RESP.ENG.: KEITH MCLAREN — DATE: 17-OCT-83

MFG.ENG.: M.KRYSAK — DATE: 17-OCT-83

ASSEMBLY NUMBER: E-UA-M7468-0-0

TOP DOCUMENT NUMBER: B-DD-M7468-0-0

D I G I T A L

TITLE PARTS LIST
D.E.P.

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M7468-0-DBP	B

RELEASE DATE: 16-JUL-84

FILE NAME: Z3947B.PLS

EDIT #: 3

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AUTOMATED BY PRTLST.5R(55) — P A R T S L I S T — SHEET A2 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 / VARIATION REVISION LEVEL: B1	REFERENCE DESIGNATOR
27	27		1912746-01		74S37-1BUFFER-GATE	1	E96
28	28		1921322-01		74F161 BINARY COUNTER,PRESE	12	E49,E50,E59,E60,E70,E71,E81,E82,
						CONT	E52,E62,E73,E84
29	29		1921008-01		74F240 BUFFER/LINE DRIVER,I	1	E90
30	30		1921009-01		74F241 BUFFER/LINE DRIVER,N	1	E95
31	31		1913788-00		26S10 TRANSCEIVER,BUS,QUA	4	E12,E13,E24,E25
32	32		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
33	33		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
34	34		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	

35 NOTE: SPARE I.C. LOCATIONS ARE E101-E103,E112-E115

D I G I T A L	TITLE D.E.P.	SECTION A OF A	SIZE K	CODE PL	DOCUMENT NUMBER M7468-0-DBP / REV B

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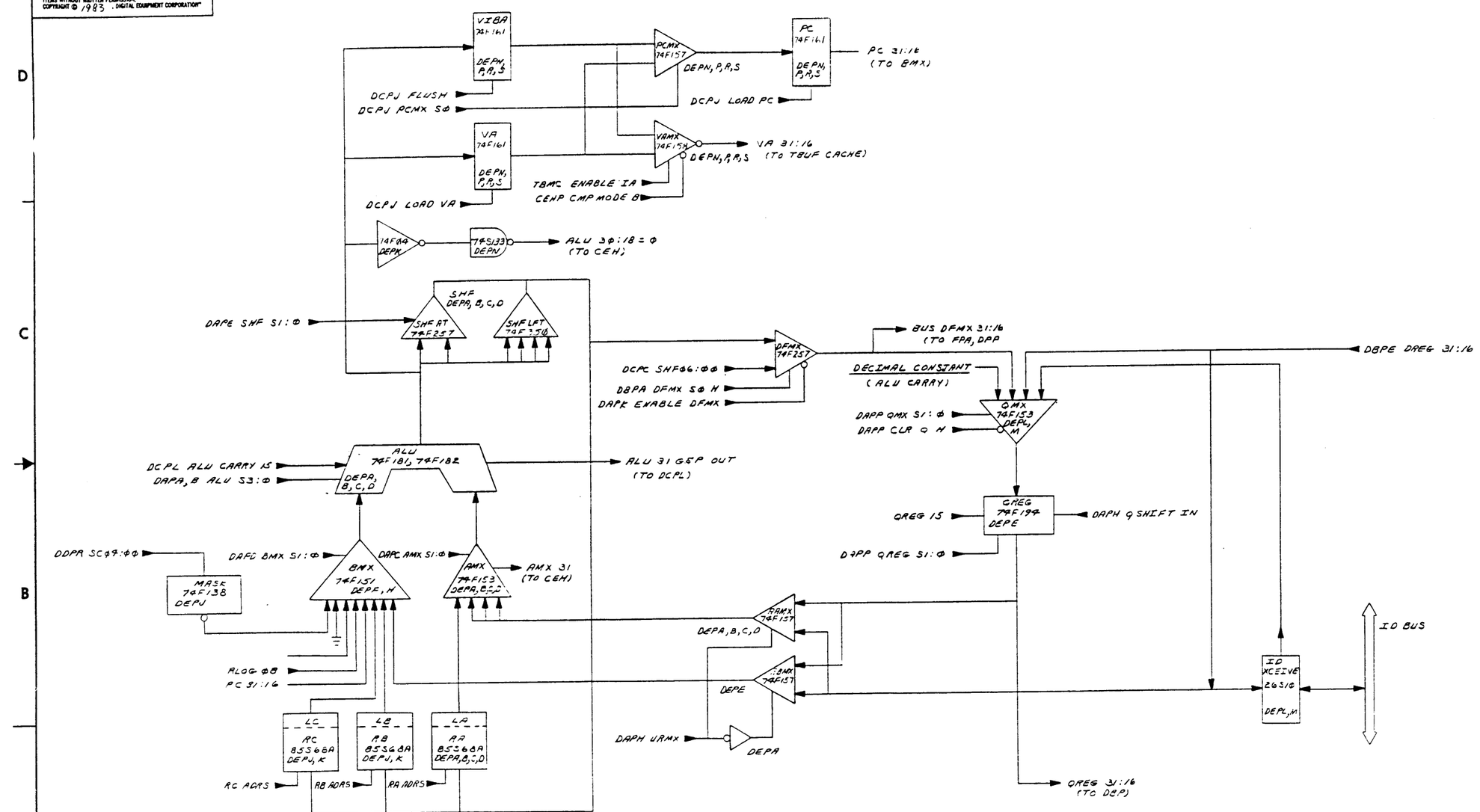

(BLOCK DIAGRAM) (SLOT 10)

REVISIONS			
CHK	CHANGE NO.	REV	
	M7368-TW001	B	
K. MCLAREN 7 Jul 84			

DRN		FIRST USED ON
CHK'D		digital
ENG	10-Nov-83	TITLE
PROJ. ENGR	10-Nov-83	DATA PATH 31:16
PROG	10-Nov-83	
NEXT HIGHER ASSY.		
SCALE		SIZE D CODE CS NUMBER M7468-0-0 REV. B
SHEET 1 OF 17		DIST

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RAMX-74F ST		
STB	S0	RAMX
H	X	FNTN
L	L	DREG
L	H	DREG

RA-BS,BSA				
LE	WE	CLK	RA FUNCT	
L	H	↑	NO-OP	
L	L	▲	STORE RA←SHF	
H	L	↑	LATCH LA←RA	

74F153			
STB	S1	S0	F
H	X	X	L
L	L	L	A
L	L	H	B
L	H	L	C
L	H	H	D

DEPA ALU 20 CIN L (DEPB)
DEPL ALU CARRY 15 L — EF2 13
74F182 E122 COUTX CIN G0 P0
EM1
BUS ALU BYTE 2,3 A+B H
DEPA ALU COUT (19:16) L (DEPL)
74F181 E122 ALU (19:16)
DEPF BMX 19 H
DEPF BMX 18 H
DEPF BMX 17 H
DEPF BMX 16 H
DAPQ ALU B3:2 S3 H — EV2
DAPA ALU B3:2 S2 H — EU2
DAPB ALU B3:2 S1 H — ES1
DAPB ALU B3:2 S0 H — ER2
DAPB ALU MODE H — ER1
DCPL ALU CARRY 15 L — (EF2)

FD2
DAPC ZEXT B3:2 H
74F153 E117 AMX
DEPE QREG 9 H — AK2 11
DBPE DREG 9 H
DEPE QREG 8 H — AK1 2
DBPE DREG 18 H
DEPE QREG 7 H — AU2 14
DBPE DREG 17 H
DEPE QREG 16 H — AF1 5
DBPE DREG 6 H
74F157 E6 RAMX
STB S2
DEPA RAMXS2 H
DEPP LATCH LA (1) H
DEPS CPT2A L
BS1
DAPK RA RB WRT B 2 L
8S68A E85 RA(9:16)
WE CLK LE OE
DEPA SHF 19 H
DEPA SHF 18 H
DEPA SHF 17 H
DEPA SHF 16 H
DEPB AMX SXT15 H
DEPA AMX SXT07 H
DAPC AMX B3:2 S1 H — FE1
DAPC AMX B3:2 S0 H — FE1
DAPL RA ADRS3 H — BP2
DAPL RA ADRS2 H — BP1
DAPL RA ADRS1 H — BM1
DAPL RA ADRS0 H — BM2

DEPB ALU21 H
DEPB ALU 20 H
74F257 E89 SHF [R]
DEPA SHF RT EN L
DEPA SHF S0 H
DEPA ALU 19 H (DEPB,K,N)
DEPA ALU 18 H (DEPB,K,N)
BD2 DEPA ALU 17 H (DEPB,DDPB,DEPN,CEHA,CEHS)
BE2 DEPA ALU 16 H (DDPB,DEPN,CEHA,CEHS)
74F350 E88 SHF [L]
DDPB ALU 15 H — EL2 3
DDPB ALU 14 H — EL1 2
DDPB ALU 13 H — EK2 1
DAPE SHF LEFT S1 H
DEPA SHF S0 H
DEPA SHF LEFT EN L

FJ2 DEPA SHF19 H (DDPC,DEPA,J,L)
FM2 DEPA SHF18 H (DDPC,DEPA,J,L)
FU2 DEPA SHF17 H (DDPC,DEPA,J,L)
ED2 DEPA SHF16 H (DCPC,DEPA,J,L)

DAPE SHF RT L — FK1 13
74F244 E120
74S371 E96
DEPA SHF RT EN L (DEPA,B,C,D)
DEPS CPT Ø L
DEPA SHF LFT EN L (DEPA,B,C,D)

DAPE SHF S0 H — FA2
74F241 E95
DEPA SHF S0 H (DEPA,B,C,D)

DCPB RAMXØ7 H — FE2
DEPA +3.8 H
DEPA AMX SXT Ø7 H (DEPA,B,C,D)

DAPH RBMX (..) H — DD
DEPA RBMX S0 H (DEPE)

DEPA +3V B H
74F08 E94
DEPA RAMX S0 H (DEPA,B,C,D)

+5V
R11 330Ω
R14 680Ω
C38 .047
DEPA +3VC H (DEPE,S,M)

+5V
R9 330Ω
R16 680Ω
C40 .047
DEPA +3VA H (DEPA,N,F,R,S)

+5V
R10 330Ω
R15 680Ω
C39 .047
DEPA +3VB H (DEPE,N,F,R)

+5V
R13 330Ω
R18 680Ω
C42 .047
DEPA +3VE H (DEPD)

(RA, RAMX, ALU, SHF 19:16) (SLOT 10)

REVISIONS		
CHK	CHANGE NO	REV
	1	

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPA)	D	CS	M7468-0-0	B
SCALE NONE	SHEET 2 OF 17		DIST.	

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SHF RT MUX - 74F257

OE	SØ	FN
H	X	HI-Z
L	L	AN, SHF [R1]
L	H	BN, SHF [R2]

SHF LFT MUX - 74F350

OE	S1	SØ	YN
H	X	X	HI-Z
L	L	L	I_3-I_0, NO SHIFT
L	L	H	I_2-I_{-1}, SHF [L1]
L	H	L	I_1-I_{-2}, SHF [L2]
L	H	H	I_0-I_{-3}, SHF [L3]

REVISIONS		
CHK	CHANGE NO	REV

(RA, RAMX, AMX, SHF 23:20) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 3:1:6 (DEPE)	D	CS	M7468-0-0	B
SCALE NONE SHEET 3 OF 17	DIST.			

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RAMX-74F257

STB	S0	PIN
H	L	-
-	-	DREG
L	H	DREG

AMX-74F257

STB	S1	S0	PIN
H	X	X	PIN-FF
-	L	L	A
-	L	H	RAMX
L	H	L	AMX SHIFT -1
-	H	H	AMX SHIFT 0

DEPC ALU 28 CIN L (DEPD)

DEPC ALU COUT (27:24) L (DEPM)

(EM1) BUS ALU BYTE 2,3 A=B H

DAPA 2EXT B3:2 H (EC2)

DEPE DREG 27 H
DBPE DREG 27 H
DEPE DREG 26 H
DBPE DREG 26 H
DEPE DREG 25 H
DBPE DREG 25 H
DEPE DREG 24 H
DBPE DREG 24 H
(BM1)
74F157 E41 RAMX (27:24)
STB S0

DEPA RAMX S0 H

DEPP LATCH LA (D) H
DEPS CPT2A L
(BS1)
DAPK RA RB WRT B2 L
8556BA E43 RB (27:24)
WE CLK LE CE
DEPC SHF 27 H
DEPC SHF 26 H
DEPC SHF 25 H
DEPC SHF 24 H
A3 A2 A1 A0

DAPL RA ADRS3 H (BP2)
DAPL RA ADRS2 H (BP1)
DAPL RA ADRS1 H (BN1)
DAPL RA ADRS0 H (BM2)

74F153 E41B AMX (27:24)
STB1 STB0
DEPB AMX SXT 15 H
DEPA AMX SXT 07 H
DAPC AMX B3:2 S1 H (EE1)
DAPC AMX B3:2 S0 H (ED1)
S1 S0

DEPH BMX 27 H
DEPH BMX 26 H
DEPH BMX 25 H
DEPH BMX 24 H
74F181 E121 ALU (27:24)
A B COUT4 G P
S3 S2 S1 S0 M CIN

DAPA ALU B3:2 S3 H (EV2)
DAPA ALU B3:2 S2 H (EU2)
DAPB ALU B3:2 S1 H (ES1)
DAPB ALU B3:2 S0 H (ER2)
DAPB ALU MODE H (ER1)
DEPB ALU 24 CIN L

DEPD ALU 29 H
DEPD ALU 28 H
74F257 E67 SHFCRT (27:24)
DEPA SHF RT EN L
DEPA SHF S0 H
DEPC ALU 27 H (DEPD,K,R)
DEPC ALU 26 H (DEPD,K,R)
DEPC ALU 25 H (DEPB,D,K,R)
DEPC ALU 24 H (DEPB,K,R)

DEPC SHF27 H (DEPK,M)
DEPC SHF26 H (DEPK,M)
DEPC SHF25 H (DEPK,M)
DEPC SHF24 H (DEPK,M,DDPC)

74F257 E66 SHF(L) (27:24)
DEPB ALU 23 H
DEPB ALU 22 H
DEPB ALU 21 H
SI S0 OE
(FF2) DAPE SHF LFT SI H
DEPA SHF S0 H
DEPA SHF LEFT EN L

RA-8556BA

LE	WE	CLK	RA FUNCT
H	-	X	NO-OP
H	L	↑	STORE, PIN=SHF
L	H	↑	LATCH, LOAD H

ALU-74F181

SELECTION				ACTIVE HIGH DATA		
				M=H; LOGIC FUNCTIONS	M=L; ARITHMETIC OPERATIONS	
S3	S2	S1	S0		CnEH (NO CARRY)	CnEL (WITH CARRY)
L	L	L	L	F=A	F=A	F=A PLUS 1
L	L	L	H	F=A+B	F=A+B	F=(A+B) PLUS 1
L	L	H	L	F=AB	F=A+B	F=(A+B) PLUS 1
L	L	H	H	F=0	F=MINUS 1 (2'S COMPL)	F=ZERO
L	H	L	L	F=AB	F=A PLUS AB	F=A PLUS AB PLUS 1
L	H	L	H	F=B	F=(A+B) PLUS AB	F=(A+B) PLUS AB PLUS 1
L	H	H	L	F=A⊕B	F=A MINUS B MINUS 1	F=A MINUS B
L	H	H	H	F=AB	F=AB MINUS 1	F=AB
H	L	L	L	F=A+B	F=A PLUS AB	F=A PLUS AB PLUS 1
H	L	L	H	F=A+B	F=A PLUS B	F=A PLUS B PLUS 1
H	L	H	L	F=B	F=(A+B) PLUS AB	F=(A+B) PLUS AB PLUS 1
H	L	H	H	F=AB	F=AB MINUS 1	F=AB
H	H	L	L	F=1	F=A PLUS A*	F=A PLUS A PLUS 1
H	H	L	H	F=A+B	F=(A+B) PLUS A	F=(A+B) PLUS A PLUS 1
H	H	H	L	F=A+B	F=(A+B) PLUS A	F=(A+B) PLUS A PLUS 1
H	H	H	H	F=A	F=A MINUS 1	F=A

(RA, RAMX, AMX, ALU, SHF 27:24) (SLOT Ø)

REVISIONS

CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPC)	D	CS	M7468-0-0	E
SCALE NONE SHEET 4 OF 17	DIST.			

DIST CODE D CS NUMBER M7468-0-0 REV E

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EMI
BUS ALU BYTE 2,3 A-B H
DEPD ALU COUT (31:28) L (DEPM)
EFI
DEPD ALU 31:28 P H (DCPL)
EEI
DEPD ALU 31:28 G H (DCPL)

POUT GOUT
74F182
E109
P3 G3

SHF RT MUX-74S257

OE	SØ	FN
H	X	HI-Z
L	L	AN, SHF [R]
L	H	BN, SHF [R]

(FDC)
DAPC ZEXT B3:2 H

DEPE QREG31 H
DBPE DREG31 H
DEPE QREG30 H
DBPE DREG30 H
DEPE QREG29 H
DBPE DREG29 H
DEPE QREG28 H
DBPE DREG28 H
(EF1)
(EE1)
(ED2)
(EC2)
74F157
E25
RAMX (31:28)
STB SØ
DEPA RAMXSØ H

DEPP LATCH LA (I) H
DEPS CPT2A L
(BS1)
DAPK RA RB WRT B 2 L
WE CLK LE OE
DEPD SHF31 H
DEPD SHF30 H
DEPD SHF29 H
DEPD SHF28 H
85S68A
E53
RA (31:28)
A3 A2 A1 A0
DAPL RA ADRS3 H
DAPL RA ADRS2 H
DAPL RA ADRS1 H
DAPL RA ADRSØ H
(BF3)
(BF2)
(BF1)
(BFØ)

STB1 STBØ
74F153
E107
AMX (29:28)
DEPB AMX SXTI5 H
DEPA AMX SXTØ7 H
(FE1)
DAPC AMX B3:2 S1 H
(FD1)
DAPC AMX B3:2 SØ H

DEPH BMX31 H
DEPH BMX30 H
DEPH BMX29 H
DEPH BMX28 H
74F181
E110
ALU (31:28)
A=B COUT P G
S3 S2 S1 SØ M CIN
DAPA ALU B3:2 S3 H
(EV2)
DAPA ALU B3:2 S2 H
(EU2)
DAPB ALU B3:2 S1 H
(ES1)
DAPB ALU B3:2 SØ H
(ER2)
(ER1)
DAPB ALU MODE H
DEPC ALU 28 CIN L

74F24
E120
BCI
DEPD AMX 31 L (CEHA, CEHS)

DAPE SHF [R] ALU 31 H
FPI
74F24
E124
74F08
E94
DEPA SHF SØ H

DEPD ALU 28 H (DEPC, K, S)
DEPD ALU 29 H (DEPC, K, S)
DEPD ALU 30 H (DEPK, S)
DEPD ALU 31 H (DEPK, S)

74F257
E57
SHF[R] (29:28)
DEPD SHF29 H (DEPK, M)
DEPD SHF28 H (DEPK, M)
DEPA SHF SØ H
DEPA SHF RT EN L

STB1 STBØ
DEPA +3VE H
DAPH SHF USI INPUT H
CT2
DEPA +3VE H
74F253
E97
SHF[R] (31:30)
DAPE SHF [R] ALU 31 H
FPI
DEPD SHF31 H (DEPK, M)
DEPD SHF30 H (DEPK, M)

74F350
E56
SHF[L] (31:28)
DEPC ALU 27 H
DEPC ALU 26 H
DEPC ALU 25 H
DAPE SHF LFT SI H
(FF2)
DEPA SHF SØ H
DEPA SHF LFT EN L

SHF RT MUX-74F253

STB 1, Ø	S1	SØ	SHF B1	SHF BØ
H	X	X	HI-Z	HI-Z
L	L	L	USI INPUT	ALU B1
L	L	H	USI INPUT	USI INPUT
L	H	L	ALU B1	ALU B1
L	H	H	EN=H	EN=H

SHF LFT MUX-74F350

OE	S1	SØ	YN
H	X	X	HI-Z
L	L	L	I_3-I_0, NO SHIFT
L	L	H	I_2-I_{-1}, SHF [L1]
L	H	L	I_1-I_{-2}, SHF [L2]
L	H	H	I_0-I_{-3}, SHF [L3]

REVISIONS		
CHK	CHANGE NO	REV

(RA, RAMX, AMX, ALU, SHF 31:28) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV
DATA PATH 31:16 (DEPD)	D	CS	M7468-0-0	B
SCALE NONE	SHEET 5 OF 17		DIST	

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DAPA Ø SHIFT INPUT H

DBPM QMX31 H
DBPM QMX30 H
DBPM QMX29 H
DBPM QMX28 H

DEPA +3VC H
DEPE QREG27 H
DEPE QREG28 H
DAPP QREG S0 H
DAPP QREG S1 H

DBPM QMX27 H
DBPM QMX26 H
DBPM QMX25 H
DBPM QMX24 H

DEPA +3VC H
DBPV QREG CLK TP L
DEPE QREG25 H

DBPE QREG31 H
DBPE QREG30 H
DBPE QREG29 H
DBPE QREG28 H

DEPE QREG31 H (DAPM,DEPD,DBPM,DBPV)
DEPE QREG30 H (DEPD,DBPM)
DEPE QREG29 H (DEPD,DBPM)
DEPE QREG28 H (DEPD,DBPM)

DBPE QREG27 H
DBPE QREG26 H
DBPE QREG25 H
DBPE QREG24 H

DEPE QREG27 H (DEPD,DBPM)
DEPE QREG26 H (DEPD,DBPM)
DEPE QREG25 H (DEPD,DBPM)
DEPE QREG24 H (DEPD,DBPM)

DEPA RBMX Ø2 H

DBPE QREG24 H

DEPL QMX31 H
DEPL QMX30 H
DEPL QMX29 H
DEPL QMX28 H

DEPA +3VC H
DEPE QREG19 H
DEPE QREG21 H
DAPP QREG S0 H
DAPP QREG S1 H

DEPL QMX19 H
DEPL QMX18 H
DEPL QMX17 H
DEPL QMX16 H

DEPA +3VC H
DBPV QREG CLK TP L
DDPF QREG16 H

DBPE QREG23 H
DBPE QREG22 H
DBPE QREG21 H
DBPE QREG20 H

DEPE QREG23 H (DEPB,DBPN)
DEPE QREG22 H (DEPB,DBPN)
DEPE QREG21 H (DEPB,DBPN)
DEPE QREG20 H (DEPB,DBPN)

DBPE QREG19 H
DBPE QREG18 H
DBPE QREG17 H
DBPE QREG16 H

DEPE QREG19 H (DEPA,DBPN)
DEPE QREG18 H (DEPA,DBPN)
DEPE QREG17 H (DEPA,DBPN)
DEPE QREG16 H (DEPA,DBPN)

DEPA RBMX Ø3 H

DEPE RBMX31 H (DEPH)
DEPE RBMX30 H (DEPH)
DEPE RBMX29 H (DEPH)
DEPE RBMX28 H (DEPH)

DEPE RBMX27 H (DEPH)
DEPE RBMX26 H (DEPH)
DEPE RBMX25 H (DEPH)

DEPE RBMX23 H (DEPF)
DEPE RBMX22 H (DEPE)
DEPE RBMX21 H (DEPF)
DEPE RBMX20 H (DEPF)

DEPE RBMX19 H (DEPF)
DEPE RBMX18 H (DEPF)
DEPE RBMX17 H (DEPF)
DEPE RBMX16 H (DEPF)

QREG-74F 94

CLR	CLK	S1	S0	FUNCTION
L	X	X	X	CLR
H	↑	H	H	SHIFT LEFT (QA→QB→QC→QD)
H	↑	L	H	SHIFT RIGHT (QB→QC→QD→QA)
H	↑	H	L	LOAD (DA→QA, DB→QB, DC→QC, DD→QD)
H	↑	L	L	HOLD

RBMX-74F 87

STB	S0	RBMX
H	X	HOLD
↑	L	QREG
↑	H	QREG

REVISIONS

CHR	CHANGE NO	REV

(QREGISTER E RBMX 31:16) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPE)	D	CS	M7469-0-0	E

SCALE NONE | SHEET 6 OF 17 | DIST

M7468-0-0 REV B

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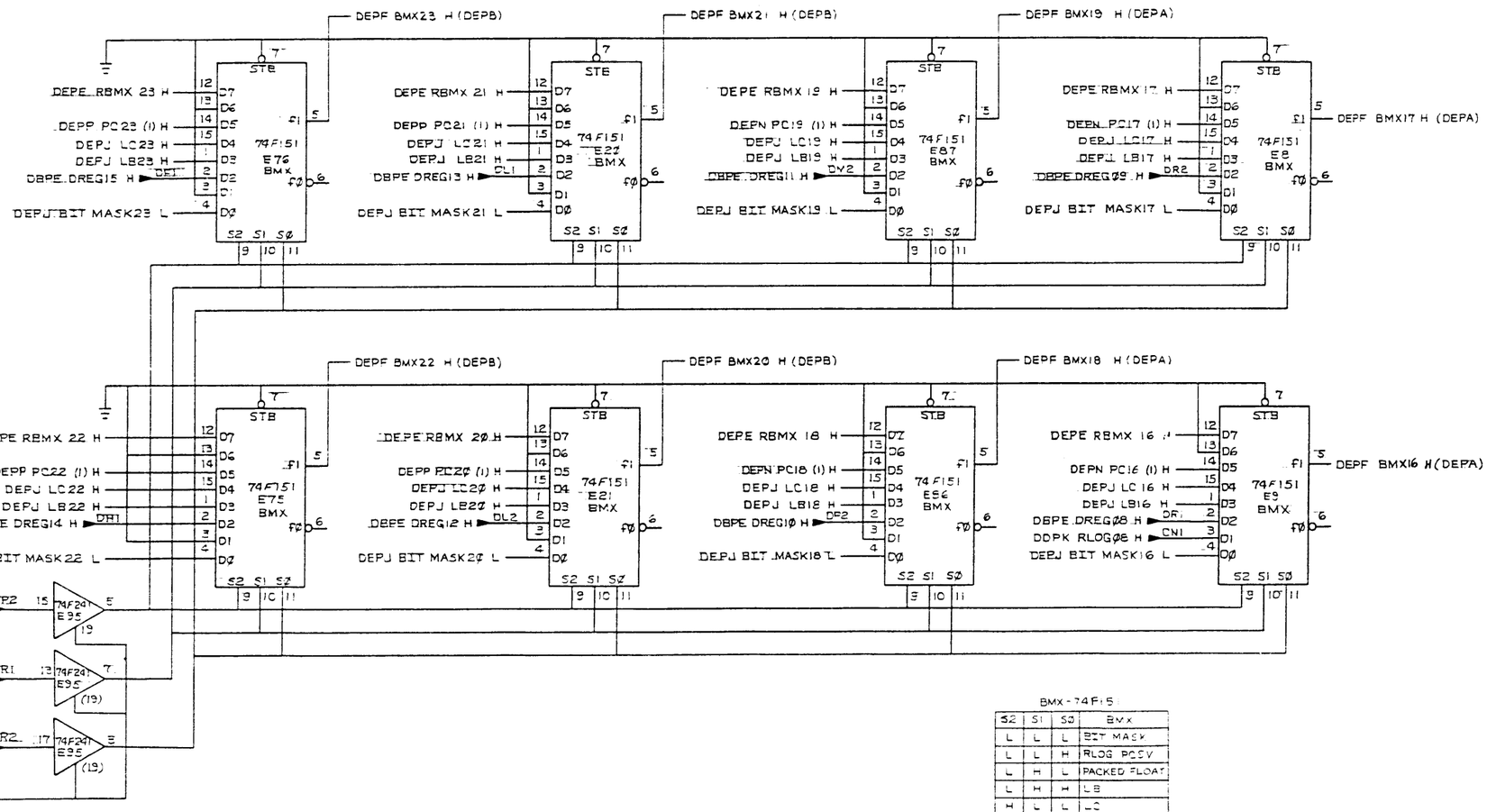

BMX-74F151

S2	S1	S0	BMX
L	L	L	BIT MASK
L	L	H	RLOG PCSV
L	H	L	PACKED FLOAT
L	H	H	LB
H	L	L	LC
H	L	H	PC
H	H	L	Z
H	H	H	RBMX

REVISIONS		
CHK	CHANGE NO.	REV.
	1	

TITLE	(BMX 23:16) DATA PATH 31:16 (DEPF)	(SLOT 10)	
SIZE	CODE	NUMBER	REV.
D	CS	M7468-0-0	B
SCALE	NONE	SHEET 7 OF 17	DIST.

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DEPH BMX31 H (DEPD)

DEPE RBMX31 H
DEPS PC31 (1) H
DEPK LC31 H
DEPK LB31 H
DBPE DREG22 H (AA2)
DEPJ BIT MASK31 L

74F151 E63 BMX
STB

DEPM BMX31 L (DEHA,S)

DEPH BMX29 H (DEPD)

DEPE RBMX29 H
DEPR PC29 (1) H
DEPK LC29 H
DEPK LB29 H
DBPE DREG20 H (AC2)
DEPJ BIT MASK29 L

74F151 E62 BMX
STB

DEPH BMX27 H (DEPC)

DEPE RBMX27 H
DEPR PC27 (1) H
DEPK LC27 H
DEPK LB27 H
DBPE DREG19 H (AK2)
DEPJ BIT MASK27 L

74F151 E53 BMX
STB

DEPH BMX25 H (DEPC)

DEPE RBMX25 H
DEPR PC25 (1) H
DEPK LC25 H
DEPK LB25 H
DBPE DREG17 H (AJ2)
DEPJ BIT MASK25 L

74F151 E43 BMX
STB

DEPH BMX30 H (DEPD)

DEPE RBMX30 H
DEPS PC30 (1) H
DEPK LC30 H
DEPK LB30 H
DBPE DREG22 H (AM2)
DEPJ BIT MASK30 L

74F151 E64 BMX
STB

DEPH BMX28 H (DEPD)

DEPE RBMX28 H
DEPS PC28 (1) H
DEPK LC28 H
DEPK LB28 H
DBPE DREG20 H (AL2)
DEPJ BIT MASK28 L

74F151 E55 BMX
STB

DEPH BMX26 H (DEPC)

DEPE RBMX26 H
DEPR PC26 (1) H
DEPK LC26 H
DEPK LB26 H
DBPE DREG18 H (AK1)
DEPJ BIT MASK26 L

74F151 E54 BMX
STB

DEPH BMX24 H (DEPC)

DEPE RBMX24 H
DEPR PC24 (1) H
DEPK LC24 H
DEPK LB24 H
DBPE DREG16 H (AF1)
DEPJ BIT MASK24 L

74F151 E44 BMX
STB

DAPD BMX S2 H (FFP2)
DAPD BMX S1 H (FFP1)
DAPD BMX S0 H (FFP0)

74FC241 E35

SEL 31:24
(SLOT 10)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPH)	D	05	M7468-0-0	B
SCALE NONE	SHEET 8 OF 17	DIST		

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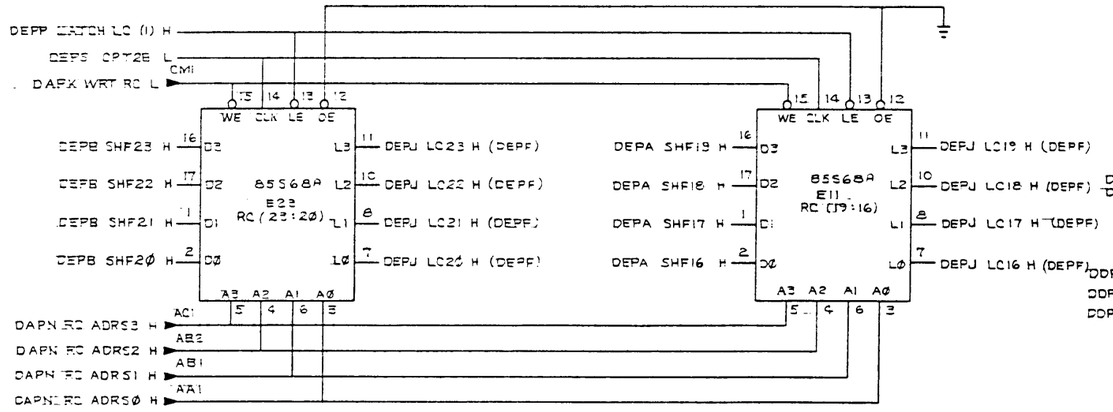
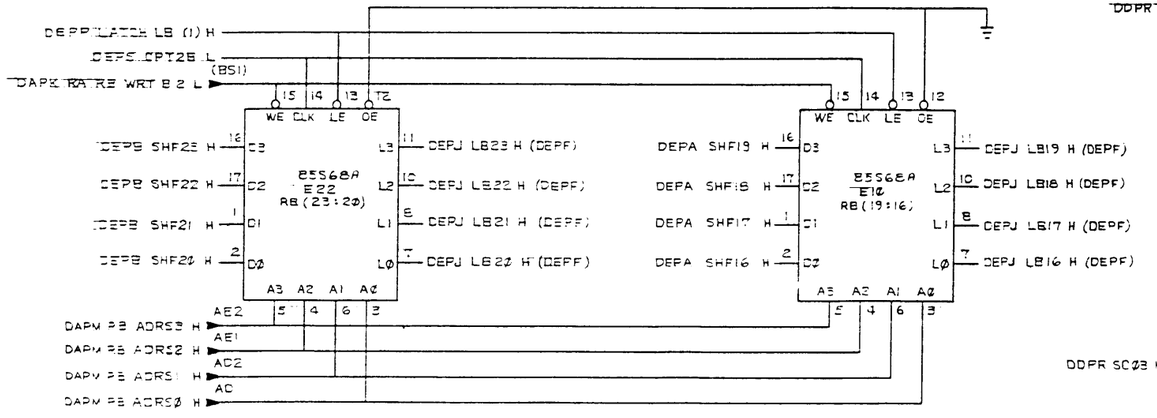
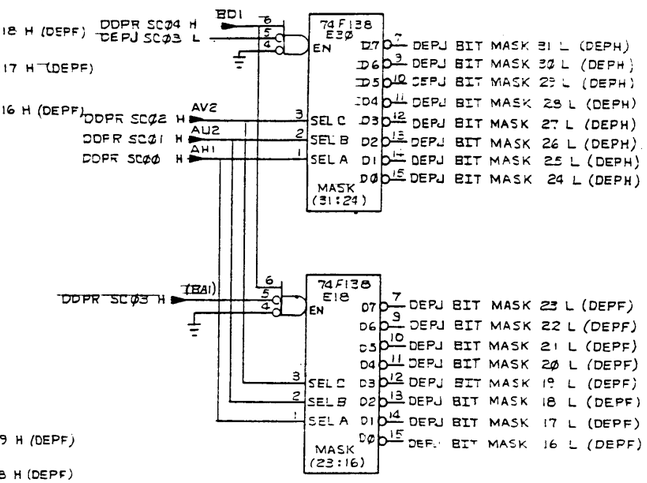
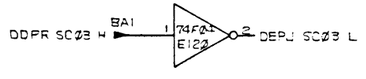




RX-85568A

LE	WE	CLK	FUNCT
H	H	X	NO OP
H	L	↑	STORE, RN←SHF
↓	H	X	LATCH, LA←(RN)





BIT MASK-74F138

INPUTS					OUTPUTS							
ENABLE		SELECT										
G1	G2*	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
X	H	X	X	X	H	H	H	H	H	H	H	H
L	X	X	X	X	H	H	H	H	H	H	H	H
H	L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	H	H	L	H	H	H	H	H	H
H	L	L	H	L	H	H	L	H	H	H	H	H
H	L	L	H	H	H	H	H	L	H	H	H	H
H	L	H	L	L	H	H	H	H	L	H	H	H
H	L	H	L	H	H	H	H	H	H	L	H	H
H	L	H	H	L	H	H	H	H	H	H	L	H
H	L	H	H	H	H	H	H	H	H	H	H	L

*NOTE:
G1 = G2 + G2B

REVISIONS		
CHK	CHANGE NO.	REV.

(RB, RC 23:16 & BIT MASK) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPJ)	D	CS	M7468-0-0	B
SCALE NONE	SHEET 9 OF 17	DIST.		

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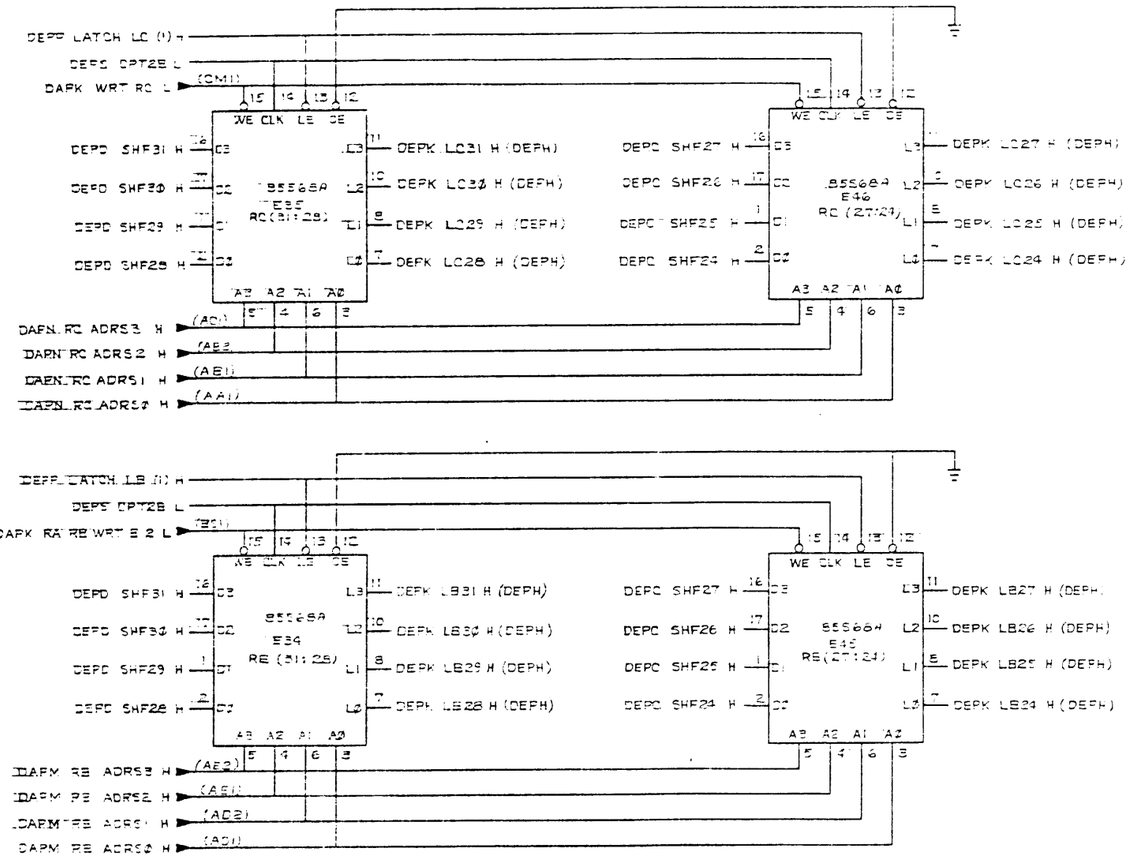
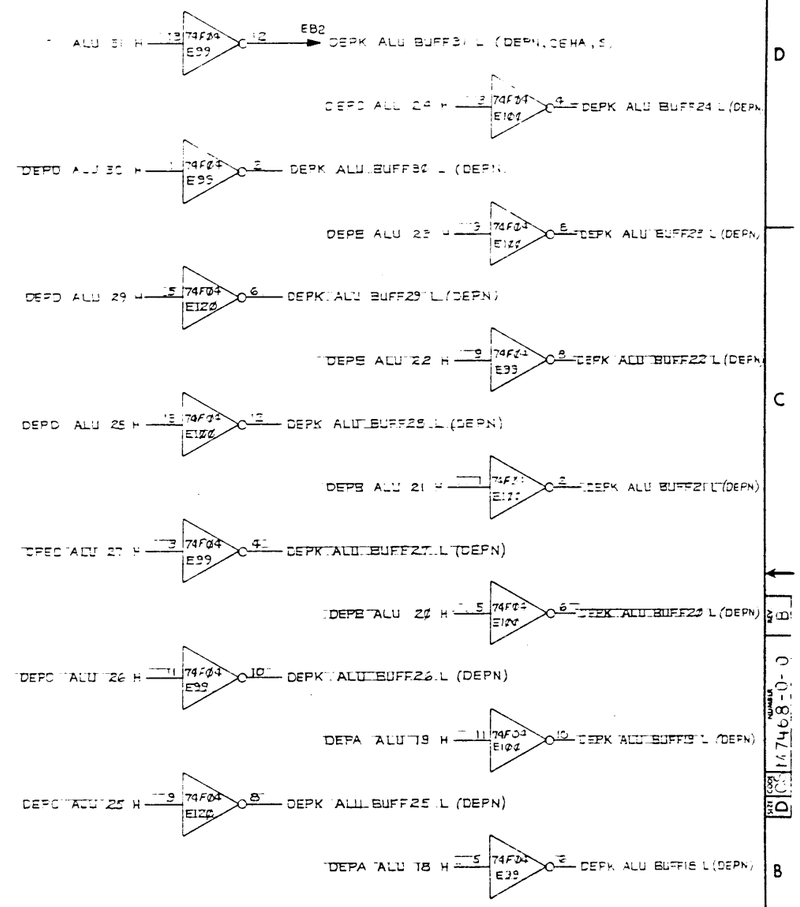


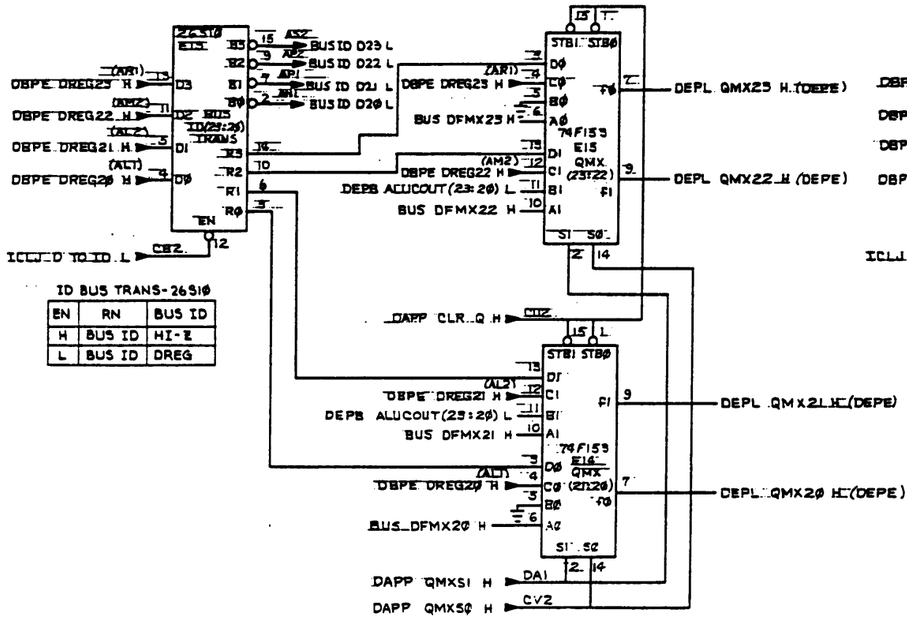


REVISIONS		
CHK	CHANGE NO	REV.

(RE, RC 31:24 ALU BUFFERS) (SLOT 10)

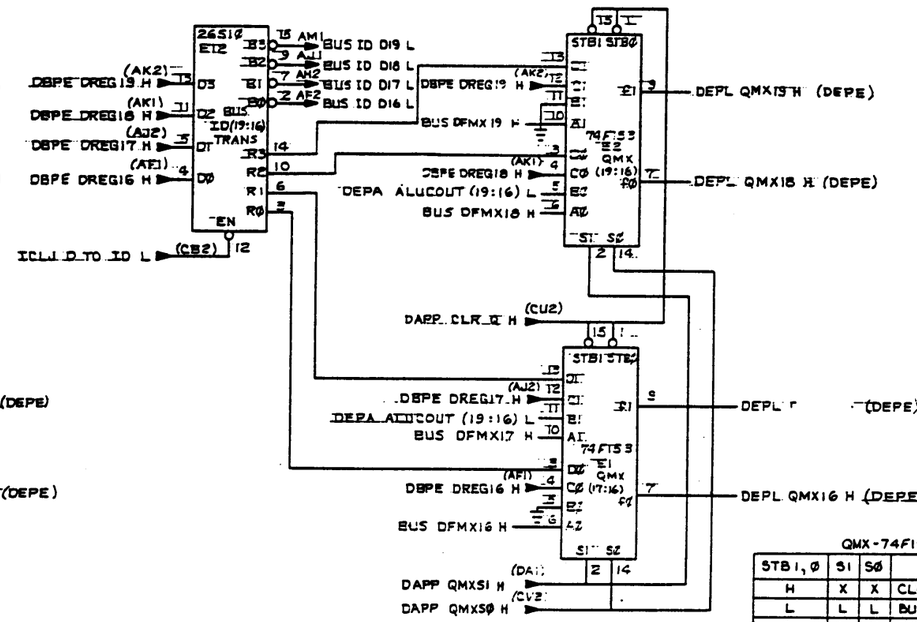
TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPK)	D	CS	M7463-0-0	B
SCALE NONE	SHEET 10 OF 17	DIST.		

M7468-0-0 REV B



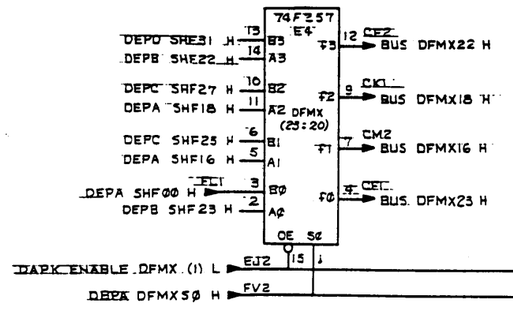
ID BUS TRANS-26S10

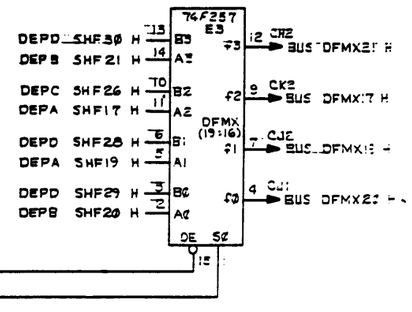
EN	RN	BUS ID
H	BUS ID	HI-Z
L	BUS ID	DREG



QMX-74F153

STB1, 0	S1	S0	QMX
H	X	X	CLR QREG, FN=L
L	L	L	BUS DFMX
L	L	H	DEC; CONST
L	H	L	DREG
L	H	H	BUS ID, RUN





BUS DFMX-74F257

OE	S0	BUS DFMX
H	X	HI-Z
L	L	SHF, INTEGER
L	H	SHF, UNPACKED FLOAT

(DFMX, QMX, ID BUS TRANSCEIVERS 23:16) (SLOT 10)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPL)	D	CS	M7468-0-0	B
SCALE NONE	SHEET 11 OF 17	DIST.		

M7468-0-0 B

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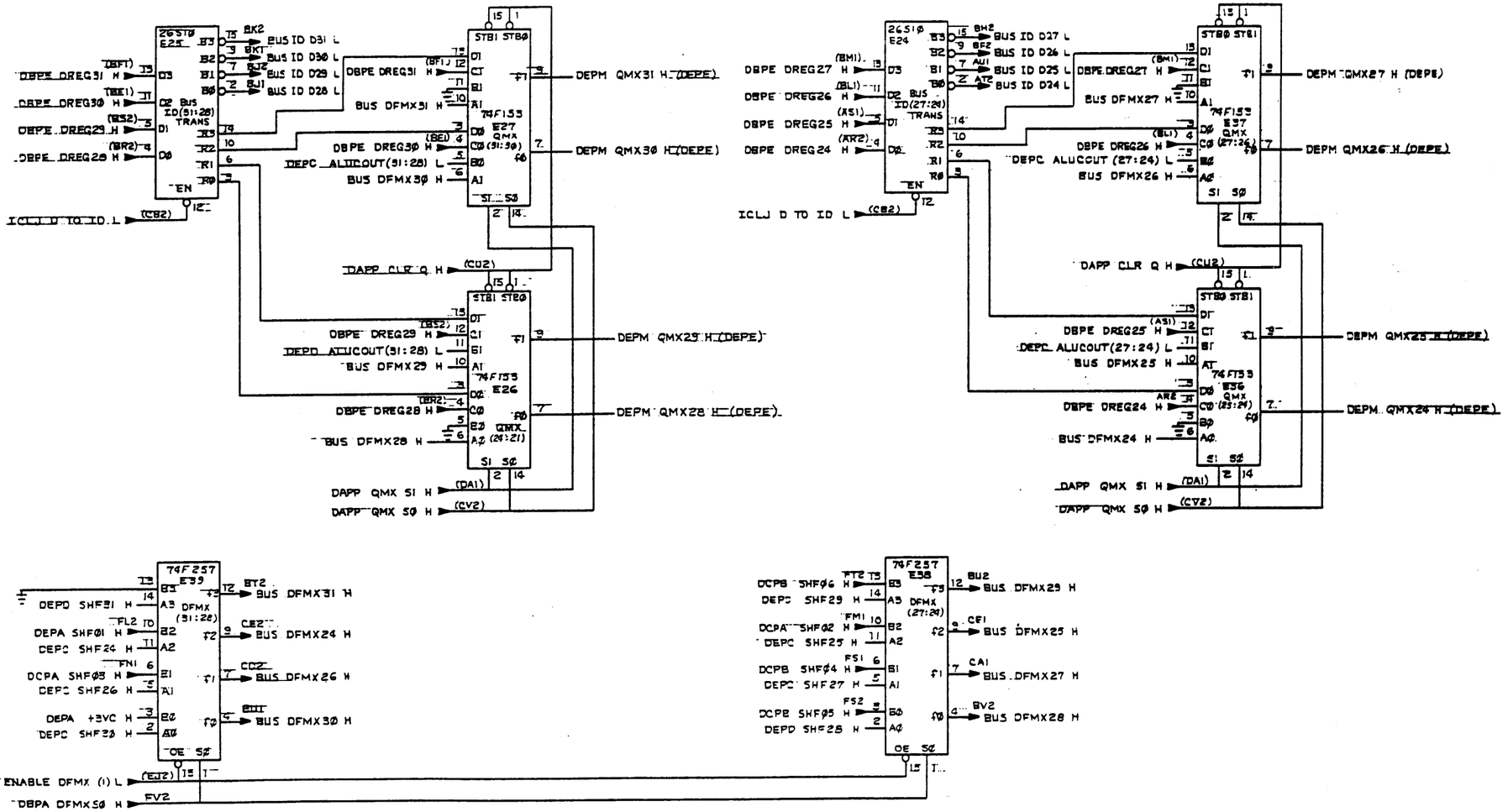

REVISIONS

CHK	CHANGE NO.	REV.

(DFMX QMX ID BUS TRANCEIVERS 31:24) (SLOT 10)

TITLE: DATA PATH 31:16 (DEPM)			SIZE: D	CODE: CS
SCALE: NONE	SHEET: 12 OF 17		DIST:	NUMBER: M7468-0-0
				REV: B

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PCMX-74F157

STB	S0	PCMX
H	X	FN=L
L	L	VA
L	H	VIBA

VA, VIBA, PC-74F161

CLR	LD	CLK	CEP	CET	FUNCT
L	X	X	X	X	CLR, FN←L
H	L	↑	X	X	LOAD, FN←ALU
H	H	↑	H	L	INC, FN=FN
H	H	↑	H	H	INC, FN=FN+1

VAMX-74F158

STB	S1	VAMX
H	X	FN=L
L	L	VIBA
L	H	VA

DEPN VIBA COUT 15 H (DEPP)
DEPA ALU 19 H
DEPA ALU 18 H
DEPA ALU 17 H
DEPA ALU 16 H
DEPA +3VA H
DCPJ FLUSH L
DEPS VIBA CPT2 L
DEPA +3VB H
DDPJ DLYD VIBA C15 H
74F161 E82
74F157 E83
PCMX (19:16)
DCPJ PCMX S0 H
DEPN VA COUT 15 H (DEPP)
DEPA +3VA H
DCPJ LOAD VA L
DEPS VA CPT2 L
DEPA +3VB H
DDPT DLYD VA C15 H
74F161 E81
VA (19:16)
CEHP CMP MODE B H
74F158 E80
VAMX (19:16)
DEPN VAMX 19 L (TBMA, CAMR, U)
DEPN VAMX 18 L (TBMA, CAMR, U)
DEPN VAMX 17 L (TBMA, CAMR, U)
DEPN VAMX 16 L (TBMA, CAMR, U)
DEPA +3VB H
TBMC ENABLE IA H
DEPS CPT2 H
DEPA +3VA H
74S112 E91
DEPN VAMX S0 H (DEPP, R, S)
DEPN PC COUT 19 H (DEPP)
DEPA +3VA H
DCPJ LD PC31:04 L
DEPS PC CPT0 H
DDPH DLYD PC COUT 07 H
DDPJ DLYD PC C15 H
74F161 E84
PC (19:16)
DEPN PC19 (1) H (DEPF)
DEPN PC18 (1) H (DEPF)
DEPN PC17 (1) H (DEPF)
DEPN PC16 (1) H (DEPF)
DEPK ALU BUFF28 L
DEPK ALU BUFF27 L
DEPK ALU BUFF26 L
DEPK ALU BUFF25 L
DEPK ALU BUFF24 L
DEPK ALU BUFF23 L
DEPK ALU BUFF22 L
DEPK ALU BUFF21 L
DEPK ALU BUFF20 L
DEPK ALU BUFF19 L
DEPK ALU BUFF18 L
DEPK ALU BUFF29 L
DEPK ALU BUFF30 L
74S133 E98
DEPN ALU(30:18)=0 L (CEHA, S)

REVISIONS

CHK	CHANGE NO.	REV.

(VA, VIBA, PC 19:16 ALU ZERO DETECT) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPN)	D	CS	M7468-0-0	B
SCALE NONE	SHEET 13 OF 17	DIST.		

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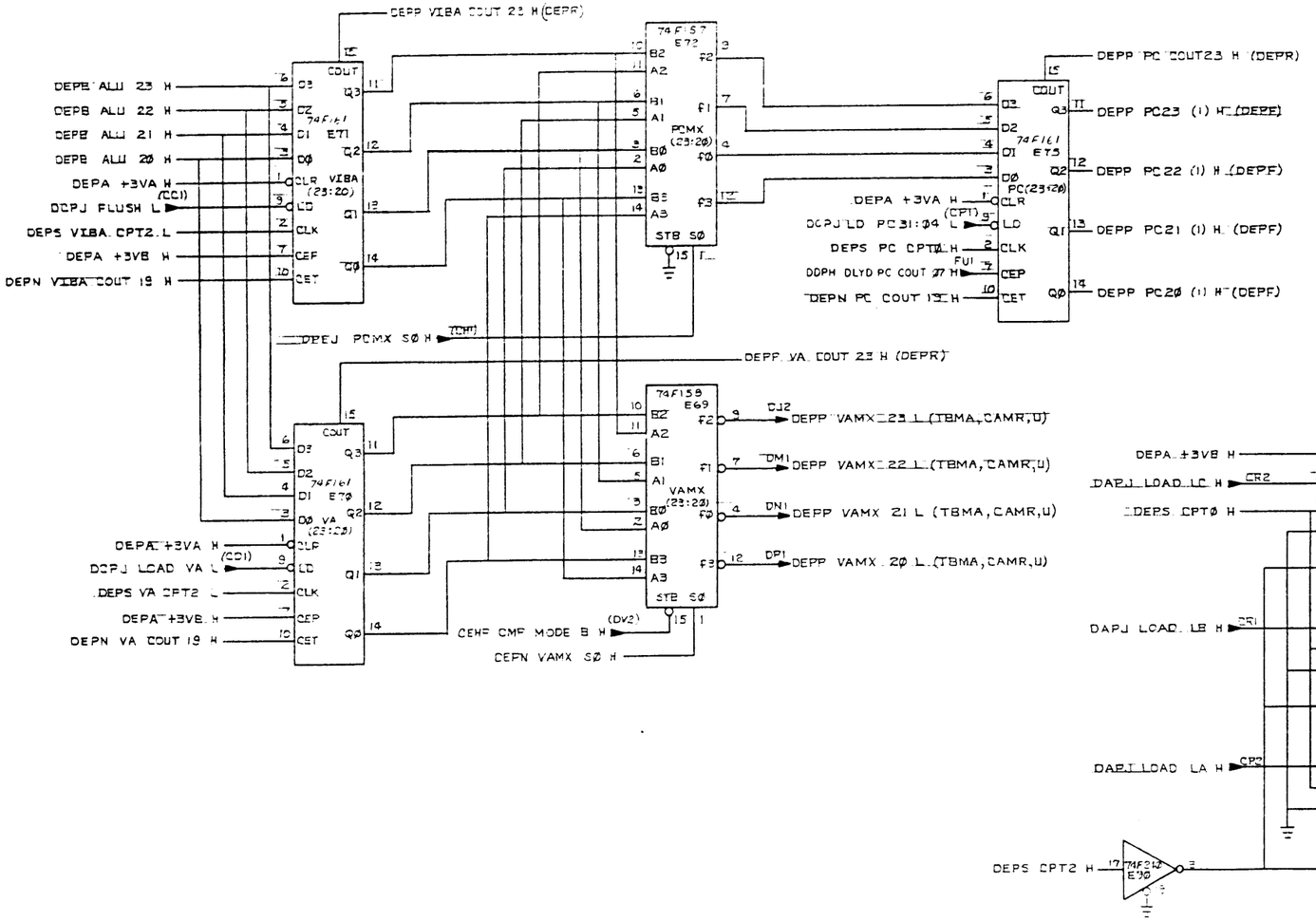

REVISIONS		
CHK	CHANGE NO	REV

(VA,VIBA,PC 23:16 LATCH CONTROLS) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPP)	D	CS	M7468-0-0	B
SCALE NONE	SHEET 14 OF 17		DIST.	

M7468-0-0 REV B

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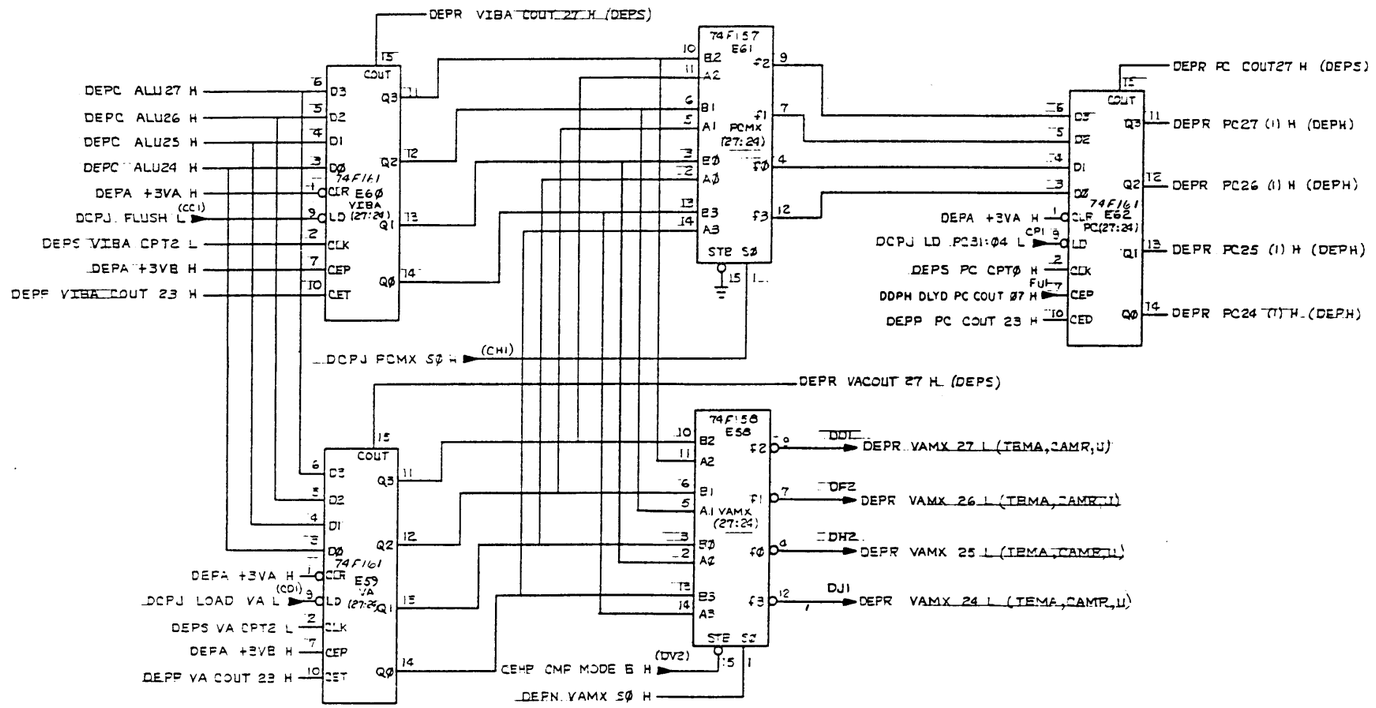

VA, VIBA, PC - 74F161

CLR	LD	CLK	CEP	CET	FUNCT
L	X	X	X	X	CLR, FN←L
H	L	↑	X	X	LOAD, FN←ALU
H	H	↑	H	L	INC, FN=FN
H	H	↑	H	H	INC, FN=FN+1

VAMX - 74F158

STB	S0	VAMX
H	X	FN=H
L	L	VIBA
L	H	VA

REVISIONS		
CHK	CHANGE NO.	REV.

(VA VIBA 27:24) (SLOT 10)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPR)	D	CS	M 7468-0-0	B
SCALE NONE SHEET 15 OF 17	DIST.			

8 7 6 5 4 3 2 1

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NOTE:
POWER PINNING ON 10125
+5 PIN 9
-5 PIN 8
GND PIN 16

DEPD ALU 31 H
DEPD ALU 30 H
DEPD ALU 29 H
DEPC ALU 28 H
DEPA +3V H (CC1)
DCPJ FLUSH L
DEPS VIBA CPT2 L
DEPA +3VC H
DEPA IBA COUT 27 H
74F161 E50 DØ VIBA (31:28)
74F157 E51 STB SØ
DEPJ PCMX SØ H (CH1)
DEPA +3VA H (CD1)
DCPJ LOAD VA L
DEPS VA CPT2 L
DEPA +3VC H
DEPR VA COUT 27 H
74F161 E49 DØ VA (31:28)
74F158 E48 STB SØ
CEHP CMF MODE B H (CV2)
DEPN VAMX SØ H
DB2 DEPS VAMX 31 L (CAMS,CAMT,TBMF,TBMH)
DB1 DEPS VAMX 30 L (CAMU,R)
DB1 DEPS VAMX 29 L (TBMA,CAMU,R)
DB2 DEPS VAMX 28 L (TBMA,CAMU,R)
74F161 E52 DØ PC (31:28)
DEPA +3VA H (CP1)
DCPJ LD PC31:04 L
DEPS PC CPTØ H
DDPH DLYD PC COUT 07 H
DEPE PC COUT 27 H
DEPS PC31 (1) H (DEPH)
DEPS PCSØ (1) H (DEPH)
DEPS PC29 (1) H (DEPH)
DEPS PC28 (1) H (DEPH)
R2 150, -5.2V (BL2), R1 120, R4 150, R3 120
10H125 E68
DEPS VA CPT2 L (DEPN,P,R,S)
74F04 E79, 74F04 E79, 74F04 E79, 74F240 E39
DEPS CPT2 B L (DEPJ,K)
74F240 E39
DEPS CPT2 A L (DEPA,B,C,D)
DE2 CLKD LECL CPT2Ø2 L
DE1 CLKD LECL CPT2Ø2 H
DEPS CPT2 H (DEPN,P)
R5 150, -5.2V (BL2), R6 120, R7 150, R8 120
10H125 E47
DEPS CPTØ L (DEPA)
DEPS CPTØ H (DEPP)
CL2 CLKB LECL CPTØ2 L
CL1 CLKB LECL CPTØ2 H
DEPS PC CPTØ H (DEPN,P,R,S)

(VA,VIBA,PC 31:28 CLOCK TRANSLATORS) (SLOT 10)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 31:16 (DEPS)	D	CS	M7468-0-0	B
SCALE NONE SHEET 16 OF 17	DIST.			

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AA2 +5.0V
AV1 +5.0V
BA2 +5.0V
BV1 +5.0V
CA2 +5.0V
C.1 +5.0V
DA2 +5.0V
DV1 +5.0V
EA2 +5.0V
EV1 +5.0V
FA2 +5.0V
FA1 -5.2V

C1 .047µF 50V
C2 .047µF 50V
C4 .047µF 50V
C5 .047µF 50V
C6 .047µF 50V
C7 .047µF 50V
C8 .047µF 50V
C9 .047µF 50V
C10 .047µF 50V
C11 .047µF 50V
C12 .047µF 50V
C13 .047µF 50V
C14 .047µF 50V
C15 .047µF 50V
C16 .047µF 50V
C17 .047µF 50V
C19 .047µF 50V
C20 .047µF 50V
C21 .047µF 50V
C22 .047µF 50V
C23 .047µF 50V
C24 .047µF 50V
C25 .047µF 50V
C26 .047µF 50V
C27 .047µF 50V
C28 .047µF 50V
C29 .047µF 50V
C30 .047µF 50V
C31 .047µF 50V
C32 .047µF 50V
C33 .047µF 50V
C34 .047µF 50V
C35 .047µF 50V
C36 .047µF 50V
C37 .047µF 50V
C44 .047µF 50V

BL2 -5.2V
CT1 -5.2V
C3 8µF 25V
C18 .047µF 50V
C43 .047µF 50V

AC2
AN2
AT1
BC2
BN2
BT1
CC2
CN2
CT1
DC2
DN2
DT1
EC2
EN2
ET1
FC1
FN2
FT1

REVISION HISTORY

DATE	ECO NUMBER	REV

DRD 137A

TITLE: DATA PATH 31:16

DOCUMENT NUMBER: SIZE D | CODE CS | NUMBER M7468-0-0 | REV B

SCALE — | SHEET 17 OF 17

SIZE	CODE	NUMBER	REV
B	DD	M7468-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7468-00	D.E.P. PART REVISION	A1 B1
E-UA-M7468-0-0	4		UNIT ASSEMBLY	A B
D-CS-M7468-0-0	17		SCHEMATIC	A B
K-PL-M7468-0-DBP	2		PARTSLIST	A B
K-PC-M7468-0-DBG	1		P.C. DATABASE	C C
	–	5012598-00	ETCH CIRCUIT BOARD	C C

NOTES:

REVISION HISTORY		
REV.		B
ECO NO.	INITIAL	TW001
DATE		6-84

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digital

USED ON OPTION/MODEL

DRN.		DATE 9-6-83
CHK'D	Thomas Fiddick	DATE 9-[illegible]-83
DES. ENG.	[signature]	DATE 10-11-83
RESP. ENG.	[signature]	DATE 10-11-83
MFG. ENG.	[signature]	DATE 10-11-83

TITLE: D.E.P.

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV.
B	DD	M7468-0-0	B

SHEET | OF |

DRB 126A

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

TH1

TH2

0-8 0-9 1-11 0-20 0-19 0-18 0-14 0-24 0-23 0-22 0-21 1 39 0-27 0-26 40

0-17 0-15 0-16 0-5 0-3 0-2 0-1 0-25 0-4 2-13 0-7 2-14 0-28 2-12

1-10 2-18 1-9

2-15 2-19 2-16 0-12 0-10 0-11 2-17 0-13

B B

F E D C B A

8 7 6 5 4 3 2 1 TW

J H F E D C B A TW

SIGNATURE	DATE	digital
DRN		
CHK'D		
ENG		
PROJ. ENG.		
PROD.		
SCALE 2/1	SIZE C	TITLE (CPU DATA PATH(DUP))
ETCH REV.		SITE/CODE NUMBER 5 1/A M7469-00
P.C. DESIGN DATA BASE REV.		SHEET NUMBER AUTO 3 OF 3

CPU

CHANGE NO REV

NOTES:
1. SPACE ALL ICS 0.6 MIL EDS
2. M7469 MAY BE USED W/ 8827 ETCHED BOARD ONLY (7501599-00)

E UAM 7469-0-0

L1

LAYER 1 M8227 5012599CP1

SIDE 1

digital

CSIIABCDEFHJKLMNPRS

E132 E121 E110 E99 E88 E77 E66 E56 E45 E34 E23 E13

E 22

E82

1-1

1-4

2-2

1-2

2-1

1-3

0-35

0-36

0-31

0-37

0-29

0-32

0-34

0-30

0-33

2-3 2-5 2-4 2-7 2-6

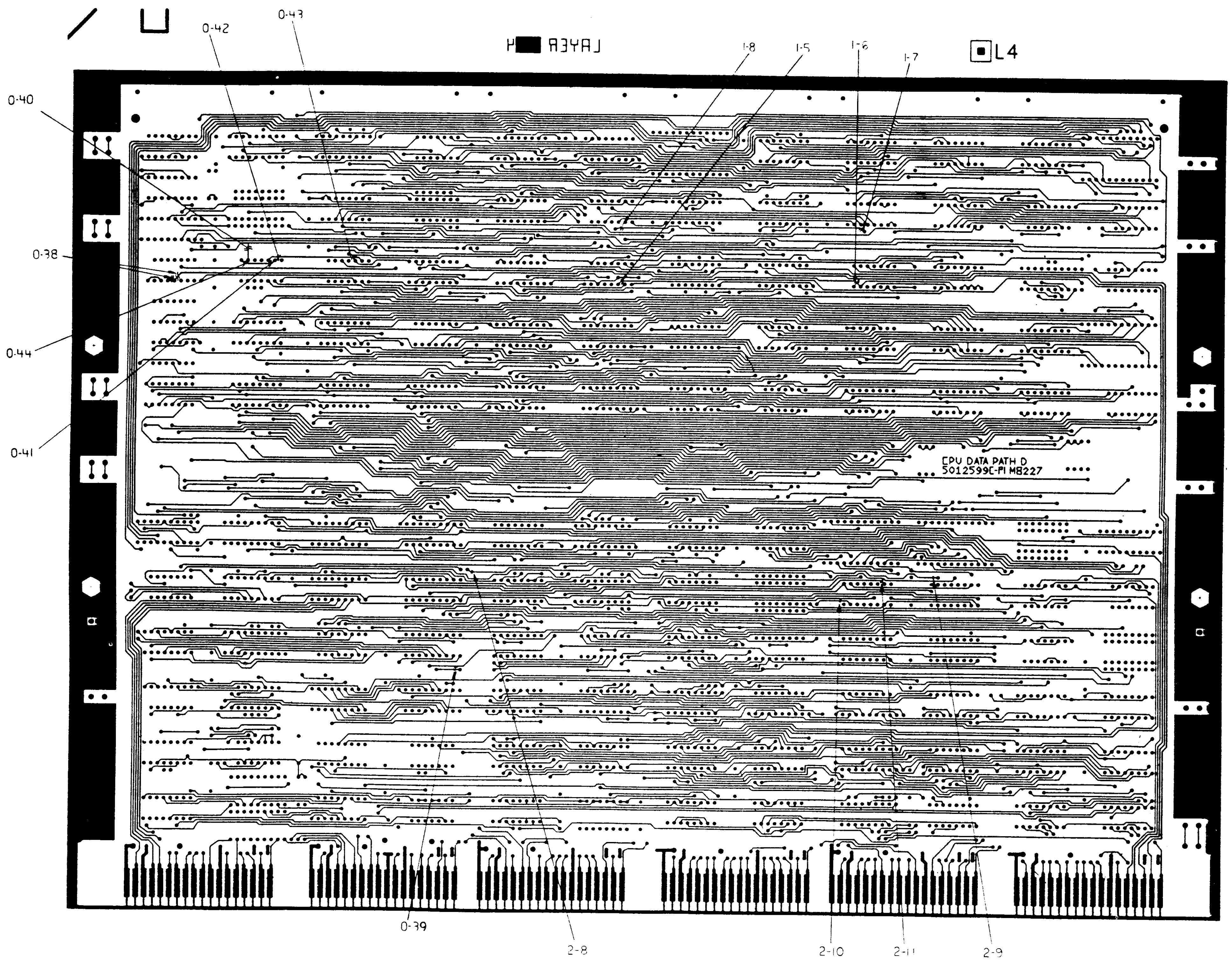
REVISIONS

CHG	CHANGE NO.	REV.

TITLE CPU DATA PATH D

SIZE CODE E | LOA | DWG. NUMBER M7469-00 | REV. C

SCALE 2-1 | SHEET 2 OF 4 | DIST.



TITLE	SIZE	CODE	NUMBER	REV.
CPU DATA PATH D	E	UA	M7469-0-0	C
SCALE 2-1	SHEET 3 OF 4			

TW1

UA M7469 0 0 C

REWORK INSTRUCTIONS

WIRE ADDS SIDE 1

0-1 ADD WIRE FROM E8-9 TO E13-3
0-2 ADD WIRE FROM E10-2 TO E10-1
0-3 ADD WIRE FROM E10-3 TO E10-10
0-4 ADD WIRE FROM E8-11 TO E10-12
0-5 ADD WIRE FROM E 0-11 TO E10-4
0-6 ADD WIRE FROM E10-8 TO E10-5
0-7 ADD WIRE FROM E10-13 TO E84-1
0-8 ADD WIRE FROM E82-12 TO E 20-5
0-9 ADD WIRE FROM E120-6 TO E10-9
0-10 ADD WIRE FROM E82-1 TO E67-13
0-11 ADD WIRE FROM E82-3 TO PTH BELOW AND BETWEEN E38-4 AND E38-5
0-12 ADD WIRE FROM E82-7 TO PTH RIGHT OF E82-7
0-13 ADD WIRE FROM PTH ABOVE FINGER BK1 TO E11-9
0-14 ADD WIRE FROM E11-11 TO E55-14
0-15 ADD WIRE FROM E43-2 TO E22-2
0-16 ADD WIRE FROM E43-3 TO E22-3
0-17 ADD WIRE FROM E32-2 TO E22-1
0-18 ADD WIRE FROM E43-4 TO E22-4
0-19 ADD WIRE FROM E43-5 TO E22-5
0-20 ADD WIRE FROM E43-6 TO E22-6
0-21 ADD WIRE FROM E43-12 TO E22-12
0-22 ADD WIRE FROM E43-13 TO E22-13
0-23 ADD WIRE FROM E43-14 TO E22-14
0-24 ADD WIRE FROM E43-15 TO E22-15
0-25 ADD WIRE FROM E22-7 TO PTH BELOW AND BETWEEN E11-2 AND E11-3
0-26 ADD WIRE FROM E22-7 TO E22-10
0-27 ADD WIRE FROM E22-10 TO E22-11
0-28 ADD WIRE FROM E27-9 TO SECOND PTH BELOW E19-5

ETCH CUTS SIDE 1

0-29 CUT ETCH AT E10-3
0-30 CUT ETCH ABOVE E35-13
0-31 CUT ETCH BETWEEN E10-10 AND E10-11
0-32 CUT ETCH BELOW PTH TO THE RIGHT OF E41
0-33 CUT ETCH ABOVE PTH ABOVE BK1
0-34 CUT ETCH AT SECOND PTH BELOW E19-5
0-35 CUT ETCH ABOVE E32-12
0-36 CUT ETCH ABOVE E21-10
0-37 CUT ETCH THAT RUNS BETWEEN E24 AND E21-5

ETCH CUTS SIDE 2

0-38 CUT ETCH BETWEEN E10-4 (RIGHT & LEFT)
0-39 CUT ETCH AT PTH BELOW E38-1
0-40 CUT ETCH ABOVE E21-9
0-41 CUT ETCH BELOW E21-13
0-42 CUT ETCH ABOVE E21-12
0-43 CUT ETCH ABOVE E32-13
0-44 CUT ETCH BELOW E21-8

REWORK INSTRUCTIONS

ETCH CUTS ECO M7469-TW001
SIDE 1

1-1 E64 BETWEEN PIN 11 & 12
1-2 ABOVE E115 PIN 9
1-3 E115 BETWEEN PIN 5 & 6
1-4 AT THE SECOND PTH BELOW E118 PIN 8

ETCH CUTS
SIDE 2

1-5 E64 PIN 3
1-6 E97 PIN 6 (LEFT SIDE)
1-7 PTH BELOW AND BETWEEN E98 PIN 5 & 6
1-8 PTH BELOW AND BETWEEN E65 PIN 3 & 4

WIRE ADDS

1-9 E114 PIN 5 TO E115 PIN 9
1-10 E114 PIN 6 TO SECOND PTH BELOW E118 PIN 8
1-11 E97 PIN 5 TO PTH BELOW AND BETWEEN E98 PINS 5 & 6

REWORK INSTRUCTIONS PER ECO #2

ETCH CUTS SIDE 1
2-1 BETWEEN E93-9 AND E93-10
2-2 BETWEEN E104-9 AND E104-10
2-3 BETWEEN E36-11 AND E36-12
2-4 E36-5
2-5 E36-3
2-6 E35-6
2-7 CONNECTED TO I/O PIN BR1

ETCH CUTS SIDE 2
2-8 AT PTH ABOVE AND RIGHT OF E39-13
2-9 AT PTH ABOVE E104-10
2-10 E93-7
2-11 E93-15

WIRE ADDS
2-12 FROM PTH ABOVE AND LEFT OF E39-18 TO E32-4
2-13 FROM E32-4 TO E32-5
2-14 FROM E32-6 TO E104-7
2-15 FROM E104-7 TO E93-7
2-16 FROM E93-7 TO PTH ABOVE AND BETWEEN I/O PINS DR1 AND DS1
2-17 FROM E93-15 TO I/O PIN BR1
2-18 FROM PTH BELOW AND BETWEEN R35 AND R36 TO PTH ABOVE E104-10
2-19 FROM PTH ABOVE E104-10 TO THE SECOND PTH LEFT OF E32-1

REVISION HISTORY
DATE | ECO NUMBER | REV

TITLE: CPU DATA PATH D
DOCUMENT NUMBER: EUA M7469-0-0 REV C
SCALE 2/1 SHEET 4 OF 4

AUTOMATED BY PRTLST.4Q(50)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION VARIATION REVISION LEVEL:	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5016070-0-0	5012599-00		M8227	1	
2	2		1012084-01		8 MFD 25V +75-10% AL EL	7	C1-C7
3	3		1012784-00		.047 MFD 50V +80-20% CER	40	C8-C43,C46,C48-C50
4	4		1300295-00		330.0 .25 W 5.0 % CF	13	R9,R11,R13,R15,R17,R19,R21,R23,
							CONT R25,R28,R29,R35,R39
5	5		1301424-00		680.0 .25 W 5.0 % CF	4	R27,R30,R36,R40
6	6		1300247-00		120.0 .25 W 5.0 % CF	4	R1,R3,R6,R8
7	7		1300250-00		150.0 .25 W 5.0 % CF	4	R2,R4,R5,R7
8	8		1301775-00		820.0 .25 W 5.0 % CF	9	R10,R12,R14,R16,R18,R20,R22,R24,
							CONT R26
9	9		1921305-01		74F00 NAND GATE,QUAD,2-IN	5	E5,E21,E84,E126,E10
10	10		1921307-01		74F04 HEX INVERTER	10	E8,E35,E42,E45,E64,E65,E97,E115,
							CONT E120,E131
11	11		1921308-01		74F08 AND GATE,QUAD,2-IN	2	E32,E114
12	12		1921310-01		74F11 AND GATE,TRIPLE,3-IN	2	E15,E44
13	13		1921311-01		74F20 NAND GATE,DUAL,4-IN	2	E3,E9
14	14	BLANK		***	THIS ITEM IS NOT USED ***	-	
15	15		1921313-01		74F64 AND OR INVERT GATE,4-	1	E14
16	16		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	3	E50,E51,E78
17	17		1911983-00		74S133 NAND GATE-POSITIVE 1	5	E43,E98,E108,E109,E22
18	18		1921316-01		74F138 DECODER/DEMUX,1-OF-8	2	E2,E52
19	19		1921318-01		74F151 MUX,8-IN	8	E7,E19,E30,E41,E95,E106,E117,
							CONT E128
20	20		1921319-01		74F153 MUX,DUAL,4-IN	19	E20,E23,E31,E34,E48,E49,E53,E56,
							CONT E60-E63,E66,E71,E72,E80,E81,E86,
							CONT E87
21	21		1921320-01		74F157 MUX,QUAD,2-IN	13	E57,E58,E68,E69,E73,E75,E76,E85,
							CONT E88,E92,E103,E118,E121
22	22		1921321-01		74F158 MUX,QUAD,2-IN	4	E4,E27,E89,E100
23	23		1921324-01		74F175 FF-D,QUAD	4	E1,E12,E24,E25

REVISION HISTORY			BASIC PART NO: M7469				
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: S.CORCORAN	DATE: 16-SEP-83	D I G I T A L	
---	INITIAL	A	SECTION.VARIATION INDEX	CHK'D: T.MCCULLOUGH	DATE: 22-MAR-83	TITLE PARTS LIST DATA PATH 15:08 (DDP)	
			[A] 00	DES.ENG: K.MCLAREN	DATE: 16-SEP-83	DOCUMENT NUMBER	
			[B]			SIZE: K	CODE: PL
			[C]			NUMBER: M7469-0-DBP	REV: A
			[D]				
			[E]				
			[F]	RESP.ENG.: K.MCLAREN	DATE: 16-SEP-83		
			[H]				
			[J]				
			[K]	MFG.ENG.: M.KRYSAK	DATE: 16-SEP-83	RELEASE DATE: 19-OCT-83	
			[L]				
			[M]	ASSEMBLY NUMBER: E-UA-M7469-0-00	TOP DOCUMENT NUMBER: B-DD-M7469-0-00	FILE NAME: Z3956A.PLS	EDIT # 9
			[N]				

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AUTOMATED BY PRTLST.4Q(50)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
24	24		1921325-01		74F181 ALU,4-BIT	5	E77,E94,E105,E129,E132
25	25		1921326-01		74F182 CARRY LOOKAHEAD GEN.	2	E83,E130
26	26		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	10	E33,E54,E55,E59,E70,E74,E96,E99,
						CONT	E107,E110
27	27		1921009-01		74F241 BUFFER/LINE DRIVER,N	2	E11,E127
28	28		1921330-01		74F257 MUX,QUAD,2-IN	4	E111,E113,E122,E124
29	29		1921333-01		74F283 BINARY FULL ADDER,4	1	E13
30	30		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E36
31	31		1912586-01		85S68A REGISTER,16X4 EDGE T	9	E17,E18,E26,E28,E29,E37-E40
32	32		1921322-01		74F161 BINARY COUNTER,PRESE	6	E90,E91,E93,E101,E102,E104
33	33		1921334-01		74F350 SHIFTER,4-BIT	2	E112,E123
34	34		1913788-00		26S10 TRANSCEIVER,BUS,QUA	2	E47,E79
35	35		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	2	E46,E67
36	36		2303782-00		B2-03	1	E119
37	37		2303982-00		B2-03	1	E16
38	38		1921008-01		74F240 BUFFER/LINE DRIVER,I	1	E6
39	39		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
40	40		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
41	41		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	
42	42		1616653-01		DELAY= 100NS,10TAPS WITH TTLBU	1	E82

43 NOTE: IC SPARE E116,E125

D I G I T A L	TITLE: DATA PATH 15:08 (DDP)	SECTION A OF A	SIZE: K / CODE: PL / DOCUMENT NUMBER: M7469-0-DBP	REV: A

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EXPD 74F157 DDPL,M
NABS DDPL
EALU 74F181 74F182 DDPL, M,N
EBMX 74F153 DDPN
EAMX 74F157 DDPL,M,N
AMX 14:07
DBPL SHF VAL
FE 74F194 DDPL,M
STATE 74F194 DDPL,M
DCPK KMX 07:00
DCPA,B ALU 07:00
SMX 74F153
ALU 15:08 = 0
74S133 DDPF
SC 74F194 DDPR
VA 74F161 DDPH,J
DCPJ LOAD VA
VIBA 74F161 DDPH J LD
DCPJ FLUSH
VAMX 74F158 DDPH,J
VAMX 15:09 TO CACHE & TBUF
PCMX DDPH J
PC 74F161 DDPH J
PC 15:08 TO BMX
DCPJ LD PC
SHF DDPA,B
RT 74F257
LFT 74F350
DFMX 74F257 DDPC
BUS DFMX 15:08 TO AND FROM FPA
DBPE DREG 15:08
DAPK ENABLE DFMX
DECIMAL CONSTANT
QMUX 74F153 DDPC
DAPP QMX S1:0
DAPP CLR Q
QREG 74F194 DDPF
DCPF QREG 07
DEPE QREG 16
DAPP QREG S1:0
74F181, 74F182 ALU DDPA,B
DCPL ALU CARRY 07
DDPB ALU G&P
BIT MASK 74F138 DDPF
DAPD BMX S2:0
BMX 74F151 DDPD
DAPC AMX S1:0
AMX 74F153 DDPA,B
EXP D6:21 SD
PC 15:08
RAMX 74F157 DDPA,B
RBMX 74F157 DDPF
DAPH URMX
SK 15:08 DDPH
DCPK UKMX 5:0
KMX 74F153 DDPH
FK = SC
FKMX 74F00 DDPH
RLOG 08
SC 3:0
RLOG STACK DDPK
KMX 3:0 RA ADRS ADD + SUB
RC ADRS
LC RC 85568A DDPE
RB ADRS
LB RB 85568A DDPE
RA ADRS
LA RA 85568A DDPA,E
ID XCEIV DDPC EN
ICLU D TO ID L
ID BUS

REVISIONS			
ZSK	CHANGE NO	REV	
	M7469 TWOOO1	B	K.MCLAREN 7-JULY
	M7469 TWOO2	C	Toronto Milled 5 JUN 84 KEITH MCLAREN

BLOCK DIAGRAM (SLOT 11)

DRN.
CHK'D
ENG.
PROJ. ENG.
PROD.
NEXT HIGHER ASSY. B-DD-M7469-0-0
SCALE
SHEET 1 OF 20

FIRST USED ON
digital
TITLE
DATA PATH 15:08 (DDP)

SIZE D | CODE CS | NUMBER M7469—0-0 | REV C
DIST.

TW

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RAMx - 74F157

STB	SØ	RAMX
H	X	FN = L
L	L	DREG
L	H	QREG

74F153

STB1,Ø	S1	SØ	FN
H	X	X	FN = L
L	L	L	FN = A
L	L	H	FN = B
L	H	L	FN = C
L	H	H	FN = D

74F157 E57 — RAMX

DDPF QREG11 H / DBPE DREG11 H — DH2
DDPF QREG1Ø H / DBPE DREG1Ø H — DT2
DDPF QREGØ9 H / DBPE DREGØ9 H — DU1
DDPF QREGØ8 H / DBPE DREGØ8 H — DU2
DDPA RAMXSØ H

74F153 E62 — AMX

DDPA SHF11 H
DDPA SHF1Ø H
DDPA SHFØ9 H
DDPA SHFØ8 H

DDPF LATCH LA (1) H
DDPS RA RB CPT2 L — BR2
DAPK RA RB WRT B1 L

85568A E39 — RA (11:ØB)

DAPL PA ADRS3 H — BP2
DAPL PA ADRS2 H — BP1
DAPL PA ADRS1 H — BN1
DAPL PA ADRSØ H — BM2

74F153 E61 — AMX

DDPA AMX SXT H — FE1
DAPC AMX B1 SI H
DAPC AMX B1 SØ H — FE2

DDPA AMX11 H (DDPN)
DDPA AMX1Ø H (DDPN)
DDPA AMXØ9 H (DDPN)
DDPA AMXØ8 H (DDPN)

RA - 85568A

LE	WE	CLK	RA FUNCT
H	H	X	NO OPER.
H	L	⤒	STORE, RN ← SHF
⤒	H	X	LATCH, LA ← (RN)

DDPD BMX11 H
DDPD BMX1Ø H
DDPC BMXØ9 H
DDPD BMXØ8 H

74F181 E105 — ALU (11:Ø8)

DAPA ALU B1:Ø S3 H — EF2
DAPA ALU B1:Ø S2 H — EF1
DAPB ALU B1:Ø S1 H — EE2
DAPB ALU B1:Ø SØ H — EE1
DAPB ALU MODE H — ER1
DCPL ALU CARRY Ø7 L — EU2

AP2 BUS ALU BYTE1 A=B H
DDPA ALU COUT (11:Ø8) L (DDPC)
DDPA ALU 11:Ø8 G H (DDPB)
DDPA ALU 11:Ø8 P H (DDPB)
DDDA ALU 11 H (DDPB,E,H)
DDPA ALU 1Ø H (DDPB,E,H)
EV2 DDPA ALU Ø9 H (DCPB, DDPB,E,H)
EU2 DDPA ALU Ø8 H (DCPB, L, DDPE, H)

ALU FUNCT - 74F181

SELECTION	ACTIVE HIGH DATA		
	M=H LOGIC	M=L ARITHMETIC OPERATIONS	
S3 S2 S1 SØ	FUNCTIONS	$\overline{C_n}$ = H (NO CARRY)	$\overline{C_n}$ = L (WITH CARRY)
L L L L	F = $\overline{A}$	F = A	F = A PLUS 1
L L L H	F = $\overline{A+B}$	F = A+B	F = (A+B) PLUS 1
L L H L	F = $\overline{A}B$	F = A+$\overline{B}$	F = (A+$\overline{B}$) PLUS 1
L L H H	F = 0	F = MINUS 1 (2'S COMPL)	F = ZERO
L H L L	F = $\overline{AB}$	F = A PLUS A$\overline{B}$	F = A PLUS A$\overline{B}$ PLUS 1
L H L H	F = $\overline{B}$	F = (A+B) PLUS A$\overline{B}$	F = (A+B) PLUS A$\overline{B}$ PLUS 1
L H H L	F = A ⊕ B	F = A MINUS B MINUS 1	F = A MINUS B
L H H H	F = A$\overline{B}$	F = A$\overline{B}$ MINUS 1	F = A$\overline{B}$
H L L L	F = $\overline{A}$+B	F = A PLUS AB	F = A PLUS AB PLUS 1
H L L H	F = $\overline{A \oplus B}$	F = A PLUS B	F = A PLUS B PLUS 1
H L H L	F = B	F = (A+$\overline{B}$) PLUS AB	F = (A+$\overline{B}$) PLUS AB PLUS 1
H L H H	F = AB	F = AB MINUS 1	F = AB
H H L L	F = 1	F = A PLUS A*	F = A PLUS A PLUS 1
H H L H	F = A+$\overline{B}$	F = (A+B) PLUS A	F = (A+B) PLUS A PLUS 1
H H H L	F = A+B	F = (A+$\overline{B}$) PLUS A	F = (A+$\overline{B}$) PLUS A PLUS 1
H H H H	F = A	F = A MINUS 1	F = A

74F257 E111 — SHF RT (11:Ø8)

DDPB ALU13 H
DDPB ALU 12 H
DDPJ SHF RT EN L
DDPA SHF SØ H

DDPA SHF11 H (DDPE)
DDPA SHF1Ø H (DDPE)
DDPA SHF09 H (DDPE)
DDPA SHFØ8 H (DDPE)

74F350 E112 — SHF LFT (11:Ø8)

DCPB ALU Ø7 H — ES1
DCPB ALU Ø6 H — ER2
DCPB ALU Ø5 H — EU1
DAPE SHF LFT SI H — FF2
DDPA SHF SØ H
DDPJ SHF LFT EN L

74F241 E127

DAPE SHF SØ H — FK2
DDPA SHF SØ H (DDP8)

74F04 E115

DAPH URMX (1) H — CU1
DDPA RBMX SØ H (DDPF)

74F241 E27

DDPA RAMX SØ H (DDP8)

74F08 E114

DDPF +3V H
DCPB RAMX Ø7 H — FH2
DDPA AMX SXT H (DDP8)

(RA, RAMX, ALU, SHF 11:Ø8)

(SLOT 11)

REVISIONS

CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:Ø8 (DDPA)	D	CS	M7469-0-0	C
SCALE —	SHEET 2 OF 20	DIST.		

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DDPF QREG15 H
DBPE DREG15 H
DDPF QREG14 H
DBPE DREG14 H
DDPF QREG13 H
DBPE DREG13 H
DDPF QREG12 H
DBPE DREG12 H
74F157 E68 RAMX
DDPA RAMX SØ H

DDPF LATCH LA (1) H
DDPS RA RB CPT2 L
DAPK RA RB WAT B1 L
85S68A E4Ø RA(15:12)
DDPB SHF15 H
DDPB SHF14 H
DDPB SHF13 H
DDPB SHF12 H
DAPL RA ADRS3 H
DAPL RA ADRS2 H
DAPL RA ADRS1 H
DAPL RA ADRSØ H

74F153 E71 AMX
74F153 E72 AMX
DDPA AMX SXT H
DAPC AMX B1 S1 H
DAPC AMX B1 SØ H

DDPD BMX15 H
DDPD BMX14 H
DDPD BMX13 H
DDPD BMX12 H

74F181 E94 ALU (15:12)
DAPA ALU B1:Ø S3 H
DAPA ALU B1:Ø S2 H
DAPB ALU B1:Ø S1 H
DAPB ALU B1:Ø SØ H
DAPB ALU MODE H
DDPB ALU 12 CIN L

DDPR +3V B H
74FØØ3 E84
DDPB AMX15 L (CEHA,S)

DDPS AMX 15 H (DDPN)
DDPB AMX 14 H (DDPN)
DDPB AMX 13 H (DDPN)
DDPB AMX 12 H (DDPN)

(AP2)
BUS ALU BYTE1 A=B H
DDPB ALU COUT(15:12) L (DDPC)
DDPB ALU 15:12 G H (DCPL,DDPB)
DDPB ALU 15:12 P H (DCPL,DDPB)
DDPB ALU 15 H (DDPE,J,DEPA,CEMA)(DDPS)
DDPB ALU 14 H (DDPA,E,J,DEPA)
DDPB ALU 13 H (DDPA,E,J,DEPA)
DDPB ALU 12 H (DDPA,E,J)

DEPA ALU 17 H
DEPA ALU 16 H
74F257 E122 B3 SHF RT (15:12)
DDPB SHF15 H (DDPE)
DDPB SHF14 H (DDPE)
DDPB SHF13 H (DDPE)
DDPB SHF12 H (DDPE)
DDPJ SHF RT EN L
DDPA SHF SØ H

74F35Ø E123 SHF LFT (15:12)
DDPA ALU 11 H
DDPA ALU 1Ø H
DDPA ALU Ø9 H
DAPE SHF LFT S1 H
DDPA SHF SØ H
DDPJ SHF LFT EN L

74F182 E83
DCPL ALU CARRY Ø7 L
DDPB ALU 15:12 P H
DDPB ALU 15:12 G H
DDPB ALU15 P H (DCPL)
DDPB ALU15 G H (DCPL)
DDPR +3V F H
DDPA ALU 11:Ø8 P H
DDPA ALU 11:Ø8 G H
DDPB ALU 12 CIN L (DDP

SHF RT MUX 74F257

OE	SØ	FN
H	X	HI-Z
L	L	AN, SHF [Ø1]
L	H	BN, SHF [Ø2]

SHF LFT MUX - 74F35Ø

OE	S1	SØ	FN
H	X	X	HI-Z
L	L	L	$I_3 - I_Ø$, NO SHIFT
L	L	H	$I_2 - I_1$, SHF [L1]
L	H	L	$I_1 - I_2$, SHF [L2]
L	H	H	$I_Ø - I_3$, SHF [L3]

REVISIONS		
CHK	CHANGE NO.	REV.

(RA, RAMX, ALU, SHF 15:12)
(SLOT 11)

TITLE: DATA PATH 15:ØØ (DDPB)
SIZE D | CODE CS | NUMBER M7469-0-0 | REV C
SCALE — | SHEET 3 OF 20 | DIST.

DCS M7469-0-0 C

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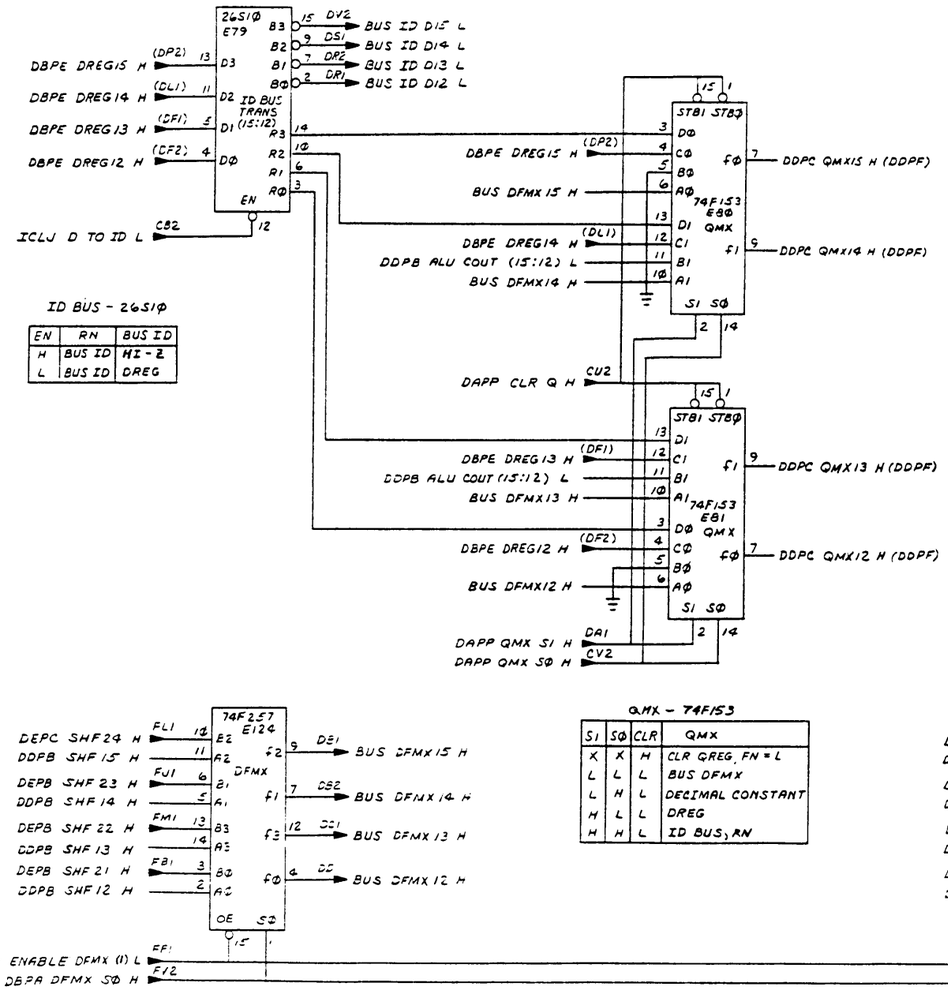
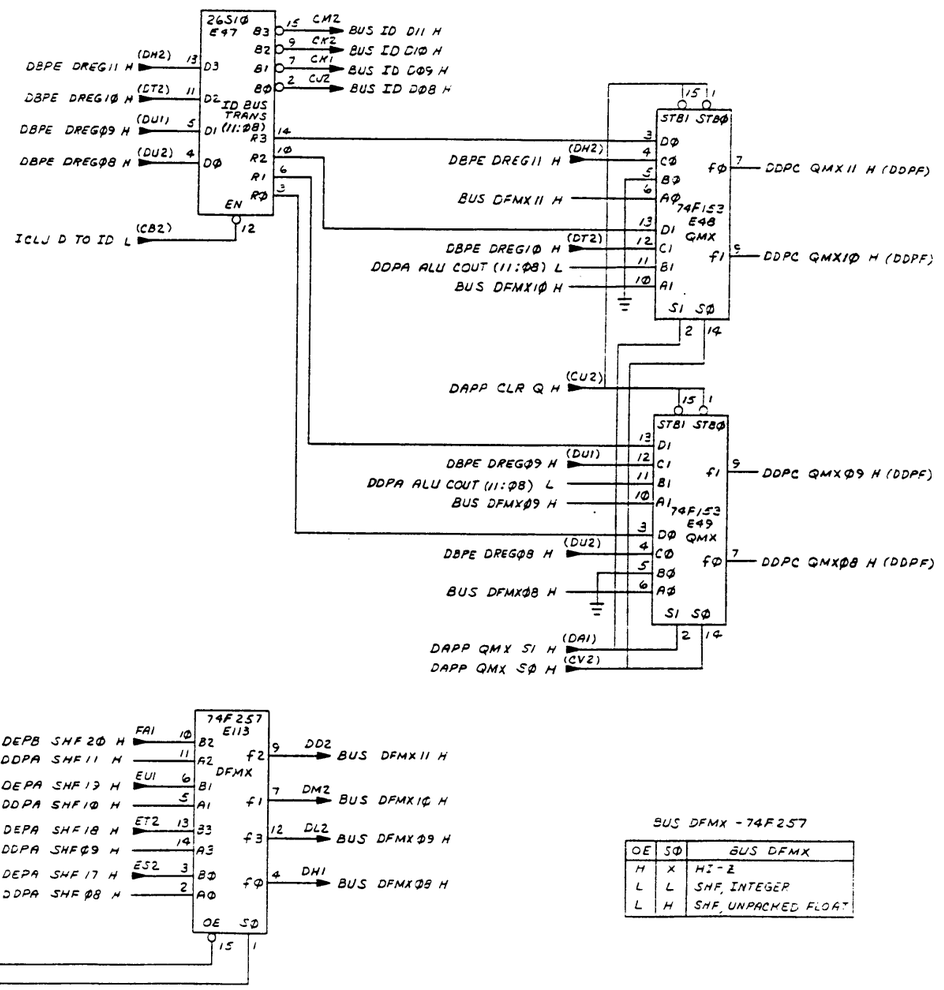


ID BUS - 26S10

EN	RN	BUS ID
H	BUS ID	HI-Z
L	BUS ID	DREG

QMX - 74F153

S1	S0	CLR	QMX
X	X	H	CLR QREG, FN = L
L	L	L	BUS DFMX
L	H	L	DECIMAL CONSTANT
H	L	L	DREG
H	H	L	ID BUS, RN



BUS DFMX - 74F257

OE	S0	BUS DFMX
H	X	HI-Z
L	L	SHF, INTEGER
L	H	SHF, UNPACKED FLOAT

REVISIONS		
CHK	CHANGE NO.	REV.

QMX, DFMX, ID BUS 15:08 (SLOT 11)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:08 (DDPC)	D	CS	M7469-0-0	C
SCALE —	SHEET 4 OF 20	DIST.		

DCS M7469-0-0 C

TW 1

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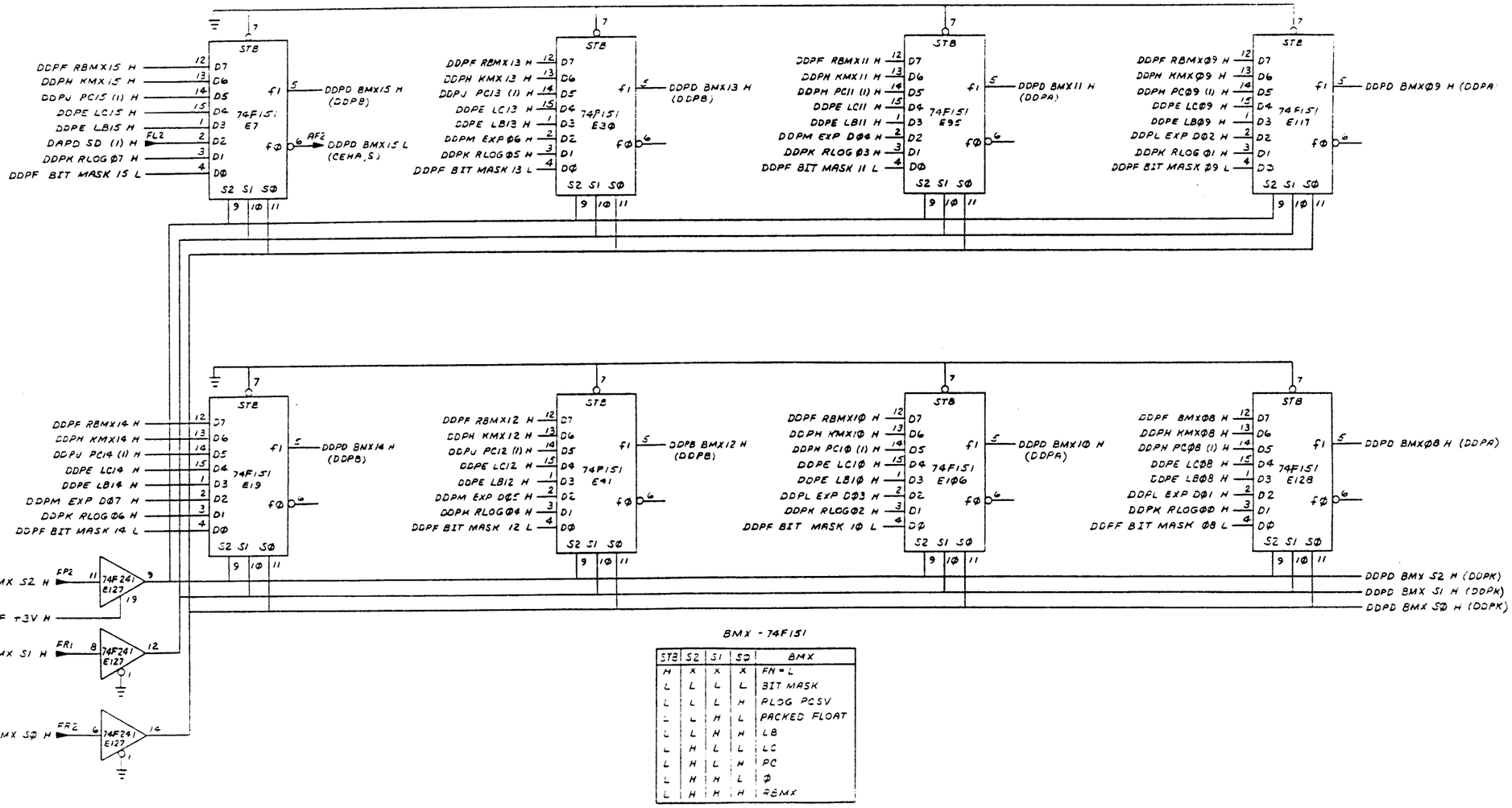

BMX - 74F151

STB	S2	S1	SØ	BMX
H	X	X	X	FN = L
L	L	L	L	BIT MASK
L	L	L	H	PLOG PCSV
L	L	H	L	PACKED FLOAT
L	L	H	H	LB
L	H	L	L	LC
L	H	L	H	PC
L	H	H	L	Ø
L	H	H	H	REMX

(BMX 15:Ø8)

(SLOT 11)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV
DATA PATH 15:Ø8 (DDPD)	D	CS	M7469-0-0	C
SCALE —	SHEET 5 OF 20	DIST		

M7469-0-0 D CS C

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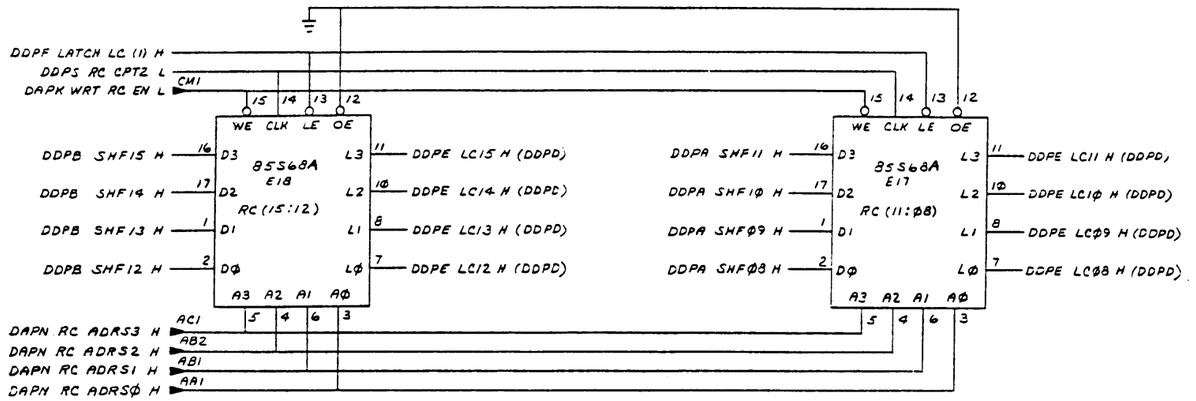
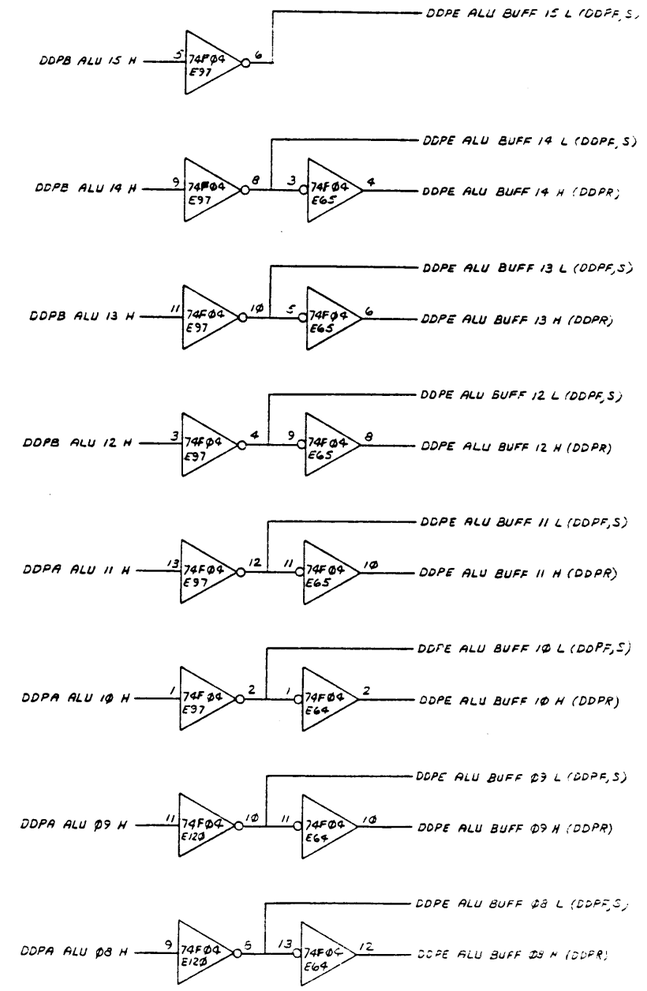


RB,RC- 85568A

LE	$\overline{WE}$	CLK	FUNCT
H	H	X	NO OPER.
H	L	↓	STORE, PN ← SHF
↑	H	X	LATCH LB,LC ← (RN)



(ALU BUFFERS RB & RC 15:08)

(SLOT 11)

REVISIONS		
CHK	CHANGE NO.	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:08 (DDPE)	D	CS	M7469-0-0	C
SCALE —	SHEET 6 OF 20	DIST.		

TW 1

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DEPE QREG16 H
FB2
DDPC QMX15 H
DDPC QMX14 H
DDPC QMX13 H
DDPC QMX12 H
DDPR +3V B H
DDPF QREG11 H
74F194 QREG E70 (S1 S0 DSR, D0 D1 D2 D3, R0(1) R1(1) R2(1) R3(1), CLR CLK DSL)
FC1 DDPF QREG15 H (DBPM, DDPB, DEPB,E
FD1 DDPF QREG14 H (DDPB, DDPM)
FC2 DDPF QREG13 H (DDPB, DDPM)
EB2 DDPF QREG12 H (DDPB, DDPM)
74F157 E69 (B3 B2 B1 B0, A3 A2 A1 A0, STB S0, F3 F2 F1 F0, RBMX (15:12))
DBPE DREG15 H (DF2)
DBPE DREG14 H (DL1)
DBPE DREG13 H (DF1)
DBPE DREG12 H (DF2)
DDPF RBMX15 H (DDPD)
DDPF RBMX14 H (DDPD)
DDPF RBMX13 H (DDPD)
DDPF RBMX12 H (DDPD)
DDPF QREG12 H
DAPP QREG S0 H
DAPP QPEG S1 H
DK1
DK2
DDPC QMX11 H
DDPC QMX10 H
DDPC QMX09 H
DDPC QMX08 H
DDPR +3V B H
DBPV DREG CLK TP L
DCPF QREG07 H
EH1
CS2
74F194 QREG E59 (S1 S0 DSR, D0 D1 D2 D3, R0(1) R1(1) R2(1) R3(1), CLR CLK DSL)
EJ2 DDPF QREG11 H (DBPM, DDPA)
FP1 DDPF QREG10 H (DBPM, DDPA)
CE2 DDPF QREG09 H (DBPM, DDPA)
CJ1 DDPF QREG08 H (DBPM, DCPF,H, DDPA)
74F157 E58 (B3 B2 B1 B0, A3 A2 A1 A0, STB S0, F3 F2 F1 F0, RBMX (11:08))
DBPE DREG11 H (DH2)
DBPE DREG10 H (DT2)
DBPE DREG09 H (DU1)
DBPE DREG08 H (DU2)
DDPF RBMX11 H (DDPD)
DDPF RBMX10 H (DDPD)
DDPF RBMX09 H (DDPD)
DDPF RBMX08 H (DDPD)
DDPA RBMX S0 H
DDPF +3V H
74S133 E128 (13 12 11 10 9 8 7 12)
DDPE ALU BUFF 15 L
DDPE ALU BUFF 14 L
DDPE ALU BUFF 13 L
DDPE ALU BUFF 12 L
DDPE ALU BUFF 11 L
DDPE ALU BUFF 10 L
DDPE ALU BUFF 09 L
DDPE ALU BUFF 08 L
FM2 DDPF ALU (15:08) = 0 L (CEHA,S)

GREG - 74F194

CLR	CLK	S1	S0	FUNCT
L	X	X	X	RN = L
H	X	L	L	NO OPERATION
H	↑	L	H	SHF [R1], R0 ← DSR
H	↑	H	L	SHF [L1], R3 ← DSL
H	↑	H	H	LOAD RN ← QMX

RBMX - 74F157

STB	S0	RBMX
H	X	FN = L
L	L	QREG
L	H	DREG

DDPR +3V B H
DAPJ LOAD LC H (CR2)
DDPS CPT0 L
74S112 ES1 (J S, K R, 0)
DDPF LATCH LC (1) H (DDPE)
DAPJ LOAD LB H (CR1)
74S112 ES0
DDPF LATCH LB (1) H (DDPE)
DAPJ LOAD LA H (CP2)
DDPF LATCH LA (1) H (DDPA, B)
DDPS CPT2 L
DDPR SC03 (1) H
DDPR SC04 (1) H
DDPR SC02 (1) H
DDPR SC01 (1) H
DDPR SC00 (1) H
74F138 ES2 (EN, SELC SELB SELA, MASK GEN (15:08))
DDPF BIT MASK 15 L (DDPD)
DDPF BIT MASK 14 L (DDPD)
DDPF BIT MASK 13 L (DDPD)
DDPF BIT MASK 12 L (DDPD)
DDPF BIT MASK 11 L (DDPD)
DDPF BIT MASK 10 L (DDPD)
DDPF BIT MASK 09 L (DDPD)
DDPF BIT MASK 08 L (DDPD)
+5V
R39 330
R40 680
C48 .047
DDPF +3V H

(QREG RBMX & MASK)
(SLOT 11)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:08 (DDPF)	D	CS	M7469-0-0	C
SCALE —— SHEET 7 OF 20	DIST.			

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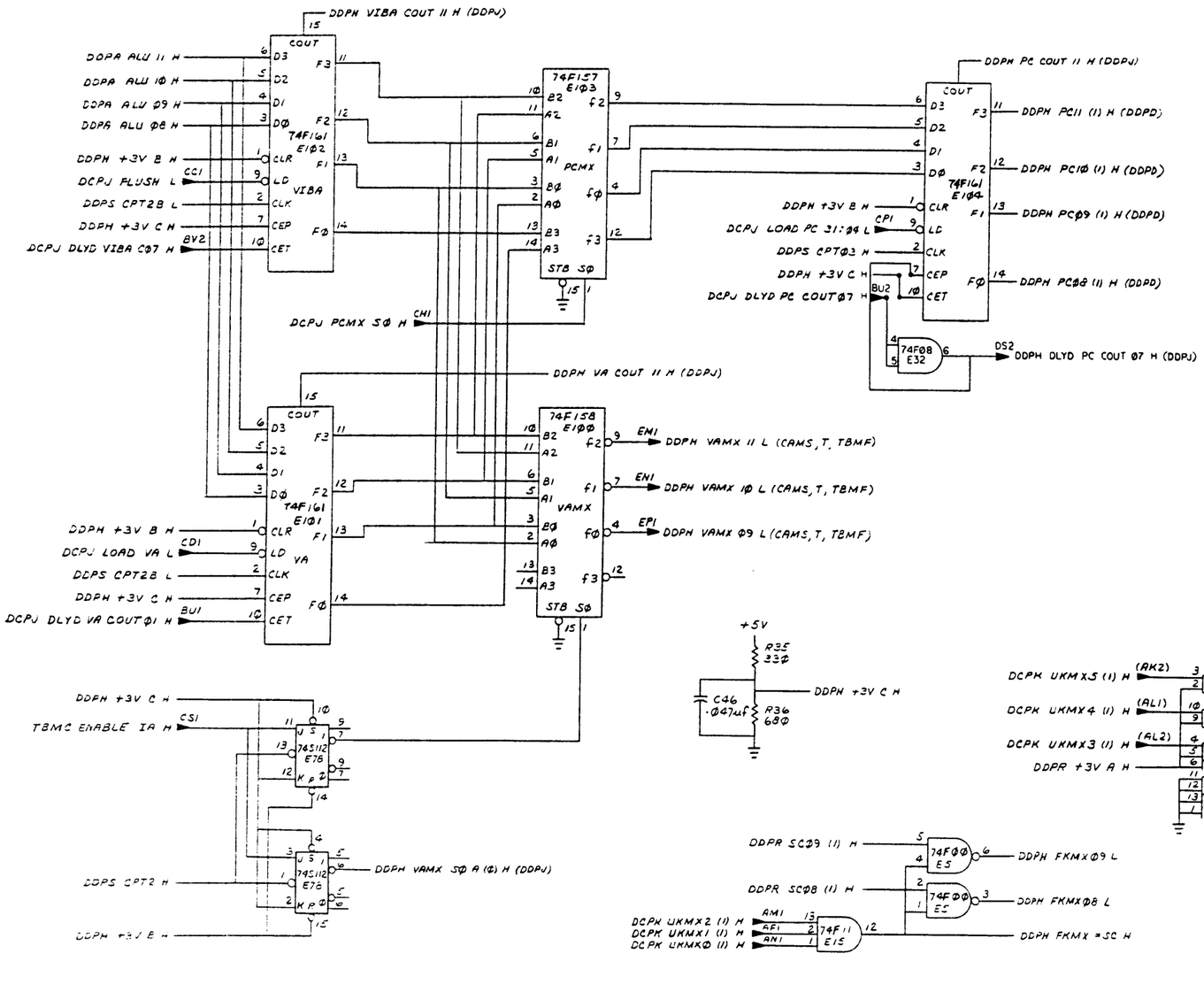

(SLOT 11)

(SLOW CONSTANTS VA VIBA, PC 11:08)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: DATA PATH 15:08 (DCPH)		SIZE: D	CODE: CS	NUMBER: M7469-0-0
SCALE: —	SHEET: 8 OF 20	DIST:		REV: C

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DDPJ VIBA COUT 15 H

DDPB ALU 15 H
DDPB ALU 14 H
DDPB ALU 13 H
DDPB ALU 12 H
DDPR +3V B H
DCPJ FLUSH L
DDPS CPT2B L
DDPH +3V C H
DDPH VIBA COUT 11 H

74F161 E91 VIBA: COUT, D3 D2 D1 D0, CLR LD CLK CEP CET, F3 F2 F1 F0

74F157 E92 PCMX: B2 A2 B1 A1 B0 A0 B3 A3, STB S0, F2 F1 F0 F3

DCPJ PCMX S0 H (CH1)

DDPJ VA COUT 15 H

74F161 E90 VA: COUT, D3 D2 D1 D0, CLR LD CLK CEP CET, F3 F2 F1 F0

DDPR +3V B H
DCPJ LOAD VA L (CD1)
DDPS CPT2B L
DDPH +3V C H
DDPH VA COUT 11 H

74F158 E89 VAMX: B2 A2 B1 A1 B0 A0 B3 A3, STB S0, F2 F1 F0 F3

DDPJ VAMX 15 L (CAMR,U,TBMA)
DDPJ VAMX 14 L (CAMR,U,TBMA)
DDPJ VAMX 13 L (CAMS,T,TBMF)
DDPJ VAMX 12 L (CAMS,T,TBMF)

DDPH VAMX S0 A (0) H

DAPE SHF RT L (FH1)
DDPS CPT2 L

74F00 E115
74F00 E126
74F00 E126

DDPJ SHF RT EN L (DDPA,B)
DDPJ SHF LFT EN L (DDPA,B)

BA1 DDPJ PC COUT 15 H (DEPN)

74F161 E93 PC: COUT, D3 D2 D1 D0, CLR LD CLK CEP CET, F3 F2 F1 F0

DDPJ PC 15 (1) H (DDPD)
DDPJ PC 14 (1) H (DDPD)
DDPJ PC 13 (1) H (DDPD)
DDPJ PC 12 (1) H (DDPD)

DDPR +3V B H
DCPJ LOAD PC 31:04 L (CP1)
DDPS CPT0B H
DS2 DDPH DLYD PC COUT 07 H
DDPH PC COUT 11 H

DDPJ VA COUT 15 H
8640 E36
74F04 E35
BS DDPJ DLYD VA 015 H (DEPN)

DDPJ VIBA COUT 15 H
8640 E36
74F04 E35
AH2 DDPJ DLYD VIBA 015 H (DEPN)

+5V
R23 330
R25 330
R24 820
R26 820

74F175 E25

DDPP ALU BUFF 01 H
DDPP ALU BUFF 00 H
BUS CS 23 H AV2
BUS CS 24 H BD1
DAPN UWORD CLR A L (FH1)
DDPS CPT0A H

DDPJ SAVED ALU 01 H (DDPS)
DDPJ SAVED ALU 01 L (DDPS)
DDPJ SAVED ALU 00 H (DDPS)
DDPJ SAVED ALU 00 L (DDPS)
DDPJ USCM (1) H (DDPR)
DDPJ LOAD FE REG (1) H (DDPL,M,N)

+5V
R17 330
R15 330
R21 330
R19 330
R18 820
R16 820
R22 820
R22 820

74F175 E24

BUS CS 17 H BB1
BUS CS 16 H BA1
BUS CS 19 H BC1
BUS CS 18 H BB2
DAPN UWORD CLR A L (FH1)
DDPS CPT0 H

74F04 E64
74F04 E64

DDPJ USMX1 (1) H (DDPR)
DDPJ USMX0 (1) H (DDPR)
DDPJ UEBMX 01 (1) H (DDPA)
DDPJ UEBMX 00 (1) H (DDPA)

VA VIBA PC - 74F161

CLR	LD	CLK	CEP	CET	FUNC
L	X	X	X	X	CLR, FN ← L
H	-	↑	X	X	LOAD, FN ← ALU
H	H	↑	H	L	INC, FN ← FN
H	H	↑	H	H	INC, EN ← FN+1

VAMX - 74F158

STB	S0	VAMX
H	X	FN=L
L	L	VIBA
L	H	VA

(VA, VIBA PC 15:12)

(SLOT 11)

REVISIONS

CHK	CHANGE NO	REV

TITLE: DATA PATH 15:00 (DDPJ)
SIZE D | CODE CS | NUMBER M7469-0-0 | REV C
SCALE — | SHEET = OF 26 | DIST

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DAPB RLOG UPDATE H
DDPS CPT2 H
DDPK UPDATE L
DDPK WRITE RLOG L
RLOG ADDRESS
RLOG ADR CNTR
CEHF IRD STATE H
DDPS CPT2 H
DDPK RLOG DONE L
DDPK RLOG DONE H (DDPS)
DDPD BMX S2 H
DDPD BMX S1 H
DDPD BMX S0 H
DDPK READ RLOG L
DDPK READ RLOG H
DELAY 16/16653-01
DDPS RLOG CPT2 L
DDPK DELAYED RLOG CPT2 L
DDPK READ RLOG H
DDPK WRITE RLOG L
DDPS CPT0B H
DDPK DELAYED RLOG CPT2 L
DDPK RLOG UPDATE L
DAPL RA ADRS0 H
DAPB ALU B1:0 S0 H
DCPK KMX 03 H
DCPK KMX 02 H
DCPK KMX 01 H
DCPK KMX 00 H
DAPL RA ADRS3 H
DAPL RA ADRS2 H
DAPL RA ADRS1 H
DDPK RLOG DONE H
DDPK RLOG 08 H (DDPD)
DDPK RLOG 07 H (DDPD)
DDPK RLOG 06 H (DDPD)
DDPK RLOG 05 H (DDPD)
DDPK RLOG 04 H (DDPD)
DDPK RLOG 03 H (DDPD)
DDPK RLOG 02 H (DDPD)
DDPK RLOG 01 H (DDPD)

RLOG ADRS CNTR - 74F283

C0	FUNCT
H	INC ADRS B. PLUS 1.
L	DEC. ADRS B. MINUS. 1.

RLOG ADRS - 74F175

CLR	CLK	RLOG ADRS
L	X	RN ← L
H	↑	RN = RLOG ADRS CNTR

(RLOG STACK)

(SLOT 11)

REVISIONS

CHK	CHANGE NO.	REV.

TITLE: DATA PATH 15:08 (DDPK)
SIZE D CODE CS NUMBER M7469-0-0 REV C
SCALE — SHEET 10 OF 20 DIST.

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EAMX - 74F157

STB	S0	EAMX
H	X	FN = L
L	L	SC
L	H	STATE

BUS EALU A=B H

DDPL EALU COUT Ø3 L (DDPM)

74F157 E65 — EAMX — STB S0

DDPL STATEØ3 (1) H
DDPR SCØ3 (1) H
DDPL STATEØ2 (1) H
DDPR SCØ2 (1) H
DDPL STATEØ1 (1) H
DDPR SCØ1 (1) H
DDPL STATEØØ (1) H
DDPR SCØØ (1), H

CEHF LOAD STATE H (BH2)
DDPP EALU CIN L

COUTX 74F182 CIN E132 GØ PØ

74F181 E129 EALU P3:ØØ — A B COUT4 G P — S3 S2 S1 S0 M CIN

DDPN EBMXØ3 H
DDPN EBMXØ2 H
DDPN EBMXØ1 H
DDPN EBMXØØ H

DDPP EALU S3 H
DDPP EALU S2 H
DDPP EALU S1 H
DDPP EALU S0 H
DDPP EALU M H
DDPP EALU CIN L

25-05782 E119 NABSV — DDPM EALUØ7 H … DDPM EALUØ4 H — CS

DDPL NABS EALU DØ7 H (DDPM)
DDPL NABS EALU DØ6 H (DDPM)
DDPL NABS EALU DØ5 H (DDPM)
DDPL NABS EALU DØ4 H (DDPM)

74F157 E118 EXP MUX — STB S0

DDPM SELNABS L

74F04 E120 — DDPL EALUØ3 L (DDPS)
74F04 E122 — DDPL EALUØ2 L (DDPS)
74F04 E131 — DDPL EALUØ1 L (DDPS)
74F04 E131 — DDPL EALUØØ L (DDPS)

DDPL EALUØ3 H (DDPM)
DDPL EALUØ2 H (DDPM)
DDPL EALUØ1 H (DDPM)
DDPL EALUØØ H (DDPM)

DDPL EXP DØ3 H
DDPL EXP DØ2 H
DDPL EXP DØ1 H
CD2
DDPL EXP DØØ H (DDPR, DCPD)

DDPJ LOAD FE REG H

74F194 E107 FE — S1 S0 DSR — D3 D2 D1 DØ — R3(1) R2(1) R1(1) RØ(1) — CLR CLK DSL

DDPL FEØ3 (1) H (DDPN,R)
DDPL FEØ2 (1) H (DDPN,R)
DDPL FEØ1 (1) H (DDPN,R)
DDPL FEØØ (1) H (DDPN,R)

DDPR +3V B H
DDPS CPTØA H

CEHF LOAD STATE H (BH2)

74F194 E96 STATE — S1 S0 DSR — D3 D2 D1 DØ — R3(1) R2(1) R1(1) RØ(1) — CLR CLK DSL

DDPL STATEØ3 (1) H (DDPS)
DDPL STATEØ2 (1) H (DDPS)
DDPL STATEØ1 (1) H (DDPS)
DDPL STATEØØ (1) H (DDPS)

DDPR +3V B H
DDPS CPTØA H

EALU FUNCT DECODE

FUNCT	M	CIN	S3	S2	S1	S0
A	H	L	H	H	H	H
A OR B	H	L	H	H	L	L
A AND NOT B	H	L	L	H	H	H
B	H	L	H	L	H	L
A PLUS B	L	H	H	L	L	H
A MINUS B MINUS 1	L	L	L	H	H	L
A PLUS 1	L	L	L	L	L	L
NOT A (1'S COMP)	L	L	L	H	H	L

EXP. MUX - 74F157

STB	S0	EXP MUX
H	X	FN = L
L	L	NABS
L	H	EALU

EXPONENT Ø3:ØØ (SLOT 11)

REVISIONS

CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:Ø8 (DDPL)	D	CS	M7469-0-0	

SCALE — SHEET 11 OF 20 — DIST.

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74F157 E38 — EAMX
DDPM STATE Ø7 (1) H
DDPR SC Ø7 (1) H
DDPM STATE Ø6 (1) H
DDPR SC Ø6 (1) H
DDPM STATE Ø5 (1) H
DDPR SC Ø5 (1) H
DDPM STATE Ø4 (1) H
DDPR SC Ø4 (1) H
STB SØ
CEMF LOAD STATE H (BM2)

74F157 E73
DDPN EALU Ø9 H
DDPR +3V B H
DDPN EALU Ø8 H
STB SØ
DDPM EXP DØ9 H (DDPR)
DDPM EXP DØ8 H (DDPR)
DDPM SEL NABS L

BUS EALU A=B H
DDPM EALU Ø7 COUT L (DDPN)
COUTY 74F182 E13Ø
DDPN EBMX Ø7 H
DDPN EBMX Ø6 H
DDPN EBMX Ø5 H
DDPN EBMX Ø4 H
74F181 E132 — EALU
S3 S2 S1 SØ M CIN
DDPP EALU S3 H
DDPP EALU S2 H
DDPP EALU S1 H
DDPP EALU SØ H
DDPP EALU M H
DDPL EALU COUT Ø3 L

DDPL NABS EALU DØ7 H
DDPL NABS EALU DØ6 H
DDPL NABS EALU DØ5 H
DDPL NABS EALU DØ4 H
74F157 E121
STB SØ
DDPM SEL NABS L

74FØØ E131 — DDPM EALU Ø7 L (DDPS)
74FØØ E131 — DDPM EALU Ø6 L (DDPS)
74FØØ E131 — DDPM EALU Ø5 L (DDPS)
74FØØ E13 — DDPM EALU Ø4 L (DDPS)
DDPM EALU Ø7 H (DDPL)
DDPM EALU Ø6 H (DDPL)
DDPM EALU Ø5 H (DDPL)
DDPM EALU Ø4 H (DDPL)

DDPM EXP DØ7 H (DDPR)
DDPM EXP DØ6 H (DDPR)
DDPM EXP DØ5 H (DDPR)
DDPM EXP DØ4 H (DDPR)
DDPU LOAD FE REG H
74F194 E110 — FE
SI SØ CSR
DDPM FE Ø7 (1) H (DDPN, R)
DDPM FE Ø6 (1) H (DDPN, R)
DDPM FE Ø5 (1) H (DDPN, R)
DDPM FE Ø4 (1) H (DDPN, R)
DDPR +3V B H
DDPS CPTØA H

CEMF LOAD STATE H (BM2)
74F194 E99 — STATE
SI SØ DSR
DDPM STATE Ø7 (1) H (DDPS)
DDPM STATE Ø6 (1) H (DDPS)
DDPM STATE Ø5 (1) H (DDPS)
DDPM STATE Ø4 (1) H (DDPS)
DDPR +3V B H
DDPS CPTØA H

DDPN EALU Ø9 L
DDPP EALU =7 H
74FØØ E84
DDPM SEL NABS L (DDPL)

(EXPONENT Ø7:Ø4)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:Ø8 (DDPM) (SLOT 11)	D	CS	M7469-0-0	C
SCALE —	SHEET 12 OF 25	DIST.		

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BUS EALU A=B H

74F04 E65 → DDPN EALUØ9 L (DDPS)

74F04 E65 → DDPN EALUØ8 L (DDPS)

74F181 E77 EALU Ø9:Ø8
A B COUT Ø G P
B3 A3 B2 A2 B1 A1 B0 A0
S3 S2 S1 S0 M CIN
F3 F2 F1 F0
BF1 → DDPN EALU Ø9 H (CEHC, S, ICLK, T)
BM1 → DDPN EALU Ø8 H (CEHC, S)

DDPP EALU S3 H
DDPP EALU S2 H
DDPP EALU S1 H
DDPP EALU S0 H
DDPP EALU M H
DDPM EALU Ø7 COUT L

74F157 E75 EAMX
DDPR SCØ9 (1) H
DDPR SCØ8 (1) H
STB S0
(BM2)
CEHF LOAD STATE H

74F157 E76 EBMX
DDPH KMX Ø9 H
DDPN FEØ9 (1) H
DDPH KMX Ø8 H
DDPN FEØ8 (1) H
STB S0
DDPJ UEBMX1 (1) H
DDPJ UEBMXØ (1) H

74F194 E74 FE
S1 S0 DSR DSL CLR CLK
D3 D2 D1 D0
R3(1) R2(1) R1(1) R0(1)
DDPM EXP DØ9 H
DDPM EXP DØ8 H
DDPR +3V B H
DDPS CPTØA H
DDPN FEØ9 (1) H (DDPR)
DDPN FEØ8 (1) H (DDPR)

74F153 E34 EBMX
STB1 STBØ
DDPB AMX 14 H
DCPK KMX Ø7 H
DDPM FEØ7 (1) H
DDPB AMX 13 H
DCPK KMX Ø6 H
DDPM FEØ6 (1) H
DDPN EBMXØ7 H (DDPM)
DDPN EBMXØ6 H (DDPM)
DDPJ UEBMX1 (1) H
DDPJ UEBMXØ (1) H

74F153 E31 EBMX
DBPL NORM SV3 H
DDPA AMX 10 H
DCPK KMX Ø3 H
DDPL FEØ3 (1) H
DBPL NORM SV2 H
DDPA AMX Ø9 H
DCPK KMX Ø2 H
DDPL FEØ2 (1) H
DDPN EBMXØ3 H (DDPL)
DDPN EBMXØ2 H (DDPL)

74F153 E23 EBMX
DBPL NORM SV4 H
DDPA AMX 11 H
DCPK KMX Ø4 H
DDPM FEØ4 (1) H
DDPN EBMXØ5 H (DDPM)
DDPN EBMXØ4 H (DDPM)

74F153 E20 EBMX
DBPL NORM SV1 H
DDPA AMX Ø8 H
DCPK KMX Ø1 H
DDPL FEØ1 (1) H
DBPL NORM SV0 H
DDPN AMXØ7 H
DCPK KMX ØØ H
DDPL FEØØ (1) H
DDPN EBMXØ1 H (DDPL)
DDPN EBMXØØ H (DDPL)

DDPB AMXØ7 L
DDPR +3V B H
74F00 E84
DDPN AMXØ7 H

EBMX - 74F153

STBI,Ø	S1	S0	EBMX
H	X	X	FN = L
L	L	L	FE
L	L	H	KMX
L	H	L	AMX EXP
L	H	H	NORM SV

(EXPONENT 9:8 EBMX)

(SLOT 11)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:Ø8 (DDPN)	D	CS	M7469-0-0	C
SCALE —	SHEET 13 OF 20	DIST.		

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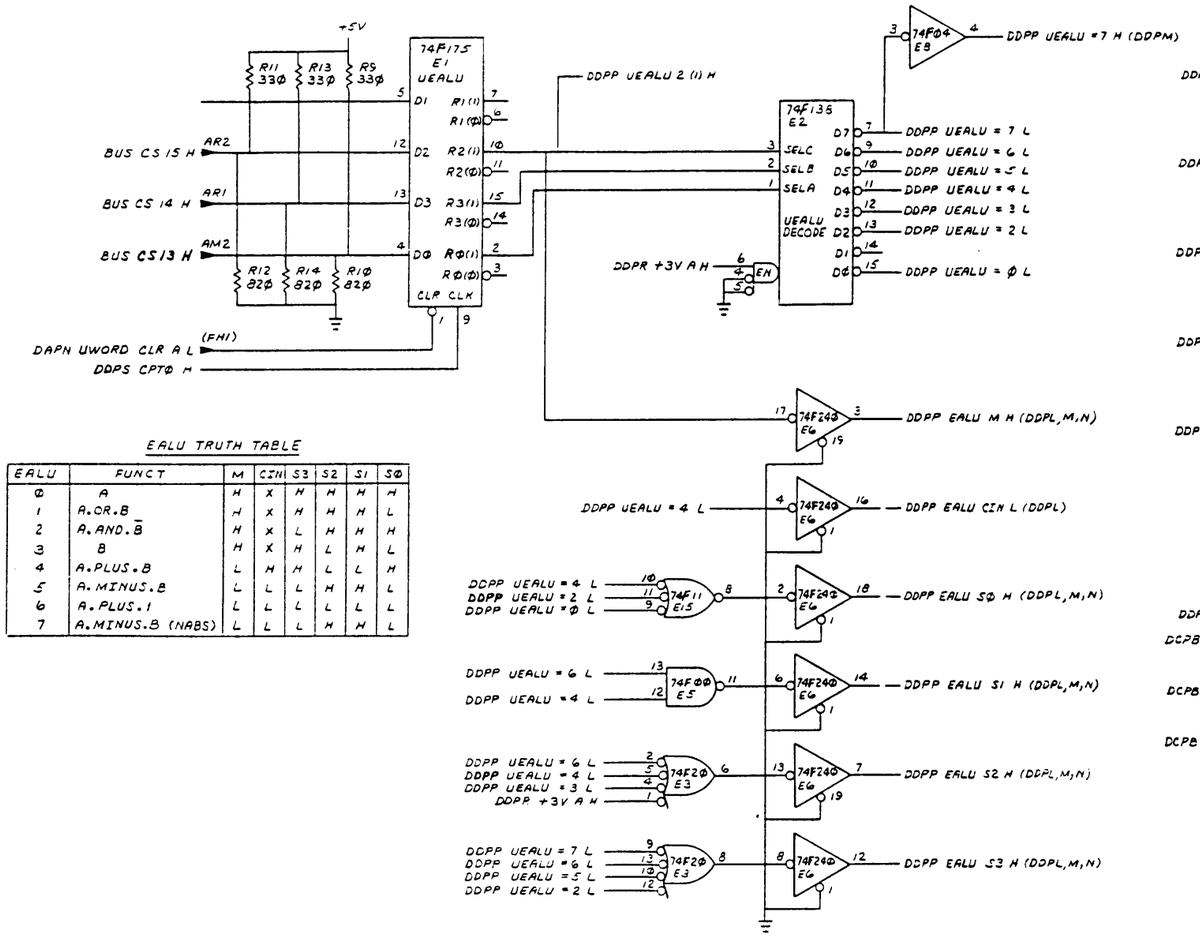
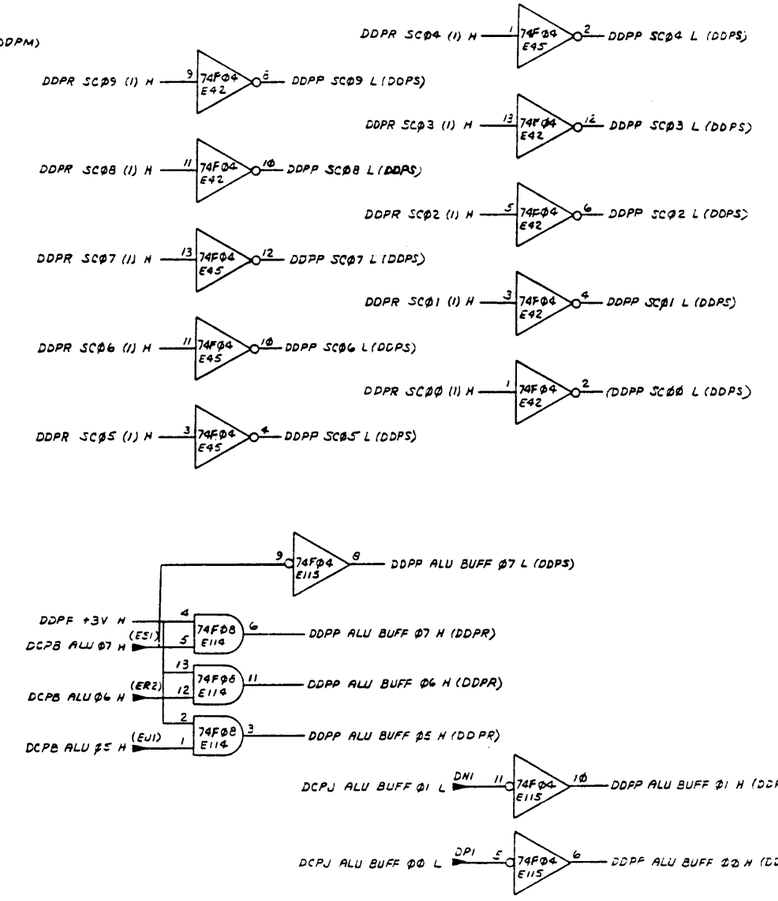


EALU TRUTH TABLE

EALU	FUNCT	M	CIN	S3	S2	S1	S0
0	A	H	X	H	H	H	H
1	A.OR.B	H	X	H	H	H	L
2	A.AND.$\overline{B}$	H	X	L	H	H	H
3	B	H	X	H	L	H	L
4	A.PLUS.B	L	H	H	L	L	H
5	A.MINUS.B	L	L	L	H	H	L
6	A.PLUS.1	L	L	L	L	L	L
7	A.MINUS.B (NABS)	L	L	L	H	H	L



REVISIONS		
CHK	CHANGE NO.	REV.

(EALU CONTROL,SC BUFFERS)

(SLOT 11)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:08 (DDPP)	D	CS	M7469-0-0	C
SCALE —	SHEET 14 OF 20	DIST.		

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DDPE ALU BUFF Ø9 H
DDPN FEØ9 (1) H
DDPN EXP DØ9 H
DDPE ALU BUFF Ø8 H
DDPN FEØ8 (1) H
DDPN EXP DØ8 H
DDPJ USMX1 (1) H
DDPJ USMXØ (1) H
74F153 E62 SMX
STBI STBØ SI SØ

DDPJ USCK (1) H
DDPR +3V B H
DDPS CPTØA H
74F194 E33 SC
S1 SØ DSR
DDPR SCØ9 (1) H (DDPH,N,DBPL)
DDPR SCØ8 (1) H (DDPH,N)
DDPR SCØ7 (1) H (DCPK)
DDPR SCØ6 (1) H (DCPK)

DDPE ALU BUFF 12 H
DDPP ALU BUFF Ø5 H
DDPM FEØ5 (1) H
DDPM EXP DØ5 H
DDPE ALU BUFF 11 H
DCPJ ALU BUFF Ø4 H
DDPM FEØ4 (1) H
DDPM EXP DØ4 H
DDPJ USMX1 (1) H
DDPJ USMXØ (1) H
74F153 E56 SMX

DDPJ USCK (1) H
DDPR +3V B H
DDPS CPTØA H
74F194 E55 SC
S1 SØ DSR
DDPR SCØ4 H (DBPL,DCPE,DEPJ,ICLJ,T)
DDPR SCØ4 (1) H (DDPF,M,P)
DDPR SCØ5 (1) H (DDPV,DDPM,ICLJ,T)
DDPR SCØ3 (1) H (DDPF,L)
DDPR SCØ2 (1) H (DDPF,L)
74F241 E11
DDPR SCØ3 H (DBPL,DCPE,K,DEPJ,ICLJ,T)
DDPR SCØ2 H (DBPL,DCPE,K,DEPJ,ICLJ,T)
DDPR +3V B H

DDPE ALU BUFF 14 H
DDPP ALU BUFF Ø7 H
DDPM FEØ7 (1) H
DDPM EXP DØ7 H
DDPE ALU BUFF 13 H
DDPP ALU BUFF Ø6 H
DDPM FEØ6 (1) H
DDPM EXP DØ6 H
DDPJ USMX1 (1) H
DDPJ USMXØ (1) H
74F153 E66 SMX

DDPE ALU BUFF 10 H
DCPJ ALU BUFF Ø3 H
DDPL FEØ3 (1) H
DDPL EXP DØ3 H
DDPE ALU BUFF Ø9 H
DCPJ ALU BUFF Ø2 H
DDPL FEØ2 (1) H
DDPL EXP DØ2 H
74F153 E53 SMX

DDPE ALU BUFF Ø8 H
DDPL ALU BUFF Ø1 H
DDPL FEØ1 (1) H
DDPL EXP DØ1 H
DDPP ALU BUFF Ø7 H
DDPP ALU BUFF ØØ H
DDPL FEØØ (1) H
DDPL EXP DØØ H
74F153 E63 SMX

DDPJ USCK (1) H
DDPR +3V B H
DDPS CPTØA H
74F194 E54 SC
S1 SØ DSR
DDPR SCØ1 H (DDPF,L)
DDPR SCØØ H (DDPF,L)
74F241 E11
DDPR SCØ1 H (DBPL,DCPE,K,DEPJ,ICLU,T)
DDPR SCØØ H (DBPL,DCPE,K,DEPJ,ICLU,T)

SMX - 74F153

STBI, Ø	SI	SØ	SMX
H	X	X	FN = L
L	L	L	EALU
L	L	H	FE
L	H	L	ALU
L	H	H	ALU EXP

+5V
R29 330
R27 680
C43 .Ø47uf
DDPR +3V B H

+5V
R29 330
C42 .Ø47uf
R3Ø 68Ø
DDPR +3V A H

REVISIONS

CHK	CHANGE NO	REV.

(SMX & SC)
(SLOT 11)

TITLE: DATA PATH 15:ØØ (DDPR)
SIZE: D | CODE | NUMBER: M7469-0-0 | REV.: C
SCALE | SHEET 15 OF 20 | DIST.

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DDPP SC09 L
DDPP SC08 L
74F08 E32
74F04 E45
DDPS SC (9:8) NE Ø H
DDPP SC07 L
DDPP SC06 L
DDPP SC05 L
74F11 E44
74F02 E21
DDPS SC (9:5) .NE. Ø H

DDPP SC09 L
DDPP SC08 L
DDPP SC07 L
DDPP SC06 L
DDPP SC05 L
DDPP SC04 L
DDPP SC03 L
DDPP SC02 L
DDPP SC01 L
DDPP SC00 L
DDPK +5V BH
74S133 E43
74S133 E22
EM2
DDPS SC NE Ø H (DBPV)
-5.2V
BL2
R2 150
R1 120
R4 150
R3 120
ØMH125 E46
DDPS CPTØ L (DDPJ)
DDPS CPTØB H (DDPH,J,K)
DDPS CPTØA H (DDPG,L,M,N,P)
CL2
CLKB LECL CPTØB3 L
CL1
CLKB LECL CPTØB3 H
DDPS CPTØ H (DDPF,U,P)
74F08 E32
DDPP SC09 L
DDPS SC.g+. Ø H

-5.2V
BL2
R7 150
R8 120
R5 150
R6 120
ØMH125 E47
DDPS CPT2B L (DDPH,J)
DDPS RLOG CPT2 L (DDPK)
DDPS CPT2 H (DDPF)
DE2
CLKD LECL CPT2B2 L
DE1
CLKD LECL CPT2B2 H
DDPS CPT2 H (DDPH,K)

DDPE ALU BUFF 14 L
DDPE ALU BUFF 13 L
DDPE ALU BUFF 12 L
DDPE ALU BUFF 11 L
DDPE ALU BUFF 10 L
DDPE ALU BUFF 09 L
DDPE ALU BUFF 08 L
DDPE ALU BUFF 07 L
DDPB ALU BUFF 15 H
DDPF +3V H
74S133 E38
74F04 E45
AH1
DDPS FLOAT NZERO H (CEME.S)

DDPF +3V H
DDPN EALUØ9 L
DDPN EALUØ8 L
DDPM EALUØ7 L
DDPM EALUØ6 L
DDPM EALUØ5 L
DDPM EALUØ4 L
DDPL EALUØ3 L
DDPL EALUØ2 L
DDPL EALUØ1 L
DDPL EALUØØ L
74S133 E109
BE2
DDPS EALU = Ø L (ICLK,T)

DDPL STATEØ3 (1) H
DDPM STATEØ7 (1) H
DDPK RLOG DONE H
DDPL STATEØ2 (1) H
DDPM STATEØ6 (1) H
DDPJ SAVED ALU Ø1 L
DDPJ SAVED ALU ØØ L
74F08 E32
DDPS SC (9:8) NE Ø H
STBI STBØ
74F153 E87 MUX
SI SØ
FNI
FU2
ICLE REM BEMX S1 H
ICLE REM BEMX SØ H
FS1
DDPS BRANCH3 H (ICLE)
FS2
DDPS BRANCH2 H (ICLE)

DDPL STATEØ1 (1) H
DDPM STATEØ5 (1) H
DDPJ SAVED ALU Ø1 H
DDPS SC .g+. Ø H
DDPL STATEØØ (1) H
DDPM STATEØ4 (1) H
DDPJ SAVED ALU ØØ H
DDPS SC (9:5) .NC. Ø H
74F153 E86 MUX
FT2
DDPS BRANCH1 H (ICLE)
FU1
DDPS BRANCHØ H (ICLE)

74F04 E35
74F34 E35
74F34 E35
74F240 E6
DDPS RC CPT2 L (DDPE)
74F240 E6
DDPS RA RB CPT2 L (DDPA,B,E)

(UBRANCH & CLOCK TRANSLATORS)

REVISIONS
CHK | CHANGE NO. | REV

TITLE: DATA PATH 15:Ø3 (DDPS) (SLOT 11)
SIZE D | CODE CS | NUMBER M7469-0-0 | REV. C
SCALE — | SHEET 1e OF 20 | DIST.

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SLOW CONSTANT ROM

SK (15 Ø8) -

ROM ADDR	UKMX	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	SLOW CONSTANT
ØØ		-	-	L	L	L	L	L	L	X
Ø1		-	-	L	L	L	L	L	L	X
Ø2		-	-	L	L	L	L	L	L	X
Ø3		-	L	L	L	L	L	L	L	X
Ø4		-	L	L	L	L	L	L	L	X
Ø5		L	L	L	L	L	L	L	L	X
Ø6		L	L	L	L	L	L	L	L	X
Ø7		L	L	L	L	L	L	L	L	X
Ø8		H	H	H	H	H	H	H	H	ØØ--
Ø9		H	H	H	H	H	H	H	H	ØØ--
ØA		H	H	H	H	H	H	H	H	ØØ--
ØB		H	H	H	H	H	H	H	H	ØØ--
ØC		H	H	H	H	H	H	H	H	ØØ--
ØD		H	H	H	H	H	H	H	H	ØØ--
ØE		H	H	L	L	H	H	H	H	3Ø--
ØF		H	H	H	H	H	H	H	H	ØØ--
1Ø		H	H	H	H	H	H	H	H	ØØ--
11		-	H	H	H	H	H	H	H	8Ø--
12		H	H	H	H	H	H	H	H	ØØ--
13		L	L	L	L	L	L	L	-	FF--
14		H	H	H	H	H	H	H	-	ØØ--
15		H	H	H	H	H	H	H	H	ØØ--
16		H	H	H	H	H	H	H	H	ØØ--
17		H	H	H	H	H	H	H	H	ØØ--
18		H	H	H	H	H	H	H	H	ØØ--
19		H	H	H	H	H	H	H	H	ØØ--
1A		L	L	-	L	L	L	L	-	FF--
1B		L	L	-	L	L	L	L	-	FF--
1C		L	L	L	L	L	L	L	L	FF--
1D		H	H	H	H	H	H	H	H	ØØ--
1E		H	H	H	H	H	H	H	H	ØØ--
1F		H	H	H	H	H	H	H	H	ØØ--

NOTE: 2Ø-3F NOT USED

SK (15 Ø8) -

ROM ADDR	UKMX	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	SLOW CONSTANT
4Ø		H	H	H	H	H	H	L	L	Ø3--
41		H	H	H	H	H	H	H	H	ØØ--
42		H	H	H	H	H	H	H	H	ØØ--
43		H	H	H	H	H	H	H	H	ØØ--
44		H	H	H	L	L	L	L	L	1F--
45		H	H	H	H	H	H	H	H	ØØ--
46		L	L	L	H	H	H	H	H	E Ø--
47		H	H	H	H	H	H	H	H	ØØ--
48		L	L	L	L	L	L	L	L	FF--
49		H	H	H	H	H	H	H	H	ØØ--
4A		L	L	L	L	L	L	L	L	SPARE
4B		L	L	H	L	L	L	L	L	DF--
4C		L	L	L	L	L	L	L	L	FF--
4D		L	L	L	L	L	L	L	L	FF--
4E		H	H	-	H	H	H	H	H	ØØ--
4F		L	L	L	L	L	L	L	L	FF--
5Ø		L	L	L	L	L	L	L	L	FF--
51		H	H	H	H	H	H	H	H	ØØ--
52		H	H	L	L	H	H	H	H	3Ø--
53		H	H	H	H	H	H	H	H	ØØ--
54		H	H	H	H	H	H	H	H	ØØ--
55		H	H	H	H	H	H	H	H	ØØ--
56		H	H	H	H	H	H	H	H	ØØ--
57		L	L	L	L	L	L	L	L	FF--
58		L	L	L	L	L	L	L	L	FF--
59		H	H	H	H	H	H	H	H	ØØ--
5A		H	H	H	H	H	H	H	H	ØØ--
5B		H	H	H	H	H	H	H	H	ØØ--
5C		L	L	L	L	L	L	L	L	FF--
5D		H	H	H	H	H	H	H	H	ØØ--
5E		H	H	H	H	H	H	H	H	ØØ--
5F		L	L	H	H	L	H	L	L	C3--

NOTE: 6Ø-7F NOT USED

SK (15 Ø8) -

ROM ADDR	UKMX	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	SLOW CONSTANT
8Ø		L	L	L	L	L	L	L	L	NOT USED
81										
82										
83										
84										
85										
86										
87										
88										
89										
8A										
8B										
8C										
8D										
8E										
8F										
9Ø										
91										
92										
93										
94										
95										
96										
97										
98										
99										
9A										
9B										
9C										
9D										
9E										
9F										

NOTE: AØ-BF NOT USED

SK (15 Ø8) -

ROM ADDR	UKMX	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	SLOW CONSTANT
CØ		L	L	L	L	L	L	L	L	NOT USED
C1										
C2										
C3										
C4										
C5										
C6										
C7										
C8										
C9										
CA										
CB										
CC										
CD										
CE										
CF										
DØ										
D1										
D2										
D3										
D4										
D5										
D6										
D7										
D8										
D9										
DA										
DB										
DC										
DD										
DE										
DF										

NOTE: EØ-FF NOT USED

REVISIONS		
CHK	CHANGE NO	REV

(SLOW CONSTANT ROM 15 Ø8 23-Ø2981-ØØ)(SLOT 11)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15 Ø8	D	CS	M7469-0-0	C
SCALE	SHEET 17 OF 20	DIST.		

M7469-0-0 REV C
DCS

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NABS ROM

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
ØØ		L	L	L	L	L	L	L	L	-Ø
Ø1		H	H	H	H	H	H	H	H	-1
Ø2		H	H	H	H	H	H	H	L	-2
Ø3		H	H	H	H	H	H	L	H	-3
Ø4		H	H	H	H	H	H	L	L	-4
Ø5		H	H	H	H	H	L	H	H	-5
Ø6		H	H	H	H	H	L	H	L	-6
Ø7		H	H	H	H	H	L	L	H	-7
Ø8		H	H	H	H	H	L	L	L	-8
Ø9		H	H	H	H	L	H	H	H	-9
ØA		H	H	H	H	L	H	H	L	-1Ø
ØB		H	H	H	H	L	H	L	H	-11
ØC		H	H	H	H	L	H	L	L	-12
ØD		H	H	H	H	L	L	H	H	-13
ØE		H	H	H	H	L	L	H	L	-14
ØF		H	H	H	H	L	L	L	H	-15
1Ø		H	H	H	H	L	L	L	L	-16
11		H	H	H	L	H	H	H	H	-17
12		H	H	H	L	H	H	H	L	-18
13		H	H	H	L	H	H	L	H	-19
14		H	H	H	L	H	H	L	L	-2Ø
15		H	H	H	L	H	L	H	H	-21
16		H	H	H	L	H	L	H	L	-22
17		H	H	H	L	H	L	L	H	-23
18		H	H	H	L	H	L	L	L	-24
19		H	H	H	L	L	H	H	H	-25
1A		H	H	H	L	L	H	H	L	-26
1B		H	H	H	L	L	H	L	H	-27
1C		H	H	H	L	L	H	L	L	-28
1D		H	H	H	L	L	L	H	H	-29
1E		H	H	H	L	L	L	H	L	-3Ø
1F		H	H	H	L	L	L	L	H	-31

NOTE: 2Ø-3F NOT USED

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
4Ø		H	H	H	L	L	L	L	L	-32
41		H	H	L	H	H	H	H	H	-33
42		H	H	L	H	H	H	H	L	-34
43		H	H	L	H	H	H	L	H	-35
44		H	H	L	H	H	H	L	L	-36
45		H	H	L	H	H	L	H	H	-37
46		H	H	L	H	H	L	H	L	-38
47		H	H	L	H	H	L	L	H	-39
48		H	H	L	H	H	L	L	L	-4Ø
49		H	H	L	H	L	H	H	H	-41
4A		H	H	L	H	L	H	H	L	-42
4B		H	H	L	H	L	H	L	H	-43
4C		H	H	L	H	L	H	L	L	-44
4D		H	H	L	H	L	L	H	H	-45
4E		H	H	L	H	L	L	H	L	-46
4F		H	H	L	H	L	L	L	H	-47
5Ø		H	H	L	H	L	L	L	L	-48
51		H	H	L	L	H	H	H	H	-49
52		H	H	L	L	H	H	H	L	-5Ø
53		H	H	L	L	H	H	L	H	-51
54		H	H	L	L	H	H	L	L	-52
55		H	H	L	L	H	L	H	H	-53
56		H	H	L	L	H	L	H	L	-54
57		H	H	L	L	H	L	L	H	-55
58		H	H	L	L	H	L	L	L	-56
59		H	H	L	L	L	H	H	H	-57
5A		H	H	L	L	L	H	H	L	-58
5B		H	H	L	L	L	H	L	H	-59
5C		H	H	L	L	L	H	L	L	-6Ø
5D		H	H	L	L	L	L	H	H	-61
5E		H	H	L	L	L	L	H	L	-62
5F		H	H	L	L	L	L	L	H	-63

NOTE: 6Ø-7F NOT USED

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
8Ø		H	H	L	L	L	L	L	L	-64
81		H	L	H	H	H	H	H	H	-65
82		H	L	H	H	H	H	H	L	-66
83		H	L	H	H	H	H	L	H	-67
84		H	L	H	H	H	H	L	L	-68
85		H	L	H	H	H	L	H	H	-69
86		H	L	H	H	H	L	H	L	-7Ø
87		H	L	H	H	H	L	L	H	-71
88		H	L	H	H	H	L	L	L	-72
89		H	L	H	H	L	H	H	H	-73
8A		H	L	H	H	L	H	H	L	-74
8B		H	L	H	H	L	H	L	H	-75
8C		H	L	H	H	L	H	L	L	-76
8D		H	L	H	H	L	L	H	H	-77
8E		H	L	H	H	L	L	H	L	-78
8F		H	L	H	H	L	L	L	H	-79
9Ø		H	L	H	H	L	L	L	L	-8Ø
91		H	L	H	L	H	H	H	H	-81
92		H	L	H	L	H	H	H	L	-82
93		H	L	H	L	H	H	L	H	-83
94		H	L	H	L	H	H	L	L	-84
95		H	L	H	L	H	L	H	H	-85
96		H	L	H	L	H	L	H	L	-86
97		H	L	H	L	H	L	L	H	-87
98		H	L	H	L	H	L	L	L	-88
99		H	L	H	L	L	H	H	H	-89
9A		H	L	H	L	L	H	H	L	-9Ø
9B		H	L	H	L	L	H	L	H	-91
9C		H	L	H	L	L	H	L	L	-92
9D		H	L	H	L	L	L	H	H	-93
9E		H	L	H	L	L	L	H	L	-94
9F		H	L	H	L	L	L	L	H	-95

NOTE: AØ-BF NOT USED

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
CØ		H	L	H	L	L	L	L	L	-96
C1		H	L	L	H	H	H	H	H	-97
C2		H	L	L	H	H	H	H	L	-98
C3		H	L	L	H	H	H	L	H	-99
C4		H	L	L	H	H	H	L	L	-1ØØ
C5		H	L	L	H	H	L	H	H	-1Ø1
C6		H	L	L	H	H	L	H	L	-1Ø2
C7		H	L	L	H	H	L	L	H	-1Ø3
C8		H	L	L	H	H	L	L	L	-1Ø4
C9		H	L	L	H	L	H	H	H	-1Ø5
CA		H	L	L	H	L	H	H	L	-1Ø6
CB		H	L	L	H	L	H	L	H	-1Ø7
CC		H	L	L	H	L	H	L	L	-1Ø8
CD		H	L	L	H	L	L	H	H	-1Ø9
CE		H	L	L	H	L	L	H	L	-11Ø
CF		H	L	L	H	L	L	L	H	-111
DØ		H	L	L	H	L	L	L	L	-112
D1		H	L	L	L	H	H	H	H	-113
D2		H	L	L	L	H	H	H	L	-114
D3		H	L	L	L	H	H	L	H	-115
D4		H	L	L	L	H	H	L	L	-116
D5		H	L	L	L	H	L	H	H	-117
D6		H	L	L	L	H	L	H	L	-118
D7		H	L	L	L	H	L	L	H	-119
D8		H	L	L	L	H	L	L	L	-12Ø
D9		H	L	L	L	L	H	H	H	-121
DA		H	L	L	L	L	H	H	L	-122
DB		H	L	L	L	L	H	L	H	-123
DC		H	L	L	L	L	H	L	L	-124
DD		H	L	L	L	L	L	H	H	-125
DE		H	L	L	L	L	L	H	L	-126
DF		H	L	L	L	L	L	L	H	-127

NOTE: EØ-FF NOT USED

REVISIONS		
CHK	CHANGE NO	REV

(EALU NABS ROM 23-Ø2881-ØØ (SLOT 11)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15.08	D	CS	M7469-0-0	C
SCALE	SHEET 18 OF 29	DIST.		

M7469-0-0 REV C

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NABS ROM

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
ØØ		H	L	L	L	L	L	L	L	-128
Ø1		L	H	H	H	H	H	H	H	-129
Ø2		L	H	H	H	H	H	H	L	-130
Ø3		L	H	H	H	H	H	L	H	-131
Ø4		L	H	H	H	H	H	L	L	-132
Ø5		L	H	H	H	H	L	H	H	-133
Ø6		L	H	H	H	H	L	H	L	-134
Ø7		L	H	H	H	H	L	L	H	-135
Ø8		L	H	H	H	H	L	L	L	-136
Ø9		L	H	H	H	L	H	H	H	-137
ØA		L	H	H	H	L	H	H	L	-138
ØB		L	H	H	H	L	H	L	H	-139
ØC		L	H	H	H	L	H	L	L	-140
ØD		L	H	H	H	L	L	H	H	-141
ØE		L	H	H	H	L	L	H	L	-142
ØF		L	H	H	H	L	L	L	H	-143
1Ø		L	H	H	H	L	L	L	L	-144
11		L	H	H	L	H	H	H	H	-145
12		L	H	H	L	H	H	H	L	-146
13		L	H	H	L	H	H	L	H	-147
14		L	H	H	L	H	H	L	L	-148
15		L	H	H	L	H	L	H	H	-149
16		L	H	H	L	H	L	H	L	-150
17		L	H	H	L	H	L	L	H	-151
18		L	H	H	L	H	L	L	L	-152
19		L	H	H	L	L	H	H	H	-153
1A		L	H	H	L	L	H	H	L	-154
1B		L	H	H	L	L	H	L	H	-155
1C		L	H	H	L	L	L	H	L	-156
1D		L	H	H	L	L	L	L	H	-157
1E		L	H	H	L	L	L	L	L	-158

NOTE: 12Ø-13F NOT USED

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
14Ø		L	H	H	L	L	L	L	L	-160
141		L	H	L	H	H	H	H	H	-161
142		L	H	L	H	H	H	H	L	-162
143		L	H	L	H	H	H	L	H	-163
144		L	H	L	H	H	H	L	L	-164
145		L	H	L	H	H	L	H	H	-165
146		L	H	L	H	H	L	H	L	-166
147		L	H	L	H	H	L	L	H	-167
148		L	H	L	H	H	L	L	L	-168
149		L	H	L	H	L	H	H	H	-169
14A		L	H	L	H	L	H	H	L	-170
14B		L	H	L	H	L	H	L	H	-171
14C		L	H	L	H	L	H	L	L	-172
14Ø		L	H	L	H	L	L	H	H	-173
14E		L	H	L	H	L	L	H	L	-174
14F		L	H	L	H	L	L	L	H	-175
15Ø		L	H	L	H	L	L	L	L	-176
151		L	H	L	L	H	H	H	H	-177
152		L	H	L	L	H	H	H	L	-178
153		L	H	L	L	H	H	L	H	-179
154		L	H	L	L	H	H	L	L	-180
155		L	H	L	L	H	L	H	H	-181
156		L	H	L	L	H	L	H	L	-182
157		L	H	L	L	H	L	L	H	-183
158		L	H	L	L	H	L	L	L	-184
159		L	H	L	L	L	H	H	H	-185
15A		L	H	L	L	L	H	H	L	-186
15B		L	H	L	L	L	H	L	H	-187
15C		L	H	L	L	L	H	L	L	-188
15D		L	H	L	L	L	L	H	H	-189
15E		L	H	L	L	L	L	H	L	-190
15F		L	H	L	L	L	L	L	H	-191

NOTE: 16Ø-17F NOT USED

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
18Ø		L	H	L	L	L	L	L	L	-192
181		L	L	H	H	H	H	H	H	-193
182		L	L	H	H	H	H	H	L	-194
183		L	L	H	H	H	H	L	H	-195
184		L	L	H	H	H	H	L	L	-196
185		L	L	H	H	H	L	H	H	-197
186		L	L	H	H	H	L	H	L	-198
187		L	L	H	H	H	L	L	H	-199
188		L	L	H	H	H	L	L	L	-200
189		L	L	H	H	L	H	H	H	-201
18A		L	L	H	H	L	H	H	L	-202
18B		L	L	H	H	L	H	L	H	-203
18C		L	L	H	H	L	H	L	L	-204
18D		L	L	H	H	L	L	H	H	-205
18E		L	L	H	H	L	L	H	L	-206
18F		L	L	H	H	L	L	L	H	-207
19Ø		L	L	H	H	L	L	L	L	-208
191		L	L	H	L	H	H	H	H	-209
192		L	L	H	L	H	H	H	L	-210
193		L	L	H	L	H	H	L	H	-211
194		L	L	H	L	H	H	L	L	-212
195		L	L	H	L	H	L	H	H	-213
196		L	L	H	L	H	L	H	L	-214
197		L	L	H	L	H	L	L	H	-215
198		L	L	H	L	H	L	L	L	-216
199		L	L	H	L	L	H	H	H	-217
19A		L	L	H	L	L	H	H	L	-218
19B		L	L	H	L	L	H	L	H	-219
19C		L	L	H	L	L	H	L	L	-220
19D		L	L	H	L	L	L	H	H	-221
19E		L	L	H	L	L	L	H	L	-222
19F		L	L	H	L	L	L	L	H	-223

NOTE: 1AØ-1BF NOT USED

NABS EALU D(Ø7:ØØ) H

ROM ADDR	EALU	ROM DATA M7	M6	M5	M4	M3	M2	M1	MØ	DECIMAL VALUE
1CØ		L	L	H	L	L	L	L	L	-224
1C1		L	L	L	H	H	H	H	H	-225
1C2		L	L	L	H	H	H	H	L	-226
1C3		L	L	L	H	H	H	L	H	-227
1C4		L	L	L	H	H	H	L	L	-228
1C5		L	L	L	H	H	L	H	H	-229
1C6		L	L	L	H	H	L	H	L	-230
1C7		L	L	L	H	H	L	L	H	-231
1C8		L	L	L	H	H	L	L	L	-232
1C9		L	L	L	H	L	H	H	H	-233
1CA		L	L	L	H	L	H	H	L	-234
1CB		L	L	L	H	L	H	L	H	-235
1CC		L	L	L	H	L	H	L	L	-236
1CD		L	L	L	H	L	L	H	H	-237
1CE		L	L	L	H	L	L	H	L	-238
1CF		L	L	L	H	L	L	L	H	-239
1DØ		L	L	L	H	L	L	L	L	-240
1D1		L	L	L	L	H	H	H	H	-241
1D2		L	L	L	L	H	H	H	L	-242
1D3		L	L	L	L	H	H	L	H	-243
1D4		L	L	L	L	H	H	L	L	-244
1D5		L	L	L	L	H	L	H	H	-245
1D6		L	L	L	L	H	L	H	L	-246
1D7		L	L	L	L	H	L	L	H	-247
1D8		L	L	L	L	H	L	L	L	-248
1D9		L	L	L	L	L	H	H	H	-249
1DA		L	L	L	L	L	H	H	L	-250
1DB		L	L	L	L	L	H	L	H	-251
1DC		L	L	L	L	L	H	L	L	-252
1DD		L	L	L	L	L	L	H	H	-253
1DE		L	L	L	L	L	L	H	L	-254
1DF		L	L	L	L	L	L	L	H	-255

NOTE: 1EØ-1FF NOT USED

REVISIONS		
CHK	CHANGE NO.	REV.

(EALU NABS ROM 23-Ø288!-ØØ) (SLOT 11)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 15:08	D	CS	M7469-0-0	C
SCALE	SHEET 19 OF 22	DIST		

M7469-0-0 REV C SIZE D CODE CS

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+5V AA2
+5V BA2
+5V CA2
+5V DA2
+5V EA2
+5V FA2

+5V AV1
+5V BV1
+5V CV1
+5V DV1
+5V EV1
+5V FV1

+5V
C1-C6 .01 µF
C8-C41, C44, C45, C49, C50 .047 µF
GND

GND AC2
GND BC2
GND CC2
GND DC2
GND EC2
GND FC2

GND AH1
GND BH1
GND CH1
GND DH1
GND EH1
GND FH1

GND AN2
GND BN2
GND CN2
GND DN2
GND EN2
GND FN2

GND AT1
GND BT1
GND CT1
GND DT1
GND ET1
GND FT1

C7 4.7 µF
C50 .047 µF

-5V

-5V BL2
-5V EK1

REVISION HISTORY

DATE	ECO NUMBER	REV.

TITLE: DATA PATH 15:08

DOCUMENT NUMBER: SIZE D | CODE DCS | NUMBER M7469-0-0 | REV C

SCALE: | SHEET 20 OF 20

SIZE	CODE	NUMBER	REV.
B	DD	M7469-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7469-00	PART REVISON	A B C
E-UA-M7469-0-0	4		UNIT ASSEMBLY	A B C
K-PL-M7469-0-DBP	2		PARTS LIST	A A A
D-CS-M7469-0-0	20		SCHEMATIC	A B C
K-PC-M7469-0-DBC	—		PC DESIGN DATA BASE	A A A
	—	5012599-00	ETCHED BOARD	C C C

NOTES:

REVISIONS				
REV.	A	B	C	
CHG NO.	INIT.	TW0001	TW002	
DATE	9/83	2/84	6/84	

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digital

USED ON OPTION/MODEL		

DRN.		9-23-83
CHK'D		9-23-83
ENG.		10-18-83
PROJ.		10-18-83

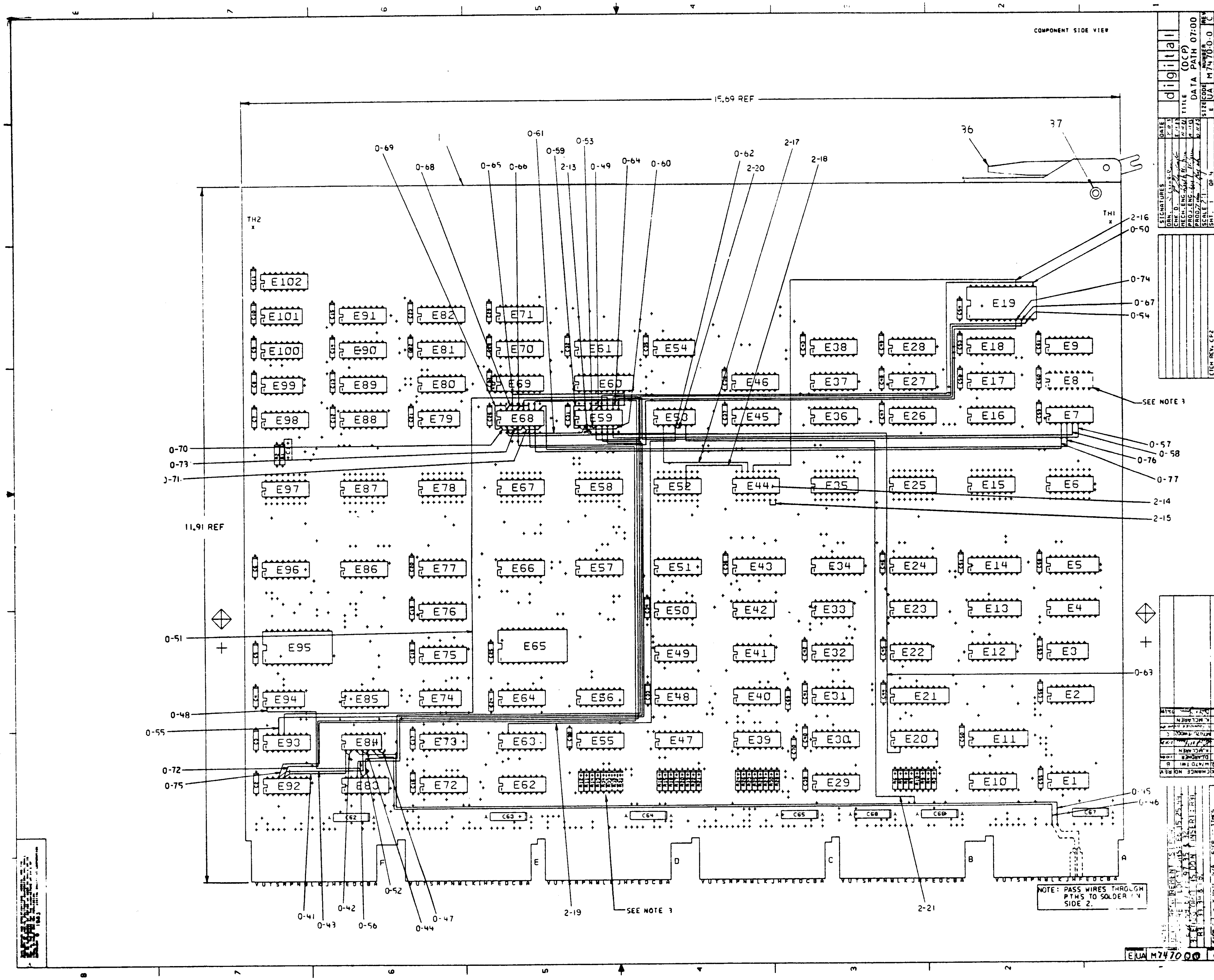
TITLE: DATA PATH 15:08 (DDP)

SIZE	CODE	NUMBER	REV.
B	DD	M7469-0-0	C

SHEET 1 OF 1

DRB 126

TW



COMPONENT SIDE VIEW
15.69 REF
11.91 REF
36
37
TH1
TH2
E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20 E21 E22 E23 E24 E25 E26 E27 E28 E29 E30 E31 E32 E33 E34 E35 E36 E37 E38 E39 E40 E41 E42 E43 E44 E45 E46 E47 E48 E49 E50 E51 E52 E53 E54 E55 E56 E57 E58 E59 E60 E61 E62 E63 E64 E65 E66 E67 E68 E69 E70 E71 E72 E73 E74 E75 E76 E77 E78 E79 E80 E81 E82 E83 E84 E85 E86 E87 E88 E89 E90 E91 E92 E93 E94 E95 E96 E97 E98 E99 E100 E101 E102
C62 C63 C64 C65 C66 C67 C68
0-41 0-42 0-43 0-44 0-45 0-46 0-47 0-48 0-49 0-50 0-51 0-52 0-53 0-54 0-55 0-56 0-57 0-58 0-59 0-60 0-61 0-62 0-63 0-64 0-65 0-66 0-67 0-68 0-69 0-70 0-71 0-72 0-73 0-74 0-75 0-76 0-77
2-13 2-14 2-15 2-16 2-17 2-18 2-19 2-20 2-21
SEE NOTE 3
SEE NOTE 3
NOTE: PASS WIRES THROUGH PTHS TO SOLDER ON SIDE 2.
A B C D E F
digital
TITLE (DCP) DATA PATH 07:00
SIZE E CODE UA NUMBER M7470-0-0 REV C
SIGNATURES DATE
DRN. CHK D. MECH. ENG. PROJ. ENG. PROD.
SCALE 2:1
SHT. 1 OF 4
NEXT HIGHER ASSY. B DD-M7470-0-0
ETCH REV. CF2
E UA M7470 0 0 0

LAYER 1

L1

MX22X 50125000C-P2

CS1ABCDEFHJKLMNPPS

SIDE 1

digital

E102 E91 E82 E71 E61 E54 E46 E38 E28 E19 E9

E68 59

2-1 2-2 2-3

2-4 2-5 2-6

0-1 0-14

0-4 0-7 0-12 0-3 0-6 0-11 0-9 0-13 0-8 0-5 0-2 0-10

REVISIONS		
ZONE	CHANGE NO.	REV

TITLE	SIZE	CODE	NUMBER	REV
CPU DATA PATH C	E	UA	M7470-0-0	
SCALE	SHEET	OF	NEXT	

LAYER H

L4

CPU DATA PATH C

M8228 5012600C-P2 SIDE 2

0-33
2-8
0-36
2-9
0-32
0-31
0-34
0-35
0-30
0-29
2-12
0-21
0-22
0-27
0-28
0-25
0-26
0-24
0-38
0-37
0-15
0-23
0-39
0-40
2-10
2-11
0-20
0-19
0-18
0-17
0-16

REVISIONS		
ECO	CHANGE NO.	REV.

TITLE: CPU DATA PATH C

SCALE 2 = 1 SHEET 1 OF 4

DEC U.A. M7470-0-0 REV. C

M7470-00 REV C

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REWORK INSTRUCTIONS

ETCH CUTS SIDE 1

0-1 AT AND BELOW E84 PIN 2
0-2 AT AND BELOW E8 PIN 1
0-3 AT AND ABOVE E8 PIN 3
0-4 AT AND BELOW E19 PIN 9
0-5 AT AND BELOW E8 PIN 4
0-6 AT AND ABOVE E8 PIN 6
0-7 AT AND BELOW E19 PIN 10
0-8 AT AND BELOW E8 PIN 7
0-9 AT AND BELOW E8 PIN 9
0-10 AT AND BELOW E7 PIN 5
0-11 AT AND ABOVE E8 PIN 10
0-12 AT ETCH TO THE RIGHT AND ABOVE E19 PIN 12
0-13 AT AND BELOW E8 PIN 12
0-14 AT ETCH BETWEEN E84 PIN 6 AND E84 PIN 7

ETCH CUTS SIDE 2

0-15 AT AND ABOVE E84 PIN 1
0-16 AT AND ABOVE E84 PIN 3
0-17 AT AND BELOW E84 PIN 4
0-18 AT AND ABOVE E84 PIN 5
0-19 AT AND BELOW E84 PIN 6
0-20 AT AND ABOVE E84 PIN 7
0-21 AT AND ABOVE E84 PIN 9
0-22 AT AND ABOVE E84 PIN 11
0-23 AT AND BELOW E84 PIN 12
0-24 AT AND BELOW E84 PIN 13
0-25 AT AND BELOW E93 PIN 13
0-26 AT AND ABOVE E84 PIN 14
0-27 AT AND BELOW E94 PIN 1
0-28 AT AND BELOW E94 PIN 4
0-29 AT AND BELOW E8 PIN 2
0-30 AT AND BELOW E8 PIN 5
0-31 AT AND BELOW E8 PIN 11
0-32 AT AND ABOVE E8 PIN 13
0-33 AT AND TO THE LEFT OF E19 PIN 13
0-34 AT AND BELOW E8 PIN 14
0-35 AT AND BELOW E8 PIN 15
0-36 AT AND ABOVE E53 PIN 4
0-37 AT AND BELOW E92 PIN 13
0-38 AT AND BELOW E92 PIN 14
0-39 AT AND ABOVE AF2
0-40 AT AND ABOVE AH2

WIRE ADDS

0-41 FROM E92 PIN 13 TO E84 PIN 1
0-42 FROM E84 PIN 1 TO E84 PIN 2
0-43 FROM E92 PIN 14 TO E84 PIN 4
0-44 FROM E84 PIN 4 TO E84 PIN 5
0-45 FROM E84 PIN 3 TO AF2
0-46 FROM E84 PIN 6 TO AH2
0-47 FROM E84 PIN 7 TO PTH JGG RIGHT OF E84 PIN 7
0-48 FROM E94 PIN 1 TO E83 PIN 13
0-49 FROM E59 PIN 13 TO E59 PIN 12
0-50 FROM E59 PIN 12 TO E19 PIN 13
0-51 FROM E59 PIN 11 TO E93 PIN 13
0-52 FROM E59 PIN 10 TO E83 PIN 13
0-53 FROM E59 PIN 3 TO E59 PIN 4
0-54 FROM E59 PIN 4 TO E19 PIN 11
0-55 FROM E59 PIN 5 TO E93 PIN 14
0-56 FROM E59 PIN 6 TO E83 PIN 14
0-57 FROM E59 PIN 9 TO E7 PIN 6
0-58 FROM E59 PIN 7 TO E7 PIN 5
0-59 FROM E59 PIN 1 TO E59 PIN 15
0-60 FROM E59 PIN 1 TO E59 PIN 8
0-61 FROM E59 PIN 2 TO E68 PIN 2
0-62 FROM E59 PIN 2 TO E53 PIN 1
0-63 FROM E68 PIN 2 TO E20 PIN 2
0-64 FROM E59 PIN 14 TO E60 PIN 9
0-65 FROM E60 PIN 9 TO E68 PIN 14
0-66 FROM E68 PIN 13 TO E68 PIN 12
0-67 FROM E68 PIN 12 TO E19 PIN 10
0-68 FROM E68 PIN 11 TO E68 PIN 15
0-69 FROM E68 PIN 15 TO E68 PIN 1
0-70 FROM E68 PIN 1 TO E68 PIN 5
0-71 FROM E68 PIN 5 TO E68 PIN 8
0-72 FROM E68 PIN 10 TO E92 PIN 13
0-73 FROM E68 PIN 3 TO E68 PIN 4
0-74 FROM E68 PIN 4 TO E19 PIN 9
0-75 FROM E68 PIN 6 TO E92 PIN 14
0-76 FROM E68 PIN 9 TO E7 PIN 4
0-77 FROM E68 PIN 7 TO E7 PIN 3

REWORK INSTRUCTIONS ECO #2

ETCH CUTS SIDE 1:
2-1 ETCH BETWEEN E54 PIN 5 AND PIN 6
2-2 ETCH BETWEEN E53 PIN 9 AND PIN 10
2-3 E53 PIN 6
2-4 E74 PIN 1
2-5 E74 PIN 3
2-6 E22 PIN 4
2-7 AT PTH ABOVE C66-LEFT SIDE

ETCH CUTS SIDE 2:
2-8 E19 PIN 16
2-9 E54 PIN 11
2-10 E63 PIN 15
2-11 E74 PIN 2
2-12 E22 PIN 3

WIRE DELETES:
2-13 REMOVE ECO WIRE CONNECTING E59 PIN 2 TO E53 PIN 4

COMPONENT ADDS:
2-14 ADD 1 74F02 (DEC PN 19-21906-01) AT E44, LEFT JUSTIFIED

WIRE ADDS:
2-15 LOCATION E44 PIN 8 TO COMPONENT E44 PIN 7
2-16 E19 PIN 16 TO COMPONENT E44 PIN 11
2-17 E53 PIN 2 TO COMPONENT E44 PIN 12
2-18 COMPONENT E44 PIN 13 TO PTH ABOVE E52 PIN 6
2-19 E63 PIN 15 TO E53 PIN 4
2-20 E53 PIN 4 TO E53 PIN 5
2-21 E53 PIN 5 TO PTH ABOVE C66-LEFT SIDE

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE: CPU DATAPATH

DOCUMENT NUMBER: E UA M7470-0-0 C

SCALE - SHEET 4 OF 4

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 C1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	E-MD-5012600-0-0	5012600-00		M8228	1	
2	2		1921307-01		74F04 HEX INVERTER	6	E22,E31,E54,E99,E100,E101
3	3		1921308-01		74F08 AND GATE,QUAD,2-IN	2	E53,E84
4	4		1921309-01		74F10 NAND GATE,TRIPLE,3-I	1	E33
5	5		1921310-01		74F11 AND GATE,TRIPLE,3-IN	2	E49,E94
6	6		1921313-01		74F64 AND OR INVERT GATE,4-	5	E1,E41,E42,E48,E50
7	7		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	2	E12,E23
8	8		1911983-00		74S133 NAND GATE-POSITIVE 1	1	E102
9	9		1921316-01		74F138 DECODER/DEMUX,1-OF-8	1	E24
10	10		1921318-01		74F151 MUX,8-IN	8	E16,E17,E26,E27,E36,E37,E45,E46
11	11		1921319-01		74F153 MUX,DUAL,4-IN	12	E9,E18,E57,E61,E66,E71,E88,E90,
						CONT	E91,E98,E59,E68
12	12		1921320-01		74F157 MUX,QUAD,2-IN	5	E70,E73,E80,E81,E89
13	13		1921321-01		74F158 MUX,QUAD,2-IN	2	E2,E10
14	14		1921324-01		74F175 FF-D,QUAD	3	E20,E47,E55
15	15		1921325-01		74F181 ALU,4-BIT	3	E19,E65,E95
16	16		1921326-01		74F182 CARRY LOOKAHEAD GEN.	2	E64,E85
17	17		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	4	E28,E38,E69,E82
18	18		1921008-01		74F240 BUFFER/LINE DRIVER,I	1	E21
19	19		1921009-01		74F241 BUFFER/LINE DRIVER,N	1	E60
20	20		1921330-01		74F257 MUX,QUAD,2-IN	4	E56,E62,E77,E86
21	21		1921720-01		10H125 TRANSLATOR ECL TO TTL	2	E39,E40
22	22		1913788-00		26S10 TRANSCEIVER,BUS,QUA	2	E29,E30
23	23		1921322-01		74F161 BINARY COUNTER,PRESE	8	E7,E63,E72,E75,E83,E92,E93,E51
24	24	BLANK			*** THIS ITEM IS NOT USED ***	-	
25	25		1912586-01		85S68A REGISTER,16X4 EDGE T	6	E4,E5,E13,E14,E34,E43
26	26		1921334-01		74F350 SHIFTER,4-BIT	2	E76,E96
27	27		2303882-00		B2-03	1	E11
28	28		1300247-00		120.0 .25 W 5.0 % CF	4	R25,R26,R29,R30
29	29		1300250-00		150.0 .25 W 5.0 % CF	4	R23,R24,R27,R28

REVISION HISTORY			BASIC PART NO: M7470
ENG	ECO NUMBER	REV	SECTION A OF A
---	INITIAL	A	SECTION.VARIATION INDEX
KM	M7470-TW001	B	[A] 00
KM	M7470-TW002	C	[B]
			[C]
			[D]
			[E]
			[F]
			[H]
			[J]
			[K]
			[L]
			[M]
			[N]

DRN: F.SMART	DATE: 26-JUL-83	D I G I T A L
CHK'D: F.GAROFALO	DATE: 17-AUG-83	TITLE PARTS LIST DATA PATH 07:00 (DCP)
DES.ENG: K.MCLAREN	DATE: 17-AUG-83	DOCUMENT NUMBER
RESP.ENG.: K.MCLAREN	DATE: 17-AUG-83	SIZE: K / CODE: PL / NUMBER: M7470-0-DPB / REV: C
MFG.ENG.: M.KRYSAK	DATE: 17-AUG-83	RELEASE DATE: 16-JUL-84
ASSEMBLY NUMBER: E-UA-M7470-0-0	TOP DOCUMENT NUMBER: B-DD-M7470-0-0	FILE NAME: Z3948C.PLS / EDIT #: 15

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LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 C1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
30	30		1300295-00		330.0 .25 W 5.0 % CF	11	R1,R3,R5,R7,R9,R11,R13,R15,R17,
						CONT	R19,R21
31	31		1301424-00		680.0 .25 W 5.0 % CF	1	R2
32	32		1301775-00		820.0 .25 W 5.0 % CF	10	R4,R6,R8,R10,R12,R14,R16,R18,
						CONT	R20,R22
33	33		1012084-01		8 MFD 25V +75-10% AL EL	7	C62-C68
34	34		1012784-00		.047 MFD 50V +80-20% CER	63	C1,C2-C61,C69,C70
35	35		1921305-01		74F00 NAND GATE,QUAD,2-IN	3	E3,E74,E79
36	36		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
37	37		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
38	38		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	
39	39		1921306-01		74F02 NOR GATE,QUAD,2-IN	1	E44

40 NOTE: E6,E15,E25,E52,E58,E67,E78,E87,E97,E35,E32, ARE SPARE I.C.
41 NOTE: R31,R32,R33,R34,AND E8 ARE ENGINEERING OPTIONS, DO NOT INSERT.

	TITLE		SIZE	CODE	DOCUMENT NUMBER	REV
D I G I T A L	DATA PATH 07:00 (DCP)	SECTION A OF A	K	PL	M7470-0-DPB	C

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VA 74F161 DCPH, J, L LD

VA Ø8:ØØ (TO TBUF, CACHE ICLL)

PCMX 74F157 DCPH J

PC 74F161 DCPJ

PCØ7:ØØ (TO BMX, PCSV, PCMX)

VA Ø3:Ø2

DCPJ LOAD VA L

VIBA 74F161 DCPH, J LD

VIBAØ7:Ø2

VIBAØ3:Ø2

PC Ø3:ØØ

PC ADDER

PCMX 74F153 DCPH

BUS 34:32 H

BUS C3 25 H

IDPJ FLUSH L

WR.K 74F125 DCPH

ŪVAK

PC & VA CONTROL DCPH, J

DCPJ PCMX S0 H

DCPJ LOAD PC 31:04 L

DCPJ LOAD VA L

DCPJ FLUSH L (TO DDP & DEP)

DCPJ FLUSH L

#1 #2 #4

MMX 74F153 DCPH

IDPM DELTA PC 2:Ø

74F04 DCPJ

74S133 DCPE

ALU Ø7:ØØ = Ø

DEPD ALU 31:16 GEP

DDPB ALU 15:08 GEP

ALU CARRY LOOKAHEAD 74F182 DCPL

ALU CARRY 31

ALU CARRY 15

ALU CARRY 7

SHIFT MUX DCPA, B

SHF RIGHT 74F257

SHF LEFT 74F32Ø

DAPE SHFRT L

DAPE SHF S1:Ø H

DFMX 74F257 DCPC

BUS DFMX Ø7:ØØ (To DBP & FPA)

DBPE DREG Ø7:ØØ

DAPK ENABLE DFMX

DBPA DFMX S0

DECIMAL CONSTANT (ALU CARRY)

QMX 74F153 DCPC

DAPP QMX S1:Ø H

DAPP CLR Q H

DDPR SC Ø4:ØØ

DAPB ALU CIN

DAPA,B ALU S3:Ø M

ALU 74F181, 74F182 GEP

DCPA, B, L

BIT MASK 74F138 DCPE

DAPD BMX S2:Ø

DAPC AMX S1:Ø

BMX 74F151 DCPD

BMX 74F153 DCPA, B

QREG 74F194 DCPF

DAPH Q SHIFT INPUT H

DDPF QREGØ8 H

DAPP QREG S1:Ø

AMX 74F157 DCPA, B

AMX 74F157 DCPF

ID BUS

DCPE UEMXØ5:ØØ (TO DDP)

UEMX 74F125 DCPK

SC ROM DCPK

BUS 63:58

KMX Ø7:ØØ (TO DDP)

KMX 74F158 DCPK

DREG 30:29, EXP DØØ

PC Ø7:ØØ

#8 #1 #2 #3 #4

IACE SP2 CON

IACE SP1 CON

DDPA SC Ø7:ØØ

FK 74F64 DCPK

CENF IRD STATE

PCSV 74F194 DCPE

AC ADRS

LC AC 85S68A DCPE

RB ADRS

LB AB 85S68A DCPE

RA ADRS

LA RA 85S68A DCPA, B

PC Ø7:ØØ

DAPH UAMX

74F04 DCPA

DCPF QREG Ø7:ØØ (TO DBA, DDP)

ID XCEIVE 245/Ø DCPC EN

IC LU D TO ID

(BLOCK DIAGRAM) (SLOT 12)

REVISIONS		
CHK	CHANGE NO.	REV.
B.T.	M7470-TWOO2	B
	1) Revised A 12 June 84	
	K. MCLAREN	
	Robert Glass 2 July 84	

DRN. KC 15 JUNE 83
CHK'D TMC 6-83
ENG. [illegible] 10-11-83
PROJ. ENG. [illegible] 10-11-83
PROJ. [illegible] 10-11-83
NEXT HIGHER ASSY.
SCALE
SHEET 1 OF 12

FIRST USED ON

digital

TITLE
DATA PATH Ø7:ØØ
(DCP)

SIZE	CODE	NUMBER	REV.
D	CS	M7470-C-0	B

DIST.

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RAMX - 74F157

S0	RAMX
L	D REG
H	C REG

AMX - 74F153

STB	S1	S0	FN
L	L	L	LA
L	L	H	RAMX
H	X	X	FN=L

DAPC ≠EXT B0 H FJ1

(Φ3:ΦΦ)

DCPF QREG Φ3 H
DBPE DREG Φ3 H
DCPF QREG Φ2 H
DBPE DREG Φ2 H
DCPF QREG Φ1 H
DBPE DREG Φ1 H
DCPF QREG ΦΦ H
DBPE DREG ΦΦ H
EL2
EL1
EL2
EM1
74F157 E80 RAMX
DCPA RAMXS0 H

STB1 STB0
74F153 E57 AMX
SΦ S1

DCPD BMXΦ3 H
DCPD BMXΦ2 H
DCPD BMXΦ1 H
DCPD BMXΦΦ H
74F181 E65 DP ALU(Φ3:ΦΦ)
A B COUT G P
S3 S2 S1 S0 M CIN

DAPA ALU B1:Φ S3 H
DAPA ALU B1:Φ S2 H
DAPB ALU B1:Φ S1 H
DAPB ALU B1:Φ S0 H
DAPB ALU MODE H
DAPB ALU CIN L
EF2
EF1
EE2
EE1
ER1
ED2

BS1
BUS ALU BYTEΦ A=B H (CENA,S)
DCPA ALUCOUT (Φ3:ΦΦ) L (DCPC)
DCPA ALU (Φ3:ΦΦ) G H (DCPL)
DCPA ALU (Φ3:ΦΦ) P H (DCPL)

DCPA ALU Φ3 H (DCPB,H,J)
DCPA ALU Φ2 H (DCPB,J)
DCPA ALU Φ1 H (DCPB,J)
DCPA ALU ΦΦ H (DCPB,J)

DCPB ALU Φ5 H
DCPB ALU ΦΦ H
74F257 E77 SHF AT MUX
OE S0

FN1 DCPA SHFΦ3 H (DCPE,DEPM)
FM1 DCPA SHFΦ2 H (DCPE,DEPM)
FL2 DCPA SHFΦ1 H (DCPE,DEPM)
FL1 DCPA SHFΦΦ H (DCPE,DEPL)

SHF AT MUX - 74F257

OE	S0	FN
H	X	HI-Z
L	L	AM, SHF [R1]
L	H	BM, SHF [R2]

DCPF LATCH LA (1) H
DCPL RA RB CPT2 L
DAPE RA RB WAT B0 L
BR1

8556BA E43 RA(Φ3:ΦΦ)
WE CLK LE OE
D3 D2 D1 DΦ
L3 L2 L1 LΦ

DCPA SHFΦ3 H
DCPA SHFΦ2 H
DCPA SHFΦ1 H
DCPA SHFΦΦ H
EF2 DCPA LAΦ1 H (USCN,S)
EF1 DCPA LAΦΦ H (USCN,S)

DAPL RA ADRS 3 H
DAPL RA ADRS 2 H
DAPL RA ADRS 1 H
DAPL RA ADRS Φ H
A3 A2 A1 AΦ
BP2
BP1
BN1
BM2

DAPC AMX EQ S0 H FE2

74F00Φ E99 FΦ1 DCPA AMXΦΦ L (CENB,S)

DAPE SHF RT L FR1
74F00Φ E95
74F00Φ E79
DCPA SHF RT EN L (DCPB)
DCPL CPTΦ L
DAPN SHF USI INPUT H C72
DCPA SHF LEFT EN L (DCPB)

74F360 E76 SHF LEFT MUX
I3 I2 I1 IΦ I-1 I-2 I-3
Y3 Y2 Y1 YΦ
S0 S1 CE

SHF LFT MUX - 74F350

OE	S1	SΦ	YN
H	X	X	HI-Z
L	L	L	I_3-$I_Φ$, NO SHIFT
L	L	H	I_2-I_1, SHF [1]
L	H	L	I_1-I_2, SHF [2]
L	H	H	$I_Φ$-I_3, SHF [3]

DAPE SHF LFT SI H FF2

DAPH URMX (1) H CU1
74F00Φ E99
DCPA RBMX SΦ N (DCPF)

DCPH +3V H
74F08 E53
DCPA RAMX SΦ H (DCPA,S)

DAPE SHF SΦ H FK2
74F241 E84
DCPA SHF SΦ H (DCPB)

MA-8536 8A

CE	WE	CLK	RA FUNCT
H	H	X	NO-OPERATION
H	L	↓	STORE RN ← SHF
H	H	X	LATCH, LA ← (RN)

+5V AA2 AV1 BA2 BV1 CA2 CV1 DA2 DV1 EA2 EV1 FA2 FV1
C62-C67 8μF
C2-C61 .047μF
+5
GND
GND
AC2 AN2 AT1 BC2 BN2 BT1 CC2 CN2 CT1 DC2 DN2 DT1 EC2 EN2 ET1 FC2 FN2 FT1
C68 8μF
C69, C70 .047μF
-5.2V
-5.2V
BL2

REVISIONS		
CHK	CHANGE NO.	REV

(RA, RAMX, AMX, ALU, SHF Φ3:ΦΦ) (SLOT 12)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH Φ7:ΦΦ (DCPA)	D	CS	M7470-C-0	B
SCALE — SHEET 2 OF 12	DIST.			

M7470-0-0 REV B

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DAPC ZEXT B0 H (FV1)

(07:04)
74F157 E89
DCPF QREG 07 H
DBPE DREG 07 H
DCPF QREG 06 H
DBPE DREG 06 H
DCPF QREG 05 H
DBPE DREG 05 H
DCPF QREG 04 H
DBPE DREG 04 H
EB2
EC1
ED1
EU2
RAMX
DCPA RAMX S0 H

FH2 DCPB RAMX 07 H (DDPA, DEPA)

STB1 STB0
74F153 E66 AMX
DCPB AMX 07 L (CEHA, S, CDPN)

(BSi)
BUS ALU BYTE 0 A=B H (CEHA, S,)
DCPB ALUCOUT (07:04) L (DCPL)
DCPB ALU (07:04) G H (DCPL)
DCPB ALU (07:04) P H (DCPL)

74F181 E95 DP ALU(07:04)
DCPD BMX07 H
DCPD BMX06 H
DCPD BMX05 H
DCPD BMX04 H
DAPA ALU B1: 0 S3 H (EF2)
DAPA ALU B1: 0 S2 H (EF1)
DAPE ALU B1: 0 S1 H (EE2)
DAPB ALU B1: 0 S0 H (EE1)
DAPB ALU MODE H (ER1)
DCPL ALU04 CIN L

DCPB ALU 07 H (DCPJ, DDPA, P)
DCPB ALU 06 H (DCPJ, DDPA, P)
DCPB ALU 05 H (DCPJ, DDPA, P)
DCPB ALU 04 H (DCPJ)

DDPA ALU 07 H (EV2)
DDPA ALU 06 H (EU2)
74F257 E86
SHF RT MUX
DCPA SHF RT EN L
DCPB SHF07 H (DCPE)
DCPB SHF06 H (DCPE, DEPM) FT2
DCPB SHF05 H (DCPE, DEPM) FS2
DCPB SHF04 H (DCPE, DEPM) FS1

74F32 E92
SHF LEFT MUX
DCPA ALU 03 H
DCPA ALU 02 H
DCPA ALU 01 H
DCPA SHF S0 H (FF2)
DAPE SHF LFT S1 H
DCPA SHF LFT EN L

DCPF LATCH LA (1) H
DCPL RA RB CPTZ L
DAPK RA RB WRT B0 L (BR1)
85S68A E34 RA(07:04)
DCPB SHF07 H
DCPB SHF06 H
DCPB SHF05 H
DCPB SHF04 H
DAPL RA ADRS 3 H (BP2)
DAPL RA ADRS 2 H (BP1)
DAPL RA ADRS 1 H (BR1)
DAPL RA ADRS 0 H (BR0)

74F153 E96 RMX
DAPC RMX 00 S0 H (FE2)

ALU - 74F181

SELECTION				M-H	ACTIVE HIGH DATA M-L ARITHMETIC OPERATIONS	
S3	S2	S1	S0	LOGIC FUNCTIONS	$\overline{C_N}$ = H (NO CARRY)	$\overline{C_N}$ = L (WITH CARRY)
L	L	L	L	F = $\overline{A}$	F = A	F = A PLUS 1
L	L	L	H	F = $\overline{A+B}$	F = A+B	F = (A+B) PLUS 1
L	L	H	L	F = $\overline{A}B$	F = A+$\overline{B}$	F = (A+$\overline{B}$) PLUS 1
L	L	H	H	F = 0	F = MINUS 1 (2's COMPL)	F = ZERO
L	H	L	L	F = $\overline{AB}$	F = A PLUS A$\overline{B}$	F = A PLUS AB PLUS 1
L	H	L	H	F = $\overline{B}$	A = (A+B) PLUS A$\overline{B}$	F = (A+B) PLUS A$\overline{B}$ PLUS 1
L	H	H	L	F = A ⊕ B	F = A MINUS B MINUS 1	F = A MINUS B
L	H	H	H	F = A$\overline{B}$	F = A$\overline{B}$ MINUS 1	F = A$\overline{B}$
H	L	L	L	F = $\overline{A}$+B	F = A PLUS AB	F = A PLUS AB PLUS 1
H	L	L	H	F = $\overline{A \oplus B}$	F = A PLUS B	F = A PLUS B PLUS 1
H	L	H	L	F = B	F = (A+$\overline{B}$) PLUS AB	F = (A+$\overline{B}$) PLUS AB PLUS 1
H	L	H	H	F = AB	F = AB MINUS 1	F = AB
H	H	L	L	F = 1	F = A PLUS A	F = A PLUS A PLUS 1
H	H	L	H	F = A+$\overline{B}$	F = (A+B) PLUS A	F = (A+B) PLUS A PLUS 1
H	H	H	L	F = A+B	F = (A+$\overline{B}$) PLUS A	F = (A+$\overline{B}$) PLUS A PLUS 1
H	H	H	H	F = A	F = A MINUS 1	F = A

(RA, RAMX, AMX; ALU, SHF, 07:04) (SLOT 12)

REVISIONS

CHK	CHANGE NO.	REV

TITLE DATA-PATH 07:00 (DCPB)
SIZE D CODE CS NUMBER M7470-0-0 REV. B
SCALE SHEET 3 OF 12 DIST.

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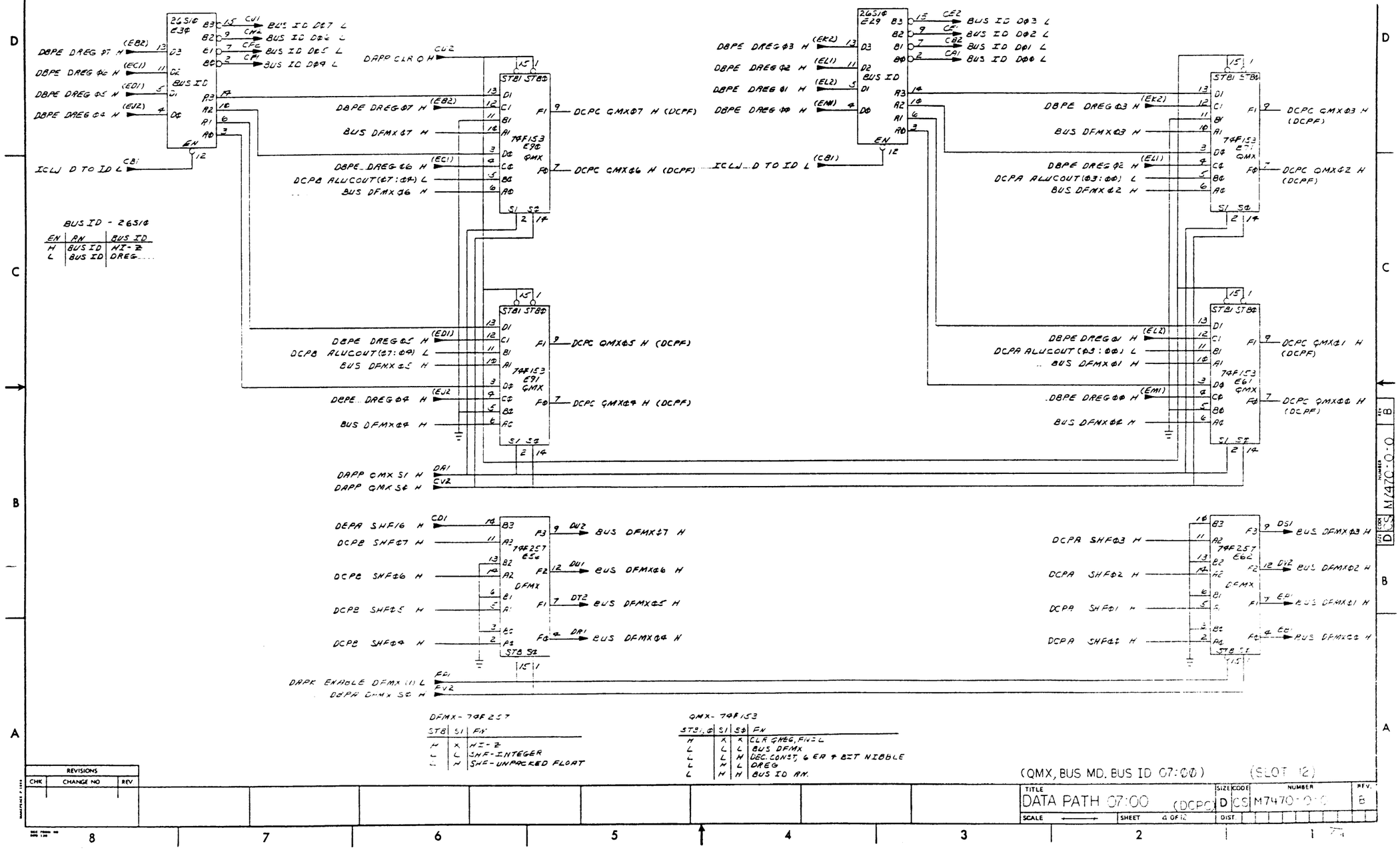

BUS ID - 26S10

EN	AN	BUS ID
H	BUS ID	HI-Z
L	BUS ID	DREG

DFMX - 74F257

STB	S1	FN
H	X	HI-Z
L	L	SHF-INTEGER
L	H	SHF-UNPACKED FLOAT

QMX - 74F153

STB1, 2	S1	S0	FN
H	X	X	CLR QREG, FI=L
L	L	L	BUS DFMX
L	L	H	DEC. CONST, 6 ER + BIT NIBBLE
L	H	L	DREG
L	H	H	BUS ID AM

(QMX, BUS MD. BUS ID 07:00) (SLOT 12)

REVISIONS

CHK	CHANGE NO	REV

TITLE	DATA PATH 07:00 (DCPC)	SIZE D	CODE CS	NUMBER M7470-0-0
SCALE	SHEET 4 OF 12	DIST		REV. B

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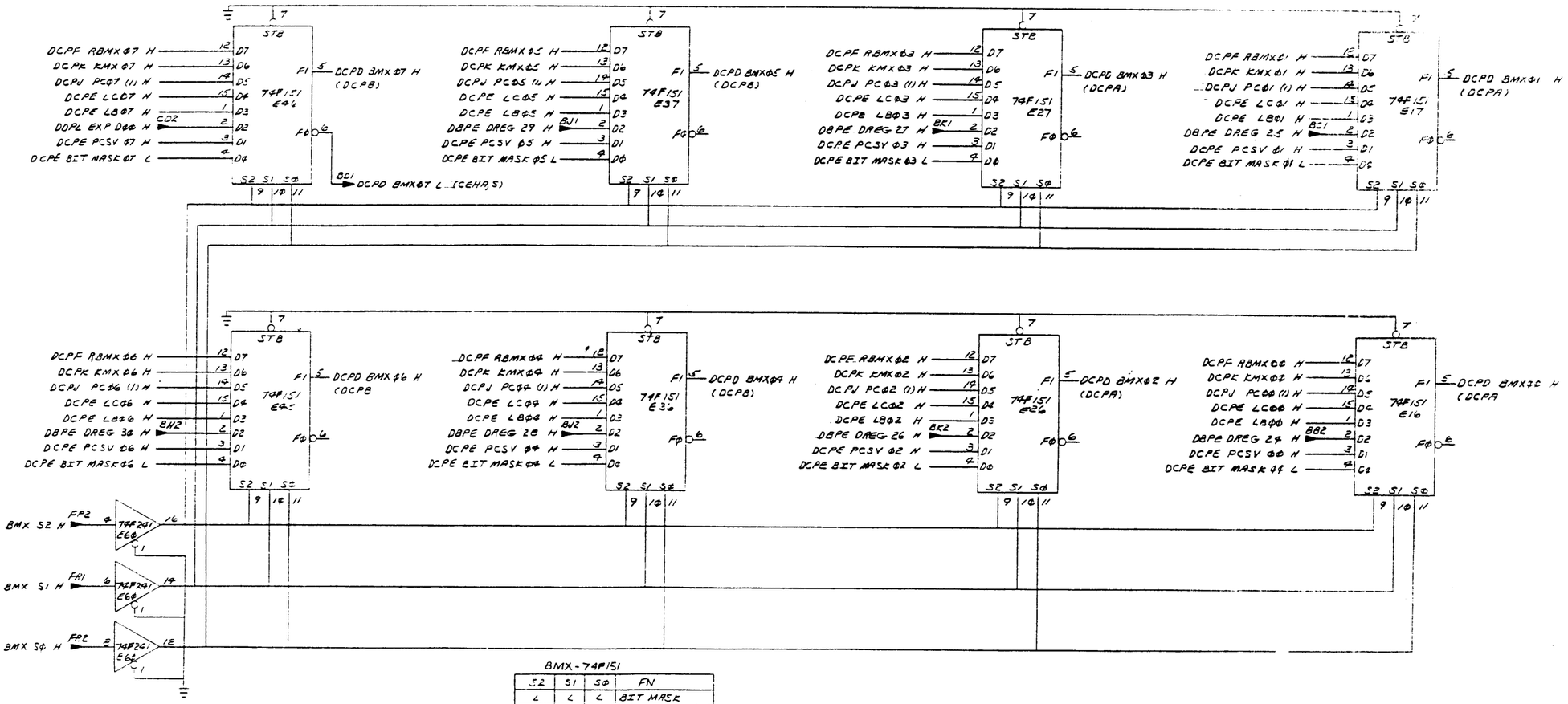

BMX - 74F151

S2	S1	SØ	FN
L	L	L	BIT MASK
L	L	H	ALOG, PCSV
L	H	L	PACKED FLOAT
L	H	H	LB
H	L	L	LC
H	L	H	PC
H	H	L	KMX
H	H	H	RBMX

REVISIONS		
CHK	CHANGE NO.	REV.

(BMX Ø7:ØØ) (SLOT 12)

TITLE: DATA PATH Ø7:ØØ (DCPD)
SIZE: D | CODE: CS | NUMBER: M7470-0-0 | REV.
SCALE | SHEET 5 OF 12 | DIST.

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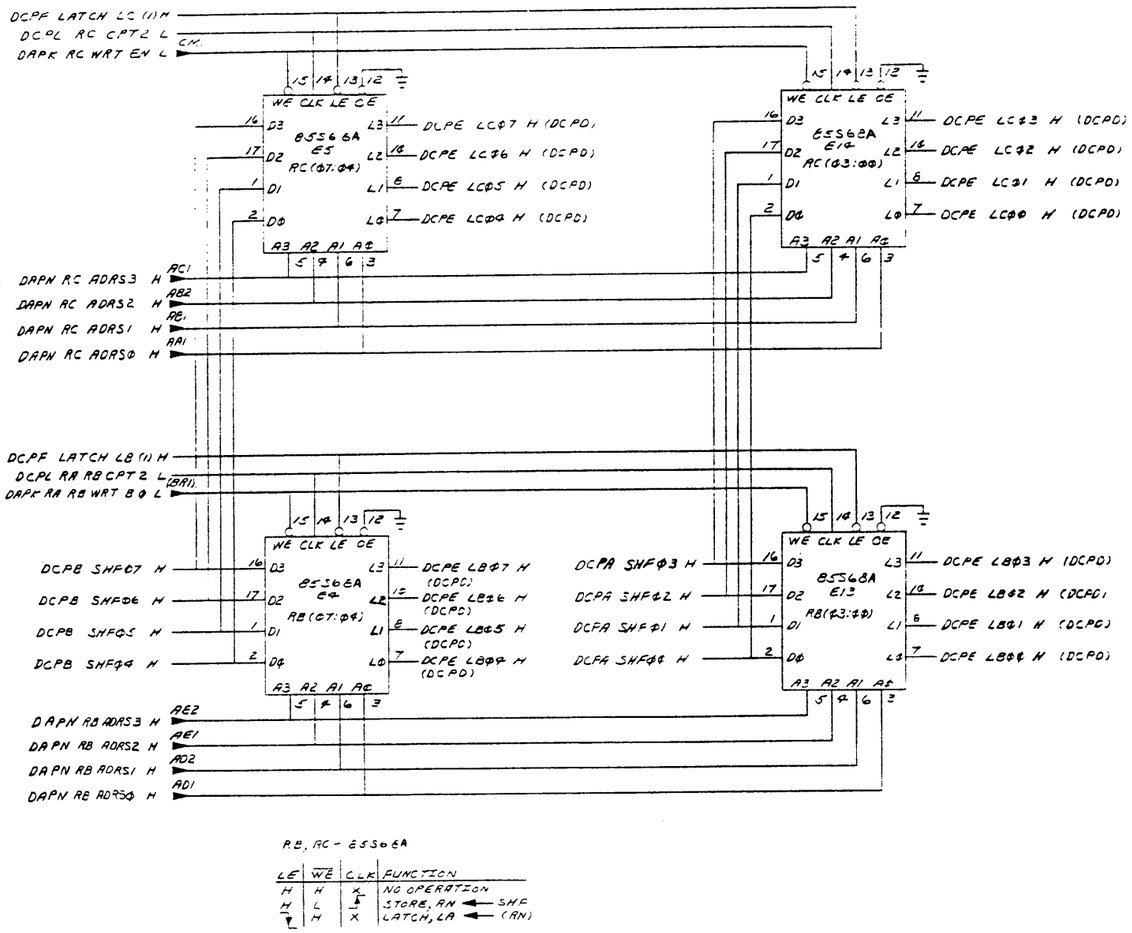
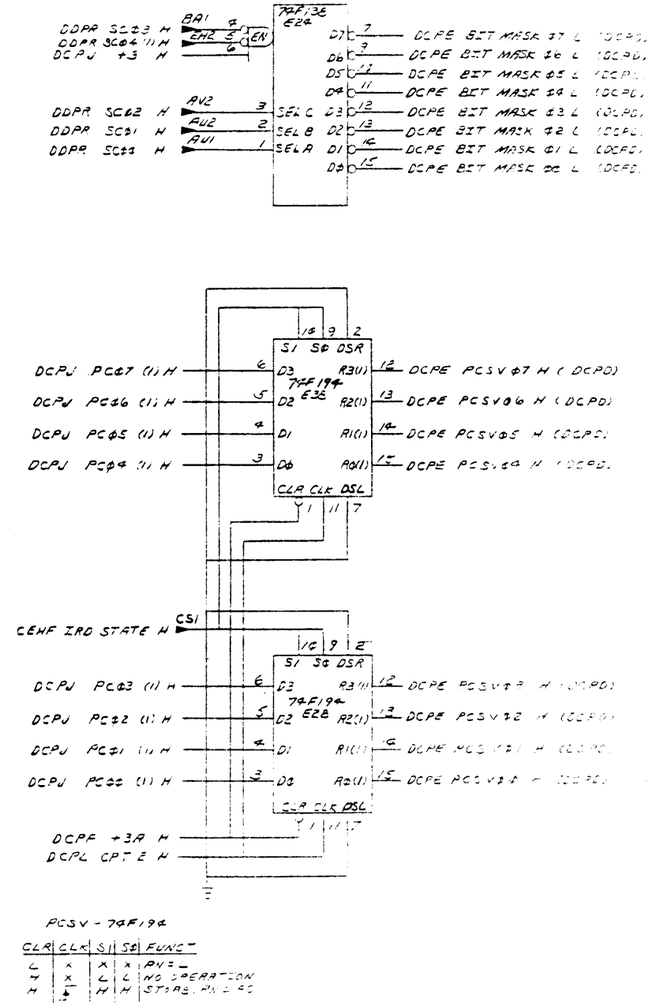


RB, RC - 85S68A

LE	WE	CLK	FUNCTION
H	H	X	NO OPERATION
H	L	↓	STORE, AN ← SHF
↓	H	X	LATCH, LA ← (AN)



PCSV - 74F194

CLR	CLK	S1	S0	FUNCT
L	X	X	X	RST
H	X	L	L	NO OPERATION
H	↑	H	H	STORE, PA ← PC

(RB, RC, PCSV AND BITMASK 07:00 SHEET)

REVISIONS		
CHK	CHANGE NO.	REV

TITLE: DATA PATH 07:00 DCPE
SIZE: D
NUMBER: M7270-0-C
SCALE:
SHEET

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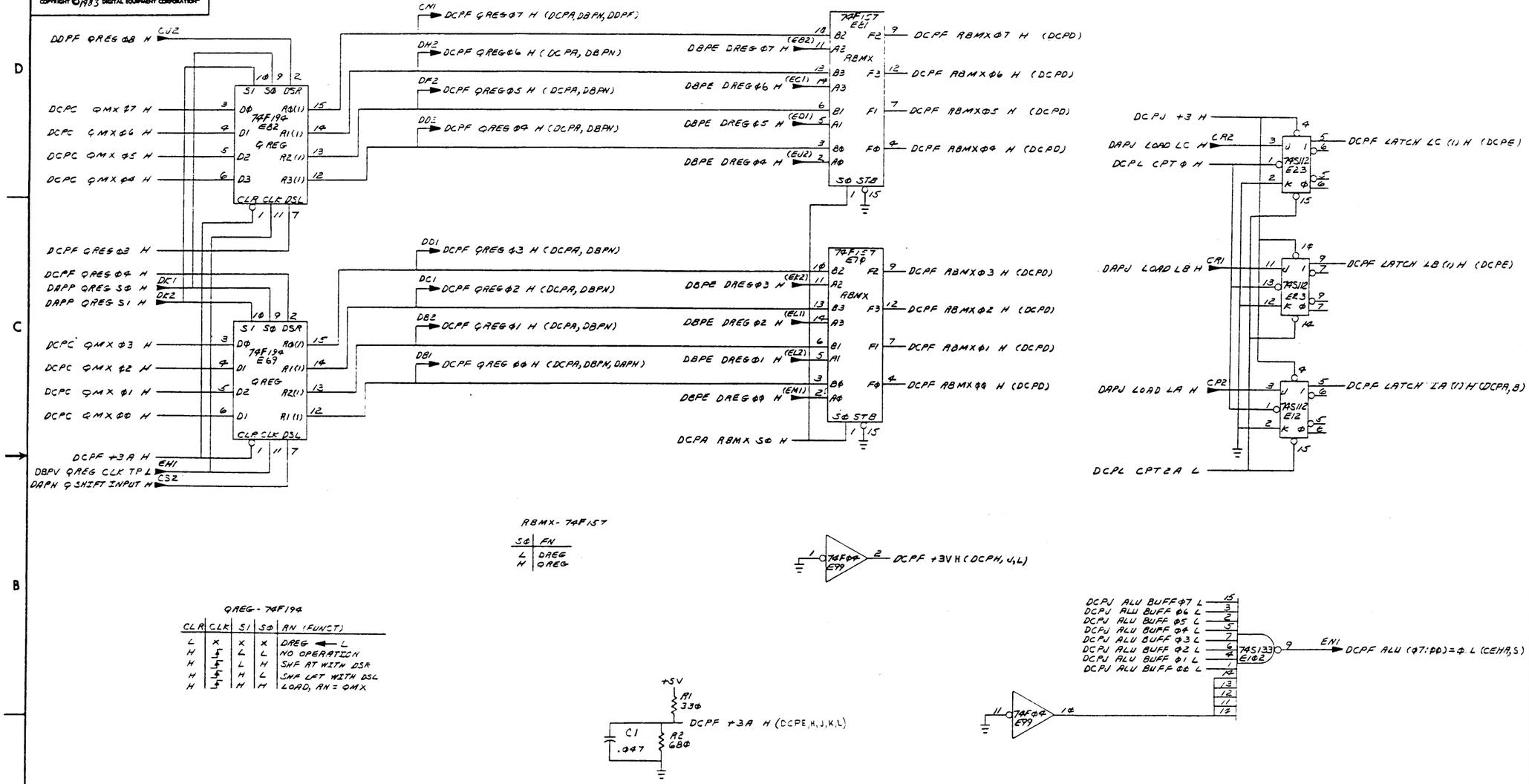

REVISIONS		
CHK	CHANGE NO.	REV.

(LATCH CONTROL, QREG, RBMX Ø7:Ø0 (SLOT 12)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH Ø7:Ø0 (DCPF)	D	CS	M7470-0-0	B
SCALE	SHEET 7 OF 12	DIST.		

TW 1

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PCMX - 74F157

STB	S0	FN
H	X	FN = L
L	L	VA
L	H	VIBA

DCPH VIBA COUT Ø3 H (DCPJ)

DCPH VIBA Ø3 (1) H
DCPH VIBA Ø2 (1) H

DCPA ALU Ø3 H
DCPA ALU Ø2 H
DCPF +3A H
DCPJ FLUSH L
DCPL CPT28 L
IDPJ COUNT H
DCPF +3 H

DCPH VA COUT Ø3 H (DCPJ)

DCPH VA Ø3 (1) H (T8MM, NT)

DCPH LOAD VA (1) L
DCPL CPT2 L

DCPH VA Ø2 (1) H (T8MM, NCEHE)

DCPH INC VA H (DCPJ)

IDPM DELTA PC 2 H
DCPH +3 H

IDPM DELTA PC 1 H

IDPM DELTA PC 2 H

DCPJ PC Ø3 (1) H
DCPJ PC Ø2 (1) H
DCPJ PC Ø1 (1) H
DCPJ PC Ø0 (1) H

PC ADDER - 74F181

SN = A. PLUS. B.

DCPH UPCK Ø2 (Ø) H
DCPH UPCK Ø1 (1) H
DCPH UPCK Ø0 (Ø) H
DCPJ +3 H

DCPH UPCK Ø2 (Ø) H
DCPH UPCK Ø1 (Ø) H
DCPH UPCK Ø0 (1) H

DCPH LD PC_31:Ø4 L (DCPJ)

DCPH UPCK Ø2 (Ø) H

DCPH LOAD PC Ø3:Ø0 L (DCPJ)

DCPH INC PC 31:04 H (DCPJ)

DCPH VIBA Ø3 (1) H
DCPH VA Ø3 (1) H

DCPH PCAMX Ø3 H (DCPJ)

DCPH VIBA Ø2 (1) H
DCPH VA Ø2 (1) H

DCPH PCAMX Ø2 H (DCPJ)

DCPJ VA Ø1 (1) H

DCPH PCAMX Ø1 H (DCPJ)

DCPJ VA Ø0 (1) H

DCPH PCAMX Ø0 H (DCPJ)

DCPH UPCK Ø2 (1) H
DCPJ PCMX 5Ø H

BUS CS 35 H
BUS CS 34 H
BUS CS 33 H
BUS CS 32 H

DCPH LOAD VA (1) H
DCPH LOAD VA (1) L
DCPH UPCK Ø2 (1) H
DCPH UPCK Ø2 (Ø) H
DCPH UPCK Ø1 (Ø) H
DCPH UPCK Ø1 (1) H
DCPH UPCK Ø0 (Ø) H

CARY LOOPS CLR A L
DCPL CPT Ø H

(VA, VIBA, NMUX, PCAMX Ø3:Ø0) (SLOT 12)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH Ø7:Ø0 (DCPH)	D	CS	M7470-0-0	B
SCALE	SHEET 5 OF 12		DIST.	

D CS M7470-0-0 B

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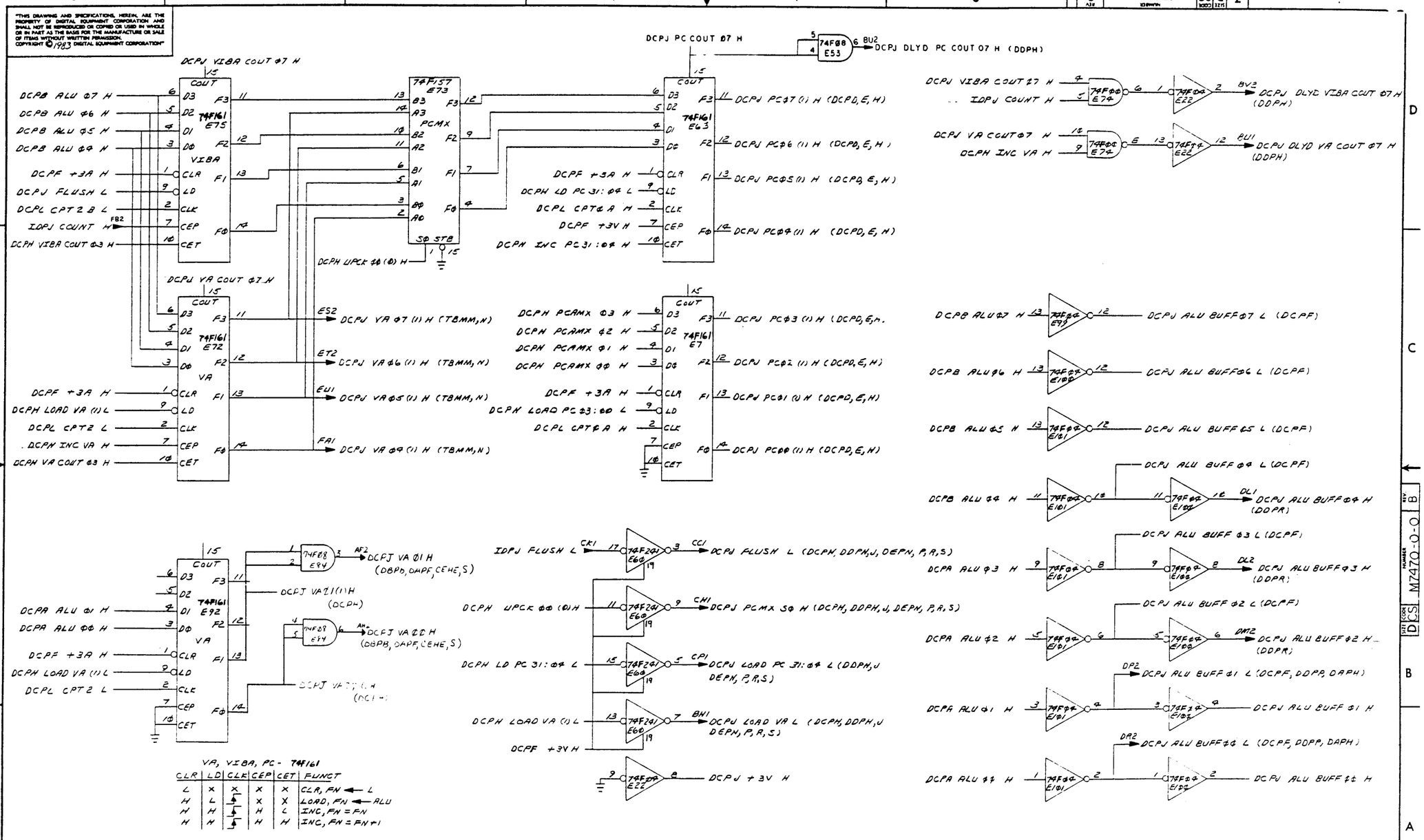

(VA VIBA PCMX Ø7:Ø4, PC AND ALU BUFF Ø7:ØØ)(SLOT 12)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH Ø7:ØØ (DCPJ)	D	CS	M7470-0-0	B
SCALE	SHEET 9 OF 12	DIST.		

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74F175 E5C UKMX

+5V
RI1 330 RI3 330 RI2 820 RI4 820
BUS CS63 H DS2
BUS CS62 H DS1
D3 D2 D0 D1 CLR CLK
A3(1) A3(0) A2(1) A2(0) A0(1) A0(0) A1(1) A1(0)
ARE DCPK UKMX5 (1) H (DDPH)
AL1 DCPK UKMX4 (1) H (DDPH)

2303882 E11 SLOW CONSTANT Ø7-ØØ
A0 A1 A2 A3 A4 A5 A6 A7 CS
DCPK SKØ7 L
DCPK SKØ6 L
DCPK SKØ5 L
DCPK SKØ4 L
DCPK SKØ3 L
DCPK SKØ2 L
DCPK SKØ1 L
DCPK SKØØ L

DDPR SCØ7 (1) H FE1 74FØØ E3 DCPK FKMXØ7 L
DDPA SCØ6 (1) H FD2 74FØØ E3 DCPK FKMXØ6 L
DDPR SCØ5 (1) H EM2 74FØØ E3 DCPK FKMXØ5 L
DDPR SCØ4 (1) H EH2 74FØØ E3 DCPK FKMXØ4 L
74F11 E4C DCPK UKMX = SC H

KMX - 74F158

SØ	FN
L	3R
H	FR

74F175 E4C UKMX

+5V
RI5 330 RI7 330 RI9 330 R21 330
BUS CSG1 H DN1
BUS CSGØ H DM1
BUS CSG9 H DJ2
BUS CSG8 H DJ1
RI6 820 RI8 820 R22 820 R20 820
D3 D2 D0 D1 CLR CLK
A3(1) A3(Ø) A2(1) A2(Ø) A0(1) A0(Ø) A1(1) A1(Ø)
AL2 DCPK UKMX3 (1) H (DDPH)
DCPK UKMX3 (Ø) H (DDPH)
AM1 DCPK UKMX2 (1) H (DDPH)
DCPK UKMX2 (Ø) H (DDPH)
AM2 DCPK UKMX1 (1) H (DDPH)
DCPK UKMX1 (Ø) H (DDPH)
AN1 DCPK UKMXØ (1) H (DDPH)
DCPK UKMXØ (Ø) H (DDPH)

DCPF +3A H
DCPL CPTØ H

UKMX FUNCT DECODE

UKMX (HEX)	FUNCT (KMX)
Ø	FKMX = Ø16
1	FKMX = 116
2	FKMX = 216
3	FKMX = 316
4	FKMX = 416
5	FKMX = SPI CON
6	FKMX = SP2 CON
7	FKMX = EC
8	UKMX = SK [ADRS]

DDPR SCØ3 H BA1 74F64 E5B DCPK FKMXØ3 L
IRCE SPI CON3 H AF1
74F11 E4C
DCPK FKMX = SPI H

DDPR SCØ2 H AN2 74FG4 E4B DCPK FKMXØ2 L
IRCE SPI CON2 H ZL1

DCPJ +3V H
DDPR SCØ1 H AU2 74FG4 E9Z DCPK FKMXØ1 L
IRCE SPI CON1 H BS2

IRCE SP2 CONØ1 H CM2

DDPR SCØØ H AU1 74FG4 E9Y DCPK FKMXØØ L
IRCE SPI CONØ H BT2

IRCE SP2 CONØ H CR2

DCPK UKMXØ5 (Ø) H
DCPK UKMXØ4 (Ø) H
DCPK UKMX03 (Ø) H
74F1,2 E33

74F158 E2C KMX
B3 A3 B2 A2 B1 A1 B0 A0 STB
F3 F2 F1 FØ
BF2 DCPK KMXØ7 H (DCPD, DDPN)
BB1 DCPK KMXØ6 H (DCPD, DDPN)
AS2 DCPK KMXØ5 H (DCPD, DDPN)
AS1 DCPK KMXØ4 H (DCPD, DDPN)

74F158 E1C KMX
B3 A3 B2 A2 B1 A1 B0 A0 STB
F3 F2 F1 FØ
AP1 DCPK KMXØ3 H (DCPD, DDPR, N)
AK1 DCPK KMX02 H (DCPD, DDPR, N)
AJ2 DCPK KMX01 H (DCPD, DDPR, N)
AJ1 DCPK KMXØØ H (DCPD, DDPR, N)

(KMX AND CONTROL Ø7:ØØ) (SLOT 12)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH Ø7:ØØ (DCPK)	D	CS	M7470-0-0	B
SCALE	SHEET 1 OF 2	DIST.		

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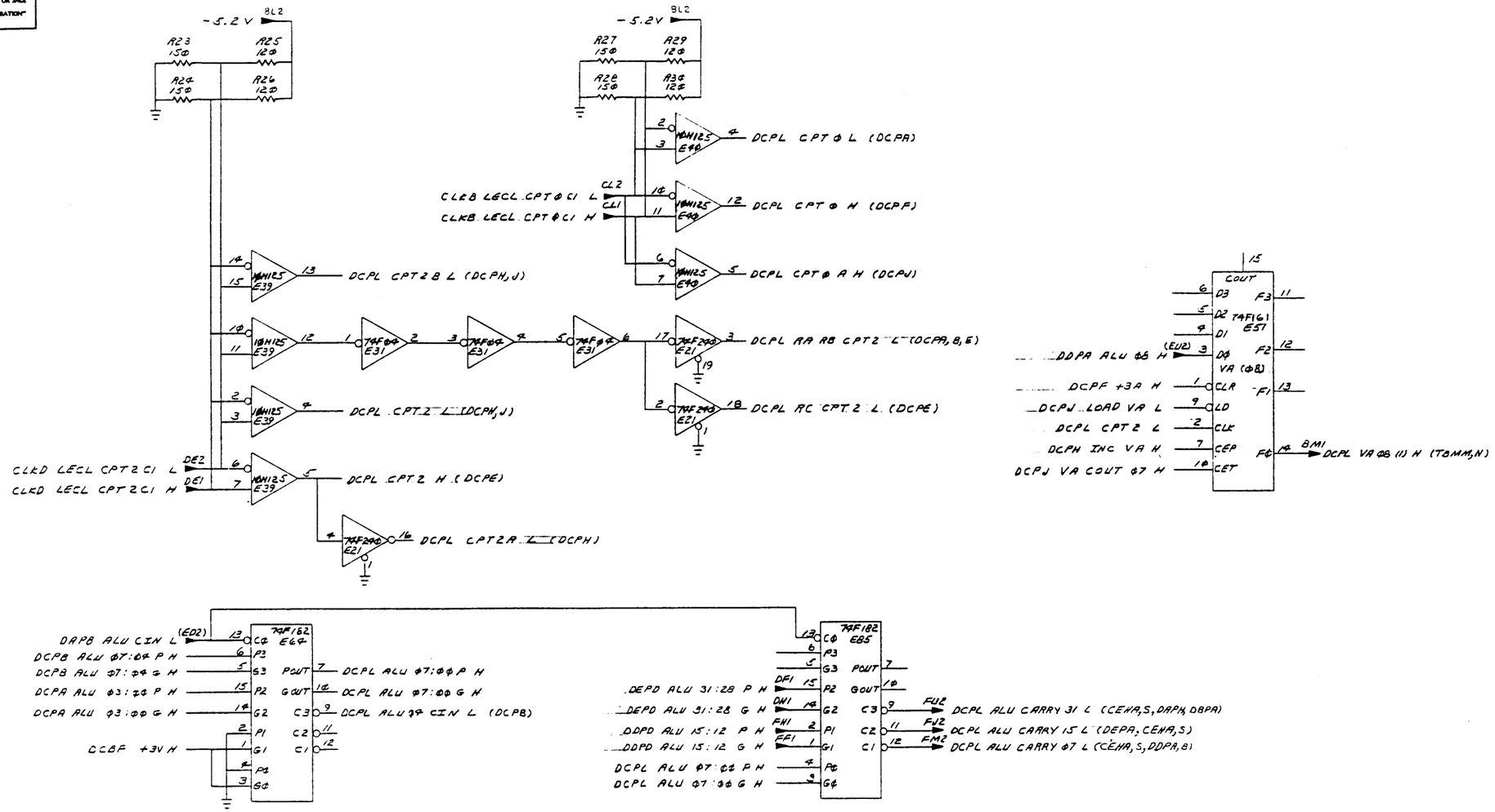

REVISIONS		
CHK	CHANGE NO.	REV.

(CLKS AND LOOKAHEAD CARRY) (SLOT 12)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 07:00 (DCPL)	D	CS	M7470-0-0	B
SCALE	SHEET 11 OF 12	DIST.		

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SK (07:00) L

ROM ADDR = UKMX	M7	M6	M5	M4	M3	M2	M1	M0	SLOW CONSTANT
00	L	L	L	L	L	L	L	L	X
01	L	L	L	L	L	L	L	L	X
02	L	L	L	L	L	L	L	L	X
03	L	L	L	L	L	L	L	L	X
04	L	L	L	L	L	L	L	L	X
05	L	L	L	L	L	L	L	L	X
06	L	L	L	L	L	L	L	L	X
07	L	L	L	L	L	L	L	L	X
08	H	H	H	L	H	L	H	H	--14
09	L	H	L	H	H	H	H	H	--A0
0A	H	H	L	L	H	L	H	H	--34
0B	H	H	L	H	L	H	H	H	--2B
0C	H	L	H	H	H	H	H	H	--40
0D	H	L	H	L	H	H	H	H	--50
0E	H	H	H	H	H	H	H	H	--00
0F	L	L	L	H	L	L	L	L	--EF
10	L	H	H	H	H	H	H	H	--80
11	H	H	H	H	H	H	H	H	--00
12	L	L	L	L	L	L	L	L	--FF
13	H	H	H	H	H	H	H	H	--00
14	H	H	H	L	L	L	L	H	--1E
15	H	H	L	L	L	L	L	L	--3F
16	H	L	L	L	L	L	L	L	--7F
17	H	H	H	H	H	L	L	L	--07
18	H	H	H	H	L	L	L	L	--0F
19	H	H	H	L	H	H	H	H	--10
1A	L	L	L	H	L	H	H	H	--E8
1B	L	L	L	L	H	H	H	H	--F0
1C	L	L	L	L	L	H	H	H	--F8
1D	H	H	L	H	H	H	H	H	--20
1E	H	H	L	L	H	H	H	H	--30
1F	H	H	H	L	L	H	H	H	--18

NOTE: 20-3F NOT USED

SK (07:00) L

ROM ADDR = UKMX	M7	M6	M5	M4	M3	M2	M1	M0	SLOW CONSTANT
40	L	L	L	L	L	L	L	L	--FF
41	H	H	H	H	L	L	H	H	--0C
42	H	H	H	H	L	L	H	L	--0D
43	H	H	H	L	L	L	L	L	--1F
44	H	H	H	H	H	H	H	H	--00
45	L	H	L	L	H	H	H	H	--B0
46	H	H	H	H	H	H	L	L	--03
47	H	L	L	L	L	L	H	H	--7C
48	L	L	L	H	H	H	H	H	--E0
49	H	L	L	H	H	H	H	H	--60
4A	L	L	L	L	L	L	L	L	-- SPARE
4B	L	L	H	H	L	L	L	L	--CF
4C	L	L	L	H	L	L	L	L	--EF
4D	L	L	L	L	H	H	H	L	--F1
4E	H	H	H	L	L	H	H	L	--19
4F	L	L	L	L	L	H	H	L	--F9
50	L	L	L	L	L	L	L	L	--FF
51	L	H	H	H	H	L	L	H	--86
52	H	H	L	L	H	H	H	H	--30
53	L	L	L	L	H	H	H	H	--F0
54	L	L	H	H	H	H	H	H	--C0
55	H	H	H	H	H	L	L	H	--06
56	H	H	H	H	L	H	H	L	--09
57	L	L	L	L	H	L	L	H	--F6
58	L	L	L	L	H	L	H	L	--F5
59	H	H	H	L	L	H	L	H	--1A
5A	H	H	L	H	H	L	H	H	--24
5B	H	H	H	L	L	H	L	L	--18
5C	L	L	L	L	L	L	H	H	--FC
5D	H	H	H	H	L	H	L	H	--0A
5E	H	L	L	L	L	L	L	H	--7E
5F	L	L	L	H	L	L	H	H	--EC

NOTE: LOCATIONS 60-7F NOT USED

SK (07:00) L

ROM ADDR = UKMX	M7	M6	M5	M4	M3	M2	M1	M0	SLOW CONSTANT
80	L	L	L	L	L	L	L	L	NOT USED
81									
82									
83									
84									
85									
86									
87									
88									
89									
8A									
8B									
8C									
8D									
8E									
8F									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									
9A									
9B									
9C									
9D									
9E									
9F									

NOTE: A0-BF NOT USED

SK (07:00) L

ROM ADDR = UKMX	M7	M6	M5	M4	M3	M2	M1	M0	SLOW CONSTANT
C0	L	L	L	L	L	L	L	L	NOT USED
C1									
C2									
C3									
C4									
C5									
C6									
C7									
C8									
C9									
CA									
CB									
CC									
CD									
CE									
CF									
D0									
D1									
D2									
D3									
D4									
D5									
D6									
D7									
D8									
D9									
DA									
DB									
DC									
DD									
DE									
DF									

NOTE: E0-FF NOT USED

REVISIONS		
CHK	CHANGE NO.	REV.
	-	

SLOW CONSTANT ROM 07:00 - 23-03382-00 (SLOT 12)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH 07:00 (DCP)	D	DCS	M7470-0-0	B
SCALE →	SHEET 12 OF 12		DIST	

M7470-0-0 REV B

SIZE	CODE	NUMBER	REV.
B	DD	M7470-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	–	M7470-00	DCP PART REVISION	A B C
E-UA-M7470-0-0	4		UNIT ASSEMBLY	A B C
D-CS-M7470-0-0	12		CIRCUIT SCHEMATIC	A A B
K-PL-M7470-0-DBP	2		PARTSLIST	A B C
K-PC-M7470-0-DBG	-		P.C. DATABASE	C C C
	–	5012600-00	ETCHED BOARD	C C C
B-MD-5012600-0-0	3		CIRCUIT DRILL & ETCH	A A A

NOTES:

REVISIONS			
REV.	B	C	
CHG NO.	TWI	TW002	
DATE	1-84	6-84	

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digital

USED ON OPTION/MODEL

DRN	Thomas F Walsh	7-16-83
CHK'D		9-2-83
ENG.	Keith McInnis	10-11-83
PROD		10-11-83

TITLE: DCP

SIZE	CODE	NUMBER	REV.
B	DD	M7470-0-0	C

SHEET | OF

TW

DRB 126

COMPONENT SIDE VIEW

digital

SIZE | DRAWING NUMBER | REV

SCALE: NONE | SHEET 1 OF 1

DATE | NAME

DRAWN

CHK'D

ENG

MFG

APPROVED

QA

COMMENTS:

NEXT ASSY | USED ON | APPLICATION | DO NOT SCALE PRINT

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CS MABCDEFHJKLMNPRS

SIDE 1

digital

E146 E134 E121 E108 E94 E81 E67 E54 E41 E28 E14

E145 E133 E120 E107 E93 E80 E65 E40 E27 E13

E132 E26 E12

E118 E91 E77 E65 E9

E4

0-1

0-2

5012578 M8223

REVISIONS		
CHR	CHANGE NO.	REV

TITLE: CPU DATA PATH A

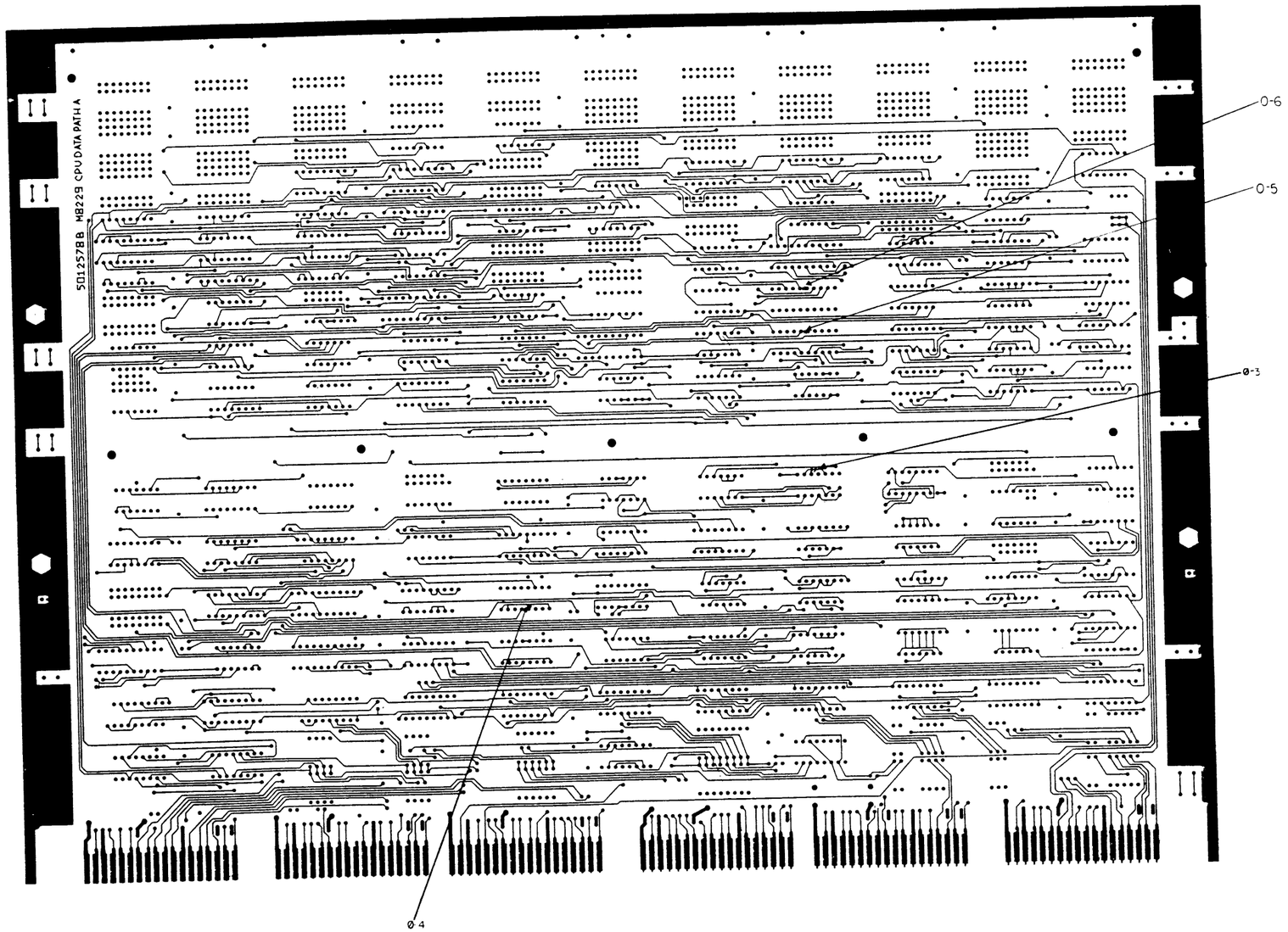
SCALE 2-1 SHEET 2 OF 4

SIZE B | LIA M7471-0-0 | REV A

DWG. M7471

TW

1983



TITLE	SIZE	CODE	NUMBER	REV
CPU DATA PATH A	E	UA	M7471-00-0	A
SCALE 2-1	SHEET 3 OF 4		DIST	

1 TW

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REWORK INSTRUCTIONS

ETCH CUTS - SIDE 1

0-1 BETWEEN E75-14 AND PTH RIGHT OF E76-7
0-2 *ABOVE PTH NEAR FINGER CV1

ETCH CUTS - SIDE 2

0-3 BETWEEN E100-9 AND E100-12
0-4 AT E57-4
0-5 AT E102-16
0-6 AT E103-16

WIRE ADDS - SIDE 1

0-7 FROM E100-9 TO E100-11
0-8 FROM PTH ABOVE E43-9 TO E44-7
0-9 FROM PTH ABOVE FINGER CV2 TO PTH CONNECTING TO E49-7
0-10 FROM E57-4 TO E57-14
0-11 FROM E102-16 TO E102-10
0-12 FROM E103-16 TO E103-10

REVISION HISTORY
DATE | ECO NUMBER | REV

TITLE CPU
DATA PATH A

DOCUMENT NUMBER
SIZE E | CODE UA | M7471-0-0 | REV A
SCALE — | SHEET 4 OF 4

M7471 A

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T —

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	D-MD-5016098-0-0	5012578-00		M8229	1	
2	2		1012084-01		8 MFD 25V +75-10% AL EL	7	C1-C7
3	3		1012784-00		.047 MFD 50V +80-20% CER	45	C8-C52
4	4		1301424-00		680.0 .25 W 5.0 % CF	1	R78
5	5		1300247-00		120.0 .25 W 5.0 % CF	6	R71-R76
6	6		1300250-00		150.0 .25 W 5.0 % CF	6	R65-R70
7	7		1300295-00		330.0 .25 W 5.0 % CF	33	R1-R32,R77
8	8		1301775-00		820.0 .25 W 5.0 % CF	32	R33-R64
9	9		1921334-01		74F350 SHIFTER,4-BIT	1	E136
10	10		1913839-00		LS165 SHIFT REG.,8BIT	5	E39,E52,E92,E119,E106
11	11		1921305-01		74F00 NAND GATE,QUAD,2-IN	6	E7,E36,E87,E139,E141,E131
12	12		1921307-01		74F04 HEX INVERTER	10	E6,E23,E45,E59,E60,E66,E88,E140,
						CONT	E130,E48
13	13		1921309-01		74F10 NAND GATE,TRIPLE,3-I	3	E35,E70,E142
14	14		1921310-01		74F11 AND GATE,TRIPLE,3-IN	4	E8,E72,E89,E126
15	15		1921311-01		74F20 NAND GATE,DUAL,4-IN	6	E21,E33,E34,E125,E143,E105
16	16		1910541-00		74S40 BUFFER,POS-NAND,DUAL	2	E17,E101
17	17		1921313-01		74F64 AND OR INVERT GATE,4-	15	E83,E84,E86,E97,E98,E99,E100,
						CONT	E110,E111,E112,E127,E123,E128,
						CONT	E129,E117
18	18		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	3	E61,E64,E144
19	19		1921320-01		74F157 MUX,QUAD,2-IN	1	E137
20	20		1921321-01		74F158 MUX,QUAD,2-IN	4	E1,E2,E18,E62
21	21		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	1	E113
22	22		1921318-01		74F151 MUX,8-IN	13	E10,E11,E24,E25,E37,E38,E43,E44,
						CONT	E50,E51,E56,E57,E58
23	23		1921324-01		74F175 FF-D,QUAD	12	E15,E16,E29,E47,E55,E69,E82,E96,
						CONT	E109,E122,E135,E42
24	24		1911469-00	DEC	8640 RECEIVER,BUS,QUAD,U	1	E79
25	25		1921316-01		74F138 DECODER/DEMUX,1-OF-8	4	E5,E71,E85,E124

REVISION HISTORY			BASIC PART NO: M7471					
ENG	ECO NUMBER	REV	SECTION A OF A					
---	INITIAL	A	SECTION.VARIATION INDEX (A) 00 (B) (C) (D) (E) (F) (H) (J) (K) (L) (M) (N)	DRN: A.RUSZCZYK	DATE: 04-MAR-83	D I G I T A L		
				CHK'D: T.MCCULLOUGH	DATE: 04-MAR-83	TITLE PARTS LIST CPU DATA PATH A (DAP)		
				DES.ENG: KEITH MCLAREN	DATE: 19-SEP-83	DOCUMENT NUMBER		
						SIZE	CODE	NUMBER / REV
				RESP.ENG.: KEITH MCLAREN	DATE: 19-SEP-83	K	PL	M7471-0-DBP / A
				MFG.ENG.: M.KRYSAK	DATE: 19-SEP-83	RELEASE DATE: 14-OCT-83		
				ASSEMBLY NUMBER: E-UA-M7471-0-0	TOP DOCUMENT NUMBER: B-DD-M7471-0-0	FILE NAME: Z3949A.PLS		EDIT # 1

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AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T —

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
26	26		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	2	E68,E95
27	27		1911712-00		74S51 AND-OR GATE-INVERT D	6	E46,E74,E114,E115,E116,E76
28	28		1911983-00		74S133 NAND GATE-POSITIVE 1	3	E19,E20,E32
29	29		1921315-01		74F86 EXCLUSIVE OR GATE,QU	1	E90
30	30		1921308-01		74F08 AND GATE,QUAD,2-IN	3	E22,E73,E138
31	31		1921333-01		74F283 BINARY FULL ADDER,4	2	E78,E53
32	32		1921008-01		74F240 BUFFER/LINE DRIVER,I	4	E3,E31,E75,E104
33	33		1921009-01		74F241 BUFFER/LINE DRIVER,N	1	E49
34	34		1921010-01		74F373 OCTAL TRANSPARENT LA	1	E30
35	35		2303682-00		B2-03	1	E102
36	36		2303582-00		B2-03	1	E103
37	37		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
38	38		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
39	39		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	

40 NOTE: SPARE IC'S E4,E9,E12-E14,E26-E28,E40,E41,E54,E63,E65,E67,
41 NOTE: SPARE IC'S CONTINUED E80,E81,E77,E91,E93,E94,E107,E108,
42 NOTE: SPARE IC'S CONTINUED E118,E120,E121,E132-E134,E145,E146

DIGITAL	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
	CPU DATA PATH A (DAP)		K	PL	M7471-0-DBP	A

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NOTES:

M7471-C-C

DATA PATH

EXPONENT SECTION

EALU
74F157
NABS ROM 256X8
74F181, 74F182
EBMX 74F153
EAMX 74F157
AMX EXP
SMF VAL
74F157 SMX
74S04
74S04
FE 74F134
STATF 74F194
SC 74F194
MASK 74F138
SK ROM 512X8
KMX 74F138
FM 74F64 74F86
SP1CON
SP2CON
SC
"8, "1, "2, "3, "4

ADDRESS SECTION

VA 74F161
IBA 74F161
++
++
CM
74F158
74F158
VAMX (31:16)
VA (03:02)
VAMX (15:09)
TBUF ADDRESS INTERFACE
PCMX 74F157
IBA
PC 74F161
PC (TO BMX)
PC (03:00)
A PC ADD
74F181
B
DFAMX 74F157
NMX 74F153
P1
P2
P0
N
PCSV 74F194
RLOG 16X9 85S68
PC
RA ADDRESS, XMX (03:02), AND ADD/SUB BIT
LC RC 16X32 85S68
LB RB 16X32 85S68
LA RA 16X32 85S68
BMX 74F151
AMX 74F153
RBMX
SD, EALU EXP, DREG
PC
RAMX 74F157
PBMX 74F157
RBMX

ARITHMETIC SECTION

SHF
74F350
74F257
ALU 74F181, 74F182
DFMX 74 157
DECIMAL CONSTANT

DATA SECTION

MD BUS (MEMORY DATA)
T.S.
BAL 74F350
MDAL 74F350
(GENERAL REG DATA) TO AND FROM ACC
T.S.
D NIBBLE SWAP
74F153 QMX
74F153 DMX
DAL 63 BIT SHIFT MATRIX F4F350
Q 74F194
D 74F194
D PGEN 74F280
74F241
O.C.
O.C.
INTERNAL PROCESSOR REGISTERS

SBI
SBI CNTL
TBUF AND CACHE
XCEIV 26510
32

TO BUS

CONSOLE
TRAP AND INTERRUPT
IBUF
(INTERNAL DATA)
WCS
ACC
MICRO SEQUENCER

BLOCK DIAGRAM (SLOT 13)

DRN	FIRST USED ON	digital
CHK'D	TITLE	DATA PATH CONTROL
ENG.		
PROJ. ENG.		
PROJ.		
NEXT HIGHER ASSY.		
SCALE	SIZE D CODE CS NUMBER M7471-C-C REV. A	
SHEET 1 OF 22	DIST.	

REVISIONS: REV. | CHANGE NO. | CHK

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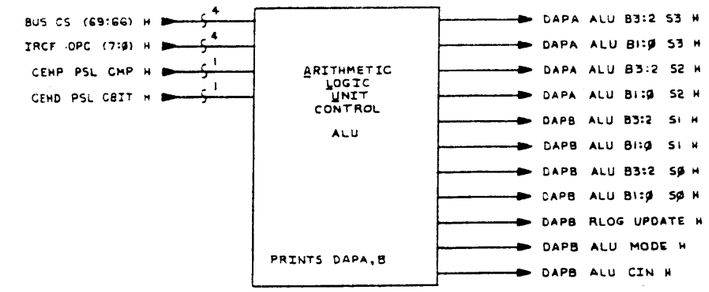

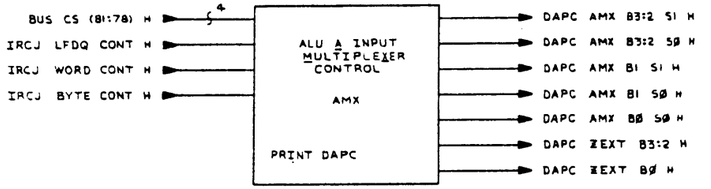

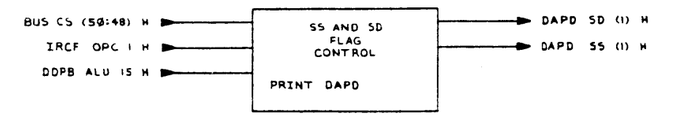

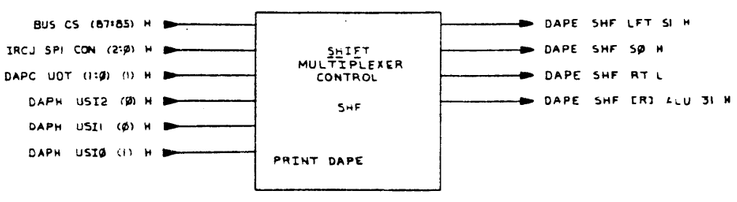

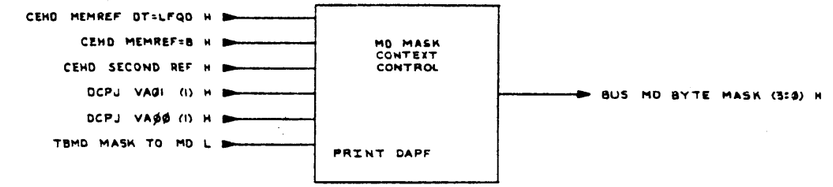

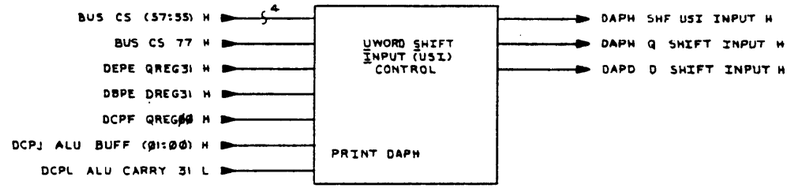

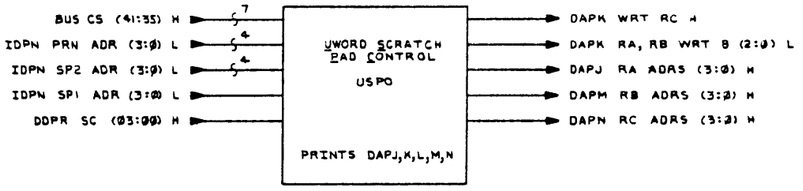

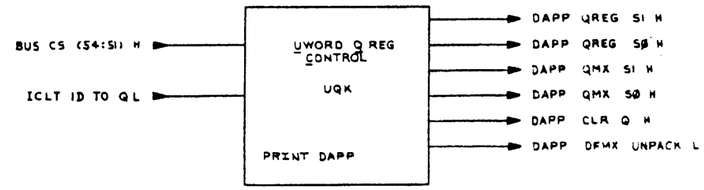

(DATA PATH CONTROL BLOCK DIAGRAM)(SLOT 13)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: DATA PATH CONTROL	SIZE/CODE: DCS	NUMBER: M7471-0-0	REV: A
SCALE: NONE	SHEET 2 OF 22	DIST.	

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AMX CONTROL — TRUTH TABLE

UAMX		UDT		CONTEXT			AMX CONTROL												AMX OUTPUT FUNCTIONS			
							BYTE 3			BYTE 2			BYTE 1			BYTE Ø						
1	Ø	1	Ø	LONG	WORD	BYTE	S1	SØ	STB	S1	SØ	STB	S1	SØ	STB	S1	SØ	STB	BYTE 3	BYTE 2	BYTE 1	BYTE Ø
L	L	X	X	X	X	X	L	L	L	L	L	L	L	L	L	L	L	L	LA (31:ØØ)			
L	H	X	X	X	X	X	L	H	L	L	H	L	L	H	L	L	H	L	RAMX (31:ØØ)			
H	L	L	L	X	X	X	L	H	L	L	H	L	L	H	L	L	H	L	[SXT LONG]	RAMX (31:ØØ)		
H	L	L	H	X	X	X	H	H	L	H	H	L	L	H	L	L	H	L	[SXT WORD]	← RAMX 15	RAMX (15:ØØ)	
H	L	H	L	X	X	X	H	L	L	H	L	L	H	H	L	L	H	L	[SXT BYTE]	← RAMX 7		RAMX (Ø7:ØØ)
H	L	H	H	H	L	L	L	H	L	L	H	L	L	H	L	L	H	L	RAMX (31:ØØ)			
H	L	H	H	L	H	L	H	H	L	H	H	L	L	H	L	L	H	L	[SXT WORD]	← RAMX 15	RAMX (15:ØØ)	
H	L	H	H	L	L	L	H	L	L	H	L	L	H	H	L	L	H	L	[SXT BYTE]	← RAMX 7		RAMX (Ø7:ØØ)
H	H	L	L	X	X	X	X	X	H	X	X	H	H	L	L	X	X	H	[ØXT LONG] L	← L		
H	H	L	H	X	X	X	X	X	H	X	X	H	L	H	L	L	H	L	[ØXT WORD] L	← L	RAMX (15:ØØ)	
H	H	H	L	X	X	X	X	X	H	X	X	H	H	L	L	L	H	L	[ØXT BYTE] L	← L		RAMX (Ø7:ØØ)
H	H	H	H	H	L	L	X	X	H	X	X	H	H	L	L	X	X	H	[ØXT LONG] L	← L		
H	H	H	H	L	H	L	X	X	H	X	X	H	L	H	L	L	H	L	[ØXT WORD] L	← L	RAMX (15:ØØ)	
H	H	H	H	L	L	H	X	X	H	X	X	H	H	L	L	L	H	L	[ØXT BYTE] L	← L		RAMX (Ø7:ØØ)

NOTE: X=DON'T CARE
SXT=SIGN EXTEND
ØXT=ZERO EXTEND

ALU FUNCTION SELECT — TRUTH TABLE

UALU (Ø3:ØØ)					FUNCTION SELECT LINES				MODE CONTROL	CARRY INPUT	ALU FUNCTION
HEX	3	2	1	Ø	S3	S2	S1	SØ	H=LOGIC L=ARITH	CARRY=L	
Ø	L	L	L	L	L	H	H	L	L	L	A. MINUS. B
1	L	L	L	H	L	H	H	L	L	L	A. MINUS. B [R LOG]
2	L	L	H	L	L	H	H	L	L	H	A. MINUS. B. MINUS. 1
3	L	L	H	H	#	#	#	#	#	#	INSTRUCTION DEP.
4	L	H	L	L	H	L	L	H	L	L	A. PLUS. B. PLUS. 1
5	L	H	L	H	H	L	L	H	L	H	A. PLUS. B
6	L	H	H	L	H	L	L	H	L	H	A. PLUS. B [R LOG]
7	L	H	H	H	H	H	L	H	H	X	A. OR. NOT. B
8	H	L	L	L	L	H	H	L	H	X	A. XOR. B
9	H	L	L	H	L	H	H	H	H	X	A. AND. NOT. B
A	H	L	H	L	L	L	L	L	H	X	. NOT. A
B	H	L	H	H	H	L	L	H	L	PSL. C	A. PLUS. B. PLUS. C
C	H	H	L	L	H	H	H	L	H	X	A. OR. B
D	H	H	L	H	H	L	H	H	H	X	A. AND. B
E	H	H	H	L	H	L	H	L	H	X	B
F	H	H	H	H	H	H	H	H	H	X	A

NOTE: X=DON'T CARE
#=INSTRUCTION DEPENDENT

REVISIONS		
CHK	CHANGE NO.	REV.

(ALU AND AMX CONTROL TRUTH TABLES) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL	D	CS	M7471-0-0	A
SCALE NONE	SHEET 3 OF 22		DIST.	

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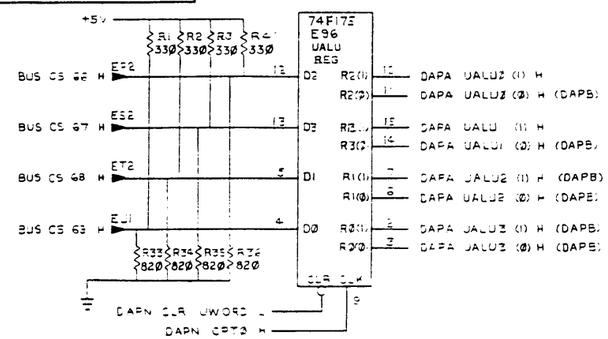

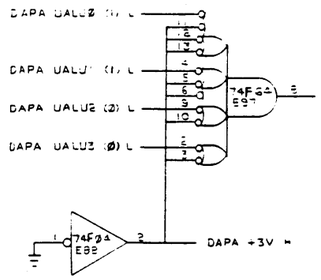

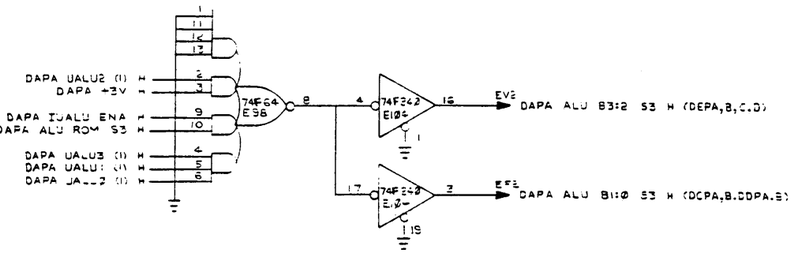

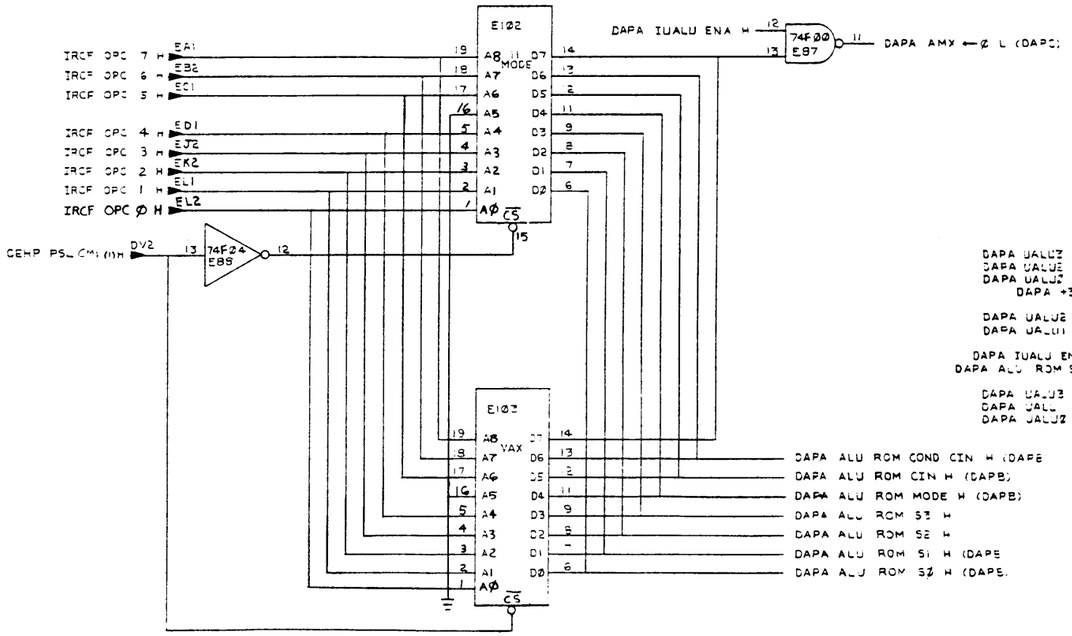

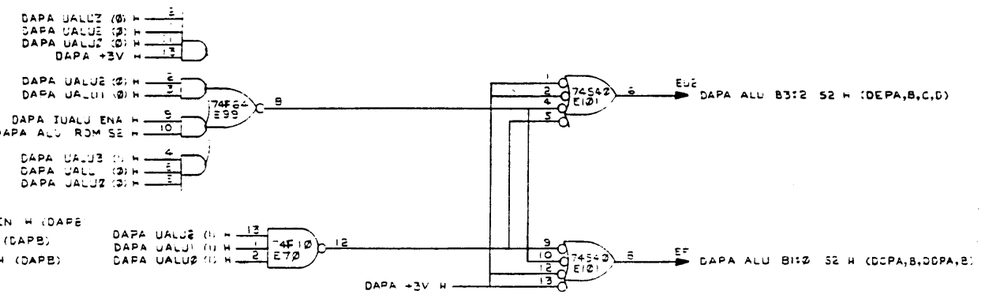

REVISIONS		
CHK	CHANGE NO.	REV.

(ALU UV.CRD AND INSTR DEP CONTROL) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
(DAPA) DATA PATH CONTROL	D	CS	M7471-0-0	A
SCALE NONE	SHEET 4 OF 22		DIST	

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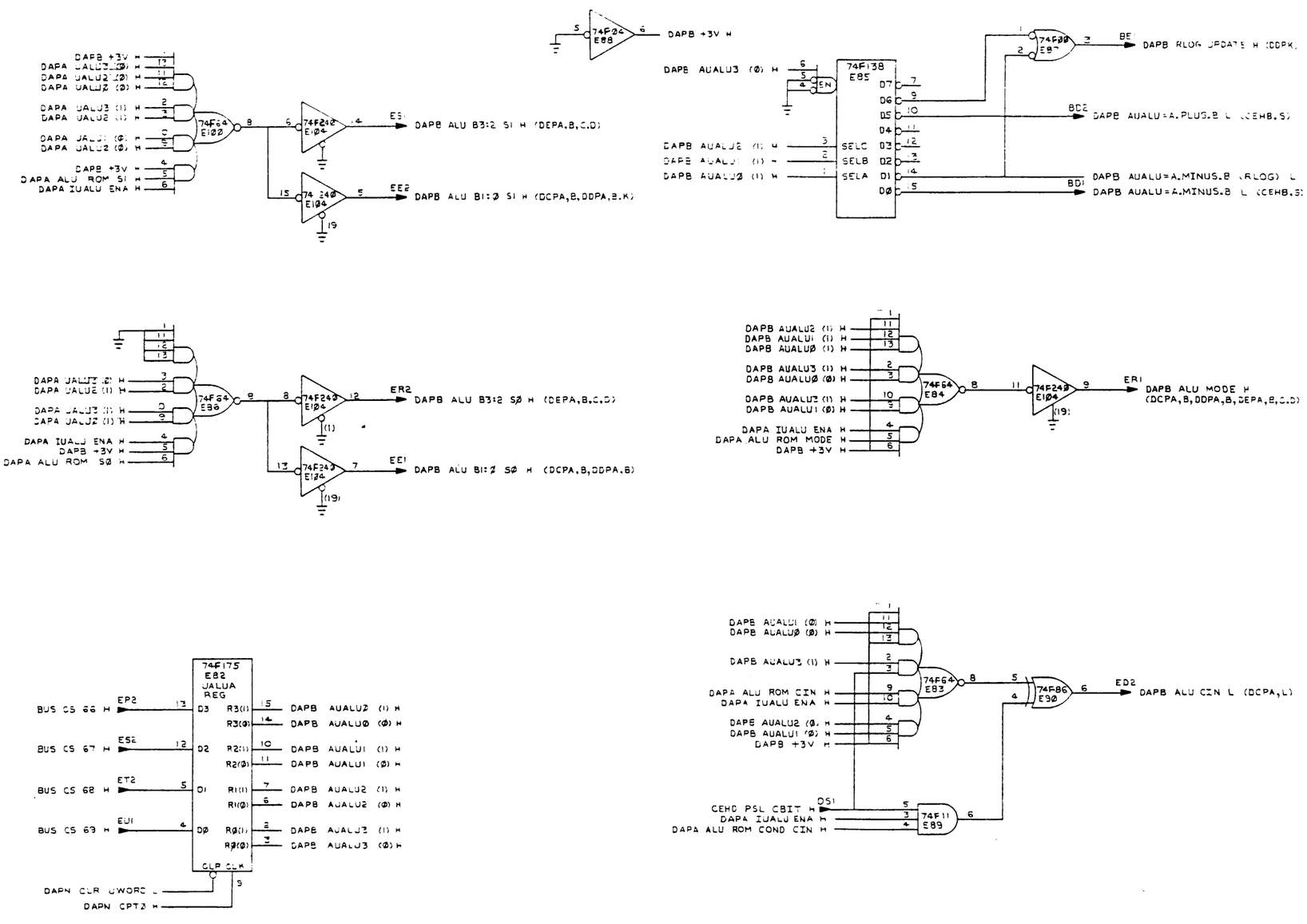

REVISIONS		
CHK	CHANGE NO.	REV

(ALU CONTROL) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL (DAPB)	D	CS	M7471-0-0	A
SCALE NONE SHEET 5 OF 22	DIST			

M7471-C-C
D CS

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* NOTE:
XX(1)L = XX(Ø)H

+5V
R5 330Ω R6 330Ω R7 330Ω R8 330Ω
74F175 E109
BUS CS 78 H → FA1 → D2 → R2(1) → DAPC UDT2 (1) H (DAPE)
R2(Ø) → DAPC UDT2 (Ø) H (DAPE)
BUS CS 79 H → FBL → D3 → R3(1) → DAPC UDT1 (1) H (DAPE)
R3(Ø) → DAPC UDT1 (Ø) H (DAPE)
BUS CS 80 H → FC1 → D1 → R1(1) → DAPC UAMXØ (1) H
R1(Ø) → DAPC UAMXØ (Ø) H
BUS CS 81 H → FL1 → DØ → RØ(1) → DAPC UAMX1 (1) H
RØ(Ø) → DAPC UAMX1 (Ø) H
R37 820Ω R38 820Ω R39 820Ω R42 820Ω
CLR CLK
DAPC +3VA H
DAPN CPTØ H

DAPC +3V H
74F194 E113
S1 SØ DSR
DAPC +3V H → DØ → RØ(1)
IRCU BYTE CONT H → EN1 → D1 → R1(1) → DAPC CONTEXT=BYTE H
IRCU WORD CONT H → EN1 → D2 → R2(1) → DAPC CONTEXT=WORD H
IRCU LFDQ CONT H → EP1 → D3 → R3(1) → DAPC CONTEXT=LONG+QUAD H
CLR CLK DSL
DAPC +3VA H
DAPN CPT2 H

+5V
R77 332Ω
R78 680Ω
C53 .047
DAPC +3VA H (DAPC,E,H,N)

74F03 E142 → DAPC +3V H (DAPF)

DAPC UDT1 (1) H
DAPC UDTØ (Ø) H
74F64 E110 → DAPC BYTE CNTX L
DAPC UDT1 (1) H
DAPC UDTØ (1) H
DAPC CONTEXT=BYTE H

DAPC UDT1 (Ø) H
DAPC UDTØ (1) H
74F64 E111 → DAPC WORD CNTX L (DAPC,DAPK)
DAPC UDT1 (1) H
DAPC UDTØ (1) H
DAPC CONTEXT=WORD H

DAPC UDTØ (Ø) H
DAPC UDT1 (Ø) H
74F64 E112 → DAPC L+Q+F+DF CNTX L (DAPC,DAPK)
DAPC UDT1 (1) H
DAPC UDTØ (1) H
DAPC CONTEXT=LONG+QUAD H

DAPA AMX←Ø L
DAPC L+Q+F+DF CNTX L
DAPC UAMXØ (1) L
74F64 E127 → FJ1 → DAPC ZEXT BØ H (DCPA,B)
DAPC UAMX1 (1) L
DAPC +3V H

DAPC UDT1 (1) H
DAPC UDTØ (1) H
74F08 E138 → DAPC UDT1IDEF H (DAPE)

DAPC +3V H
DAPC UAMX1 (1) L
74S51 E114 → FB2 → DAPC AMX B3:2 S1 H (DEPA,B,C,D)
DAPC WORD CNTX L
DAPC BYTE CNTX L

DAPC UAMX1 (1) L
DAPC AMX←Ø L
74S51 E115 → FD2 → DAPC ZEXT B3:2 H (DEPA,B,C,D)
DAPC UAMXØ (1) L

DAPC UAMX1 (1) L
DAPC UAMXØ (1) L
DAPC L+Q+F+DF CNTX L
DAPC WORD CNTX L
74F64 E129 → FD1 → DAPC AMX B3:2 SØ H (DEPA,B,C,D)

DAPC WORD CNTX L
74F24 E130 → FE1 → DAPC AMX B1 S1 H (DDPA,B)
DAPC UAMX1 (1) L
DAPC UAMXØ (1) L
DAPC BYTE CNTX L
DAPA AMX←Ø L
74F64 E128

DAPA AMX←Ø L
74F24 E130 → FF1 → DAPC AMX B1 SØ H (DDPA,B)
DAPC UAMX1 (1) L
DAPC UAMXØ (1) L
DAPC UAMXØ (1) H
DAPC WORD CNTX L
DAPC UAMX1 (1) H
74F64 E117

DAPC UAMX1 (1) L
DAPC UAMXØ (1) L
74F08 E139 → FE2 → DAPC AMX BØ SØ H (DCPA,B)

REVISIONS		
CHK	CHANGE NO	REV

(AMX CONTROL) (SLOT 13)
TITLE: DATA PATH CONTROL (DAPC)
SIZE D | CODE CS | NUMBER M7471-0-0 | REV A
SCALE NONE | SHEET 6 OF 22 | DIST

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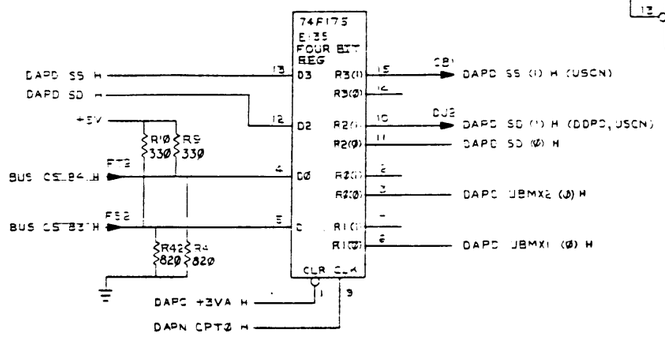
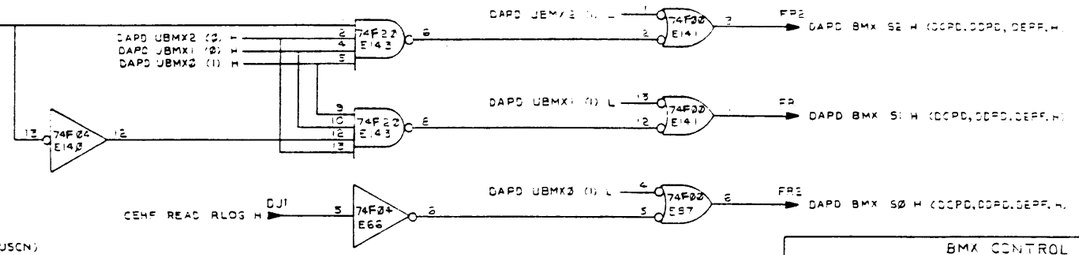


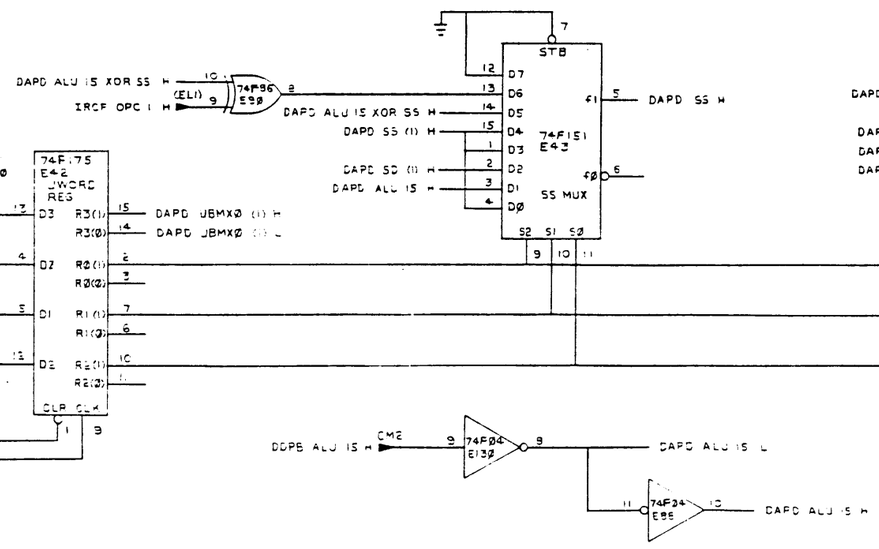


BMX CONTROL TRUTH TABLE

	UBMX			READ RLOG REQUEST	COND PC OR LB	BMX DATA	BMX SELECT		
HEX	2	1	Ø				S2	S1	SØ
Ø	L	L	L	L	L	MASK	L	L	L
Ø	L	L	L	H	L	RLOG & PCSV	L	L	H
1	L	L	H	L	L	LB	L	H	H
1	L	L	H	L	H	PC	H	L	H
2	L	H	L	L	X	PACKED F	H	H	L
3	L	H	H	L	X	LB	L	H	H
4	H	L	L	L	X	LC	H	L	L
5	H	L	H	L	X	PC	H	L	H
6	H	H	L	L	X	KMX	H	H	L
7	H	H	H	L	X	RBMX	H	H	H

X = DON'T CARE

NOTE:
XX(1)L = XX(Ø)H



74F151 TRUTH TABLE

S2	S1	SØ	F1
L	L	L	DØ
L	L	H	D1
L	H	L	D2
L	H	H	D3
H	L	L	D4
H	L	H	D5
H	H	L	D6
H	H	H	D7

REVISIONS		
CHK	CHANGE NO.	REV.

(BMX. SS & SD CONTRCL) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTRCL (DAPD)	D	CS	M7471-0-0	A
SCALE NONE	SHEET 7 OF 22	DIST		

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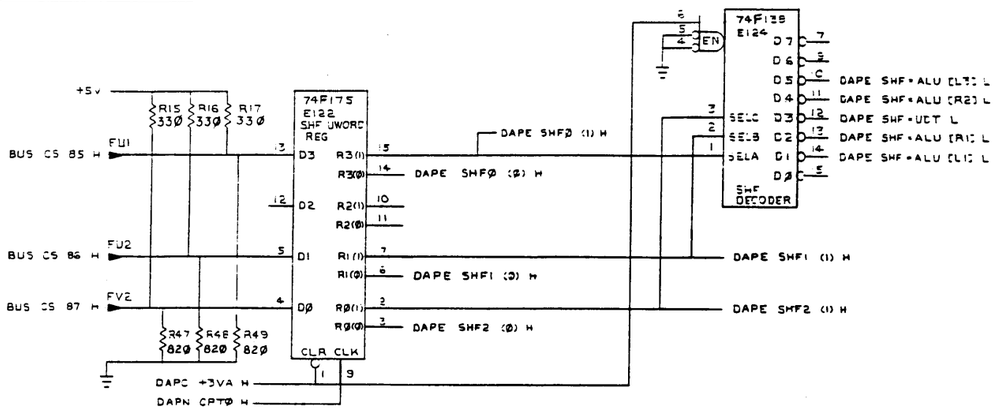

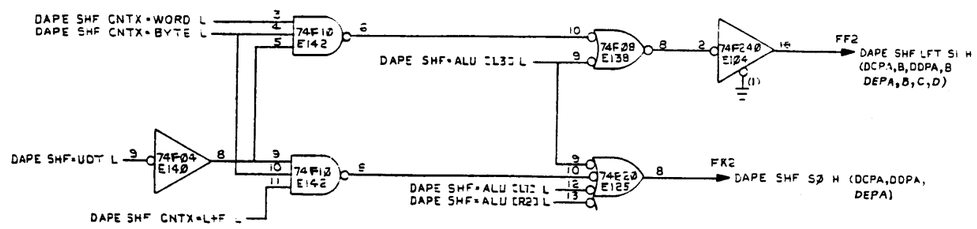

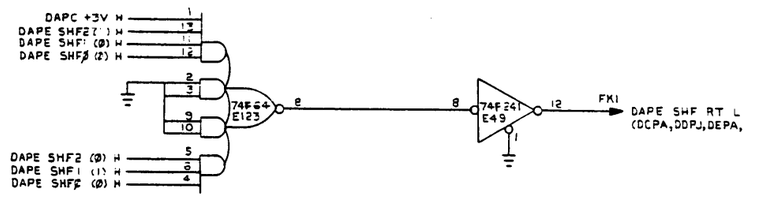

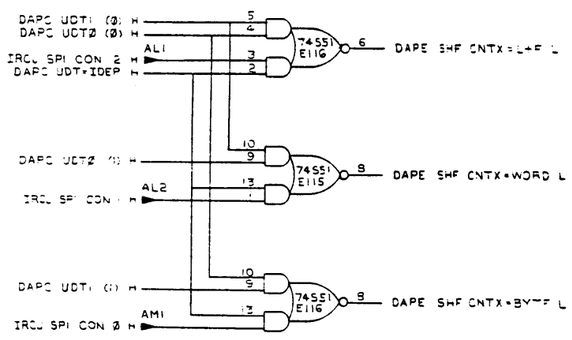

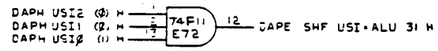

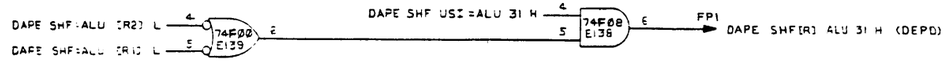

REVISIONS		
CHK	CHANGE NO.	REV.

(SHF MUX CONTROL) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL (DAPE)	D	CS	M7471-0-0	A
SCALE NONE	SHEET 8 OF 22		DIST	

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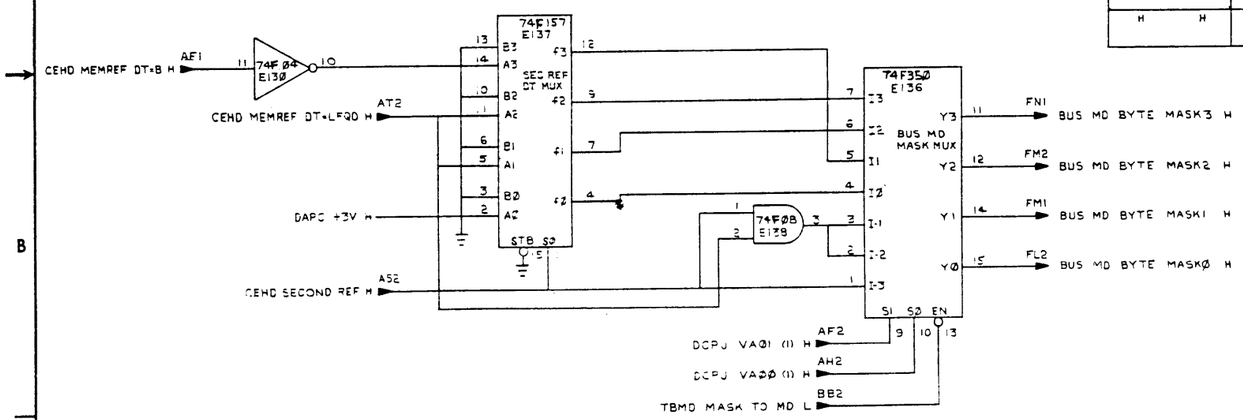
74F157 TRUTH TABLE		
STB	SØ	FN
H	-	FN=Ø
L	L	FN=AN
L	H	FN=BN

74F350 TRUTH TABLE						
EN	S1	SØ	Y3	Y2	Y1	YØ
H	-	-	Z	Z	Z	Z
L	L	L	I3	I2	I1	IØ
L	L	H	I2	I1	IØ	I3
L	H	L	I1	IØ	I3	I2
L	H	H	IØ	I1	I2	I3

BUS MD BYTE MASK TRUTH TABLE							
BYTE ADRS.		DATA TYPE			SEC. REF. REQUIRED	BUS MD BYTE MASK	
VAØ1	VAØ2	BYTE(B)	LONG(LQDF)	WORD (.NOT.B*.NOT.LONG)		3 2 1 Ø	
L	L	H	L	L	L	L	L L H
L	H	H	L	L	L	L	L H L
H	L	H	L	L	L	L	H L L
H	H	H	L	L	L	H	L L L
L	L	L	L	H	L	L	L H H
L	H	L	L	H	L	L	H H L
H	L	L	L	H	L	H	H L L
H	H	L	L	H	L	H	L L L
					H	L	L L H
L	L	L	H	L	L	H	H H H
L	H	L	H	L	L	H	L H H
					H	L	L L H
H	L	L	H	L	L	H	H L L
					H	L	L H H
H	H	L	H	L	L	H	L H L
					H	L	H H H



REVISIONS		
CHK	CHANGE NO.	REV.

(MASK CONTEXT) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTRCL (DAPF)	D	CS	M7471-00	A
SCALE NONE SHEET 9 OF 22	DIST			

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DEPE QREG31 H — AR2 — 74F04 E60 — 74F04 E60 — 74F04 E59 — 74F04 E59 — DAPH DELAYED QREG31 H

DEPE DREG31 H — AS2 — 74F04 E60 — 74F04 E60 — 74F04 E59 — 74F04 E59 — DAPH DELAYED DREG31 H

DEPE QREG00 H — AP2 — 74F04 E60 — 74F04 E60 — 74F04 E59 — 74F04 E59 — DAPH DELAYED QREG00 H

DAPE SHF WITH USI L

74F151 E58 STB
D7 D6 D5 D4 D3 D2 D1 D0 — S2 S1 S0
DAPH +3V H
DAPH DELAYED QREG31 H
DN1
CEHB PSL NBIT H
f1 → CT2 → DAPH SHF USI INPUT H (DCPA,DEPD)
f0 → DAPH USI2 H, DAPH USI1 H, DAPH USI0 H

DAPH DELAYED QREG00 H

74F151 E56 STB
D7 D6 D5 D4 D3 D2 D1 D0 — S2 S1 S0
DAPH +3V H
f1 → 74F08 E22 → CS1 → DAPH D SHIFT INPUT H (DBPE)
f0

74F151 E57 STB
D7 D6 D5 D4 D3 D2 D1 D0 — S2 S1 S0
DAPH +3V H
DAPH DELAYED QREG31 H
f1 → 74F08 E22 → CS2 → DAPH Q SHIFT INPUT H (DCPF,DEPE)
f0

74F175 E55 UWORD
D3 D2 D1 D0 — R3(1) R3(0) R2(1) R2(0) R1(1) R1(0) R0(1) R0(0) — CLR CLK
+5V
R18 R19 R20 R21 330Ω
R50 R51 R52 R53 820Ω
BUS CS 77 H — EB1
BUS CS 55 H — DD2
BUS CS 56 H — DF2
BUS CS 57 H — DH2
DAPC +3VA H
DAPN CPT3 H
DAPH USI0 (1) H (DEPE) — DCPL ALU CARRY 31 L — AK2 — 74F04 E23
DAPH USI1 (1) H
DAPH USI1 (0) H (DEPE)
DAPH USI2 (1) H
DAPH USI2 (0) H (DEPE)

74F175 E47 PREVIOUS ALU REG
D3 D2 D1 D0 — R3(1) R3(0) R2(1) R2(0) R1(1) R1(0) R0(1) R0(0) — CLR CLK
DCPJ ALU BUFF 01 L — CP1
DCPJ ALU BUFF 00 L — CP2
DAPC +3VA H
DAPN CPT3A H
DAPH SAVED ALU01 (1) H
DAPH SAVED ALU00 (1) H

74S51 E46
74F04 E45
DAPN ALU00/ALU01 H

74F04 E45
DAPH +3V H
74F74 E61 D C
DAPN CPT2 H
DAPN CPT3A L
DAPH D SHF WITH ALU00 (0) H
74F08 E73
DAPH USI1 (1) H
DAPH USI2 (1) H
74F08 E78

DAPH CUR MX (1) H (DCPA,DCPA,DEPA)

74F04 E48 (×3)
DAPH USI0 H
DAPH USI1 H
DAPH USI2 H

74F151 TRUTH TABLE

STB	S2	S1	S0	FN
H	X	X	X	0
L	L	L	L	FN=D0
L	L	L	H	FN=D1
L	L	H	L	FN=D2
L	L	H	H	FN=D3
L	H	L	L	FN=D4
L	H	L	H	FN=D5
L	H	H	L	FN=D6
L	H	H	H	FN=D7

REVISIONS
CHK | CHANGE NO. | REV.

(USI SHIFT CONTROL) (SLOT 13)
TITLE (DAPH) DATA PATH CONTROL
SIZE D CODE DCS NUMBER M7471-0-0 REV A
SCALE NONE SHEET 10 OF 22 DIST.

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+5V
R24 330 R25 330 R26 330
BUS CS 41 H
BUS CS 47 H
BUS CS 39 H
R56 820 R55 820 R54 820
74F175 E29 USPO REG
D1 R1(1) DAPJ USPO 6 (1) H
R1(0) DAPJ USPO 6 (0) H
D2 R2(1) DAPJ USPO 5 (1) H
R2(0) DAPJ USPO 5 (0) H
D3 R3(1) DAPJ USPO 4 (1) H
R3(0) DAPJ USPO 4 (0) H
D0 R0(1)
R0(0) DAPJ USPO 4 (0) H
CLR CLK

DAPJ +3V H
74F138 E5
SELC SELB SELA
D7 D6 D5 D4 D3 D2 D1 D0
DAPJ WRITE RAB [RN] L
DAPJ WRITE RC [RN] L
USPO DECODE

DAPJ WRITE RC [RN] L
DAPJ WRITE RC [RN] A L
DAPJ WRITE RC [SC] L
74F11 E8
DAPJ WRITE RC L (DAPK)

DAPJ WRITE RAB [ACN] [UDT] L
DAPJ WRITE RAB [RN] L
DAPJ WRITE RAB [RI] L
74F11 E8
DAPJ WRITE RAB L (DAPK)

DAPJ USPO 6 (2) H
DAPJ USPO 5 (2) H
DAPJ USPO 3 (1) H
74F10 E35
DAPJ ACN ADRS L

DAPJ USPO 6 (1) H
DAPJ USPO 5 (1) H
74F08 E22
DAPJ ENA RI ADRS H

74F04 E6
DAPJ USPO 3 (1) H
74F00 E7
DAPJ WRITE RAB [ACN] [UDT] L

DAPJ RC ADRS + SC L (DAPN)
74F04 E6
74F00 E7
DAPJ WRITE RC [SC] L

DAPJ USPO 0 (1) H
DAPJ USPO 1 (1) H
DAPJ USPO 2 (1) H
DAPJ USPO 3 (01) H
74F20 E21
74F04 E6

+5V
R28 330 R27 330 R22 330 R25 330
BUS CS 38 H
BUS CS 37 H
BUS CS 36 H
BUS CS 35 H
R60 820 R59 820 R58 820 R57 820
74F175 E16 USPO REG
D2 R2(1) DAPJ USPO 3 (1) H
R2(0) DAPJ USPO 3 (2) H
D3 R3(1) DAPJ USPO 2 (1) H
R3(0)
D1 R1(1) DAPJ USPO 1 (1) H
R1(0)
D0 R0(1) DAPJ USPO 0 (1) H
R0(0) DAPJ USPO 0 (0) H
CLR CLK

74F04 E6
DAPJ +3V H

DAPJ USPO 0 (0) H
DAPN DISA LATCH CNTRL (1) L
DAPJ USPO 6 (0) H
DAPJ USPO 5 (0) H
DAPJ USPO 4 (0) H
DAPJ USPO 3 (0) H
DAPJ USPO 2 (1) H
DAPJ USPO 1 (1) H
74S133 E20
74F10 E35
CR2
DAPJ LOAD LC H (DCPF, DDPF, DEPP)

DAPJ USPO 6 (0) H
DAPJ USPO 5 (0) H
DAPJ USPO 4 (0) H
74F20 E21

DAPJ USPO 6 (1) H
DAPJ USPO 5 (1) H
DAPJ USPO 4 (1) H
74F20 E34
DAPJ WRITE RAB [RI] L

74F04 E6
DAPN DISA LATCH CNTRL (1) L
DAPJ USPO 6 (0) H
DAPJ USPO 5 (0) H
DAPJ USPO 4 (0) H
DAPJ USPO 3 (1) H
74S133 E19
74F20 E34
CP2
DAPJ LOAD LA H (DCPF, DDPF, DEPP)
CR1
74F10 E35
DAPJ LOAD LB H (DCPF, DDPF, DEPP)

74F04 E6
74S133 E32
DAPJ USPO 6 (0) H
DAPJ USPO 5 (0) H
DAPJ USPO 4 (1) H
DAPJ USPO 3 (0) H

DAPJ USPO 6 (1) H
DAPJ USPO 5 (0) H
DAPJ USPO 4 (0) H
74F20 E33
DAPJ LOAD LA,LB [RN] L

DAPJ USPO 6 (1) H
DAPJ USPO 5 (1) H
DAPJ USPO 4 (0) H
74F20 E33
DAPJ WRITE RC [RN] A L

74F175 E15
D2 R2(1) DAPJ AUSPO 3 (1) H
R2(0)
D3 R3(1) DAPJ AUSPO 2 (1) H
R3(0) DAPJ AUSPO 2 (0) H
D1 R1(1) DAPJ AUSPO 1 (1) H
R1(0) DAPJ AUSPO 1 (0) H
D0 R0(1) DAPJ AUSPO 0 (1) H
R0(0) DAPJ AUSPO 0 (0) H
CLR CLK

DAPN CLR UWORD L
DAPN CPT0A H

REVISIONS		
CHK	CHANGE NO.	REV.

(USPO CONTROL) (SLOT 13)

TITLE		SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL (DAPJ)		D	CS	M7471-0-0	A
SCALE NONE	SHEET 11 OF 22	DIST.			

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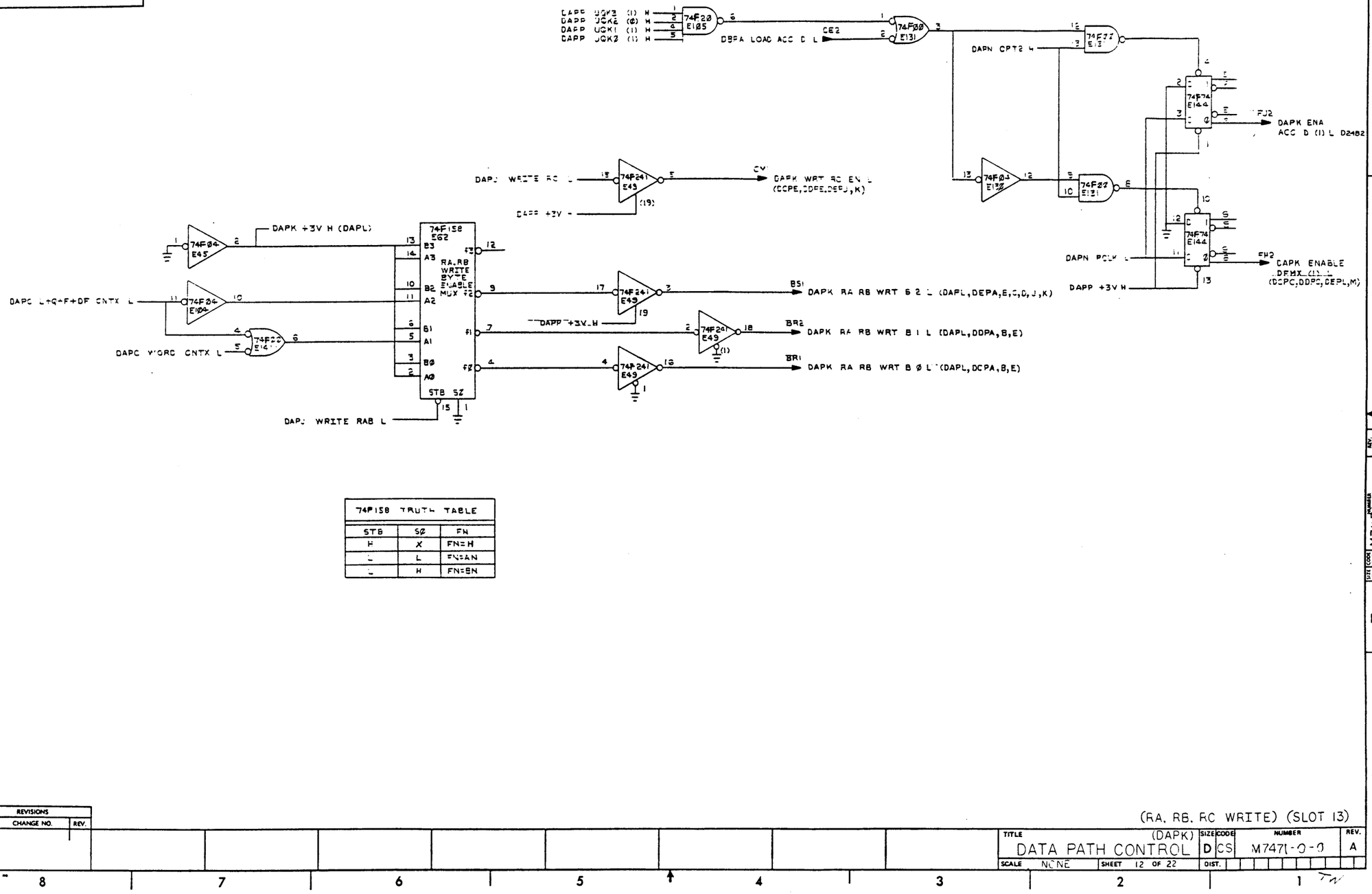

74F158 TRUTH TABLE		
STB	SØ	FN
H	X	FN=H
L	L	FN=AN
L	H	FN=BN

(RA, RB, RC WRITE) (SLOT 13)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
(DAPK) DATA PATH CONTROL	D	CS	M7471-0-0	A
SCALE NONE	SHEET 12 OF 22		DIST.	

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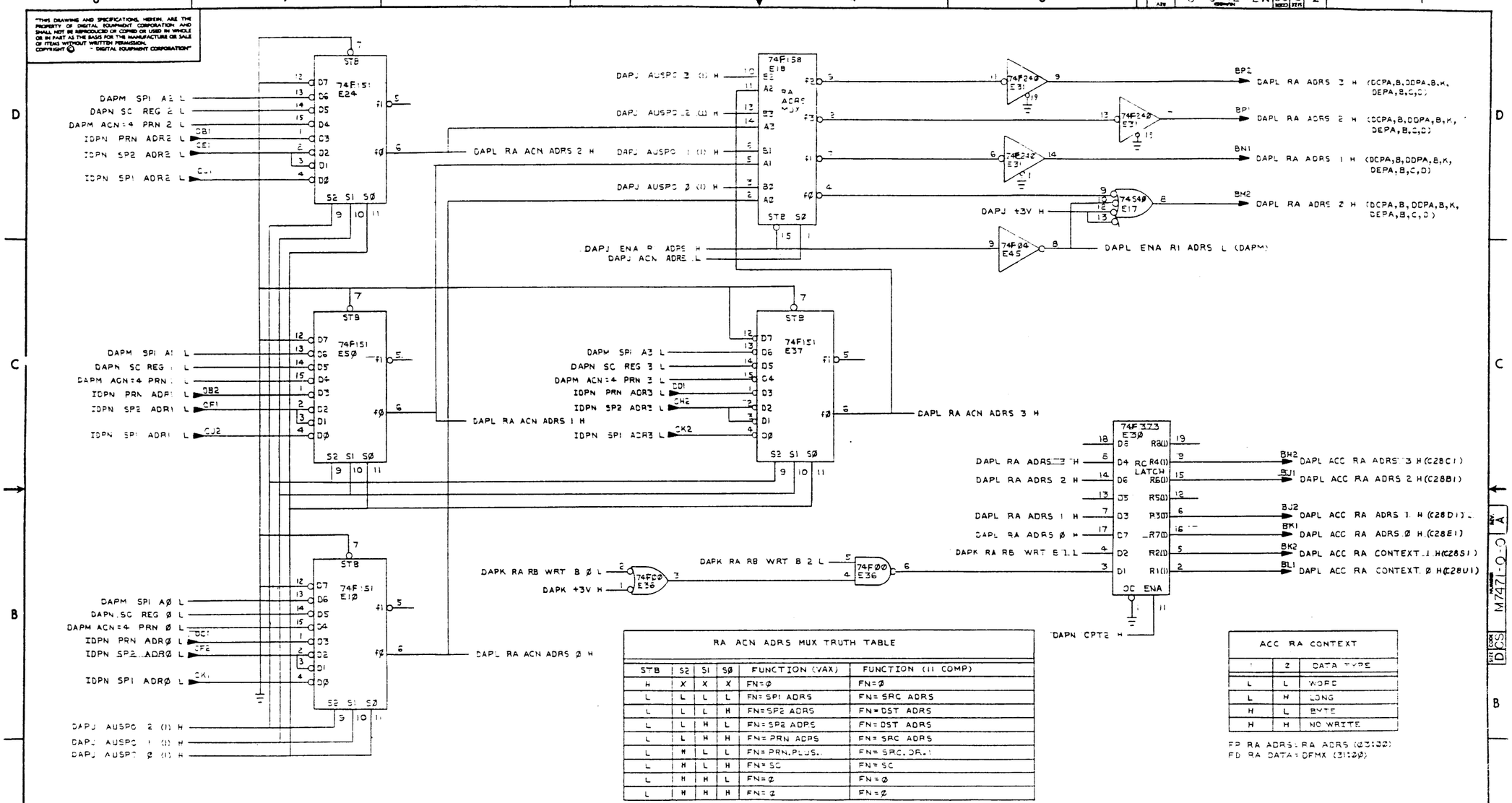

RA ACN ADRS MUX TRUTH TABLE

STB	S2	S1	SØ	FUNCTION (VAX)	FUNCTION (11 COMP)
H	X	X	X	FN=Ø	FN=Ø
L	L	L	L	FN=SP1 ADRS	FN=SRC ADRS
L	L	L	H	FN=SP2 ADRS	FN=DST ADRS
L	L	H	L	FN=SP2 ADRS	FN=DST ADRS
L	L	H	H	FN=PRN ADRS	FN=SRC ADRS
L	H	L	L	FN=PRN.PLUS..	FN=SRC.OR.1
L	H	L	H	FN=SC	FN=SC
L	H	H	L	FN=Ø	FN=Ø
L	H	H	H	FN=Ø	FN=Ø

ACC RA CONTEXT

1	2	DATA TYPE
L	L	WORD
L	H	LONG
H	L	BYTE
H	H	NO WRITE

FP RA ADRS: RA ADRS (Ø:3Ø)
FD RA DATA: DFMX (31:ØØ)

(RA ADDRESS) (SLOT 13)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
(DAPL) DATA PATH CONTROL	D	CS	M7471-0-0	A
SCALE NONE	SHEET 13 OF 22	DIST.		

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IDPN SPI ADR2 L (CJ1)
IDPN SP2 ADR2 L (CE1)
IDPN PRN ADR2 L (DB1)
DAPM ACN=4 PRN 2 L
DAPN SC REG 2 L
DAPM SPI A2 L
STB 74F151 E25 — D7 D6 D5 D4 D3 D2 D1 D0; S2 S1 S0; F1, FØ
DAPM RB ACN ADRS 2 H

DAPJ USPO 3 (1) H
DAPJ USPO 2 (1) H
DAPJ USPO 1 (1) H
DAPJ USPO Ø (1) H
74F158 E2 RB ADRS MUX — B2 A2 B3 A3 B1 A1 BØ AØ; F2 F3 F1 FØ; STB SØ
DAPJ ENA RI ADRS H
DAPJ ACN ADRS L

74F240 E3 — AE2 DAPM RB ADRS 3 H (DCPE,DDPE,DEPK,J)
74F240 E3 — AE DAPM RB ADRS 2 H (DCPE,DDPE,DEPK,J)
74F240 E3 — AD2 DAPM RB ADRS 1 H (DCPE,DDPE,DEPK,J)
DAPJ +3V H; DAPL ENA RI ADRS L; 74S40 E17 — AD1 DAPM RB ADRS Ø H (DCPE,DDPE,DEPK,J)

IDPN SPI ADR1 L (CJ2)
IDPN SP2 ADR1 L (CF1)
IDPN PRN ADR1 L (DB2)
DAPM ACN=4 PRN 1 L
DAPN SC REG 1 L
DAPM SPI A1 L
STB 74F151 E51 — D7 D6 D5 D4 D3 D2 D1 D0; S2 S1 S0; F1, FØ
DAPM RB ACN ADRS 1 H

IDPN SPI ADR3 L (CK2)
IDPN SP2 ADR3 L (CH2)
IDPN PRN ADR3 L (DD1)
DAPM ACN=4 PRN 3 L
DAPN SC REG 3 L
DAPM SPI A3 L
STB 74F151 E38 — D7 D6 D5 D4 D3 D2 D1 D0; S2 S1 S0; F1, FØ
DAPM RB ACN ADRS 3 H

C4 74F283 E53 SPI ADDER
IDPN SPI ADR3 L (CK2) — B4 A4
IDPN SPI ADR2 L (CJ1) — B3 A3
IDPN SPI ADR1 L (CJ2) — B2 A2
DAPJ +3V H; IDPN SPI ADRØ L (CK1) — B1 A1
Σ4 DAPM SPI A3 L (DAPL)
Σ3 DAPM SPI A2 L (DAPL)
Σ2 DAPM SPI A1 L (DAPL)
Σ1 DAPM SPI AØ L (DAPL)

IDPN SPI ADRØ L (CK1)
IDPN SP2 ADRØ L (CF2)
IDPN PRN ADRØ L (DC1)
DAPM ACN=4 PRN Ø L
DAPN SC REG Ø L
DAPM SPI AØ L
STB 74F151 E11 — D7 D6 D5 D4 D3 D2 D1 D0; S2 S1 S0; F1, FØ
DAPM RB ACN ADRS Ø H

DAPJ AUSPO 2 (Ø) H
DAPJ AUSPO 1 (Ø) H
DAPJ AUSPO Ø (Ø) H

C4 74F283 E78 PRN ADDER
IDPN PRN ADR3 L (DD1) — B4 A4
IDPN PRN ADR2 L (DB1) — B3 A3
IDPN PRN ADR1 L (DB2) — B2 A2
IDPN PRN ADRØ L (DC1) — B1 A1
Σ4 DAPM ACN=4 PRN 3 L (DAPL)
Σ3 DAPM ACN=4 PRN 2 L (DAPL)
Σ2 DAPM ACN=4 PRN 1 L (DAPL)
Σ1 74F08 E22 DAPM ACN=4 PRN Ø L (DAPL)
CEHH PSL CMP (1) H; (DV2); 74F04 E58

PRN ADDER			
74F283 TRUTH TABLE			
MODE	A	B	FN
YAX	F	PRN ADRS	PRN ADRS. PLUS. 1
11 CMP	Ø	SRC ADRS	SRC.OR.1

REVISIONS		
CHK	CHANGE NO.	REV.

(RB ADDRESS) (SLOT 13)

TITLE (DAPM) DATA PATH CONTROL
SIZE D CODE CS NUMBER M7471-0-0 REV A
SCALE NONE SHEET 14 OF 22 DIST.

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74F158 RC ADRS MUX

DAPJ AUSPC 3 (1) H
DDPR SCCC3 H
BA1
DAPJ AUSPC 2 (1) H
DDPR SCCC2 H
AV2
DAPJ AUSPC (1) H
DDPR SCCC1 H
AU2
DAPJ AUSPC 3 (1) H
DDPR SCCC0 H
AU1
DAPJ RC ADRS*3C L

74F158 E1: 10 B2, 11 A2, 13 B3, 14 A3, 6 B1, 7 A1, 3 B0, 2 A0, STB 15, SO 1
74F158 E2: Z2 9, Z3 12, Z1 7, Z0 4

74F240 E3 (1): 9 → 74F242 E3 (1): 12 → AC1 DAPN RC ADRS 3 H (DCPE,DDPE,DEPK,J)
74F242 E3 (1): 4 → 6 → AB3 DAPN RC ADRS 2 H (DCPE,DDPE,DEPK,J)
74F240 E3 (1): 6 → 14 → AB1 DAPN RC ADRS 1 H (DCPE,DDPE,DEPK,J)
74F240 E3 (1): 8 → 16 → AA1 DAPN RC ADRS 0 H (DCPE,DDPE,DEPK,J)

74F04 E22: 7 → 3 DAPN SC REG3 L (DAPL,M)
74F04 E23: 13 → 12 DAPN SC REG2 L (DAPL,M)
74F04 E23: 5 → 6 DAPN SC REG1 L (DAPL,M)
74F04 E23: 9 → 8 DAPN SC REG0 L (DAPL,M)

DAPJ +3VA H
USCB CLR UWORD H
AM2
DAPN CPT2A H
DAPN CPT2 H

74F74 E64: D 1, C 0, 4, 5, 6
74F04 E60: 3 → 4
74F24 E66: 13 → 2 DAPN CLR UWORD L (DAPA,B,C,..,N)
74F241 E43: 11 → 9 AP1 DAPN UWORD CLR A L (DCPH,DDPJ,P)
DAPP +3V H
DAPN DISA LATCH CNTRL (1) L (DAPJ)
ANI DAPN UWORD CLR (1) L (DBPA)

-5.2V
R72 120Ω, R71 120Ω
DE2
CLKD LECL CPT2CI L
DE1
CLKD LECL CPT2CI H
R66 150Ω, R65 150Ω
10125 E35: 6, 7 → 5 DAPN CPT2 H (DAPH,K,L)

EK1
-5.2V
R73 120Ω, R74 120Ω
10125 E68: 2, 3 → 4 DAPN CPT0A L (DAPH,J)
10125 E68: 6, 7 → 5 DB2 DAPN CPT2S H (DBPV)
10125 E68: 10, 11 → 12 DAPN CPT0A H (DAPH,J,K)
CL2
CLKB LECL CPT0C1 L
CL1
CLKB LECL CPT0C1 H
R67 150Ω, R68 150Ω
10125 E68: 14, 15 → 13 DAPN CPT0 H (DAPA,B,C,D,E,H)

EK1
-5.2V
R76 120Ω, R75 120Ω
10125 E35: 10, 11 → 9 CA1 DAPN PCLK A L (DBPA,B)
EH2
CLKF LECL CPPCLK1 H
EJ1
CLKF LECL CPPCLK1 L
R70 150Ω, R69 150Ω
10125 E35: 2, 3 → 4 DAPN PCLK L (DAPP)

REVISIONS		
CHK	CHANGE NO.	REV.

(RC ADDRESS AND CLOCKS) (SLOT 15)

TITLE		SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL	(DAPN)	D	CS	M7471-0-0	A
SCALE NONE	SHEET 15 OF 22	DIST.			

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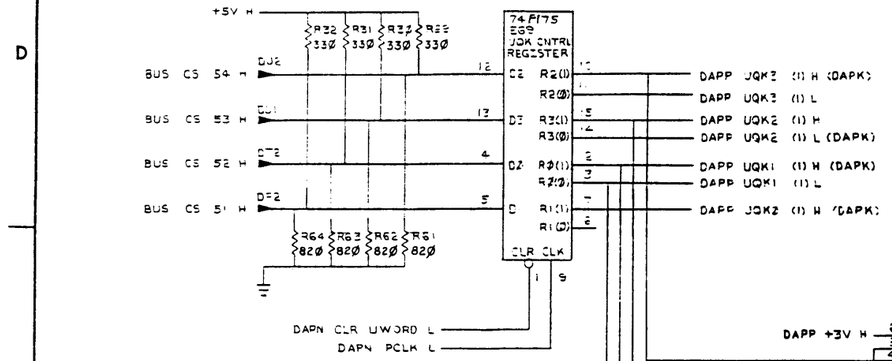

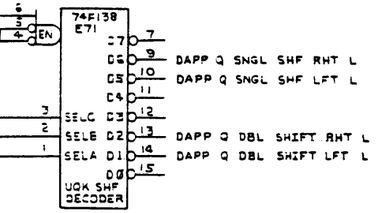

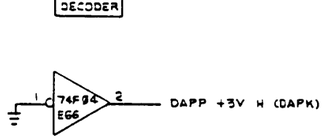

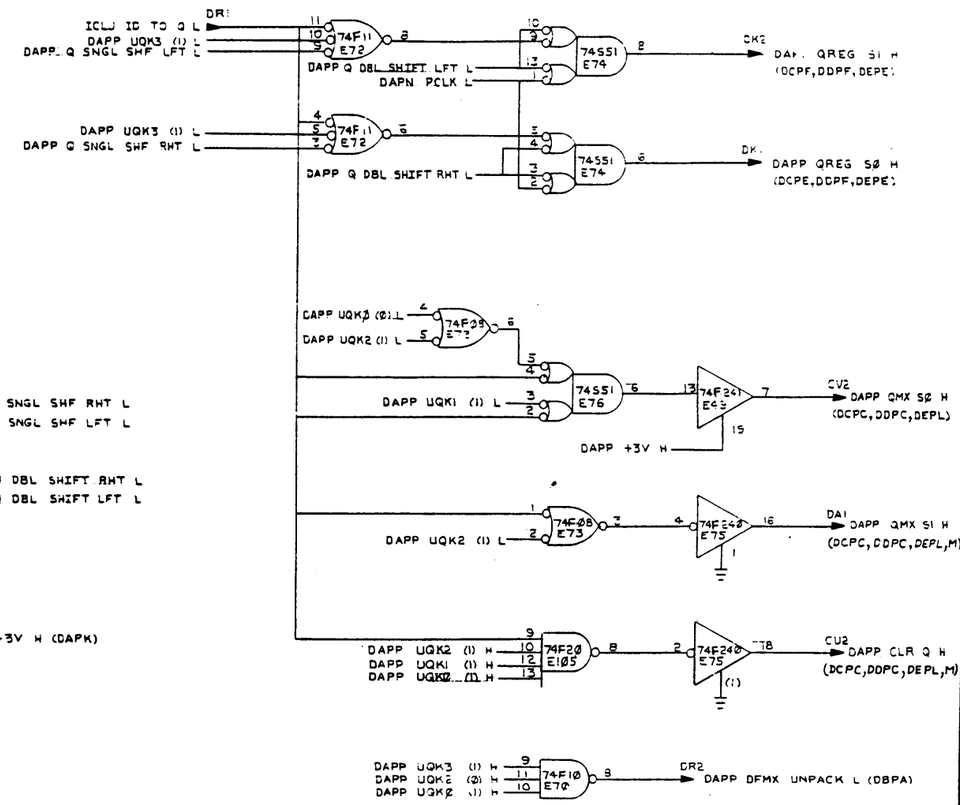

UQK CONTROL

	UQK 3	UQK 2	UQK 1	UQK Ø	QMX S1	QMX SØ	QREG S1	QREG SØ	UQK FUNCTION
Ø	L	L	L	L	X	X	L	L	NO OPERATION
1	L	L	L	H	X	X	H	L	DBL SHIFT LEFT
2	L	L	H	L	X	X	L	H	DBL SHIFT RIGHT
3	L	L	H	H	X	X	L	L	RESERVED
4	L	H	L	L	X	X	L	L	RESERVED
5	L	H	L	H	X	X	H	L	SINGLE SHIFT LEFT
6	L	H	H	L	X	X	L	H	SINGLE SHIFT RIGHT
7	L	H	H	H	X	X	L	L	RESERVED
8	H	L	L	L	L	L	H	H	LOAD SHF(INTEGER)
9	H	L	L	H	L	L	H	H	LOAD SHF(UNPACKED F)
A	H	L	H	L	L	H	H	H	LOAD DECIMAL CONST.
B	H	L	H	H	L	L	H	H	LOAD ACC DATA
C	H	H	L	L	H	L	H	H	LOAD D
D	H	H	L	H	H	L	H	H	RESERVED
E	H	H	H	L	H	H	H	H	LOAD IO BUS
F	H	H	H	H	H	H	H	H	LOAD ZEROES

X=DON'T CARE STATE

REVISIONS		
CHK	CHANGE NO.	REV.

(QREG CONTRCL) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL (DAPP)	D	CS	M7471-0-0	A
SCALE NONE	SHEET 16 OF 22	DIST		

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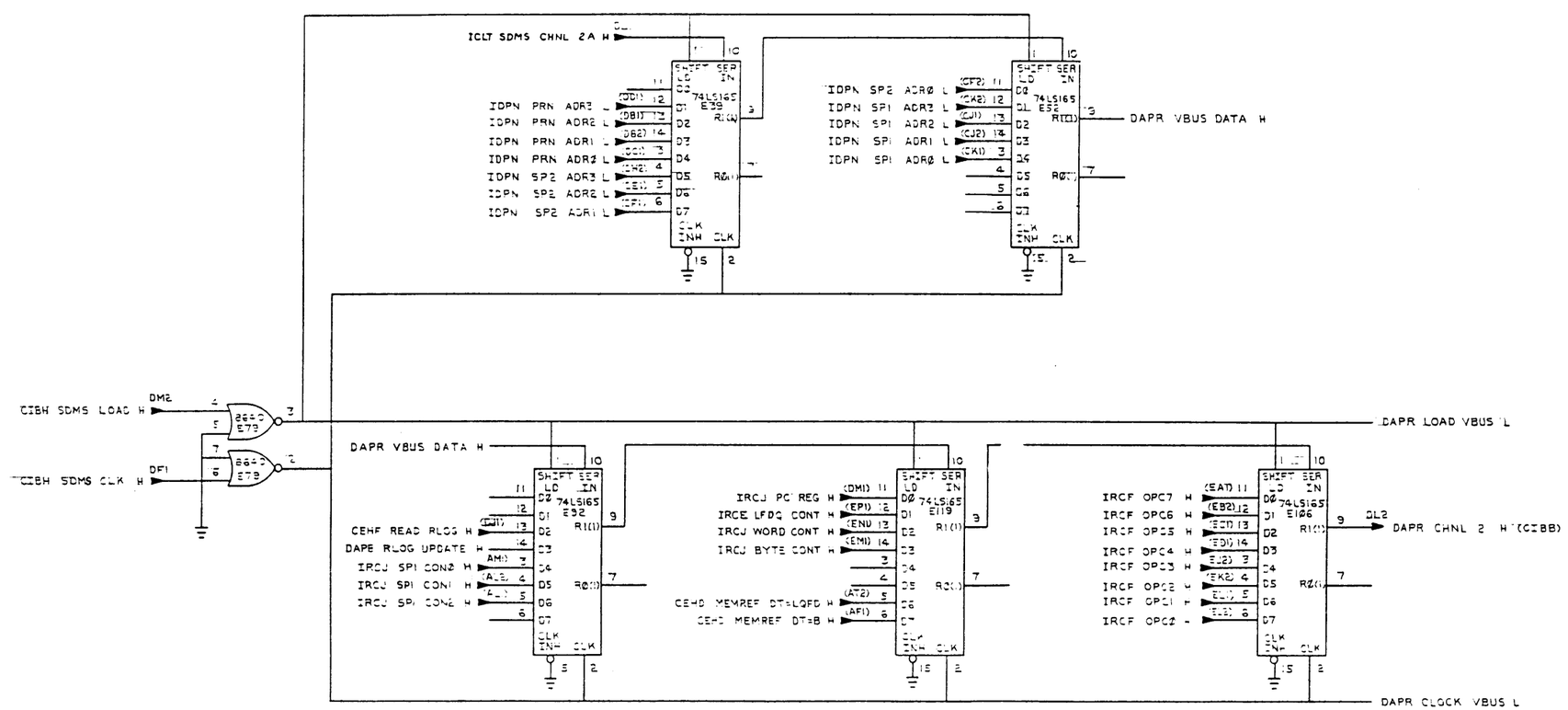

(VBUS REGISTER) (SLOT 13)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL (DAPR)	D	CS	M7471-0-0	A
SCALE NONE	SHEET 17 OF 22	DIST.		

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AA2 +5.0V
AV1 +5.0V
BA2 +5.0V
BV1 +5.0V
CA2 +5.0V
CV1 +5.0V
DA2 +5.0V
DV1 +5.0V
EA2 +5.0V
EV1 +5.0V
FA2 +5.0V
FV1 +5.0V

C1 8UF 25V, C2 8UF 25V, C3 8UF 25V, C4 8UF 25V, C6 8UF 25V, C7 8UF 25V

C8 .047UF 50V, C9 .047UF 50V, C10 .047UF 50V, C11 .047UF 50V, C12 .047UF 50V, C13 .047UF 50V, C14 .047UF 50V, C15 .047UF 50V, C16 .047UF 50V, C17 .047UF 50V, C18 .047UF 50V, C19 .047UF 50V, C20 .047UF 50V, C21 .047UF 50V

C23 .047UF 50V, C24 .047UF 50V, C25 .047UF 50V, C26 .047UF 50V, C27 .047UF 50V, C28 .047UF 50V, C29 .047UF 50V, C31 .047UF 50V, C32 .047UF 50V, C33 .047UF 50V, C34 .047UF 50V, C35 .047UF 50V, C36 .047UF 50V, C37 .047UF 50V

C38 .047UF 50V, C39 .047UF 50V, C40 .047UF 50V, C41 .047UF 50V, C42 .047UF 50V, C43 .047UF 50V, C44 .047UF 50V, C45 .047UF 50V, C46 .047UF 50V, C47 .047UF 50V, C48 .047UF 50V, C49 .047UF 50V, C50 .047UF 50V, C51 .047UF 50V

BL2 -5.2V
EK1 -5.2V

C5 8UF 25V, C22 .047UF 50V, C30 .047UF 50V

AC2
AH1
AN2
AT1
BC2
BH1

EH2
ET1
CC2
CH1
CN2
CT1

DC2
DH1
DN2
DT1
EC2
EH1

EN2
ET1
FC2
FH1
FN2
FT1

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE	DOCUMENT NUMBER			
CPU DATA PATH "A"	SIZE	CODE	NUMBER	REV
	D	CS	M7471-0-0	A
	SCALE		SHEET 8 OF 22	

DRD 137A

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ALU INSTR. DEPENDENT ROM (CM

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
20	HALT	L	L	L	L	L	L	L	L	X
21	NOP	L	L	L	L	L	L	L	L	X
22	REI	L	L	L	L	L	L	L	L	X
23	BPT	L	L	L	L	L	L	L	L	X
24	RET	L	L	L	L	L	L	L	L	X
25	RSB	L	L	L	L	L	L	L	L	X
26	LDPCTX	L	L	L	L	L	L	L	L	X
27	SVPCTX	L	L	L	L	L	L	L	L	X
28	-	L	L	L	L	L	L	L	L	X
29	-	L	L	L	L	L	L	L	L	X
2A	-	L	L	L	L	L	L	L	L	X
2B	CRC	L	L	L	L	L	L	L	L	X
2C	PROBER	L	L	L	L	L	L	L	L	X
2D	PROBEW	L	L	L	L	L	L	L	L	X
2E	INSQUE	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
2F	REMQUE	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
30	BSBB	L	L	L	L	L	L	L	L	X
31	BRB	L	L	L	L	L	L	L	L	X
32	BNEQ	L	L	L	L	L	L	L	L	X
33	BEQL	L	L	L	L	L	L	L	L	X
34	BGTR	L	L	L	L	L	L	L	L	X
35	BLEQ	L	L	L	L	L	L	L	L	X
36	JSB	L	L	L	L	L	L	L	L	X
37	JMP	L	L	L	L	L	L	L	L	X
38	BGEQ	L	L	L	L	L	L	L	L	X
39	BLSS	L	L	L	L	L	L	L	L	X
3A	BGTRU	L	L	L	L	L	L	L	L	X
3B	BLEQU	L	L	L	L	L	L	L	L	X
3C	BVC	L	L	L	L	L	L	L	L	X
3D	BVS	L	L	L	L	L	L	L	L	X
3E	BCC	L	L	L	L	L	L	L	L	X
3F	BCS	L	L	L	L	L	L	L	L	X

NOTE: 20-3F NOT USED

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
42	ADDP4	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
41	ADDP6	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
42	SUBP4	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
43	SUBP6	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
44	CVTPN	L	L	L	L	H	H	H	H	A.MINUS.1
45	MULP	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
46	CVTNP	L	L	L	L	H	H	H	H	A.MINUS.1
47	DIVP	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
48	MOVC3	L	L	L	L	L	L	L	L	X
49	CMPC3	L	L	L	L	L	L	L	L	X
4A	SCANC	L	L	L	L	L	L	L	L	X
4B	SPANC	L	L	L	L	L	L	L	L	X
4C	MOVC5	L	L	L	L	L	L	L	L	X
4D	CMPC5	L	L	L	L	L	L	L	L	X
4E	MOVTC	L	L	L	L	L	L	L	L	X
4F	MOVTUC	L	L	L	L	L	L	L	L	X
50	BSBW	L	L	L	L	L	L	L	L	X
51	BRW	L	L	L	L	L	L	L	L	X
52	CVTWL	L	L	L	L	L	L	L	L	X
53	CVTWB	L	L	L	L	L	L	L	L	X
54	MOVP	L	L	L	L	H	H	H	H	A.MINUS.1
55	CMPP3	L	L	L	L	H	H	H	H	A.MINUS.1
56	CVTPL	L	L	L	L	H	H	H	H	A.MINUS.1
57	CMPP4	L	L	L	L	H	H	H	H	A.MINUS.1
58	EDITPC	L	L	L	L	L	L	L	L	X
59	MATCHC	L	L	L	L	L	L	L	L	X
5A	LOCC	L	L	L	L	L	L	L	L	X
5B	SKPC	L	L	L	L	L	L	L	L	X
5C	MOVZWL	L	L	L	L	L	L	L	L	X
5D	ACBW	L	L	L	L	L	L	L	L	X
5E	MOVAW	L	L	L	H	H	L	H	L	B
5F	PUSHAW	L	L	L	H	H	L	H	L	B

NOTE: 60-7F NOT USED

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
82	ADDF2	L	L	L	L	L	L	L	L	X
83	ADDF3	L	L	L	L	L	L	L	L	X
82	SUBF2	L	L	L	L	L	L	L	L	X
83	SUBF3	L	L	L	L	L	L	L	L	X
84	MULF2	L	L	L	L	L	L	L	L	X
85	MULF3	L	L	L	L	L	L	L	L	X
86	DIVF2	L	L	L	L	L	L	L	L	X
87	DIVF3	L	L	L	L	L	L	L	L	X
88	CVTFB	L	L	L	L	H	H	H	H	A.MIN.1
83	CVTFW	L	L	L	L	H	H	H	H	A.MIN.1
8A	CVTFL	L	L	L	L	H	H	H	H	A.MIN.1
8B	CVTRFL	L	L	L	L	H	H	H	H	A.MIN.1
8C	CVTBF	L	L	L	L	H	H	H	H	A.MIN.1
8D	CVTWF	L	L	L	L	H	H	H	H	A.MIN.1
8E	CVTLF	L	L	L	L	H	H	H	H	A.MIN.1
8F	ACBF	L	L	L	L	L	L	L	L	X
92	MOVF	L	L	L	H	H	H	H	H	A
91	CMPF	L	L	L	L	L	L	L	L	X
92	MNEGF	L	L	L	H	L	H	H	L	A⊕B
93	TSTF	L	L	L	H	H	L	H	L	B
94	EMODF	L	L	L	L	L	L	L	L	X
95	POLYF	L	L	L	L	L	L	L	L	X
96	CVTFD	L	L	L	L	H	H	H	H	A.MIN.1
97	—	L	L	L	-	L	L	L	L	X
98	—	L	L	L	L	L	L	L	L	X
99	—	L	L	L	L	L	L	L	L	X
9A	—	L	L	L	L	L	L	L	L	X
9B	—	L	L	L	L	L	L	L	L	X
9C	—	L	L	L	L	L	L	L	L	X
9D	—	L	L	L	L	L	L	L	L	X
9E	—	L	L	L	L	L	L	L	L	X
9F	—	L	L	L	L	L	L	L	L	X

NOTE: A0-BF NOT USED

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
C2	ADDD2	L	L	L	L	L	L	L	L	X
C	ADDD3	L	L	L	L	L	L	L	L	X
C2	SUBD2	L	L	L	L	L	L	L	L	X
C3	SUBD3	L	L	L	L	L	L	L	L	X
C4	MULD2	L	L	L	L	L	L	L	L	X
C5	MULD3	L	L	L	L	L	L	L	L	X
C6	DIVD2	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
C7	DIVD3	L	H	L	L	L	H	H	L	A.MIN.B.MIN.PSLC
C8	CVTDB	L	L	L	L	H	H	H	H	A.MIN.1
C9	CVTDW	L	L	L	L	H	H	H	H	A.MIN.1
CA	CVTDL	L	L	L	L	H	H	H	H	A.MIN.1
CB	CVTRDL	L	L	L	L	H	H	H	H	A.MIN.1
CC	CVTBD	L	L	L	L	H	H	H	H	A.MIN.1
CD	CVTWD	L	L	L	L	H	H	H	H	A.MIN.1
CE	CVTLD	L	L	L	L	H	H	H	H	A.MIN.1
CF	ACBD	L	L	L	L	L	L	L	L	X
D0	MOVD	L	L	L	H	H	H	H	H	A
D1	CMPD	L	L	L	L	L	L	L	L	X
D2	MNEGD	L	L	L	H	L	H	H	L	A⊕B
D3	TSTD	L	L	L	H	H	L	H	L	B
D4	EMODD	L	L	L	L	L	L	L	L	X
D5	POLYD	L	L	L	L	L	L	L	L	X
D6	CVTDF	L	L	L	L	H	H	H	H	A.MIN.1
D7	—	L	L	L	L	L	L	L	L	X
D8	ASHL	L	L	L	L	L	L	L	L	X
D9	ASHQ	L	L	L	L	L	L	L	L	X
DA	EMUL	L	L	L	L	L	L	L	L	X
DB	EDIV	L	L	L	L	L	L	L	L	X
DC	CLRQ	L	L	L	L	L	L	L	L	X
DD	MOVQ	L	L	L	H	H	L	H	L	B
DE	MOVAQ	L	L	L	H	H	L	H	L	B
DF	PUSHAQ	L	L	L	H	H	L	H	L	B

NOTE: E0-FF NOT USED

REVISIONS		
CHK	CHANGE NO.	REV

(VAX ALU INSTR. DEP ROM - 23026B-00) (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV
DATA PATH CONTROL	D	CS	M7471-0-0	A
SCALE NONE	SHEET 19 OF 22		DIST	

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ALU INSTR. DEPENDENT ROM ($\overline{CM}$)

ROM ADDR	OP-CODE	ALU ROM AMX←Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
1ØØ	ADDB2	L	L	L	L	H	L	L	H	A.PL.B
1Ø1	ADDB3	-	-	L	L	H	L	L	H	A.PL.B
1Ø2	SUBB2	L	L	H	L	L	H	H	L	A.MIN.B
1Ø3	SUBB3	-	-	H	L	L	H	H	L	A.MIN.B
1Ø4	MULB2	L	-	-	L	L	L	L	L	X
1Ø5	MULB3	L	L	L	L	L	L	L	L	X
1Ø6	DIVB2	L	L	L	L	L	L	L	L	X
1Ø7	DIVB3	L	-	-	L	L	L	L	L	X
1Ø8	BISB2	-	-	L	H	H	H	H	L	A+B
1Ø9	BISB3	L	L	L	H	H	H	H	L	A+B
1ØA	BICB2	L	-	L	H	L	H	H	H	A*$\overline{B}$
1ØB	BICB3	L	L	L	H	L	H	H	H	A*$\overline{B}$
1ØC	XORB2	L	L	L	H	-	H	H	L	A@B
1ØD	XORB3	L	L	L	H	L	H	H	L	A@B
1ØE	MNEGB	H	L	H	L	L	H	H	L	Ø.MIN.B
1ØF	CASEB	-	L	L	L	L	L	L	L	X
11Ø	MOVB	L	L	L	H	H	L	H	L	B
111	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
112	MCOMB	L	L	L	H	L	H	L	H	$\overline{B}$
113	BITB	L	L	L	H	H	L	H	H	A*B
114	CLRB	L	L	L	H	L	L	H	H	Ø
115	TSTB	L	L	L	H	H	L	H	L	B
116	INCB	L	L	H	L	L	L	L	L	A.PL.1
117	DECB	L	L	L	L	-	H	H	H	A.MIN.1
118	CVTBL	L	L	L	L	L	L	L	L	X
119	CVTBW	L	L	L	L	-	-	L	L	X
11A	MOVZBL	L	L	L	-	-	-	L	L	X
11B	MOVZBW	L	L	L	L	-	-	L	L	X
11C	ROTL	-	L	L	-	-	-	L	L	X
11D	ACBB	L	L	L	L	L	L	L	L	X
11E	MOVAB	L	L	L	H	H	L	H	L	B
11F	PUSHAB	-	-	L	H	H	L	H	L	B

NOTE: 12Ø-13F NOT USED

ROM ADDR	OP CODE	ALU ROM AMX←Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
14Ø	ADDW2	L	-	-	L	H	L	L	H	A.PL.B
141	ADDW3	L	-	L	L	H	L	L	H	A.PL.B
142	SUBW2	L	-	H	L	L	H	H	L	A.MIN.B
143	SUBW3	L	-	H	L	L	H	H	L	A.MIN.B
144	MULW2	-	-	-	L	L	L	L	L	X
145	MULW3	-	-	-	L	L	L	L	L	X
146	DIVW2	L	L	L	L	L	L	L	-	X
147	DIVW3	L	L	L	L	L	L	L	-	X
148	BISW2	L	-	L	H	H	H	H	L	A+B
149	BISW3	L	L	L	H	H	H	H	L	A+B
14A	BICW2	L	-	L	H	L	H	H	H	A*$\overline{B}$
14B	BICW3	L	L	L	H	L	H	H	H	A*$\overline{B}$
14C	XORW2	L	L	L	H	L	H	H	L	A@B
14D	XORW3	L	L	L	H	L	H	H	L	A@B
14E	MNEGW	H	L	H	L	L	H	H	L	Ø.MIN.B
14F	CASEW	L	L	L	L	L	L	L	L	X
15Ø	MOVW	L	L	L	H	H	L	H	L	B
151	CMPW	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
152	MCOMW	L	L	L	H	L	H	L	H	$\overline{B}$
153	BITW	L	L	L	H	H	L	H	H	A*B
154	CLRW	L	L	L	H	L	L	H	H	Ø
155	TSTW	L	L	L	H	H	L	H	L	B
156	INCW	L	L	H	L	L	L	L	L	A.PL.1
157	DECW	L	L	L	L	H	H	H	H	A.MIN.1
158	BISPSW	L	L	L	H	H	H	H	L	A+B
159	BICPSW	L	L	L	H	L	H	H	H	A*$\overline{B}$
15A	POPR	L	L	L	L	L	L	-	-	X
15B	PUSHR	L	L	L	-	L	L	L	L	X
15C	CHMK	L	L	L	L	L	L	L	L	X
15D	CHME	L	L	-	L	L	L	L	L	X
15E	CHMS	L	L	L	L	L	L	L	L	X
15F	CHMU	L	L	L	L	L	L	L	L	X

NOTE: 16Ø-17F NOT USED

ROM ADDR	OP CODE	ALU ROM AMX←Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
18Ø	ADDL2	-	-	L	L	H	L	L	H	A.PL.B
181	ADDL3	-	-	L	L	H	L	L	H	A.PL.B
182	SUBL2	-	L	-	L	L	H	H	L	A.MIN.B
183	SUBL3	-	L	H	L	L	H	H	L	A.MIN.B
184	MULL2	L	L	L	L	L	L	L	L	X
185	MULL3	L	L	L	L	L	L	L	L	X
186	DIVL2	L	L	L	L	L	L	L	L	X
187	DIVL3	L	L	L	L	L	L	L	L	X
188	BISL2	L	L	L	H	H	H	H	L	A+B
189	BISL3	L	L	L	H	H	H	H	L	A+B
18A	BICL2	L	L	L	H	L	H	H	H	A*$\overline{B}$
18B	BICL3	L	L	L	H	L	H	H	H	A*$\overline{B}$
18C	XORL2	L	L	L	H	L	H	H	L	A@B
18D	XORL3	L	L	L	H	L	H	H	L	A@B
18E	MNEGL	H	L	H	L	L	H	H	L	Ø.MIN.B
18F	CASEL	L	L	L	L	L	L	L	L	X
19Ø	MOVL	L	L	L	H	H	L	H	L	B
191	CMPL	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
192	MCOML	L	L	L	H	L	H	L	H	$\overline{B}$
193	BITL	L	L	L	H	H	L	H	H	A*B
194	CLRL	L	L	L	H	L	L	H	H	Ø
195	TSTL	L	-	L	H	H	L	H	L	B
196	INCL	-	-	-	L	L	L	L	L	A.PL.1
197	DECL	L	L	L	L	H	H	H	H	A.MIN.1
198	ADWC	L	H	L	L	H	L	L	H	A.PL.B.PL.PSLC
199	SBWC	L	H	H	L	L	H	H	L	A.MIN.B.MIN.PSLC
19A	MTPR	L	L	L	L	L	-	-	L	X
19B	MFPR	L	L	L	L	L	L	L	L	X
19C	MOVPSL	L	L	L	L	L	L	L	L	X
19D	PUSHL	L	L	L	L	L	L	L	L	X
19E	MOVAL	L	L	L	H	H	L	H	L	B
19F	PUSHAL	L	L	L	H	H	L	H	L	B

NOTE: 1AØ-1BF NOT USED

ROM ADDR	OP-CODE	ALU ROM AMX←Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
1CØ	BBS	L	L	L	H	H	H	H	H	A
1C1	BBC	L	L	L	H	H	H	H	H	A
1C2	BBSS	L	L	L	H	H	H	L	H	A+$\overline{B}$
1C3	BBCS	L	L	L	H	H	H	L	H	A+$\overline{B}$
1C4	BBSC	L	L	L	H	H	L	H	H	A*$\overline{B}$
1C5	BBCC	L	L	L	H	H	L	H	H	A*B
1C6	BBSSI	L	L	L	H	H	H	-	H	A+$\overline{B}$
1C7	BBCCI	L	L	L	H	H	L	H	H	A*B
1C8	BLBS	L	L	L	H	H	L	H	H	A*B
1C9	BLBC	L	L	L	H	L	L	H	L	$\overline{A}$*B
1CA	FFS	L	L	L	L	L	L	L	L	X
1CB	FFC	L	L	L	L	L	L	L	L	X
1CC	CMPV	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
1CD	CMPZV	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
1CE	EXTV	L	-	L	L	L	L	L	L	X
1CF	EXTZV	L	L	L	L	L	L	L	L	X
1DØ	INSV	L	L	L	L	L	L	L	L	X
1D1	ACBL	L	L	L	L	L	L	L	L	X
1D2	AOBLSS	-	L	-	L	L	L	L	L	X
1D3	AOBLEQ	L	L	L	L	L	L	L	L	X
1D4	SOBGEQ	L	L	L	L	L	L	L	L	X
1D5	SOBGTR	L	L	L	L	L	L	L	L	X
1D6	CVTLB	-	-	-	L	L	L	L	L	X
1D7	CVTLW	-	-	-	L	L	L	L	L	X
1D8	ASHP	L	H	L	L	L	H	H	L	A.MIN.B.MIN $\overline{PSLC}$
1D9	CVTLP	L	H	L	L	L	H	H	L	A.MIN.B.MIN.$\overline{PSLC}$
1DA	CALLG	-	L	L	-	L	-	L	L	X
1DB	CALLS	-	-	-	-	L	-	L	L	X
1DC	XFC	-	L	L	-	L	L	L	L	X
1DD	ESCD	-	L	L	L	L	L	L	L	X
1DE	ESCE	-	L	L	L	L	L	L	L	X
1DF	ESCF	-	L	L	L	L	L	L	L	X

NOTE: 1EØ-1FF NOT USED

REVISIONS		
CHK	CHANGE NO	REV

(SLOT 13)
(VAX ALU INSTR. DEP ROM—2302661-00)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL	D	DCS	M7471-0-0	A
SCALE NONE	SHEET 20 OF 22		DIST.	

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ROM ADDR	OP-CODE	ALU ROM AMX Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
ØØ	X	L	L	L	L	L	L	L	L	X
Ø1	MOV	L	L	L	H	H	L	H	L	B
Ø2	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
Ø3	BIT	L	L	L	H	H	L	H	H	A*B
Ø4	BIC	L	L	L	H	L	H	H	H	A*B̄
Ø5	BIS	L	L	L	H	H	H	H	L	A+B
Ø6	ADD	L	L	L	L	H	L	L	H	A.PL.B
Ø7	MUL	L	L	L	L	L	L	L	L	X
Ø8	X	L	L	L	L	L	L	L	L	X
Ø9	MOV	L	L	L	H	H	L	H	L	B
ØA	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
ØB	BIT	L	L	L	H	H	L	H	H	A*B
ØC	BIC	L	L	L	H	L	H	H	H	A*B̄
ØD	BIS	L	L	L	H	H	H	H	L	A+B
ØE	ADD	L	L	L	L	H	L	L	H	A.PL.B
ØF	DIV	L	L	L	L	L	L	L	L	X
1Ø	X	L	L	L	L	L	L	L	L	X
11	MOV	L	L	L	H	H	L	H	L	B
12	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
13	BIT	L	L	L	H	H	L	H	H	A*B
14	BIC	L	L	L	H	L	H	H	H	A*B̄
15	BIS	L	L	L	H	H	H	H	L	A+B
16	ADD	L	L	L	L	H	L	L	H	A.PL.B
17	ASH	L	L	L	L	L	L	L	L	X
18	X	L	L	L	L	L	L	L	L	X
19	MOV	L	L	L	H	H	L	H	L	B
1A	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
1B	BIT	L	L	L	H	H	L	H	H	A*B
1C	BIC	L	L	L	H	L	H	H	H	A*B̄
1D	BIS	L	L	L	H	H	H	H	L	A+B
1E	ADD	L	L	L	L	H	L	L	H	A.PL.B
1F	ASHC	L	L	L	L	L	L	L	L	X

NOTE: 2Ø-3F NOT USED

ROM ADDR	OP-CODE	ALU ROM AMX Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
4Ø	X	L	L	L	L	L	L	L	L	X
41	MOV	L	L	L	H	H	L	H	L	B
42	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
43	BIT	L	L	L	H	H	L	H	H	A*B
44	BIC	L	L	L	H	L	H	H	H	A*B̄
45	BIS	L	L	L	H	H	H	H	L	A+B
46	ADD	L	L	L	L	H	L	L	H	A.PL.B
47	XOR	L	L	L	H	L	H	H	L	A.MIN.B
48	X	L	L	L	L	L	L	L	L	X
49	MOV	L	L	L	H	H	L	H	L	B
4A	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
4B	BIT	L	L	L	H	H	L	H	H	A*B
4C	BIC	L	L	L	H	L	H	H	H	A*B̄
4D	BIS	L	L	L	H	H	H	H	L	A+B
4E	ADD	L	L	L	L	H	L	L	H	A.PL.B
4F	X	L	L	L	L	L	L	L	L	X
5Ø	X	L	L	L	L	L	L	L	L	X
51	MOV	L	L	L	H	H	L	H	L	B
52	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
53	BIT	L	L	L	H	H	L	H	H	A*B
54	BIC	L	L	L	H	L	H	H	H	A*B̄
55	BIS	L	L	L	H	H	H	H	L	A+B
56	ADD	L	L	L	L	H	L	L	H	A.PL.B
57	X	L	L	L	L	L	L	L	L	X
58	X	L	L	L	L	L	L	L	L	X
59	MOV	L	L	L	H	H	L	H	L	B
5A	CMP	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
5B	BIT	L	L	L	H	H	L	H	H	A*B
5C	BIC	L	L	L	H	L	H	H	H	A*B̄
5D	BIS	L	L	L	H	H	H	H	L	A+B
5E	ADD	L	L	L	L	H	L	L	H	A.PL.B
5F	SOB	L	L	L	L	H	H	H	H	A.MIN.1

NOTE: 6Ø-7F NOT USED

11 COMP ROM ADDR, INSTR - 18 BYTE BIT ENCODING

IR(14:12)=ØL	H	15	11	1Ø	9	8	7	6	
IR(14:12)=ØL	L	15	11	1Ø	9	14	13	12	

ROM ADDR	OP-CODE	ALU ROM AMX Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
8Ø	X	L	L	L	L	L	L	L	L	X
81	MOVB	L	L	L	H	H	L	H	L	B
82	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
83	BITB	L	L	L	H	H	L	H	H	A*B
84	BICB	L	L	L	H	L	H	H	H	A*B̄
85	BISB	L	L	L	H	H	H	H	L	A+B
86	SUB	L	L	H	L	L	H	H	L	A.MIN.B
87	X	L	L	L	L	L	L	L	L	X
88	X	L	L	L	L	L	L	L	L	X
89	MOVB	L	L	L	H	H	L	H	L	B
8A	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
8B	BITB	L	L	L	H	H	L	H	H	A*B
8C	BICB	L	L	L	H	L	H	H	H	A*B̄
8D	BISB	L	L	L	H	H	H	H	L	A+B
8E	SUB	L	L	H	L	L	H	H	L	A.MIN.B
8F	X	L	L	L	L	L	L	L	L	X
9Ø	X	L	L	L	L	L	L	L	L	X
91	MOVB	L	L	L	H	H	L	H	L	B
92	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
93	BITB	L	L	L	H	H	L	H	H	A*B
94	BICB	L	L	L	H	L	H	H	H	A*B̄
95	BISB	L	L	L	H	H	H	H	L	A+B
96	SUB	L	L	H	L	L	H	H	L	A.MIN.B
97	X	L	L	L	L	L	L	L	L	X
98	X	L	L	L	L	L	L	L	L	X
99	MOVB	L	L	L	H	H	L	H	L	B
9A	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
9B	BITB	L	L	L	H	H	L	H	H	A*B
9C	BICB	L	L	L	H	L	H	H	H	A*B̄
9D	BISB	L	L	L	H	H	H	H	L	A+B
9E	SUB	L	L	H	L	L	H	H	L	A.MIN.B
9F	X	L	L	L	L	L	L	L	L	X

NOTE: AØ-BF NOT USED

ROM ADDR	OP-CODE	ALU ROM AMX Ø H M7	ALU ROM COND CIN H M6	ALU ROM CIN H M5	ALU ROM MODE H M4	ALU ROM S3 H M3	ALU ROM S2 H M2	ALU ROM S1 H M1	ALU ROM SØ H MØ	FUNCTION
CØ	X	L	L	L	L	L	L	L	L	X
C1	MOVB	L	L	L	H	H	L	H	L	B
C2	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
C3	BITB	L	L	L	H	H	L	H	H	A*B
C4	BICB	L	L	L	H	L	H	H	H	A*B̄
C5	BISB	L	L	L	H	H	H	H	L	A+B
C6	SUB	L	L	H	L	L	H	H	L	A.MIN.B
C7	X	L	L	L	L	L	L	L	L	X
C8	X	L	L	L	L	L	L	L	L	X
C9	MOVB	L	L	L	H	H	L	H	L	B
CA	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
CB	BITB	L	L	L	H	H	L	H	H	A*B
CC	BICB	L	L	L	H	L	H	H	H	A*B̄
CD	BISB	L	L	L	H	H	H	H	L	A+B
CE	SUB	L	L	H	L	L	H	H	L	A.MIN.B
CF	X	L	L	L	L	L	L	L	L	X
DØ	X	L	L	L	L	L	L	L	L	X
D1	MOVB	L	L	L	H	H	L	H	L	B
D2	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
D3	BITB	L	L	L	H	H	L	H	H	A*B
D4	BICB	L	L	L	H	L	H	H	H	A*B̄
D5	BISB	L	L	L	H	H	H	H	L	A+B
D6	SUB	L	L	H	L	L	H	H	L	A.MIN.B
D7	X	L	L	L	L	L	L	L	L	X
D8	X	L	L	L	L	L	L	L	L	X
D9	MOVB	L	L	L	H	H	L	H	L	B
DA	CMPB	L	L	L	L	L	H	H	L	A.MIN.B.MIN.1
DB	BITB	L	L	L	H	H	L	H	H	A*B
DC	BICB	L	L	L	H	L	H	H	H	A*B̄
DD	BISB	L	L	L	H	H	H	H	L	A+B
DE	SUB	L	L	H	L	L	H	H	L	A.MIN.B
DF	X	L	L	L	L	L	L	L	L	X

NOTE: EØ-FF NOT USED

REVISIONS		
CHK	CHANGE NO	REV

COMP MODE ALU INSTR DEP ROM — 23Ø27B1-ØØ (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL	D	CS	M747-0-0	A
SCALE NONE	SHEET 21 OF 22	DIST		

M747-0-0 REV A STATE CODE DCS

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ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
		ALU ROM AMX Ø H	ALU ROM COND CIN H	ALU ROM CIN H	ALU ROM MODE H	ALU ROM S3 H	ALU ROM S2 H	ALU ROM S1 H	ALU ROM S0 H	
1Ø0	X	L	L	L	L	L	L	L	L	X
1Ø1	JMP									X
1Ø2	X									X
1Ø3	SWAB									X
1Ø4	BR									X
1Ø5	BR									X
1Ø6	BR									X
1Ø7	BR									X
1Ø8	BNE									X
1Ø9	BNE									X
1ØA	BNE									X
1ØB	BNE									X
1ØC	BEQ									X
1ØD	BEQ									X
1ØE	BEQ									X
1ØF	BEQ									X
11Ø	BGE									X
111	BGE									X
112	BGE									X
113	BGE									X
114	BLT									X
115	BLT									X
116	BLT									X
117	BLT									X
118	BGT									X
119	BGT									X
11A	BGT									X
11B	BGT									X
11C	BLE									X
11D	BLE									X
11E	BLE									X
11F	BLE									X

NOTE: 12Ø-13F NOT USED

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
		ALU ROM AMX Ø H	ALU ROM COND CIN H	ALU ROM CIN H	ALU ROM MODE H	ALU ROM S3 H	ALU ROM S2 H	ALU ROM S1 H	ALU ROM S0 H	
14Ø	JSR	L	L	L	L	L	L	L	L	X
141	JSR									X
142	JSR									X
143	JSR									X
144	JSR									X
145	JSR									X
146	JSR									X
147	JSR									X
148	CLR	L	L	L	H	L	L	H	H	Ø
149	COM	L	L	L	H	L	L	L	L	$\bar{A}$
14A	INC	L	L	H	L	L	L	L	L	A.PL.1
14B	DEC	L	L	L	L	H	H	H	H	A.MIN.1
14C	NEG	H	L	H	L	L	H	H	L	2:MIN.B
14D	ADC	L	H	L	L	L	L	L	L	A.PL.C
14E	SBC	L	H	H	L	H	H	H	H	A.MIN.C
14F	TST	L	L	L	H	H	H	H	H	A
15Ø	ROR	L	L	L	L	L	L	L	L	X
151	ROL	L	H	L	L	H	H	L	L	A.PL.A.PL.C
152	ASR	L	L	L	L	L	L	L	L	X
153	ASL	L	L	L	L	H	H	L	L	A.PL.A
154	MARK	L	L	L	L	L	L	L	L	X
155	MFPI	L	L	L	H	H	H	H	H	A
156	MTPI	L	L	L	H	H	H	H	H	A
157	SXT	L	L	L	L	L	L	L	L	X
158	X									X
159	X									X
15A	X									X
15B	X									X
15C	X									X
15D	X									X
15E	X									X
15F	X									X

NOTE: 16Ø-17F NOT USED

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
		ALU ROM AMX Ø H	ALU ROM COND CIN H	ALU ROM CIN H	ALU ROM MODE H	ALU ROM S3 H	ALU ROM S2 H	ALU ROM S1 H	ALU ROM S0 H	
18Ø	BPL	L	L	L	L	L	L	L	L	X
181	BPL									X
182	BPL									X
183	BPL									X
184	BMI									X
185	BMI									X
186	BMI									X
187	BMI									X
188	BHI									X
189	BHI									X
18A	BHI									X
18B	BHI									X
18C	BLOS									X
18D	BLOS									X
18E	BLOS									X
18F	BLOS									X
19Ø	BVC									X
191	BVC									X
192	BVC									X
193	BVC									X
194	BVS									X
195	BVS									X
196	BVS									X
197	BVS									X
198	BCC									X
199	BCC									X
19A	BCC									X
19B	BCC									X
19C	BCS									X
19D	BCS									X
19E	BCS									X
19F	BCS									X

NOTE: 1AØ-1BF NOT USED

ROM ADDR	OP-CODE	ROM DATA M7	M6	M5	M4	M3	M2	M1	M0	FUNCTION
		ALU ROM AMX Ø H	ALU ROM COND CIN H	ALU ROM CIN H	ALU ROM MODE H	ALU ROM S3 H	ALU ROM S2 H	ALU ROM S1 H	ALU ROM S0 H	
1C0	EMT	L	L	L	L	L	L	L	L	X
1C1	EMT									X
1C2	EMT									X
1C3	EMT									X
1C4	TRAP									X
1C5	TRAP									X
1C6	TRAP									X
1C7	TRAP									X
1C8	CLRB	L	L	L	H	L	L	H	H	Ø
1C9	COMB	L	L	L	H	L	L	L	L	$\bar{A}$
1CA	INCB	L	L	H	L	L	L	L	L	A.PL.1
1CB	DECB	L	L	L	L	H	H	H	H	A.MIN.1
1CC	NEGB	H	L	H	L	L	H	H	L	Ø.MIN.B
1CD	ADCB	L	H	L	L	L	L	L	L	A.PL.C
1CE	SBCB	L	H	H	L	H	H	H	H	A.MIN.C
1CF	TSTB	L	L	L	H	H	H	H	H	A
1DØ	RORB	L	L	L	L	L	L	L	L	X
1D1	ROLB	L	H	L	L	H	H	L	L	A.PL.A.PL.C
1D2	ASRB	L	L	L	L	L	L	L	L	X
1D3	ASLB	L	L	L	L	H	H	L	L	A.PL.A
1D4	X	L	L	L	L	L	L	L	L	X
1D5	MFPD	L	L	L	H	H	H	H	H	A
1D6	MTPD	L	L	L	H	H	H	H	H	A
1D7	X	L	L	L	L	L	L	L	L	X
1D8	X									X
1D9	X									X
1DA	X									X
1DB	X									X
1DC	X									X
1DD	X									X
1DE	X									X
1DF	X									X

NOTE: 1EØ-1FF NOT USED

REVISIONS		
CHK	CHANGE NO	REV

COMP MODE ALU INSTR DEP. ROM — 23027B1 (SLOT 13)

TITLE	SIZE	CODE	NUMBER	REV.
DATA PATH CONTROL	D	CS	M7471-0-C	A
SCALE NONE	SHEET 22 OF 22		DIST	

SIZE	CODE	NUMBER	REV.
B	DD	M7471-0-0	A

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7471-00	DAP	AI
E-UA-M7471-0-0	4		UNIT ASSEMBLY	A
D-CS-M7471-0-0	22		SCHEMATIC	A
K-PL-M7471-0-DBP	2		PARTS LIST	A
		5012578-00	ETCHED CIRCUIT BOARD	B
K-PC-M7471-0-DBG	-		P.C. DATA BASE	B

NOTES:

REVISIONS		
REV.	CHG NO.	DATE
A	INIT	9/83

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digital

USED ON OPTION/MODEL			

DRN.	S. HANSOR	14-Sep-83
CHK'D	[signature]	9-20-83
ENG.	[signature]	10-11-83
PROJ.	[signature]	10-11-83

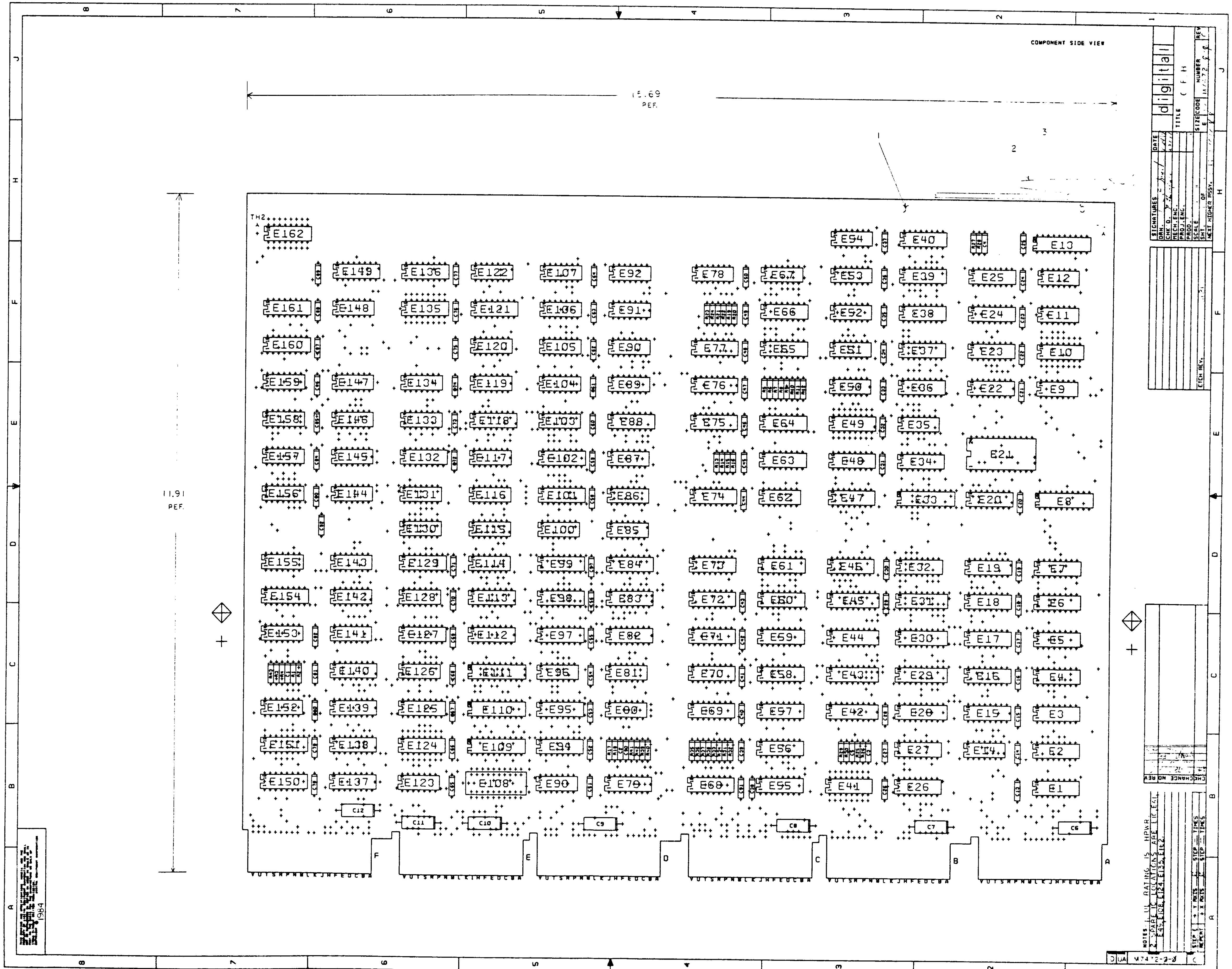
TITLE: DAP

SIZE	CODE	NUMBER	REV.
B	DD	M7471-0-0	A

SHEET 1 OF 1

DRB 12R

TW


COMPONENT SIDE VIEW
15.69 REF.
11.91 REF.
digital
TITLE
SIZE CODE E
NUMBER
REV
SIGNATURES
DATE
DRN.
CHK'D.
MECH.ENG.
PROJ.ENG.
PROD.
SCALE
SHT. OF
NEXT HIGHER ASSY.
ETCH REV.
CHG CHANGE NO REV
NOTES:
1. UL RATING IS HPWR.
2. SPARE IC LOCATIONS ARE E1, E41, E45, E108, E124, E135, E162.
STEP & REPEAT
D UA M7472-0-0 C
1984

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	D-MD-5016099-0-0	5016099-01		ETCH CIRCUIT BOARD	1	
2	2		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
3	3		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
4	4	_!__	1017472-00		10 MFD 35V +50-10% AL EL	7	C6-C12
5	5		1300250-00		150.0 .25 W 5.0 % CF	6	R32,R34,R36,R38,R40,R42
6	6		1300247-00		120.0 .25 W 5.0 % CF	6	R31,R33,R35,R37,R39,R41
7	7		1301775-00		820.0 .25 W 5.0 % CF	9	R6,R8,R10,R12,R14,R16,R20,R22,
						CONT	R24
8	8		1300309-00		390.0 .25 W 5.0 % CF	3	R3,R4,R43
9	9		1301424-00		680.0 .25 W 5.0 % CF	5	R2,R18,R26,R28,R30
10	10		1300295-00		330.0 .25 W 5.0 % CF	14	R1,R5,R7,_!_R9,R11,R13,R15,R17,R
						CONT	R21,R23,R25,R27,R29
11	11		1911712-00		74S51 AND-OR GATE-INVERT D	2	E134,E144
12	12		1921315-01		74F86 EXCLUSIVE OR GATE,QU	1	E133
13	13		1921319-01		74F153 MUX,DUAL,4-IN	3	E121,E137,E150
14	14		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E119
15	15		1913839-00		LS165 SHIFT REG.,8BIT	8	E97,E99,E118,E138-E140,E149,E151
16	16		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	2	E95,E113
17	17		1921311-01		74F20 _!__NAND GATE,DUAL,4-IN	2	E92,E122
18	18		1921306-01		74F02 NOR GATE,QUAD,2-IN	1	E90
19	19		1912796-00		74148 ENCODER,PRIORITY,8 T	1	E84
20	20		1921309-01		74F10 NAND GATE,TRIPLE,3-I	6	E78,E85,E87,E107,E146,E147
21	21		1921 317-01		74F139 DECODER,DUAL,1-OF-4	1	E76
22	22		1921720-01		10H125 TRANSLATOR ECL TO TTL	2	E68,E79
23	23		1921316-01		74F138 DECODER/DEMUX,1-OF-8	2	E66,E132
24	24		1921324-01		74F175 FF-D,QUAD	5	E65,E77,E125,E136,E154
25	25	_!__	1912746-01		74S37-1BUFFER-GATE	1	E62
26	26		1921308-01		74F08 AND GATE,QUAD,2-IN	5	E54,E96,E103,E106,E155
27	27		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	2	E52,E80
28	28		1921310-01		74F11 AND GATE,TRIPLE,3-IN	2	E51,E89

REVISION HISTORY			BASIC PART NO: M7472
ENG	ECO NUMBER	REV	SECTION A OF A
---	INITIAL	A	SECTION.VARIATION INDEX
KM	M7472-TW001	B	[A] 00
KS	M7472-TW002	C	[B]
			[C]
			[D]
			[E]
			[F]
			[H]
			[J]
			[K]
			[L]
			[M]
			[N]

DRN: P.GROSSE	DATE: 05-APR-83	D I G I T A L	
CHK'D: F.GAROFALO	DATE: 05-APR-83	TITLE PARTS LIST CEH	
DES.ENG: GRANT LEE	DATE: 04-AUG-83	DOCUMENT NUMBER	
RESP.ENG.:_!__ GRANT LEE	DATE: 04-AUG-83	SIZE: K	CODE: PL
MFG.ENG.: MIKE KRYZAK	DATE: 10-OCT-83	NUMBER: M7472-0-DBP	REV: C
		RELEASE DATE: 16-MAR-84	
ASSEMBLY NUMBER: E-UA-M7472-0-0	TOP DOCUMENT NUMBER: B-DD-M7472-0-0	FILE NAME: Z3943C.PLS	EDIT #: 10

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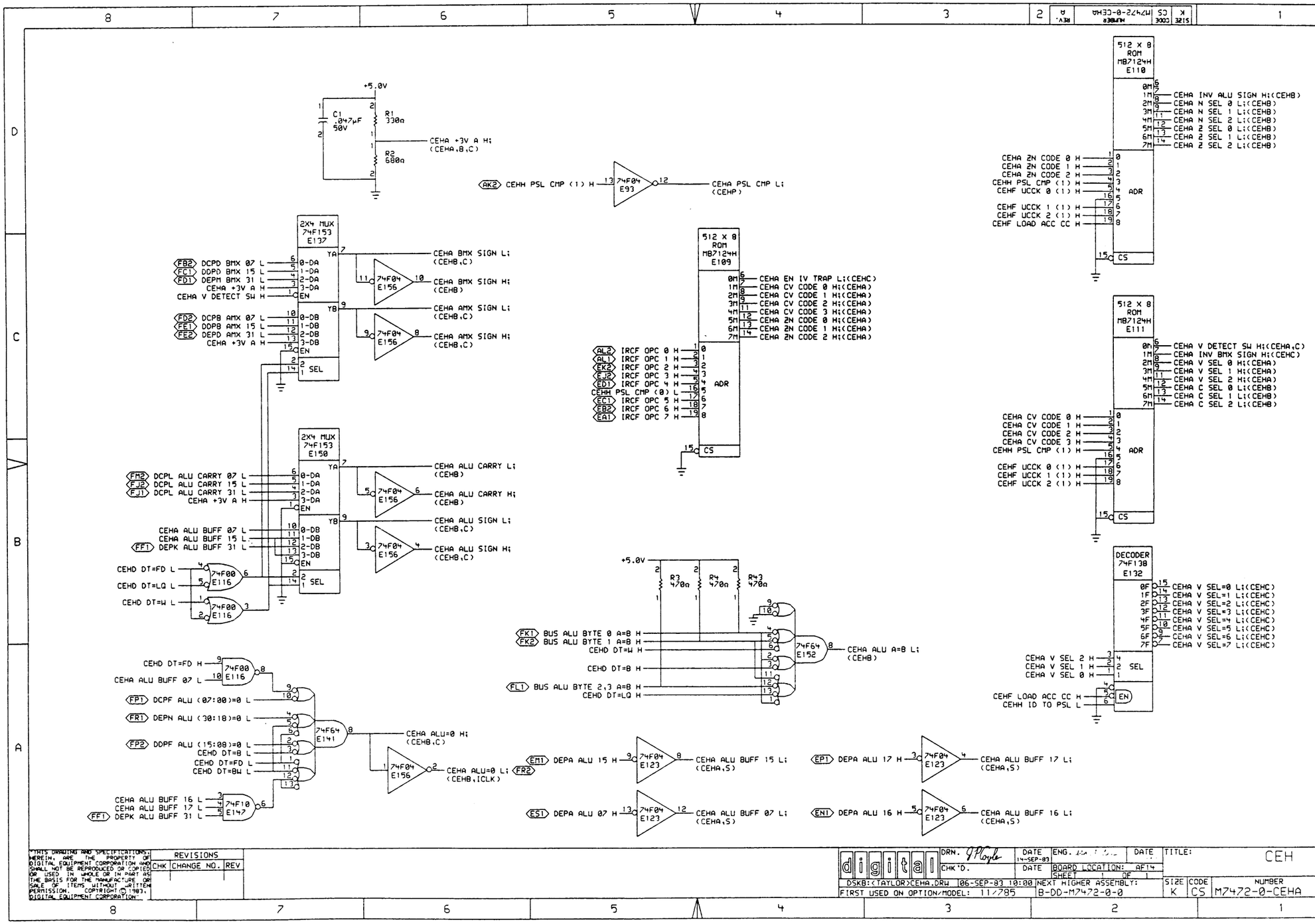
LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	VARIATION 1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL: _!__			
29	29		1921305-01		74F00 NAND GATE,QUAD,2-IN	11		E35,E50,E53,E105,E114,E116,E117,
							CONT	E120,E126,E143,E148
30	30		1921323-01		74F174 FF-D,HEX	3		E32,E46,E47
31	31		1912586-01		85S68A REGISTER,16X4 EDGE T	8		E28-E31,E42-E45
32	32		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	13		E23,E25,E34,E37,E39,E48,E63,E64,
							CONT	E74,E75,E82,E94,E101
33	33		1921320-01		74F157 MUX,QUAD,2-IN	6		E22,E24,E36,E38,E102,E160
_!__	34	34	1921325-01		74F181 ALU,4-BIT		1	E21
35	35		1921321-01		74F158 MUX,QUAD,2-IN	3		E20,E83,E88
36	36		1921313-01		74F64 AND OR INVERT GATE,4-	10		E12,E115,E130,E131,E141,E142,
							CONT	E152,E157-E 159
37	37		1912089-00		74S85 CMPRTR-4BIT MAGNITUD	1		E40
38	38		1921307-01		74F04 HEX INVERTER	15		E9,E11,E14,E67,E81,E86,E91,E93,
							CONT	E100,E104,E123,E128,E145,E153,
							_!__	CONT E156
39	39		23028B2-00		B2-03	2		E8,E33
40	40	BLANK			*** THIS ITEM IS NOT USED ***	-		
41	41		23025B2-00		B2-03	1		E109
42	42		23026B2-00		B2-03		1	E110
43	43		23027B2-00		B2-03	1		E111
44	44		1921322-01		74F161 BINARY COUNTER,PRESE	4		E7,E19,E61,E73
45	45		1921318-01		74F151 MUX,8-IN	20		E3-E6,E15-E18,E57-E60,E69-E72,
			_!__					CONT E112,E127,E129,E161
46	46		1913788-00		26S10 TRANSCEIVER,BUS,QUA	6		E1,E2,E26,E27,E55,E56
47	47		1012784-00		.047 MFD 50V +80-20% CER	85		C1-C5,C13-C92
48	48		1922192-01		74F382 4-BIT ARITHMETIC LOGIC UN	1		E13
49	49		1911983-00		74S133 NAND GATE-POSITIVE	1	1	E98
50	50		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14 A/R			

51 NOTE: 1.SPARE I.C.'S ARE E13,E41,E49,E124,E135,E162,& E10.

DIGITAL	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
	CEH		K	PL	M7472-0-DBP	C



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REVISIONS		
CHK	CHANGE NO.	REV

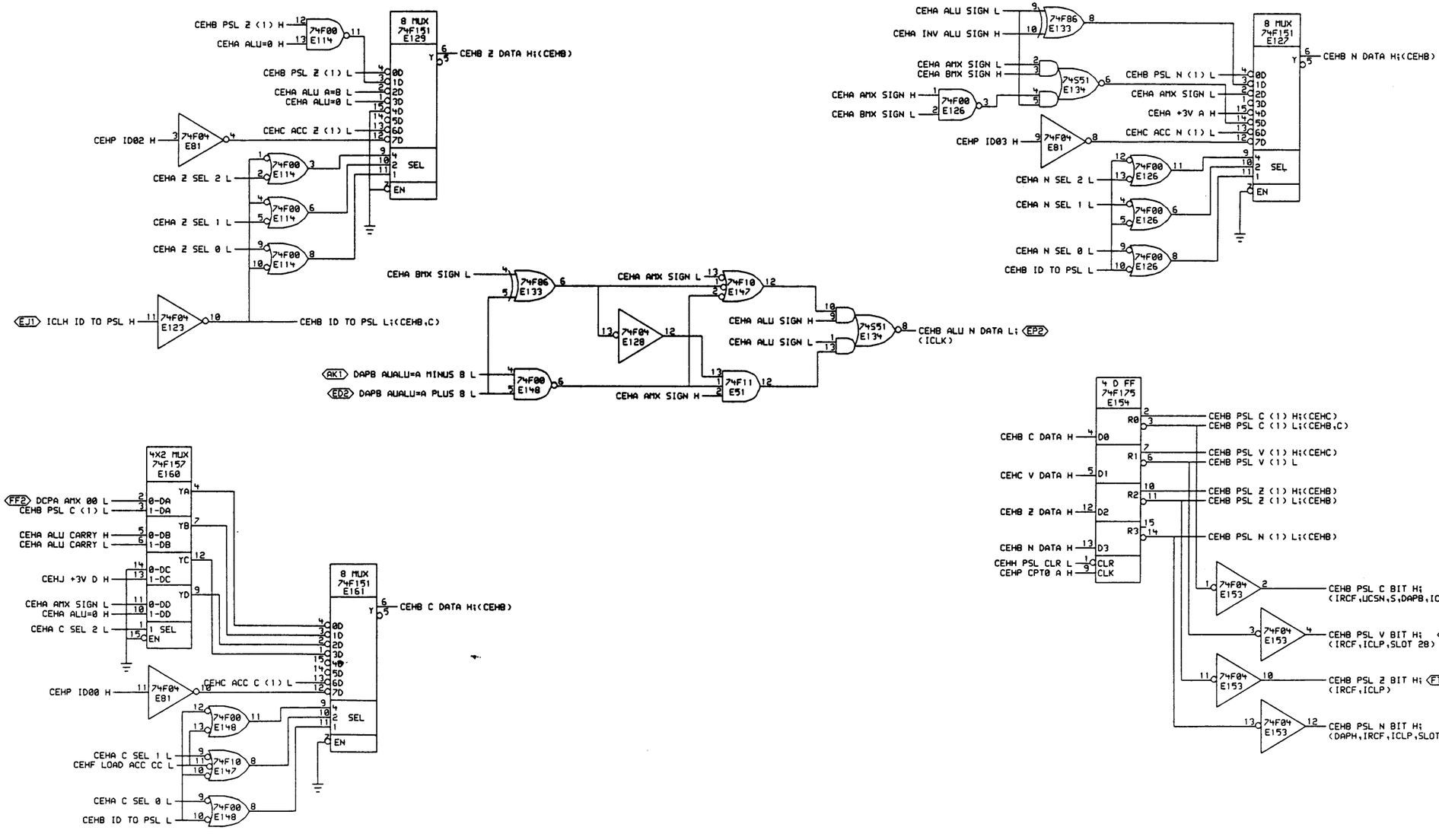
digital

DRN. JMoyle DATE 14-SEP-83 | ENG. DATE | CHK'D. DATE | BOARD LOCATION: AF14 | SHEET 1 OF 1

DSKB:<TAYLOR>CEHA.DRW 06-SEP-83 10:00 | NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0 | FIRST USED ON OPTION/MODEL: 11/785

TITLE: CEH

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHA	A



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REVISIONS		
CHK	CHANGE NO.	REV

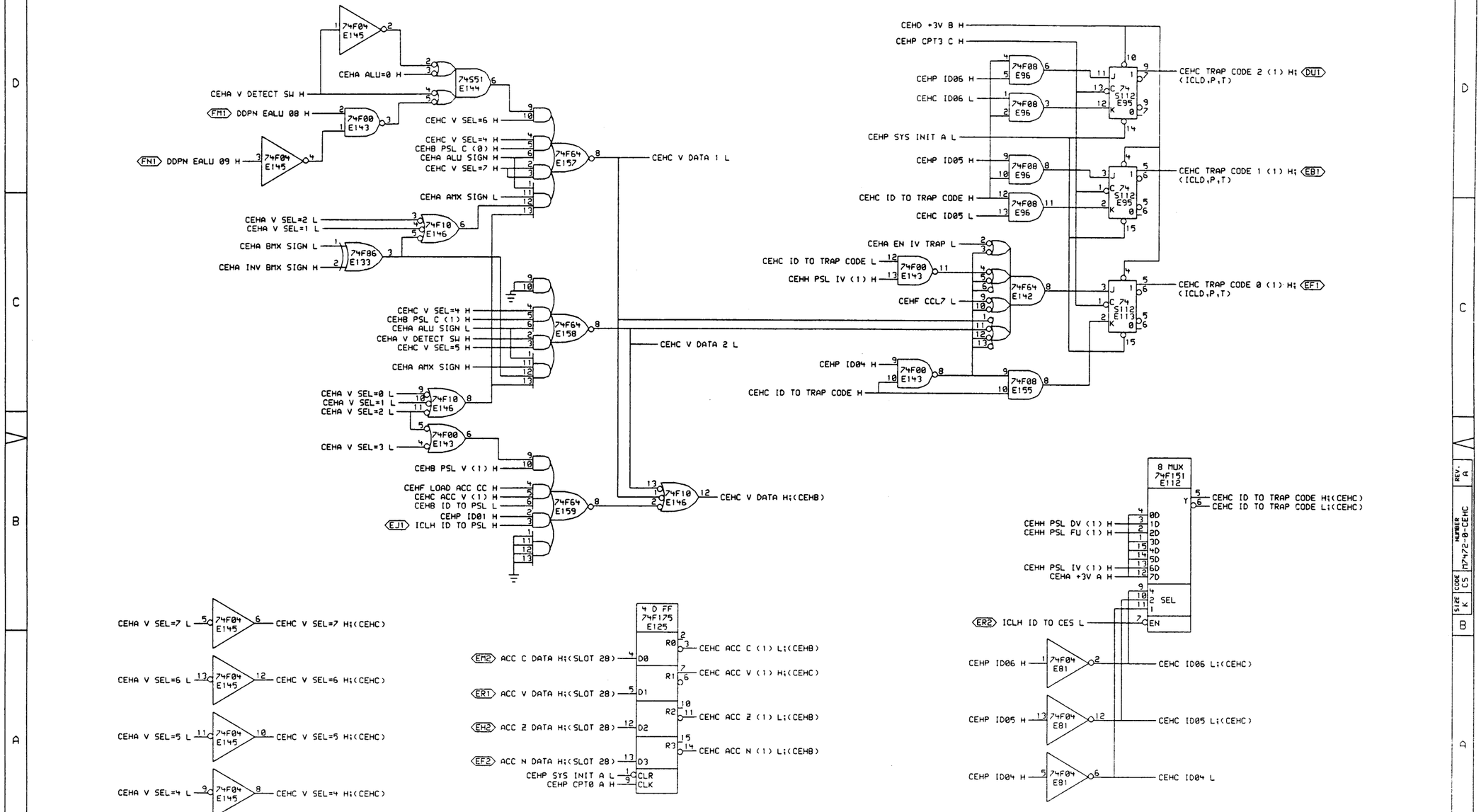
DRN.		DATE 14-SEP-83	ENG.
CHK'D.		DATE	BOARD LOCATION: AF14
			SHEET 1 OF 1

DSKB:<TAYLOR>CEHB.DRW 06-SEP-83 09:09 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7472-0-0

TITLE: CEH

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHB	A

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHB	A



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REVISIONS		
CHK	CHANGE NO.	REV

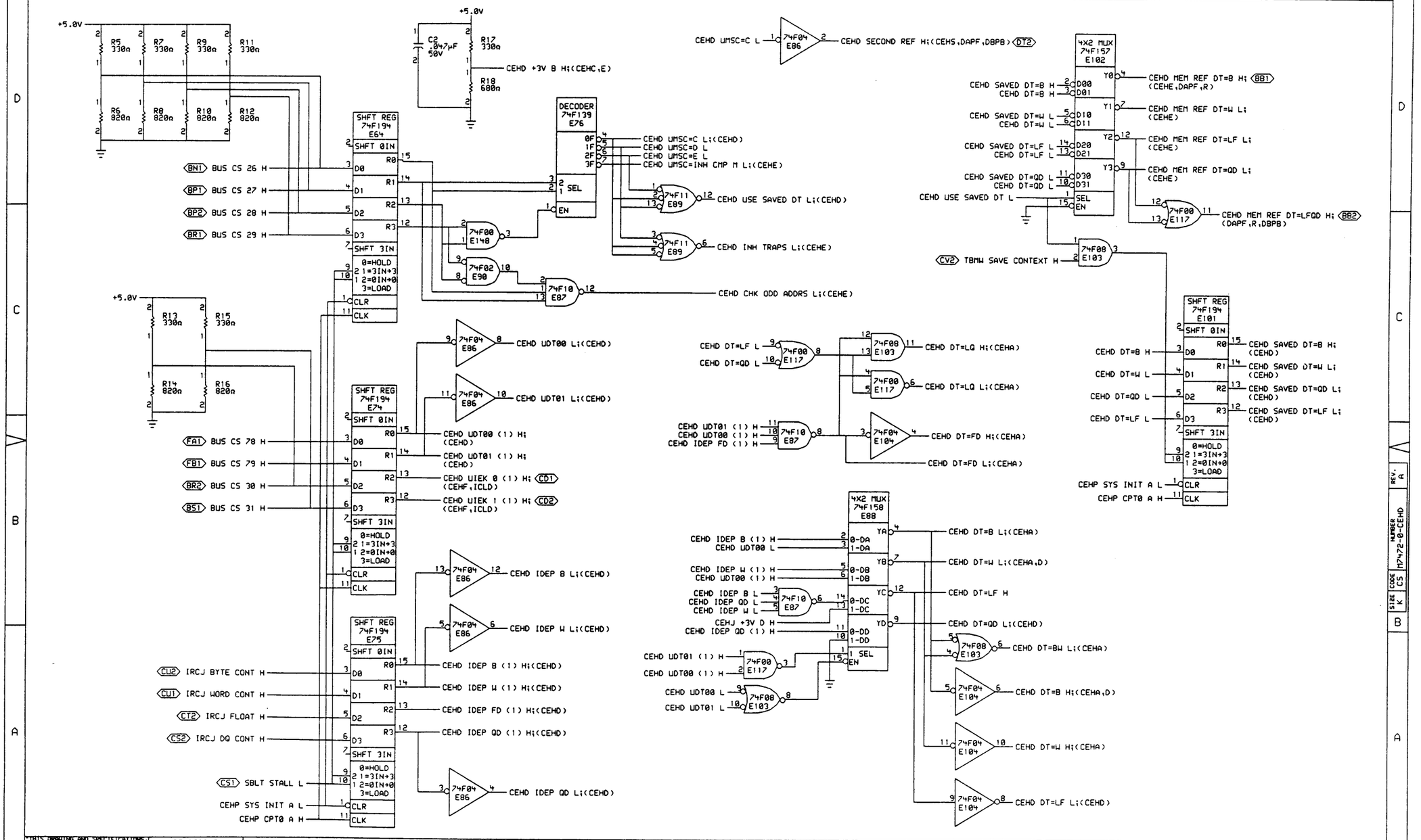
digital

DRN. [illegible] DATE 14-SEP-83 ENG. [illegible] DATE
CHK'D. DATE BOARD LOCATION: AF14 SHEET 1 OF

DSKB:<TAYLOR>CEHC.DRW 06-SEP-83 10:02 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7472-0-0

TITLE: CEH

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHC	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN.	DATE 14-SEP-83	ENG.	DATE	TITLE: CEH
	CHK'D.	DATE	BOARD LOCATION: AF14		
			SHEET 1 OF 1		
DSKB:<TAYLOR>CEHD.DRW 06-SEP-83 09:09	NEXT HIGHER ASSEMBLY:		SIZE K	CODE CS	NUMBER M7472-0-CEHD REV. A
FIRST USED ON OPTION/MODEL: 117785	B-DD-M7472-0-0				

SIZE K | CODE CS | NUMBER M7472-0-CEHE | REV. A

DP1 TBMW EN CMODDADRS H
CEHR VA00 H
74F20 E122
CEHE CMODDADRS TRAP L; (CEHE,TBMW,Y) DF2

CEHD MEM REF DT=B H
74F00 E105
CEHD CHK ODD ADDRS L

CEHD UMSC=INH CMP M L
CEHH PSL CMP (1) H
DE2 ICLF CNSL CMD M L
74F11 E89
CEHE CMP MODE H;(CEHE)

DE1 DOPS FLOAT N ZERO H
74F08 E155
CEHF CHK FLOAT OP H
74F02 E90
CEHE FLOAT OP TRAP L; (CEHE)

CEHD +3V B H
CEHE FOP LATCH (1) H
CEHP CPT3 C H
74F04 E128
74S112 E113

DS2 USCB CLR UTRAP L
CEHP SYS INIT A L
74F00 E155

PRI ENC 74148 E84
ANT EN OUT
DEF- AULT =7
Q4 Q2 Q1
D0 MIN
D1 D2 D3 D4 D5 D6 D7 MAX
EN

CEHD +3V B H
DJ2 SBLR RDS TRAP L
DH2 SBLM TIMEOUT TRAP L
CEHE CMODDADRS TRAP L
CEHE CS PE TRAP L

CEHD +3V B H
CEHE UNALIGN TRAP L
CEHP CPT3 A H
CEHP SYS INIT B L
74F74 E80
CEHE DATA ALIGNED (1) H; (USCP) DS1

DS2 USCB CLR UTRAP L
74F04 E128

74F02 E90
CEHE UTRAP L;(USCB) DR2

74F10 E85

4X2 MUX 74F158 E83
YA YB YC YD
0-DA 1-DA
0-DB 1-DB
0-DC 1-DC
0-DD 1-DD
SEL EN

CEHD +3V B H
74F00 E105
SBLP PAR ERR TRAP L CP2

SHFT REG 74F194 E82
SHFT 0IN
D0 D1 D2 D3
R0 R1 R2 R3
CEHE UTRAP VECT 0 H; (USCN,S) CH2
CEHE UTRAP VECT 1 H; (USCN,T) CH1
CEHE UTRAP VECT 2 H; (USCN,T) CK2
CEHE UTRAP VECT 3 H; (USCN,T) CK1
SHFT 3IN
0=HOLD 1=3IN+3 2=0IN+0 3=LOAD
CLR
CLK
CEHD +3V B H
CEHP SYS INIT A L
CEHP CPT0 B H

CEHE FLOAT OP TRAP L
DN1 TBMW MISS UTRAP L
DP3 TBMW TB PAR UTRAP L
DM1 TBMW PROT UTRAP L
DR1 TBMW MBIT UTRAP L
74F04 E100
74F64 E131
74F64 E115
74F64 E130

DB1 TBMW PAGE EDGE H
CEHD INH TRAPS L
DB2 TBMW EN UNALIGN TRAP H
74F00 E120

CEHR VA02 L
74F04 E91
74F08 E106
74F10 E107
CEHR VA00 H
CEHR VA01 H
CEHR VA00 L
CEHR VA01 L
74F00 E105

CEHD MEM REF DT=LF L
CEHD MEM REF DT=QD L
CEHD MEM REF DT=W L

2X4 MUX 74F153 E121
YA YB
0-DA 1-DA 2-DA 3-DA
0-DB 1-DB 2-DB 3-DB
EN
SEL

74F04 E128
CEHE PAGE TRAP H; (TBMW,Y) DA1
CEHE UNALIGN TRAP L; (CEHE)
74F10 E85
CEHD +3V B H

4 D FF 74F175 E136
R0 R1 R2 R3
D0 D1 D2 D3
CLR CLK

CEHE CMP MODE H
CEHE CMP MODE (1) L;(CEHP)
CJ2 PCSC PAR ERR (31:00) H
EU2 PCSC PAR ERR (63:32) H
FL2 PCSC PAR ERR (95:64) H
CEHP CPT1 A H
74F20 E122
CEHE CS PE TRAP H; (CEHS,USCF) CP1

CEHP SYS INIT A L
AB2 CIBN ROM NOP L
74F08 E106
74F10 E107
DS2 USCB CLR UTRAP L
CEHE CS PE TRAP L; (CEHE)

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REVISIONS

CHK	CHANGE NO.	REV

digital

DRN. D. Tarsky | DATE 14-SEP-83 | ENG. | DATE | TITLE: CEH
CHK D. | DATE | BOARD LOCATION: AF14 | SHEET 1 OF 1
DSKB:<TAYLOR>CEHE.DRW 06-SEP-83 09:09 | NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0
FIRST USED ON OPTION/MODEL: 11/785

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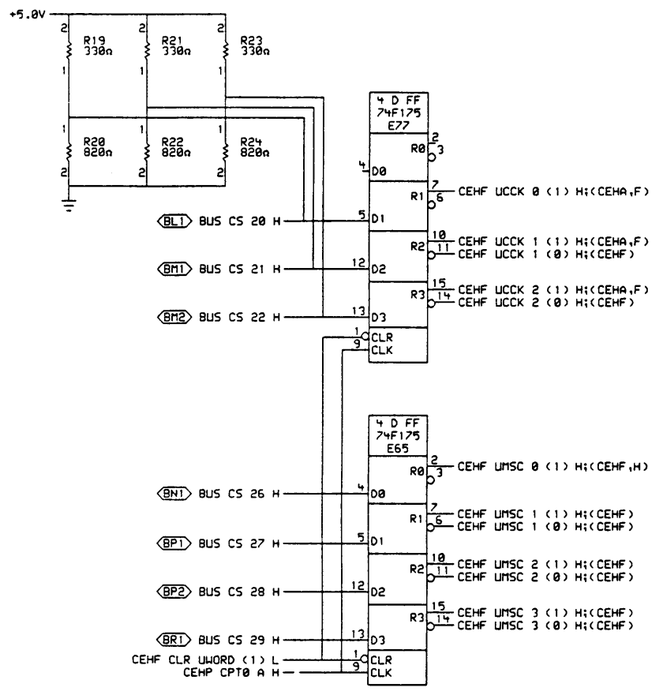

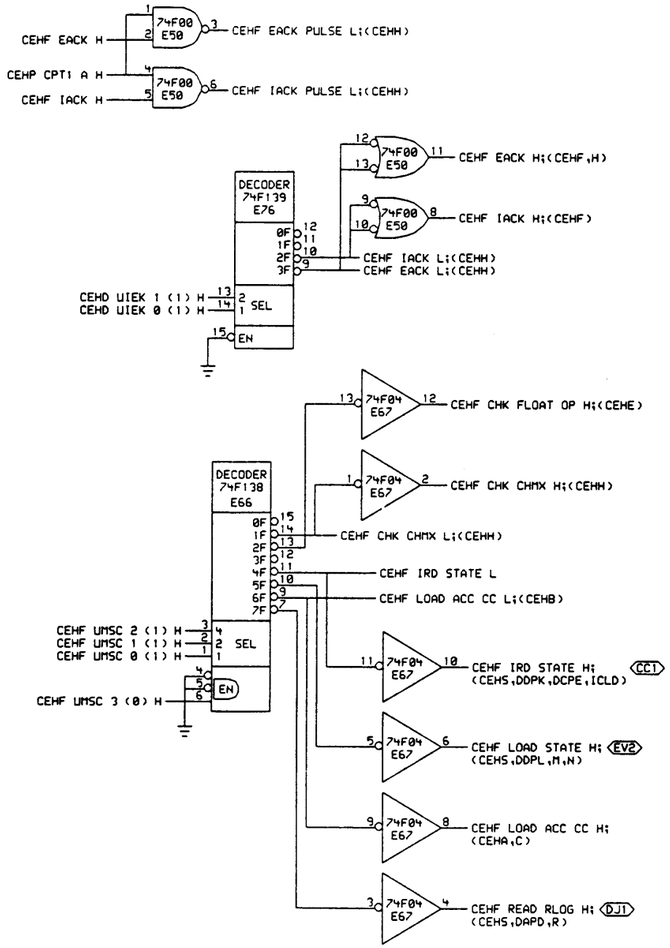

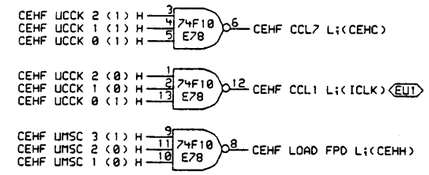

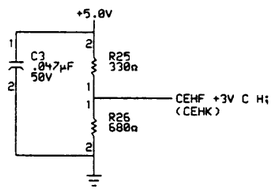

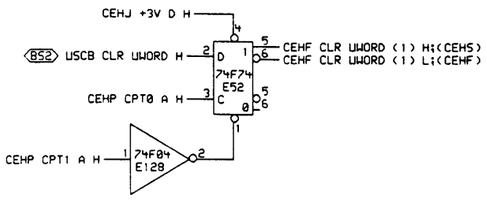

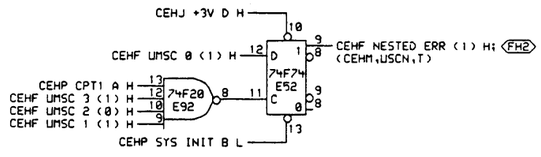

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REVISIONS		
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			SHEET 1 OF 1		
DSKB:<TAYLOR>CEHF.DRW 06-SEP-83 09:09			NEXT HIGHER ASSEMBLY:		
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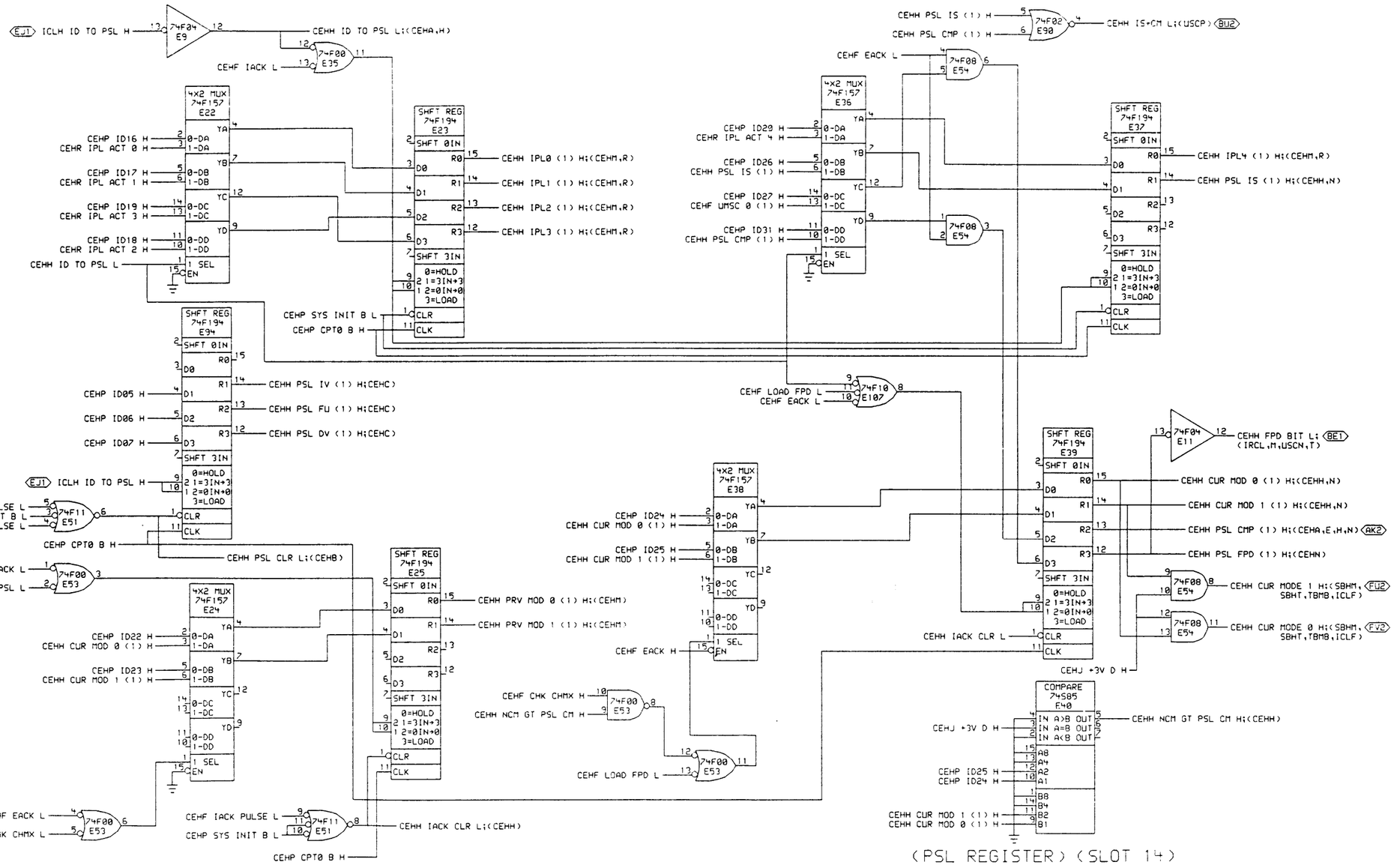

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CHK	CHANGE NO.	REV
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DRN. T. Gormley	DATE 14-SEP-83	ENG. [illegible]	DATE
CHK'D.	DATE	BOARD LOCATION: AF14	
		SHEET 1 OF 1	

TITLE: CEH

DSKB:<TAYLOR>CEHH.DRW 05-SEP-83 09:10 | NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0

FIRST USED ON OPTION/MODEL: 11/785

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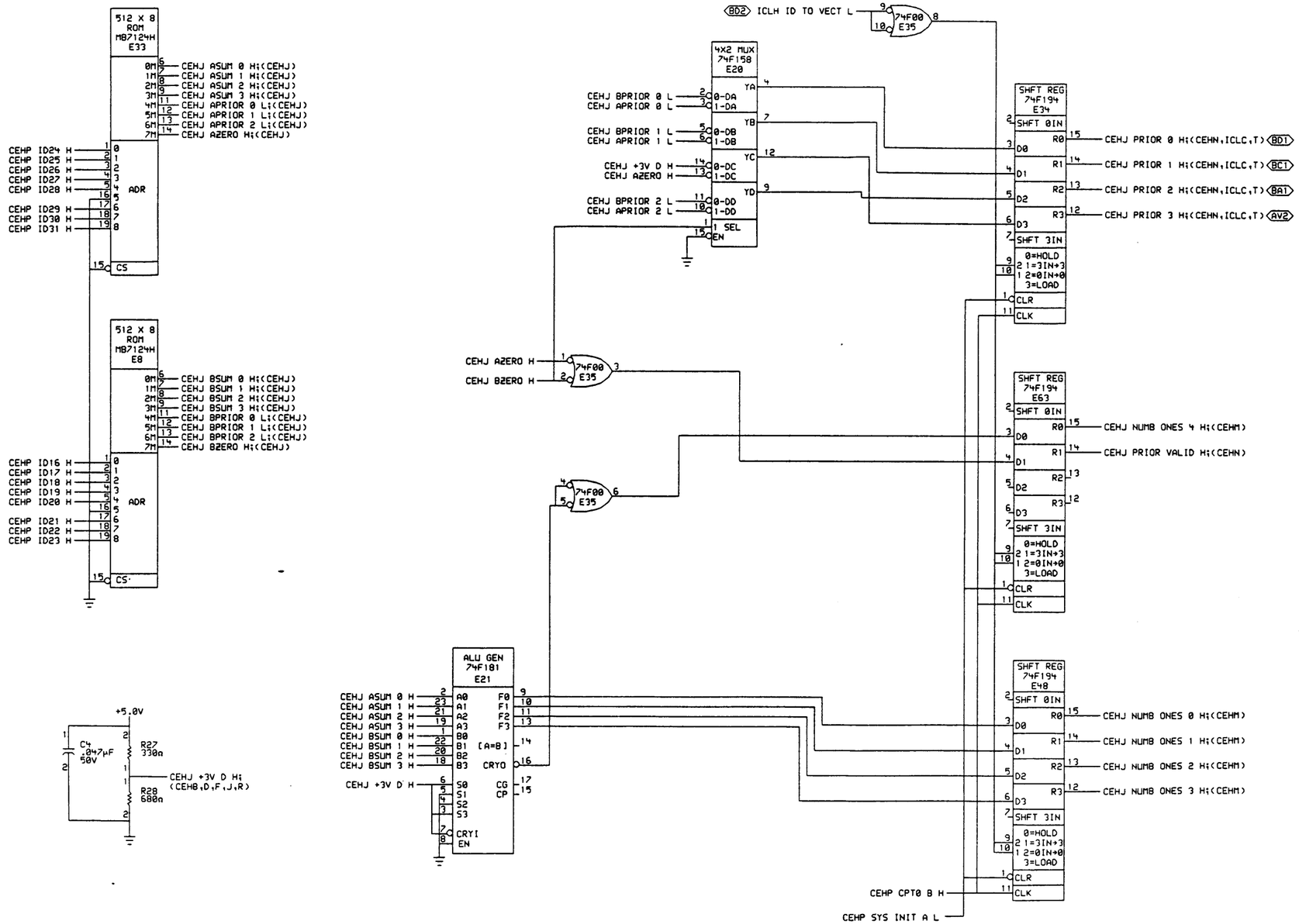

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DRN. JPBoyle DATE 14-SEP-83 ENG. DATE TITLE: CEH

CHK'D. DATE BOARD LOCATION: AF14 SHEET 1 OF 1

DSKB:<TAYLOR>CEHJ.DRW 06-SEP-83 09:10 NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0

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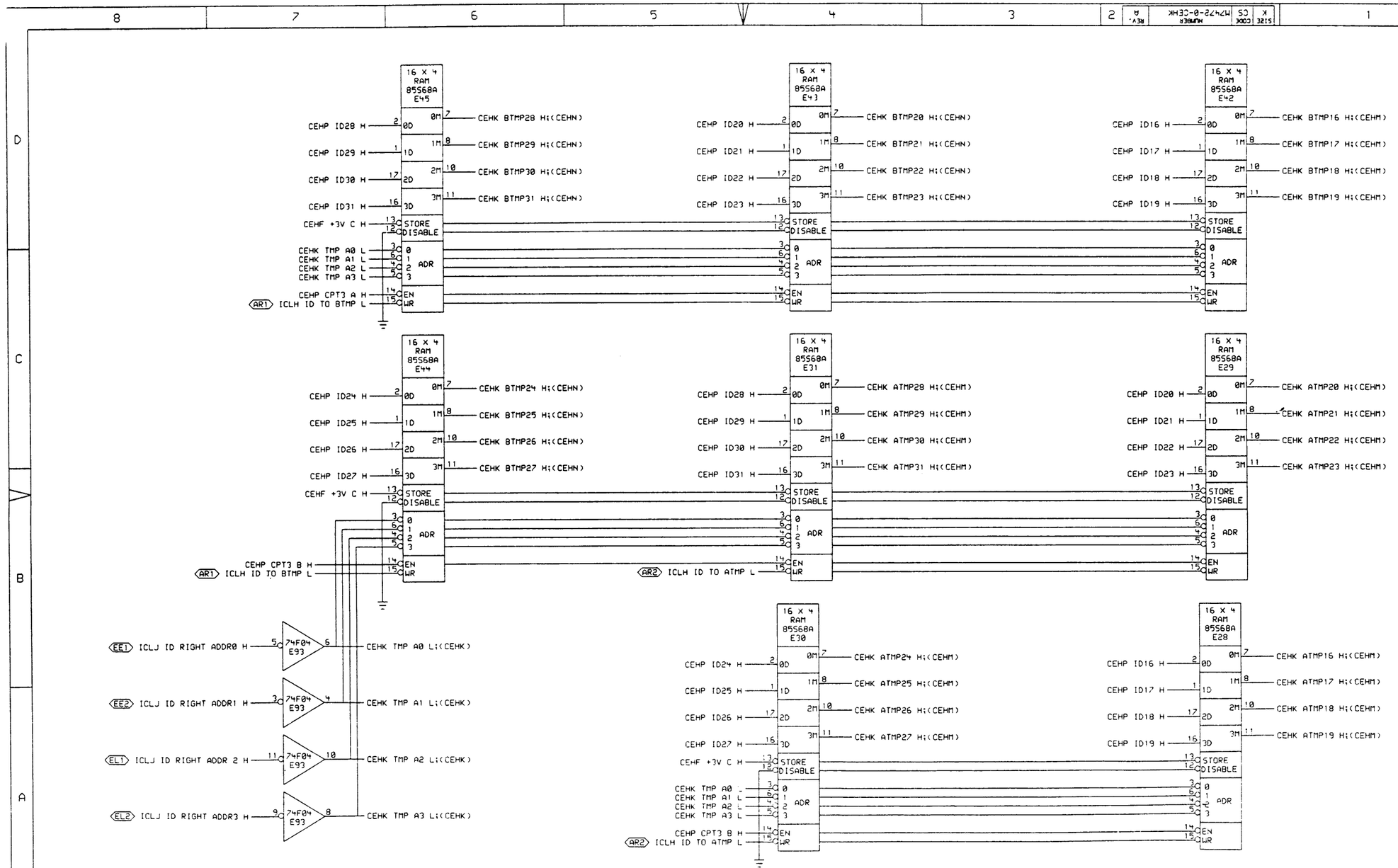

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REVISIONS		
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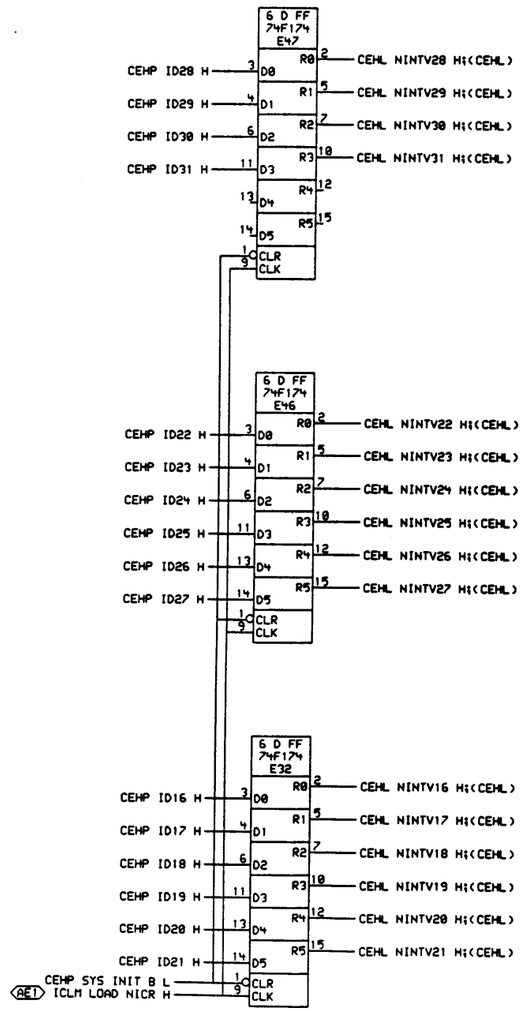

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DRN.	DATE 14-SEP-83	ENG.	DATE
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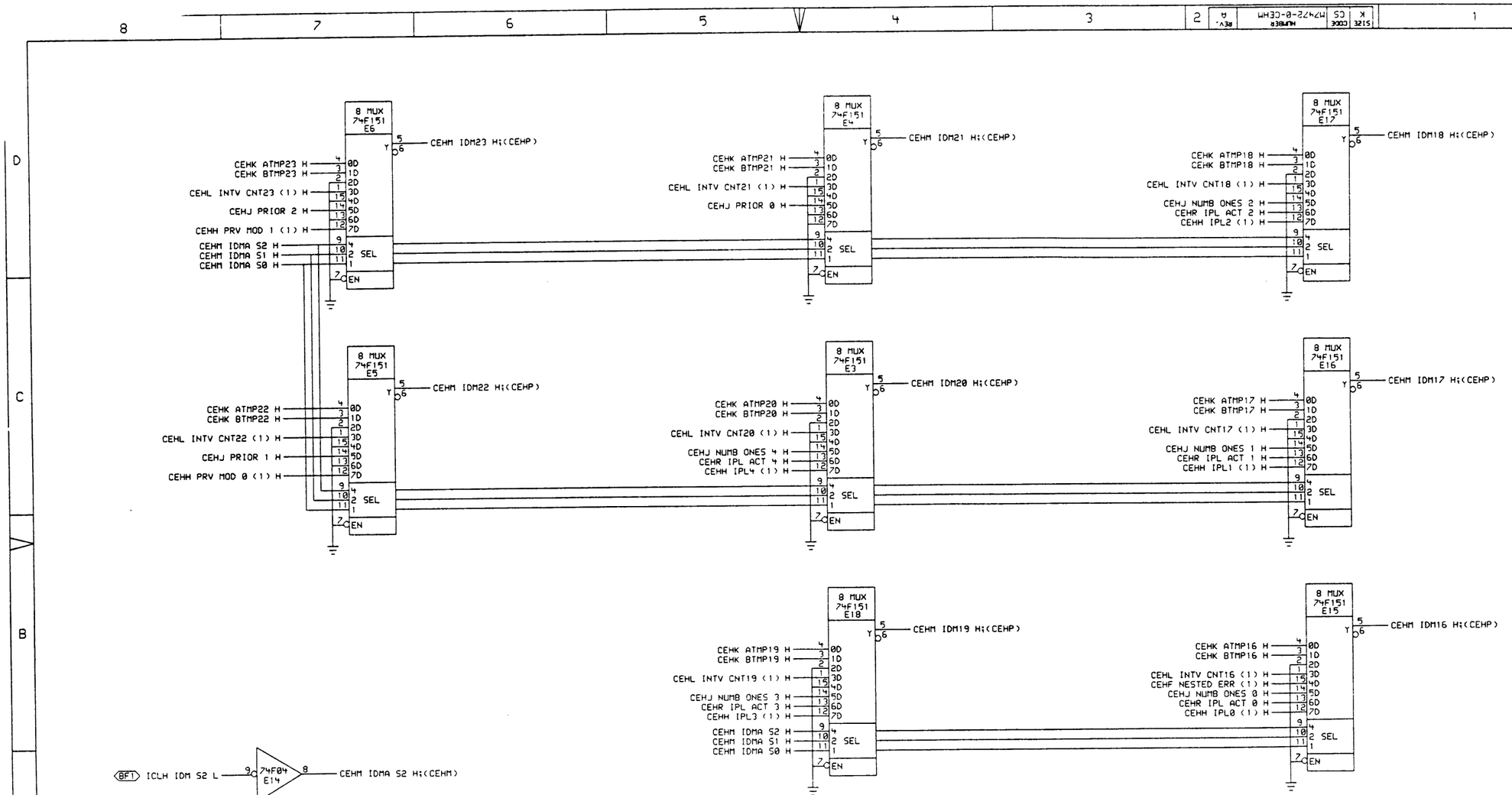

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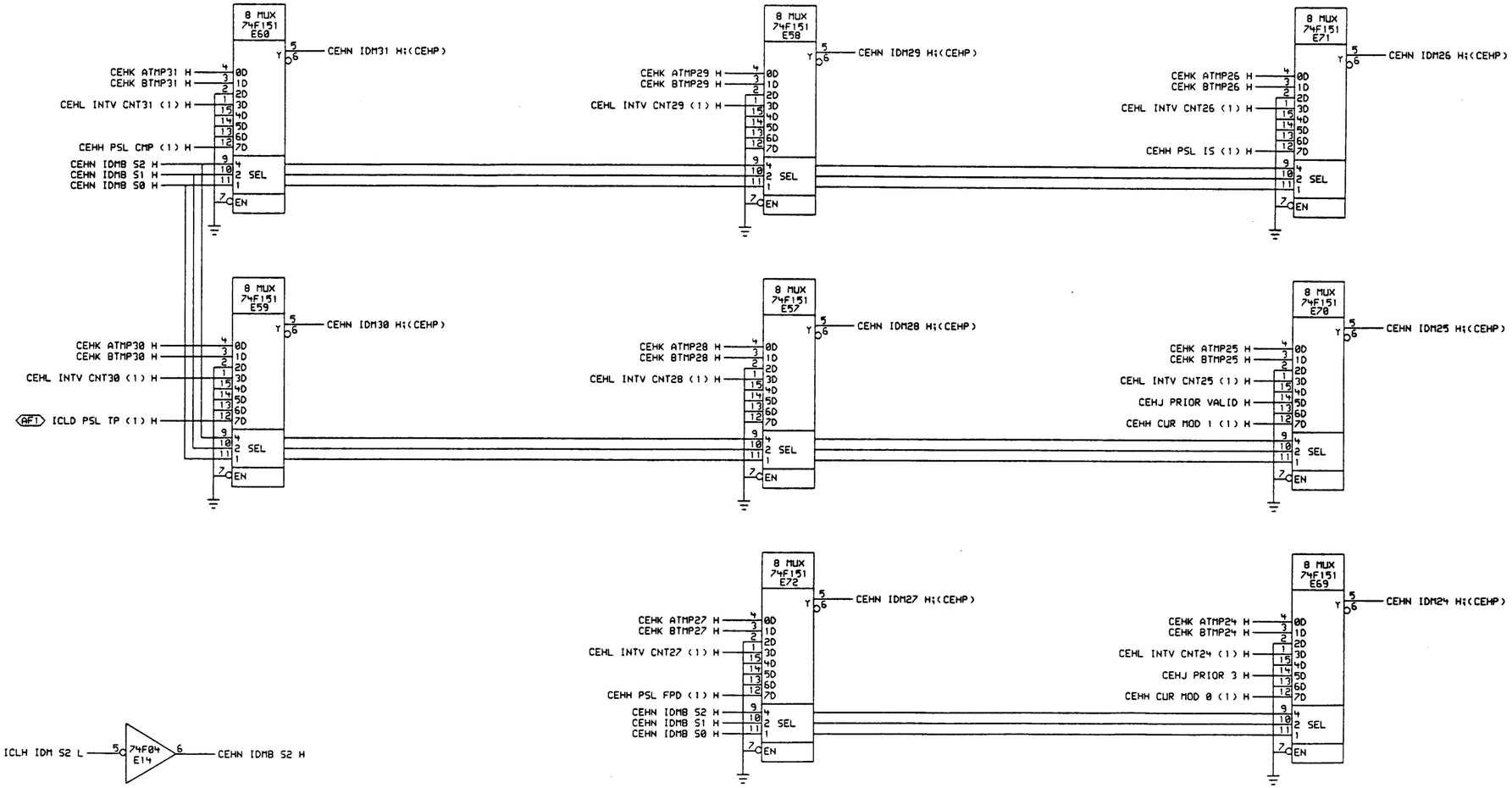

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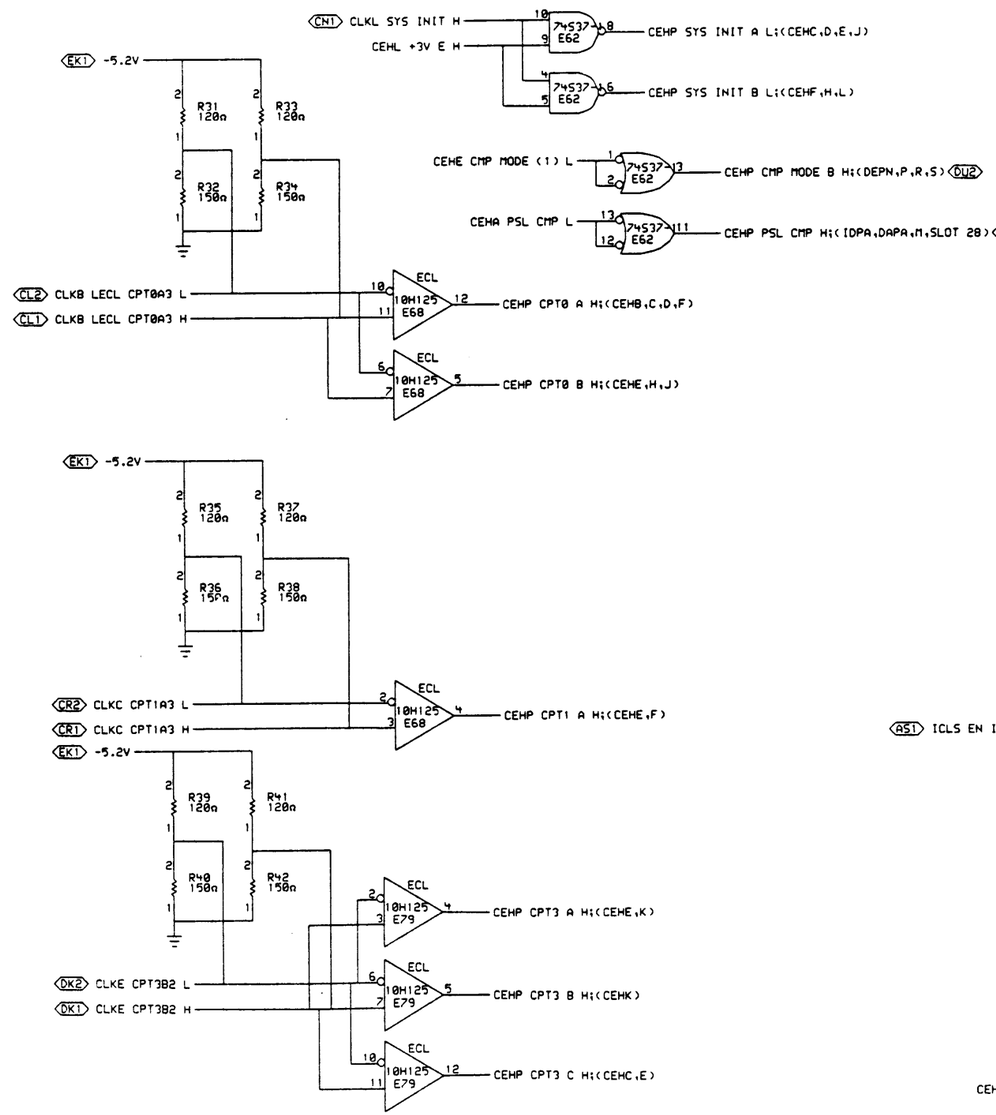

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CHK	CHANGE NO.	REV

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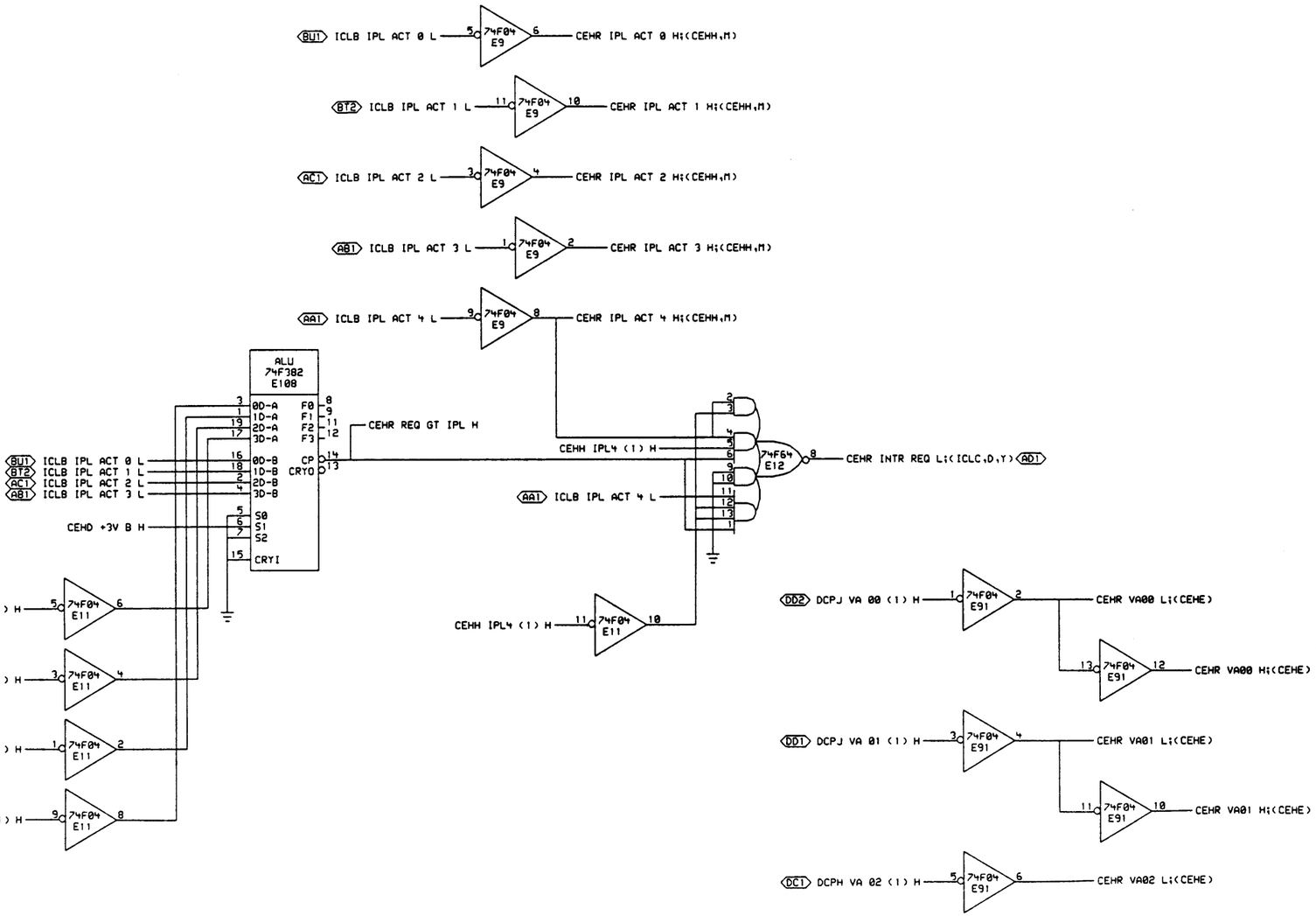

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CHK	CHANGE NO.	REV

DRN.	DATE 26-SEP-83	ENG.	DATE	TITLE:	CEH
CHK'D.	DATE	BOARD LOCATION: AF14			
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DSKC:<MISKA>CEHR.DRW 26-SEP-83 13:49		NEXT HIGHER ASSEMBLY:		SIZE K	CODE CS
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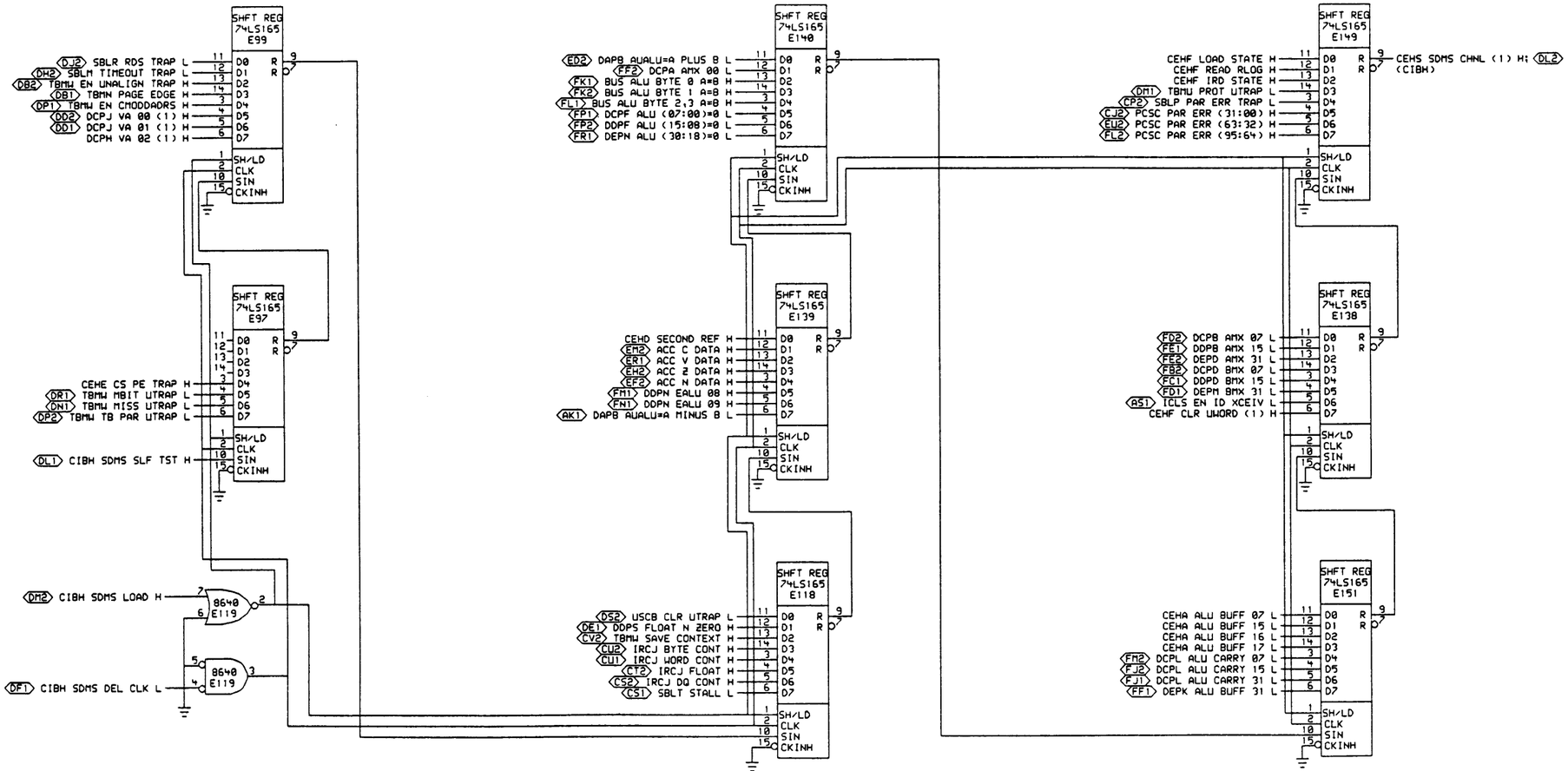

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REVISIONS		
CHK	CHANGE NO.	REV

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DRN.	DATE 14-SEP-83	ENG. [illegible]	DATE [illegible]
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		SHEET 1 OF 1	

TITLE: CEH

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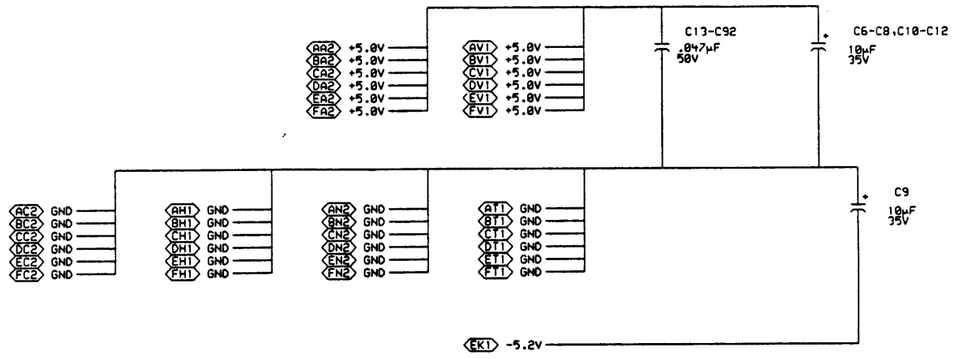

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CHK D. DATE
ENG. Paul Lin DATE
BOARD LOCATION:
SHEET 1 OF 1
DSKB:<TAYLOR>CEHT.DRW 12-SEP-83 16:22
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0

TITLE: CEH POWER,GROUND

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MISKA, DSKB:<TAYLOR>CEHT.DPL.1, SCALE 2, "D" RELEASE BOX

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-ICLH IDM S1 H	CEHN,M
-ICLH IDM S2 H	CEHN,M
-ICLM LOAD ICR H	CEHL
-ICLS EN ID XCEIV H	CEHP,S
-SBLM TIMEOUT TRAP H	CEHE,S
-SBLP PAR ERR TRAP H	CEHE,S
-SBLR RDS TRAP H	CEHE,S
-SBLT STALL H	CEHD,S
-TBMU PROT UTRAP H	CEHE,S
-TBMW MBIT UTRAP H	CEHS,E
-TBMW MISS UTRAP H	CEHS,E
-TBMW TB PAR UTRAP H	CEHS,E
-USCB CLR UTRAP H	CEHE,S
ACC C DATA H	CEHC,S
ACC N DATA H	CEHC,S
ACC V DATA H	CEHC,S
ACC Z DATA H	CEHC,S
BUS ALU BYTE 0 A=B H	CEHS,A
BUS ALU BYTE 1 A=B H	CEHS,A
BUS ALU BYTE 2,3 A=B H	CEHS,A
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BUS CS 21 H	CEHF
BUS CS 22 H	CEHF
BUS CS 26 H	CEHD,F
BUS CS 27 H	CEHD,F
BUS CS 28 H	CEHD,F
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BUS ID D30 L	CEHP
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CEHA ALU A=B L	CEHB,A
CEHA ALU BUFF 07 L	CEHA,S
CEHA ALU BUFF 15 L	CEHA,S
CEHA ALU BUFF 16 L	CEHA,S
CEHA ALU BUFF 17 L	CEHA,S
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CEHB PSL C (0)H	CEHB,C
CEHB PSL C (1)H	CEHB,C
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CEHC V DATA 2 L	CEHC
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CEHD CHK ODD ADDRS L	CEHD,E
CEHD DT=B H	CEHD,A
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CEHD DT=LQ L	CEHA,D

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRW. Doonby DATE 22-SEP-83
CHK D. DATE
ENG. Paul L... DATE ...
BOARD LOCATION: AF14
SHEET 1 OF 1
DSKC:<MISKA>CEHU.DRW 19-SEP-83 14:35
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0

TITLE: CEH FORWARD REFERENCE

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CEHD IDEP QD (1)H	CEHD
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CEHD IDEP W (1)H	CEHD
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CEHD MEM REF DT=B H	CEHD,E
CEHD MEM REF DT=LF L	CEHD,E
CEHD MEM REF DT=LFQD H	CEHD
CEHD MEM REF DT=QD L	CEHD,E
CEHD MEM REF DT=W L	CEHD,E
CEHD SAVED DT=B H	CEHD
CEHD SAVED DT=LF L	CEHD
CEHD SAVED DT=QD L	CEHD
CEHD SAVED DT=W L	CEHD
CEHD SECOND REF H	CEHD,S
CEHD UDT00 (1)H	CEHD
CEHD UDT00 L	CEHD
CEHD UDT01 (1)H	CEHD
CEHD UDT01 L	CEHD
CEHD UIEK 0 (1)H	CEHD,F
CEHD UIEK 1 (1)H	CEHD,F
CEHD UMSC=C L	CEHD
CEHD UMSC=D L	CEHD
CEHD UMSC=E L	CEHD
CEHD UMSC=INH CMP M L	CEHD,E
CEHD USE SAVED DT L	CEHD
CEHE CMODDADRS TRAP L	CEHE
CEHE CMP MODE (0)H	CEHP,E
CEHE CMP MODE H	CEHE
CEHE CS PE TRAP H	CEHS,E
CEHE CS PE TRAP L	CEHE
CEHE DATA ALIGNED (1)H	CEHE
CEHE FLOAT OP TRAP L	CEHE
CEHE FOP LATCH (1)H	CEHE
CEHE PAGE TRAP H	CEHE
CEHE UNALIGN TRAP L	CEHE
CEHE UTRAP L	CEHE
CEHE UTRAP VECT 0 H	CEHE
CEHE UTRAP VECT 1 H	CEHE
CEHE UTRAP VECT 2 H	CEHE
CEHE UTRAP VECT 3 H	CEHE
CEHF +3V C H	CEHK,F
CEHF CCL1 L	CEHF
CEHF CCL7 L	CEHF,C

SIGNAL NAME	PAGE NUMBER(S)
CEHF CHK CHMX H	CEHH,F
CEHF CHK CHMX L	CEHH,F
CEHF CHK FLOAT OP H	CEHF,E
CEHF CLR UWORD (0)H	CEHF
CEHF CLR UWORD (1)H	CEHF,S
CEHF EACK H	CEHH,F
CEHF EACK L	CEHF,H
CEHF EACK PULSE L	CEHF,H
CEHF IACK H	CEHF
CEHF IACK L	CEHH,F
CEHF IACK PULSE L	CEHF,H
CEHF IRD STATE H	CEHF,S
CEHF IRD STATE L	CEHF
CEHF LOAD ACC CC H	CEHF,A,C
CEHF LOAD ACC CC L	CEHF,B
CEHF LOAD FPD L	CEHH,F
CEHF LOAD STATE H	CEHF,S
CEHF NESTED ERR (1)H	CEHM,F
CEHF READ RLOG H	CEHF,S
CEHF UCCK 0 (1)H	CEHF,A
CEHF UCCK 1 (0)H	CEHF
CEHF UCCK 1 (1)H	CEHF,A
CEHF UCCK 2 (0)H	CEHF
CEHF UCCK 2 (1)H	CEHF,A
CEHF UMSC 0 (1)H	CEHH,F
CEHF UMSC 1 (0)H	CEHF
CEHF UMSC 1 (1)H	CEHF
CEHF UMSC 2 (0)H	CEHF
CEHF UMSC 2 (1)H	CEHF
CEHF UMSC 3 (0)H	CEHF
CEHF UMSC 3 (1)H	CEHF
CEHH CUR MOD 0 (1)H	CEHH,N
CEHH CUR MOD 1 (1)H	CEHH,N
CEHH CUR MODE 0 H	CEHH
CEHH CUR MODE 1 H	CEHH
CEHH FPD BIT L	CEHH
CEHH IACK CLR L	CEHH
CEHH ID TO PSL L	CEHH,A
CEHH IPL0 (1)H	CEHR,M,H
CEHH IPL1 (1)H	CEHR,M,H
CEHH IPL2 (1)H	CEHR,M,H
CEHH IPL3 (1)H	CEHR,M,H
CEHH IPL4 (1)H	CEHM,R,H
CEHH IS+CM L	CEHH
CEHH NCM GT PSL CM H	CEHH
CEHH PRV MOD 0 (1)H	CEHM,H
CEHH PRV MOD 1 (1)H	CEHM,H
CEHH PSL CLR L	CEHH,B
CEHH PSL CMP (1)H	CEHH,N,E,A
CEHH PSL DV (1)H	CEHH,C

SIGNAL NAME	PAGE NUMBER(S)
CEHH PSL FPD (1)H	CEHH,N
CEHH PSL FU (1)H	CEHH,C
CEHH PSL IS (1)H	CEHH,N
CEHH PSL IV (1)H	CEHH,C
CEHJ +3V D H	CEHJ,H,F,D,B
CEHJ APRIOR 0 L	CEHJ
CEHJ APRIOR 1 L	CEHJ
CEHJ APRIOR 2 L	CEHJ
CEHJ ASUM 0 H	CEHJ
CEHJ ASUM 1 H	CEHJ
CEHJ ASUM 2 H	CEHJ
CEHJ ASUM 3 H	CEHJ
CEHJ AZERO H	CEHJ
CEHJ BPRIOR 0 L	CEHJ
CEHJ BPRIOR 1 L	CEHJ
CEHJ BPRIOR 2 L	CEHJ
CEHJ BSUM 0 H	CEHJ
CEHJ BSUM 1 H	CEHJ
CEHJ BSUM 2 H	CEHJ
CEHJ BSUM 3 H	CEHJ
CEHJ BZERO H	CEHJ
CEHJ NUMB ONES 0 H	CEHM,J
CEHJ NUMB ONES 1 H	CEHM,J
CEHJ NUMB ONES 2 H	CEHM,J
CEHJ NUMB ONES 3 H	CEHM,J
CEHJ NUMB ONES 4 H	CEHM,J
CEHJ PRIOR 0 H	CEHM,J
CEHJ PRIOR 1 H	CEHM,J
CEHJ PRIOR 2 H	CEHM,J
CEHJ PRIOR 3 H	CEHJ,N
CEHJ PRIOR VALID H	CEHJ,N
CEHK ATMP16 H	CEHM,K
CEHK ATMP17 H	CEHM,K
CEHK ATMP18 H	CEHM,K
CEHK ATMP19 H	CEHM,K
CEHK ATMP20 H	CEHM,K
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CEHK ATMP25 H	CEHK,N
CEHK ATMP26 H	CEHK,N
CEHK ATMP27 H	CEHK,N
CEHK ATMP28 H	CEHK,N
CEHK ATMP29 H	CEHK,N
CEHK ATMP30 H	CEHK,N
CEHK ATMP31 H	CEHK,N
CEHK BTMP16 H	CEHM,K
CEHK BTMP17 H	CEHM,K
CEHK BTMP18 H	CEHM,K

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J. Doody DATE 22-SEP-83
CHK D. DATE
ENG. [illegible] DATE
BOARD LOCATION: AF14
SHEET 1 OF 1
DSKC:<MISKA>CEHV.DRW 19-SEP-83 14:35
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7472-0-0

TITLE: CEH FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHV	A

SIGNAL NAME	PAGE NUMBER(S)
CEHK BTMP19 H	CEHM,K
CEHK BTMP20 H	CEHM,K
CEHK BTMP21 H	CEHM,K
CEHK BTMP22 H	CEHM,K
CEHK BTMP23 H	CEHM,K
CEHK BTMP24 H	CEHK,N
CEHK BTMP25 H	CEHK,N
CEHK BTMP26 H	CEHK,N
CEHK BTMP27 H	CEHK,N
CEHK BTMP28 H	CEHK,N
CEHK BTMP29 H	CEHK,N
CEHK BTMP30 H	CEHK,N
CEHK BTMP31 H	CEHK,N
CEHK TMP A0 L	CEHK
CEHK TMP A1 L	CEHK
CEHK TMP A2 L	CEHK
CEHK TMP A3 L	CEHK
CEHL +3V E H	CEHL,P
CEHL EN T<27:24> H	CEHL
CEHL INTV CNT OFLO H	CEHL
CEHL INTV CNT16 <1>H	CEHM,L
CEHL INTV CNT17 <1>H	CEHM,L
CEHL INTV CNT18 <1>H	CEHM,L
CEHL INTV CNT19 <1>H	CEHM,L
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CEHL INTV CNT25 <1>H	CEHN,L
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CEHL INTV CNT29 <1>H	CEHN,L
CEHL INTV CNT30 <1>H	CEHN,L
CEHL INTV CNT31 <1>H	CEHN,L
CEHL NINTV16 H	CEHL
CEHL NINTV17 H	CEHL
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CEHL NINTV29 H	CEHL

SIGNAL NAME	PAGE NUMBER(S)
CEHL NINTV30 H	CEHL
CEHL NINTV31 H	CEHL
CEHM IDM16 H	CEHP,M
CEHM IDM17 H	CEHP,M
CEHM IDM18 H	CEHP,M
CEHM IDM19 H	CEHP,M
CEHM IDM20 H	CEHP,M
CEHM IDM21 H	CEHP,M
CEHM IDM22 H	CEHP,M
CEHM IDM23 H	CEHP,M
CEHM IDMA S0 H	CEHM
CEHM IDMA S1 H	CEHM
CEHM IDMA S2 H	CEHM
CEHN IDM24 H	CEHP,N
CEHN IDM25 H	CEHP,N
CEHN IDM26 H	CEHP,N
CEHN IDM27 H	CEHP,N
CEHN IDM28 H	CEHP,N
CEHN IDM29 H	CEHP,N
CEHN IDM30 H	CEHP,N
CEHN IDM31 H	CEHP,N
CEHN IDMB S0 H	CEHN
CEHN IDMB S1 H	CEHN
CEHN IDMB S2 H	CEHN
CEHP CMP MODE B H	CEHP
CEHP CPT0 A H	CEHF,D,P,C,B
CEHP CPT0 B H	CEHH,J,P,E
CEHP CPT1 A H	CEHF,P,E
CEHP CPT3 A H	CEHK,P,E
CEHP CPT3 B H	CEHK,P
CEHP CPT3 C H	CEHP,C,E
CEHP ID00 H	CEHP,B
CEHP ID01 H	CEHP,C
CEHP ID02 H	CEHP,B
CEHP ID03 H	CEHP,B
CEHP ID04 H	CEHP,C
CEHP ID05 H	CEHP,C,H
CEHP ID06 H	CEHP,C,H
CEHP ID07 H	CEHP,H
CEHP ID16 H	CEHP,J,H,K,L
CEHP ID17 H	CEHP,J,H,K,L
CEHP ID18 H	CEHP,J,H,K,L
CEHP ID19 H	CEHP,J,H,K,L
CEHP ID20 H	CEHP,J,K,L,H
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CEHP ID25 H	CEHP,K,J,H,L
CEHP ID26 H	CEHP,K,J,H,L

SIGNAL NAME	PAGE NUMBER(S)
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CEHP ID28 H	CEHP,K,J,L
CEHP ID29 H	CEHP,K,J,L
CEHP ID30 H	CEHP,K,J,L
CEHP ID31 H	CEHP,K,J,H,L
CEHP PSL CMP H	CEHP
CEHP SYS INIT A L	CEHJ,P,D,E,C
CEHP SYS INIT B L	CEHL,H,F,P,E
CEHR INTR REQ L	CEHR
CEHR IPL ACT 0 H	CEHR,M,H
CEHR IPL ACT 1 H	CEHR,M,H
CEHR IPL ACT 2 H	CEHR,M,H
CEHR IPL ACT 3 H	CEHR,M,H
CEHR IPL ACT 4 H	CEHM,R,H
CEHR REQ GT IPL H	CEHR
CEHR VA00 H	CEHR,E
CEHR VA00 L	CEHR,E
CEHR VA01 H	CEHR,E
CEHR VA01 L	CEHR,E
CEHR VA02 L	CEHR,E
CEHS SDMS CHNL <1>H	CEHS
CIBH SDMS DEL CLK L	CEHS
CIBH SDMS LOAD H	CEHS
CIBH SDMS SLF TST H	CEHS
CIBN ROM NOP L	CEHE
CLKB LECL CPT0A3 H	CEHP
CLKB LECL CPT0A3 L	CEHP
CLKC CPT1A3 H	CEHP
CLKC CPT1A3 L	CEHP
CLKE CPT3B2 H	CEHP
CLKE CPT3B2 L	CEHP
CLKL SYS INIT H	CEHP
DAPB AUALU=A MINUS B L	CEHS,B
DAPB AUALU=A PLUS B L	CEHB,S
DCPA AMX 00 L	CEHS,B
DCPB AMX 07 L	CEHA,S
DCPD BMX 07 L	CEHA,S
DCPF ALU <07:00>=0 L	CEHS,A
DCPH VA 02 <1>H	CEHR,S
DCPJ VA 00 <1>H	CEHR,S
DCPJ VA 01 <1>H	CEHR,S
DCPL ALU CARRY 07 L	CEHA,S
DCPL ALU CARRY 15 L	CEHA,S
DCPL ALU CARRY 31 L	CEHA,S
DDPB AMX 15 L	CEHA,S
DDPD BMX 15 L	CEHA,S
DDPF ALU <15:08>=0 L	CEHS,A
DDPN EALU 08 H	CEHS,C
DDPN EALU 09 H	CEHS,C
DDPS FLOAT N ZERO H	CEHS,E

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REVISIONS		
CHK	CHANGE NO.	REV

DRN. [illegible] DATE 22-SEP-83 ENG. [illegible] DATE
CHK'D. DATE BOARD LOCATION: AF14
SHEET 1 OF 1
DSKC:<MISKA>CEHW.DRW 19-SEP-83 14:35 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7472-0-0

TITLE: CEH FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHW	A

SIGNAL NAME	PAGE NUMBER(S)
DEPA ALU 07 H	CEHA
DEPA ALU 15 H	CEHA
DEPA ALU 16 H	CEHA
DEPA ALU 17 H	CEHA
DEPD AMX 31 L	CEHA,S
DEPK ALU BUFF 31 L	CEHA,S
DEPM BMX 31 L	CEHA,S
DEPN ALU (30:18)=0 L	CEHS,A
ICLB IPL ACT 0 L	CEHR
ICLB IPL ACT 1 L	CEHR
ICLB IPL ACT 2 L	CEHR
ICLB IPL ACT 3 L	CEHR
ICLB IPL ACT 4 L	CEHR
ICLD PSL TP (1)H	CEHN
ICLF CNSL CMD M L	CEHE
ICLH ID TO ATMP L	CEHK
ICLH ID TO BTMP L	CEHK
ICLH ID TO CES L	CEHC
ICLH ID TO PSL H	CEHH,B,C
ICLH ID TO VECT L	CEHJ
ICLJ ID RIGHT ADDR 2 H	CEHK
ICLJ ID RIGHT ADDR0 H	CEHK
ICLJ ID RIGHT ADDR1 H	CEHK
ICLJ ID RIGHT ADDR3 H	CEHK
ICLM CLK ICR H	CEHL
ICLM LOAD NICR H	CEHL
ICLN EN T(19:16) H	CEHL
IRCF OPC 0 H	CEHA
IRCF OPC 1 H	CEHA
IRCF OPC 2 H	CEHA
IRCF OPC 3 H	CEHA
IRCF OPC 4 H	CEHA
IRCF OPC 5 H	CEHA
IRCF OPC 6 H	CEHA
IRCF OPC 7 H	CEHA
IRCJ BYTE CONT H	CEHD,S
IRCJ DQ CONT H	CEHD,S
IRCJ FLOAT H	CEHD,S
IRCJ WORD CONT H	CEHD,S
PCSC PAR ERR (31:00) H	CEHE,S
PCSC PAR ERR (63:32) H	CEHE,S
PCSC PAR ERR (95:64) H	CEHE,S
TBMN PAGE EDGE H	CEHS,E
TBMW EN CMODDADRS H	CEHS,E
TBMW EN UNALIGN TRAP H	CEHS,E
TBMW SAVE CONTEXT H	CEHD,S
USCB CLR UWORD H	CEHF

SIGNAL NAME	PAGE NUMBER(S)

SIGNAL NAME	PAGE NUMBER(S)

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REVISIONS		
CHK	CHANGE NO.	REV

DRW. S. Looney DATE 22-SEP-83 ENG. DATE
CHK D. DATE BOARD LOCATION: AF14
SHEET 1 OF 1
DSKC:<MISKA>CEHX.DRW 19-SEP-83 14:36 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7472-0-0

TITLE: CEH FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHX	A

SIZE	CODE	NUMBER	REV.
K	CS	M7472-0-CEHX	A

SIZE	CODE	NUMBER	REV.
B	DD	M7472-0-0	C

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
	—	M7472-00	CEH PART REVISION	A B B2
E-UA-M7472-0-0	2		UNIT ASSEMBLY	A B C
K-PL-M7472-0-DBP	2		PARTS LIST	A B C
K-PC-M7472-0-DBI	—		P.C. DESIGN DATA BASE	A A B
B-DD-5016099-0-0	1		DRAWING DIRECTORY	A B C
K-CS-M7472-0-CEHA	1		SCHEMATIC	A B B
K-CS-M7472-0-CEHB	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHC	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHD	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHE	1		SCHEMATIC	A B B
K-CS-M7472-0-CEHF	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHH	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHJ	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHK	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHL	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHM	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHN	1		SCHEMATIC	A A A
K-CS-M7472-0-CEHP	1		SCHEMATIC	A B B
K-CS-M7472-0-CEHR	1		SCHEMATIC	A B C
K-CS-M7472-0-CEHS	1		SCHEMATIC	A A A
K CS M7472-0-CEHT	1		SCHEMATIC	A A A
K CS M7472-0-CEHU	1		FORWARD REF	A A A
K CS M7472-0-CEHV	1		FORWARD REF	A A A
K CS M7472-0-CEHW	1		FORWARD REF	A A A
K CS M7472-0-CEHX	1		FORWARD REF	A A A
K CS M7472-0-DBS	—		SUDS DATA BASE	A B C

NOTES:

REVISIONS	REV.	CHG NO.	DATE
	A	INIT	9/83
	B	TW001	2/84
	C	TW002	4/84

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USED ON OPTION/MODEL		

DRN. S. Mack	9-13-83	TITLE CEH
CHK'D H. Glanfield	9-20-83	SIZE B CODE DD NUMBER M7472-0-0 REV. C
ENG. Project Eng	10-11-83	
PROJ. Mgr. Speak	10-11-83	SHEET 1 OF 1

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

TH2

1 38 39

E143 E129 E115 E103 E89 E75 E62 E51 E38 E26 E13
E142 E128 E114 E102 E88 E74 E61 E50 E37 E25 E12
E141 E127 E101 E87 E73 E60 E49 E36 E24 E11
E140 E126 E113 E100 E86 E72 E48 E35 E23 E10
E109 E125 E112 E99 E85 E71 E47 E34 E22 E9
E139 E124 E111 E98 E84 E70 E59 E46 E33 E21 E8
E138 E123 E110 E97 E83 E69 E58 E45 E32 E20 E7
E136 E122 E109 E96 E82 E68 E57 E44 E31 E19 E6
E135 E121 E108 E95 E81 E67 E56 E18 E5
E134 E120 E107 E94 E80 E66 E55 E43 E30 E4
E133 E119 E106 E93 E79 E65 E54 E42 E29 E17
E132 E118 E105 E92 E78 E64 E53 E41 E16 E3
E131 E117 E91 E77 E40 E28 E15 E2
E130 E116 E104 E90 E76 E63 E52 E39 E27 E14 E1

C6 C5 C4 C3 C2 C1

F E D C B A

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digital

TITLE ICI

SIZE E CODE U4 NUMBER M7473-0-0

SIGNATURES DATE
DRN
CHK
MECH. ENG.
PROJ. ENG.
PROD. ENG.

SCALE — OF
SHT
NEXT HIGHER ASSY.

ETCH REV.

CHANGE NO REV

NOTES
1. UL REQUIREMENT IS 1 PER
2. SPARE I/C LOCATIONS: E74 E86 E101
E130 E138

SIGNAL LAYERS 2 STEP — TIMES
POWER LAYERS 2 STEP — TIMES

E UA M7473-0-0 9

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REWORK INSTRUCTIONS PER ECO 1

WIRE ADDS SIDE 1
1-1 ADD 30 A.W.G. WIRE FROM PTH TO THE LEFT OF E117-1 TO PTH ABOVE AND A LITTLE TO THE RIGHT OF FF1.

REVISION HISTORY

DATE	ECO NUMBER	REV

TITLE: ICL

DOCUMENT NUMBER: SIZE E | CODE UA | M7473-0-0 | REV B

SCALE | SHEET 2 OF 2

SIZE B | CODE UA | M7473-0-0 | REV B

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION VARIATION REVISION LEVEL:	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5016100-0-0	5016100-01		ETCH CIRCUIT BOARD	1	
2	2		1012084-01		8 MFD 25V +75-10% AL EL	7	C1-C7
3	3		1012784-00		.047 MFD 50V +80-20% CER	92	C8-C99
4	4		1300247-00		120.0 .25 W 5.0 % CF	8	R15-R22
5	5		1300250-00		150.0 .25 W 5.0 % CF	8	R23-R30
6	6		1300295-00		330.0 .25 W 5.0 % CF	7	R1,R3,R5,R6,R7,R11,R13
7	7		1301424-00		680.0 .25 W 5.0 % CF	4	R2,R4,R12,R14
8	8		1301775-00		820.0 .25 W 5.0 % CF	3	R8,R9,R10
9	9		1921305-01		74F00 NAND GATE,QUAD,2-IN	6	E57,E58,E110,E115,E122,E128
10	10		1921307-01		74F04 HEX INVERTER	13	E14,E38,E53,E75,E83,E94,E97,
						CONT	E112,E119,E120,E125,E136,E143
11	11		1921308-01		74F08 AND GATE,QUAD,2-IN	2	E37,E141
12	12		1921309-01		74F10 NAND GATE,TRIPLE,3-I	5	E68,E98,E123,E129,E142
13	13		1921310-01		74F11 AND GATE,TRIPLE,3-IN	3	E101,E109,E127
14	14		1921311-01		74F20 NAND GATE,DUAL,4-IN	1	E108
15	15		1912746-01		74S37-1BUFFER-GATE	2	E35,E71
16	16		1911712-00		74S51 AND-OR GATE-INVERT D	4	E51,E74,E126,E140
17	17		1921313-01		74F64 AND OR INVERT GATE,4-	4	E26,E62,E36,E121
18	18		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	5	E25,E50,E99,E100,E106
19	19		1922192-01		74F382 4-BIT ARITHMETIC LOGIC UN	1	E95
20	20		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	2	E13,E113
21	21		1921316-01		74F138 DECODER/DEMUX,1-OF-8	2	E89,E114
22	22		1921317-01		74F139 DECODER,DUAL,1-OF-4	1	E96
23	23		1912796-00		74148 ENCODER,PRIORITY,8 T	4	E32,E49,E73,E88
24	24		1921318-01		74F151 MUX,8-IN	17	E1-E7,E15,E28,E29,E31,E44,E45,
						CONT	E46,E54,E55,E135
25	25		1921319-01		74F153 MUX,DUAL,4-IN	5	E60,E61,E132,E133,E139
26	26		1921320-01		74F157 MUX,QUAD,2-IN	2	E69,E118
27	27		1921321-01		74F158 MUX,QUAD,2-IN	7	E64,E90,E92,E105,E111,E116,E117
28	28		1921323-01		74F174 FF-D,HEX	4	E8,E11,E22,E91

REVISION HISTORY			BASIC PART NO: M7473				
ENG	ECO NUMBER	REV	SECTION A OF A				
---	INITIAL	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	DRN: A.RUSZCZYK	DATE: 01-FEB-83	D I G I T A L	
				CHK'D: F GAROFALO	DATE: 05-JUL-83	TITLE ICL PARTS LIST	
				DES.ENG: GRANT LEE	DATE: 01-AUG-83	DOCUMENT NUMBER	
				RESP.ENG.: GRANT LEE	DATE: 01-AUG-83	SIZE: K / CODE: PL / NUMBER: M7473-0-DBP / REV: A	
				MFG.ENG.: M.KRYSAK	DATE: 13-SEP-83	RELEASE DATE: 14-OCT-83	
				ASSEMBLY NUMBER: E-UA-M7473-0-0	TOP DOCUMENT NUMBER: B-DD-M7473-0-0	FILE NAME: Z3946A.PLS	EDIT #: 7

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AUTOMATED BY PRTLST.4Q(50) P A R T S L I S T SHEET A2 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
29	29		1921324-01		74F175 FF-D,QUAD	13	E16,E21,E33,E47,E67,E72,E85,E87,
						CONT	E93,E102,E103,E104,E124
30	30		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	5	E48,E56,E59,E65,E81
31	31		1913839-00		LS165 SHIFT REG.,8BIT	8	E27,E78,E80,E82,E84,E131,E134,
						CONT	E137
32	32		1912586-01		85S68A REGISTER,16X4 EDGE T	8	E17-E20,E30,E42,E43,E66
33	33		1921322-01		74F161 BINARY COUNTER,PRESE	5	E9,E10,E12,E23,E24
34	34		1921720-01		10H125 TRANSLATOR ECL TO TTL QUA	2	E52,E63
35	35		1913788-00		26S10 TRANSCEIVER,BUS,QUA	4	E39,E40,E41,E76
36	36		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E77
37	37		2303182-00		B2-03	1	E70
38	38		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
39	39		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
40	40		1921312-01		74F32 OR GATE,QUAD,2-IN	1	E34

41 NOTE: I C SPARE LOCATIONS ARE E79,E86,E107,E130 & E138.

	TITLE		SIZE	CODE	DOCUMENT NUMBER	REV
D I G I T A L	ICL	SECTION A OF A	K	PL	M7473-0-DBP	A

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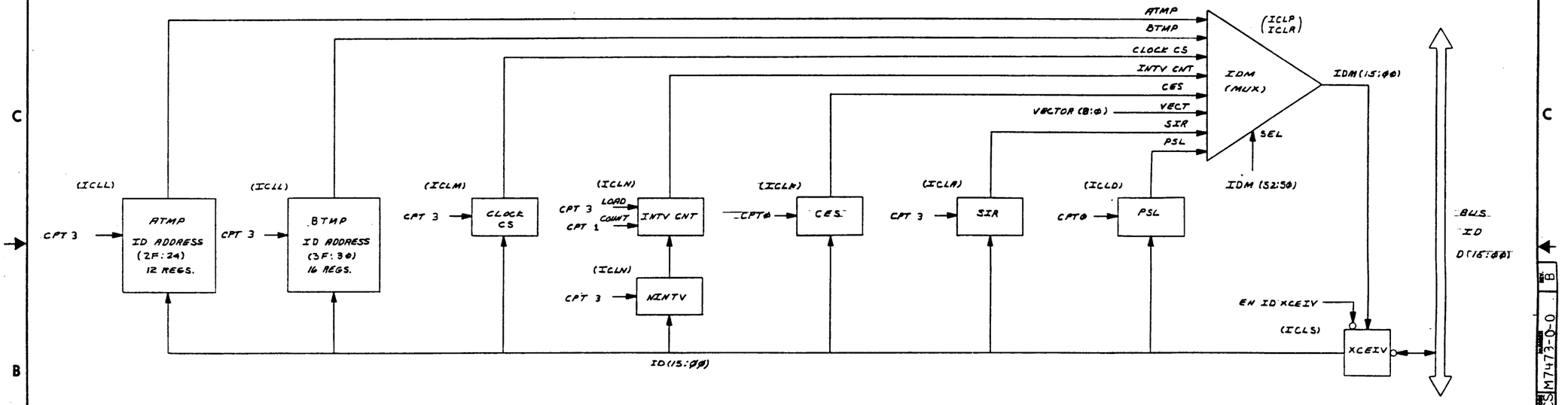
LOW BITS BLOCK DIAGRAM



(REGISTER BLOCK DIAGRAM)

REVISIONS			
CHK	CHANGE NO.	REV.	
	M7473-T.WOOL	B	
	Barbara Pettitt	8/84	
	GRANT LEE		
	first rel.		

DRN.		FIRST USED ON
CHK'D		digital
ENG.		TITLE
PROJ. ENG.		INTERRUPT CONTROL AND LOW BITS (ICL)
PROD.		
NEXT HIGHER ASSY.		SIZE D CODE CS NUMBER M7473-0-0 REV. B
SCALE		DIST.
SHEET	1 OF 21	

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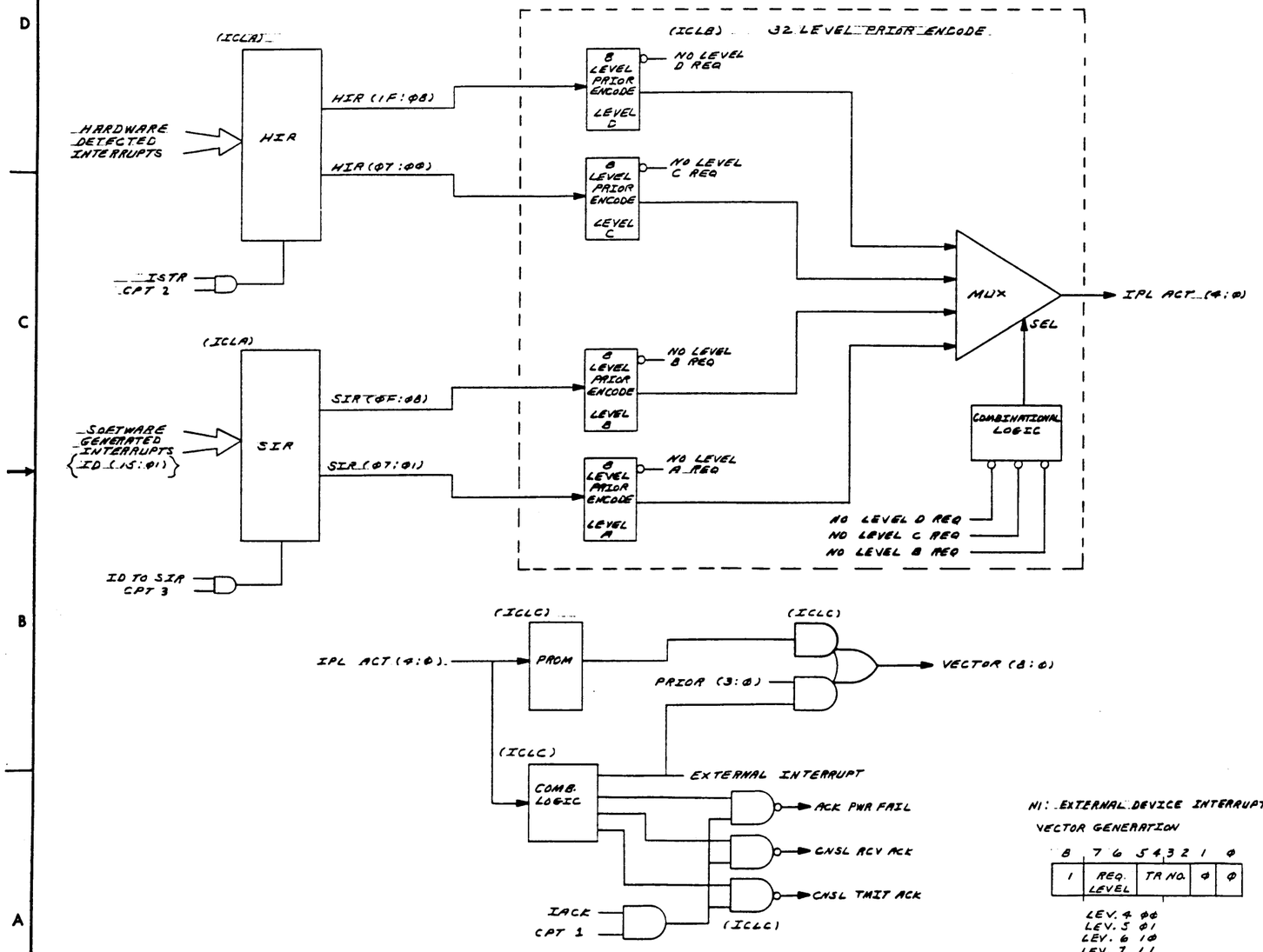
INTERRUPT ARBITRATION



NI: EXTERNAL DEVICE INTERRUPT (SBI BUS)

VECTOR GENERATION

8	7 6	5 4 3 2	1	0
1	REQ. LEVEL	TR NO.	0	0

LEV. 4 00
LEV. 5 01
LEV. 6 10
LEV. 7 11

INTERRUPT PRIORITY & VECTORS

IPL ACT	INTERRUPT CONDITION	VECTOR	PRIORITY
1F	NONE ASSIGNED	X	HIGHEST
1E	CPU POWER FAIL	0C	
1D	CPU TIMEOUT	60	
1C	SBI FAULT	5C	
1B	SBI ALERT	58	
1A	CRD/RDS	54	
19	SBI SILO COMPARE	50	
18	INTERVAL TIMER	C0	
17	SBI REQ 7 (NI)	1C0 TO 1FC	
16	SBI REQ 6 (NI)	180 TO 1BC	
15	SBI REQ 5 (NI)	140 TO 17C	
14	SBI REQ 4 (NI)	100 TO 13C	
	CNSL RECEIVE INTR	F8	
	CNSL TRANSMIT INTR	FC	
13	NONE ASSIGNED	X	
12	NONE ASSIGNED	X	
11	NONE ASSIGNED	X	
10	NONE ASSIGNED	X	
0F	SIR0F	8C	
0E	SIR0E	88	
0D	SIR0D	84	
0C	SIR0C	80	
0B	SIR0B	AC	
0A	SIR0A	A8	
09	SIR09	A4	
08	SIR08	A0	
07	SIR07	9C	
06	SIR06	98	
05	SIR05	94	
04	SIR04	90	
03	SIR03	8C	
02	SIR02 OR RST DEL	88	
01	SIR01	84	LOWEST
00	NO INTERRUPT	X	X

(INTERRUPTS BLOCK DIAGRAM)

REVISIONS

CHK	CHANGE NO.	REV.

TITLE INTERRUPT CONTROL AND LOW BITS (ICL)
SIZE D CODE CS NUMBER M7473-0-0 REV. B
SCALE SHEET 20F21 DIST. 1

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4 BIT REG
74F175 E21
ICLS ID11 H → D3 A3(1) 15 → ICLA SIR0B (1) H (ICLA)
A3(0) 14 → ICLA SIR0B (1) L (ICLB)
ICLS ID10 H → D2 A2(1) 10 → ICLA SIR0A (1) H (ICLA)
A2(0) 11 → ICLA SIR0A (1) L (ICLB)
ICLS ID09 H → D1 A1(1) 7 → ICLA SIR09 (1) H (ICLA)
A1(0) 6 → ICLA SIR09 (1) L (ICLB)
ICLS ID08 H → D0 A0(1) 2 → ICLA SIR08 (1) H (ICLA)
A0(0) 3 → ICLA SIR08 (1) L (ICLB)
CLR CLK

4 BIT REG
74F175 E16
ICLS ID15 H → D3 A3(1) 15 → ICLA SIR0F (1) H (ICLA)
A3(0) 14 → ICLA SIR0F (1) L (ICLB)
ICLS ID14 H → D2 A2(1) 10 → ICLA SIR0E (1) H (ICLA)
A2(0) 11 → ICLA SIR0E (1) L (ICLB)
ICLS ID13 H → D1 A1(1) 7 → ICLA SIR0D (1) H (ICLA)
A1(0) 6 → ICLA SIR0D (1) L (ICLB)
ICLS ID12 H → D0 A0(1) 2 → ICLA SIR0C (1) H (ICLA)
A0(0) 3 → ICLA SIR0C (1) L (ICLB)
CLR CLK

4 BIT REG
74F175 E72
SBNE SBI ALERT A H → D3 A3(1) 15 → ICLA HIR 18 (1) L (ICLB)
DB1 13
SBLM CRD RDS INTR L → 74F04 E83 → D2 A2(1) 10 → ICLA HIR 1A (1) L (ICLB)
DB2 9 → 8 → 12
SBNE COMP INTR H → D1 A1(1) 7 → ICLA HIR 19 (1) L (ICLB)
DC1 5
ICLM INTERVAL INTR L → 74F04 E83 → D0 A0(1) 2 → ICLA HIR 18 (1) L (ICLB)
5 → 6 → 4
CLR CLK

4 BIT REG
74F175 E47
ICLS ID07 H → D3 A3(1) 15 → ICLA SIR07 (1) H (ICLA)
A3(0) 14 → ICLA SIR07 (1) L (ICLB)
ICLS ID06 H → D2 A2(1) 10 → ICLA SIR06 (1) H (ICLA)
A2(0) 11 → ICLA SIR06 (0) L (ICLB)
ICLS ID05 H → D1 A1(1) 7 → ICLA SIR05 (1) H (ICLA)
A1(0) 6 → ICLA SIR05 (1) L (ICLB)
ICLS ID04 H → D0 A0(1) 2 → ICLA SIR04 (1) H (ICLA)
A0(0) 3 → ICLA SIR04 (1) L (ICLB)
CLR CLK

4 BIT REG
74F175 E102
D3 A3(1) 15
A3(0) 14
D2 A2(1) 10 → ICLA SPI INTR (1) H (ICLC)
A2(0) 11 → ICLA SPI INTR (1) L
ICLC SYNC CREC INTR H → 74F11 E101 → D1 A1(1) 7 → ICLA CREC INTR (1) H (ICLC)
A1(0) 6 → ICLA CREC INTR (1) L (ICLC)
ICLC SYNC CXMT INTR H
ICLC SYNC CREC INTR L
ICLA REQ4 INTR L → 74F11 E101 → D0 A0(1) 2 → ICLA CXMT INTR (1) H (ICLC)
A0(0) 3 → ICLA CXMT INTR (1) L (ICLC)
CLR CLK

4 BIT REG
74F175 E87
SBNE SBI REQ 7 A H → DD1 → D3 A3(1) 15 → ICLA HIR 17 (1) L (ICLB)
SBNE SBI REQ 6 A H → DD2 → D2 A2(1) 10 → ICLA HIR 16 (1) L (ICLB)
SBNE SBI REQ 5 A H → DF2 → D1 A1(1) 7 → ICLA HIR 15 (1) L (ICLB)
ICLC SYNC CREC INTR L
ICLC SYNC CXMT INTR L → 74F10 E98 → D0 A0(1) 2 → ICLA HIR 14 (1) L (ICLB)
A0(0) 3
CLR CLK

SBNE SBI REQ 4 A H → DH2 → 74F04 E83 → ICLA REQ4 INTR L (ICLA)

4 BIT REG
74F175 E33
ICLS ID03 H → D3 A3(1) 15 → ICLA SIR03 (1) H (ICLA)
A3(0) 14 → ICLA SIR03 (1) L (ICLB)
ICLS ID02 H → D2 A2(1) 10 → ICLA SIR02 (1) H (ICLA)
A2(0) 11 → ICLA SIR02 (1) L (ICLB)
ICLS ID01 H → D1 A1(1) 7 → ICLA SIR01 (1) H (ICLA)
A1(0) 6 → ICLA SIR01 (1) L (ICLB)
ICLS ID04 H → D0 A0(1) 2
A0(0) 3
CLR CLK

4 BIT REG
74F175 E85
D3 A3(1) 15
A3(0) 14 → ICLA HIR 1F (1) L (ICLB)
ICLC SYNC PFAIL INTR H → D2 A2(1) 10
A2(0) 11 → ICLA HIR 1E (1) L (ICLB)
SBLM TIMO CNF INTR L → DP2 → 74F04 E83 → D1 A1(1) 7
A1(0) 6 → ICLA HIR 1D (1) L (ICLB)
SBHL FAULT INTR H → DT2 → D0 A0(1) 2
A0(0) 3 → ICLA HIR 1C (1) L (ICLB)
CLR CLK

4 BIT REG
74F175 E103
D3 A3(1) 15
A3(0) 14 → ICLA HIR 13 (1) L (ICLB)
D2 A2(1) 10
A2(0) 11 → ICLA HIR 12 (1) L (ICLB)
D1 A1(1) 7
A1(0) 6 → ICLA HIR 11 (1) L (ICLB)
D0 A0(1) 2
A0(0) 3 → ICLA HIR 10 (1) L (ICLB)
CLR CLK

ICLA SYS INIT A L
ICLH ID To SIR H → 74F00 E115
ICLS CPT 2 A H →
ICLD ISTR H → 74F00 E115
ICLS CPT 1 AH →

REVISIONS
CHK | CHANGE NO. | REV.

(SOFTWARE & HARDWARE INTERRUPT REQUEST REGS (SIR&HIR)) (SLOT 15)

TITLE INTERRUPT CONTROL AND LOW BITS (ICLA)
SIZE D | CODE CS | NUMBER M7473 0 0 | REV. B
SCALE | SHEET 3 OF 21 | DIST.

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74F153-9:1 MUX				NO LEVEL D REQ L	NO LEVEL C REQ L	NO LEVEL B REQ L	SELECTED LEVEL
STB	S1	S0	OUTPUT				
H	X	X	L	X	X	X	X
L	L	L	A → F	H	X	X	D (2:0)
L	L	H	B → F	L	H	X	C (2:0)
L	H	L	C → F	L	L	H	B (2:0)
L	H	H	D → F	L	L	L	A (2:0)

74148 - PRIORITY ENCODER

ICLA SIR0F (1) L
ICLA SIR0E (1) L
ICLA SIR0D (1) L
ICLA SIR0C (1) L
ICLA SIR0B (1) L
ICLA SIR0A (1) L
ICLA SIR09 (1) L
ICLA SIR08 (1) L

74148 E32 — EI, GS, EO, A2, A1, A0

ICLB NO LEVEL B REQ L (ICLB)
ICLB LEVEL B2 L (ICLB)
ICLB LEVEL B1 L (ICLB)
ICLB LEVEL B0 L (ICLB)

ICLA SIR1F (1) L
ICLA SIR1E (1) L
ICLA SIR1D (1) L
ICLA SIR1C (1) L
ICLA SIR1B (1) L
ICLA SIR1A (1) L
ICLA SIR19 (1) L
ICLA SIR18 (1) L

74148 E73 — EI, GS, EO, A2, A1, A0

ICLB NO LEVEL D REQ L (ICLB)
ICLB LEVEL D2 L (ICLB)
ICLB LEVEL D1 L (ICLB)
ICLB LEVEL D0 L (ICLB)

ICLA SIR07 (1) L
ICLA SIR06 (1) L
ICLA SIR05 (1) L
ICLA SIR04 (1) L
ICLA SIR03 (1) L
ICLA SIR02 (1) L
ICLA SIR01 (1) L
ICLN +3V D H

74148 E49 — EI, GS, EO, A2, A1, A0

ICLB NO LEVEL A REQ L
ICLB LEVEL A2 L (ICLB)
ICLB LEVEL A1 L (ICLB)
ICLB LEVEL A0 L (ICLB)

ICLA SIR17 (1) L
ICLA SIR16 (1) L
ICLA SIR15 (1) L
ICLA SIR14 (1) L
ICLA SIR13 (1) L
ICLA SIR12 (1) L
ICLA SIR11 (1) L
ICLA SIR10 (1) L

74148 E88 — EI, GS, EO, A2, A1, A0

ICLB NO LEVEL C REQ L (ICLB)
ICLB LEVEL C2 L (ICLB)
ICLB LEVEL C1 L (ICLB)
ICLB LEVEL C0 L (ICLB)

74F153 EG1 — STB1, STB0, D1, C1, B1, A1, D0, C0, B0, A0, S1, S0, F1, F0

ICLN +3V D H
ICLB LEVEL A2 L
ICLB LEVEL B2 L
ICLB LEVEL C2 L
ICLB LEVEL D2 L

74F153 EG4 — STB1, STB0, D1, C1, B1, A1, D0, C0, B0, A0, S1, S0, F1, F0

ICLB LEVEL A1 L
ICLB LEVEL B1 L
ICLB LEVEL C1 L
ICLB LEVEL D1 L
ICLB LEVEL A0 L
ICLB LEVEL B0 L
ICLB LEVEL C0 L
ICLB LEVEL D0 L

74F04 E75 — ICLB IPL ACT 4 H (ICLC,T)
BL1 — ICLB IPL ACT 4 L (ICLC)(CENR)
BM1 — ICLB IPL ACT 3 L (CENR)
74F04 E75 — ICLB IPL ACT 3 H (ICLC,T)
BM2 — ICLB IPL ACT 2 L (ICLC)(CENR)
74F04 E75 — ICLB IPL ACT 2 H (ICLC,T)
BT2 — ICLB IPL ACT 1 L (ICLC)(SBLA,V) (CENR)
74F04 E75 — ICLB IPL ACT 1 H (ICLC,T)
BU1 — ICLB IPL ACT 0 L (ICLC)(SBLA,V) (CENR)
74F04 E75 — ICLB IPL ACT 0 H (ICLC,T)

74S51 E74 — ICLB NO LEVEL C REQ L, ICLB NO LEVEL D REQ L
74S51 E74 — ICLB NO LEVEL B REQ L
74F04 E75

+5V — R1 330Ω, R2 680Ω, C11 .047 — ICLB +3VA H (ICLC,D,F,H,K,L)

+5V — AA2,AV1 BA2,BV1 CA2,CV1 DA2,DV1 EA2,EV1 FA2,FV1 — C1-C6 8.0 µF 25V; C8-C30, C32-C42, C44-C99 .047 µF

AC2, AH1, AN2, AT1
BC2, BH1, BN2, BT1
CC2, CH1, CN2, CT1
DC2, DH1, DN2, DT1
EC2, EH1, EN2, ET1
FC2, FH1, FN2, FT1

-5.2V — EE1 — C7 8.0 µF 25V; C31 .047 µF; C43 .047 µF

REVISIONS		
CHK	CHANGE NO.	REV.

(INTERRUPT PRIORITY ARBITRATION) (SLOT 15)

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLB)	D	CS	M7473-0-0	B
SCALE	SHEET 4 OF 21	DIST.		

NEXT CODE DCS M7473-0-0 REV B

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ICLB +3VA H

CLKR ACLO OR FAIL H — AP2

74F74 E100

ICLC AC LO BRANCH H DBPV — FA1

CLKR P FAIL INTR (1) H — AS2

74F74 E100

ICLC SYNC PFAIL INTR H (ICLA)

ICLC SYNC P FAIL INTR L

CIBS CNSL RCV INTR H — BR2

74F74 E99

ICLC SYNC CREC INTR H (ICLA)

ICLC SYNC CREC INTR L (ICLA)

CIBS CNSL XMIT INTR H — CB1

74F74 E99

ICLC SYNC CXMT INTR H (ICLA)

ICLS CPTØ C H

ICLC SYNC CXMT INTR L

ICLF SYS INIT A L

3:8 DECODER

74F138 E89

ICLB IPL ACT Ø H
ICLB IPL ACT 2 H — EN

ICLB IPL ACT 3 H — SELC
ICLB IPL ACT 1 H — SEL B
ICLB IPL ACT Ø H — SEL A

D7 ICLC REQ 1F L
D6 ICLC REQ 1E L (ICLC)
D5 ICLC REQ 1D L
D4 ICLC REQ 1C L
D3 ICLC REQ 17 L
D2 ICLC REQ 16 L
D1 ICLC REQ 15 L
DØ ICLC REQ 14 L (ICLC)

512x8 PROM

VECTOR PROM 23S182-DØ E76

ICLB IPL ACT Ø H — AB
ICLB IPL ACT 3 H — A7
ICLB IPL ACT 2 H — AG
ICLB IPL ACT 1 H — AA
ICLB IPL ACT Ø H — A3
ICLA CREC INTR (1) H — A2
ICLA CXMT INTR (1) H — A1
ICLA SPI INTR (1) H — AØ

M7 — ICLC VECTOR 8 H (ICLA)
M6 — ICLC VECTOR 7 H (ICLA)
M5 — ICLC VECBIT5 L (ICLC)
M4 — ICLC VECBIT4 L (ICLC)
M3 — ICLC VECBIT3 L (ICLC)
M2 — ICLC VECBIT2 L (ICLC)
M1
MØ — ICLC VECTOR 6 H (ICLP)

AS ENØ

ICLB IPL ACT 3 H
ICLB IPL ACT Ø L
ICLB IPL ACT 2 L
ICLN +3V D H
ICLB IPL ACT 1 L
ICLB IPL ACT Ø L

74F64 E62 — 8

ICLA CREC INTR (1) L
ICLA CXMT INTR (1) L — 74F08 E113

ICLC REQ 1E L — 74F04 E143 — 74F10 E102 — CMI — ICLC ACK PWR FAIL L (CLKK)

ICLA CREC INTR (1) H
ICLA CXMT INTR (1) H — 74F10 E102 — FT2 — ICLC CNSL RCV ACK L (CIBS)

74F10 E102 — FU1 — ICLC CNSL XMIT ACK L (CIBS)

ICLC REQ 1Ø L — 74F04 E143

ICLD IACK H
ICLS CAT 1 A H — 74F08 E141

ICLC VECBIT5 L
CENJ PRIOR 3 H — AV2 — 74F08 E58 — ICLC VECTOR 5 H (ICLP)

ICLC VECBIT4 L
CENJ PRIOR 2 H — BA1 — 74F08 E58 — ICLC VECTOR 4 H (ICLP)

ICLC VECBIT3 L
CENJ PRIOR 1 H — BC1 — 74F08 E57 — ICLC VECTOR 3 H (ICLP)

ICLC VECBIT2 L
CENJ PRIOR Ø H — BD1 — 74F08 E57 — ICLC VECTOR 2 H (ICLP)

74F08 E57 — ICLC EXT INTR REQ L (ICLD)

CENR INTR REQ L — AD1 — 74F04 E143 — ICLC INTR REQ H (ICLE)

74F04 E143 — FB1 — ICLC INTERN REQ H DBPV

(INTERRUPT ACKNOWLEDGES & VECTOR GENERATION) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLC)	D	CS	M7473-0-0	B
SCALE	SHEET 5 OF 21		DIST.	

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+5 V
R3 330
C10 .047
R4 680
ICLD +3V B H (ICLL,M,N)

CENC TRAP CODE 2 (1) H — DU1 — 74F04 E83 — 10
CENC TRAP CODE 1 (1) H — EB1 — 74F04 E136 — 4
CENC TRAP CODE ≠ (1) H — EF1 — 74F04 E130 — 2
10, 4, 2 → 74F11 E133 → 6 → ICLD ARITH TRAP L (ICLD)

ICLD HP (1) L — AD1 — 74F20 E108 — 6 → ET2 → ICLD SERVICE H (IRCE,N)
CENR INTR REQ L
ICLD PSL TP (1) L

4 BIT REG
74F175 E124
D3 A3(1) 15 · A3(0) 14
D2 A2(1) 10 · A2(0) 11
D1 A1(1) 7 → ICLD HP (1) H (ICLD) · A1(0) 6 → ICLD HP (1) L (ICLD)
D0 A0(1) 2 → AF1 → ICLD PSL TP (1) H (ICLD)(CENN) · A0(0) 3 → ICLD PSL TP (1) L (ICLD)
CLR CLK 1 9
ICLF SYS INIT B L
ICLS CPT0 A H

ICLF CNSL CONT H — 15 1
74F153 E133: STB1 STB0 · S1 S0 · 1D C1 B1 A1 1C2 C2 C0 1C0 · 1Y F1 F0
BS1 — CIBN HALT REQ H
ICLD HP (1) H
BU2 — CENR ID36 H
ICLD PSL T (1) H
ICLD PSL TP (1) H
2 14
ICLD IACK L
ICLD EACK L
ICLH ID TO PSL L
74F10 E98 → 12
CENF IRD STATE H — CD2 — 74F04 E97 → 2
74S51 E126: 5, 4, 3, 2 → 6
IRCE STALL+SVC L — FB1 — 74F04 E136 → 6

74F153-4:1 MUX			
STB	S1	S0	OUTPUT
H	X	X	L
L	L	L	A → F
L	L	H	B → F
L	H	L	C → F
L	H	H	D → F

CENR INTR REQ L — AD1
ICLB +3V A H
ICLC EXT INTR REQ L
12 → 74F00 E110 → 11
ICLD PSL TP (1) H — 13
CENF IRD STATE H — CD2 — 9
ICLD ARITH TRAP L — 10
74F00 E110 → 8
ICLD HP (1) H
74F158 E111: B3 B2 B1 B0 · A3 A2 A1 A0 · 1Y F3 F2 F1 F0 · STB S0
F2 → 9 → EV1 → ICLD SERV BIT 2 H (IRCE,N)
F1 → 7 → EV2 → ICLD SERV BIT 1 H (IRCE,N)
F0 → 4 → EV2 → ICLD SERV BIT 0 H (IRCE,N)
15 1

74F158-2:1 MUX		
STB	S0	OUTPUT
H	X	H
L	L	A → F
L	H	B → F

ICLD EACK H — 74F00 E110 → 6 → ICLD EACK PULSE L (ICLD)
ICLD IACK H
ICLS CPT 1 A H
74F00 E110 → 3 → ICLD IACK PULSE L (ICLD)

ICLH ID TO PSL H
74F194 E46: S1 S0 DSR · CLR CLK DSL
D3 ← ICLS ID07 H — A3(1) 12 → ICLD PSL DV (1) H (ICLP)
D2 ← ICLS ID06 H — A2(1) 13 → ICLD PSL FU (1) H (ICLP)
D1 ← ICLS ID05 H — A1(1) 14 → ICLD PSL IV (1) H (ICLP)
D0 ← ICLS ID04 H — A0(1) 15 → ICLD PSL T (1) H (ICLD, P)
18 9 2 · 1 11 7
ICLF SYS INIT B L
ICLD EACK PULSE L
ICLD IACK PULSE L
74F11 E109 → 8
ICLS CPT0 A H

74F194-4 BIT REG		
S1	S0	FUNCTION
L	L	HOLD
H	H	LOAD

2:4 DECODER

2:4 DECODER
74F139 E96: 1G 1A0 1A1 · 1Y0 1Y1 1Y2 1Y3 · 2G 2A0 2A1 · 2Y0 2Y1 2Y2 2Y3
CENO WIER1 (1) H — CC1 13 — 1A1
CENO WIER0 (1) H — CD1 14 — 1A0
1G 2G → 15
1Y3 → 74F04 E97 → 4 → GS1 → ICLD ISTR H (ICLA)(CIBN)
1Y2 → ICLD IACK L (ICLD)
1Y1 → ICLD EACK L (ICLD)
1Y0 → 74F04 E97 → 8 → ICLD EACK H (ICLD)
2Y3 → 74F04 E97 → 6 → ICLD IACK H (ICLC, D)

(A FORK SERVICE LOGIC & PSL BITS) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE INTERRUPT CONTROL AND LOW BITS (ICLD)
SIZE D · CODE CS · NUMBER M7473-0 0 · REV. B
SCALE — SHEET 6 OF 21 · DIST.

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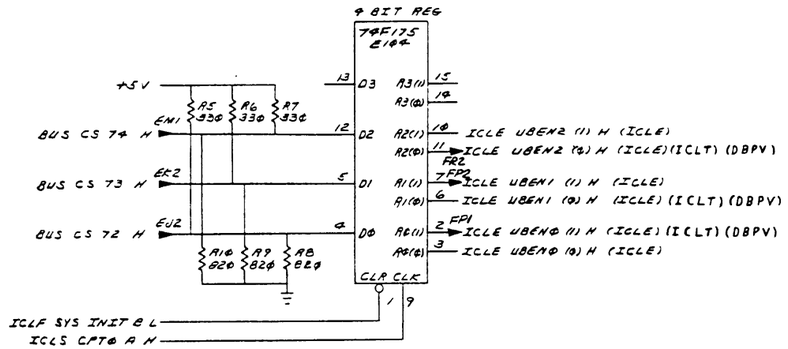

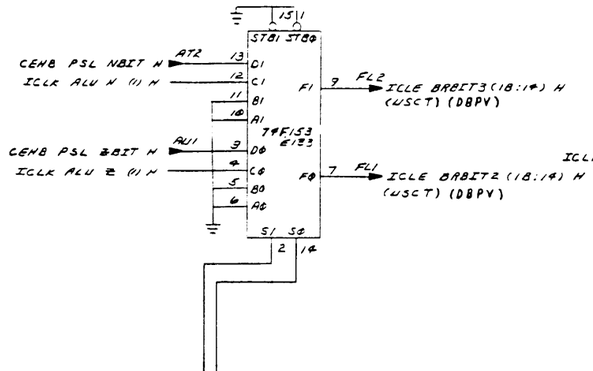

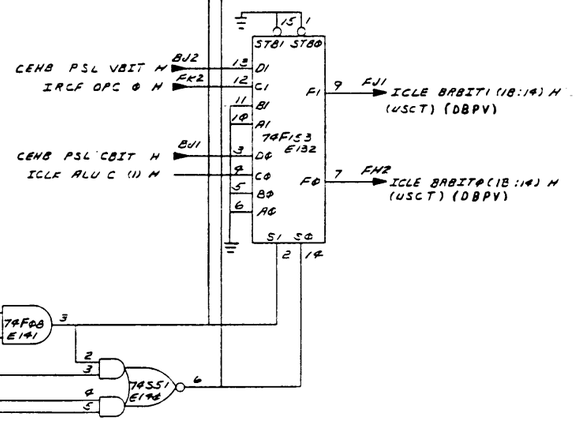

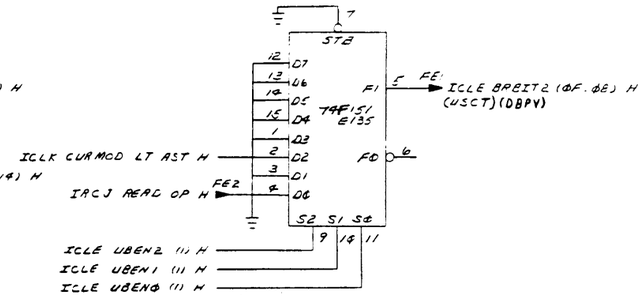

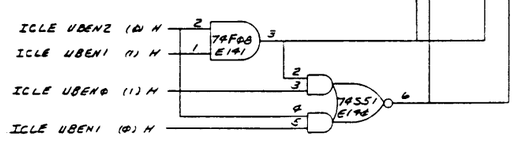

BEN (1B:1Ø) MUXES

74F153-4:1 MUX				BEN SELECTED
STB	S1	S0	OUTPUT	
H	X	X	L	X
L	L	L	A→F	19, 18
L	L	H	B→F	17:16
L	H	L	C→F	1B
L	H	H	D→F1	1A

BEN (ØF:Ø8) MUXES

74F153-4:1 MUX				BEN SELECTED
STB	S1	S0	OUTPUT	
H	X	X	L	X
L	L	L	A→F	ØD, ØC
L	L	H	B→F	ØB : Ø6
L	H	L	C→F	ØF
L	H	H	D→F	ØE

74F151-8:1 MUX					BEN SELECTED
STB	S2	S1	S0	OUTPUT	
H	X	X	X	F1=L	X
L	L	L	L	D0→F1	Ø5
L	L	L	H	D1→F1	Ø9
L	L	H	L	D2→F1	ØA
L	L	H	H	D3→F1	ØB
L	H	L	L	D4→F1	ØC
L	H	L	H	D5→F1	ØD
L	H	H	L	D6→F1	ØE
L	H	H	H	D7→F1	ØF

REVISIONS		
CHK	CHANGE NO.	REV.

(UBEN & UBRANCH MULTIPLEXORS) (SLOT 15)

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLE)	D	CS	M7473-0-0	B
SCALE	SHEET 7 OF 21		DIST.	

M7473-0-0 B

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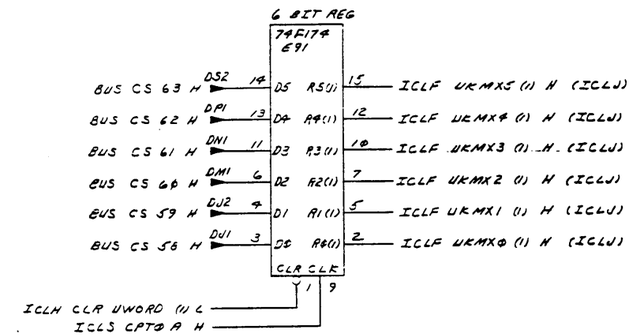

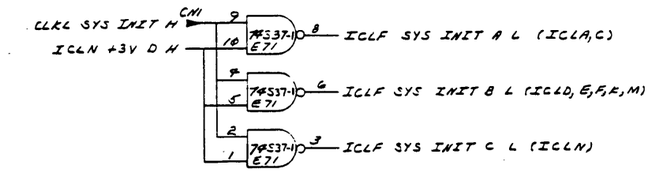

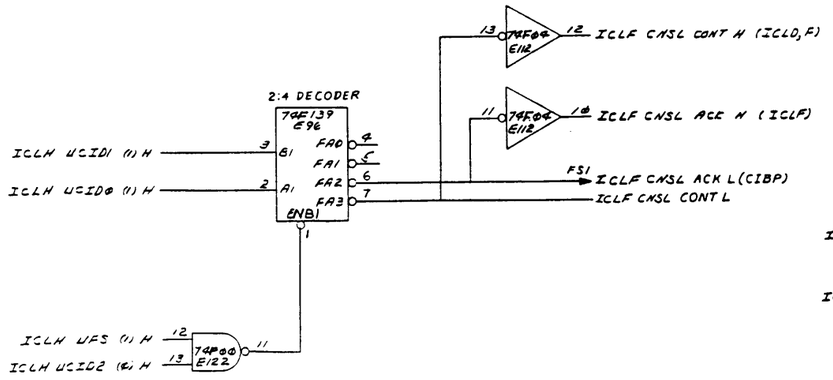

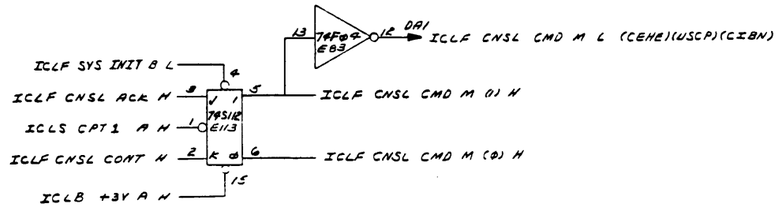

REVISIONS		
CHK	CHANGE NO.	REV.

(CONSOLE MODE CONTROL LOGIC & UKMX) (SLOT 15)

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLF)	D	CS	M7473-0-0	B
SCALE	SHEET 6 OF 21	DIST.		

M7473-0-0 B

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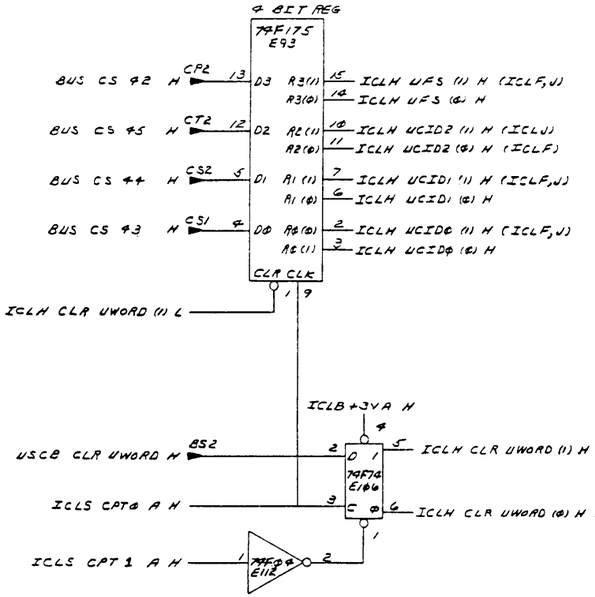

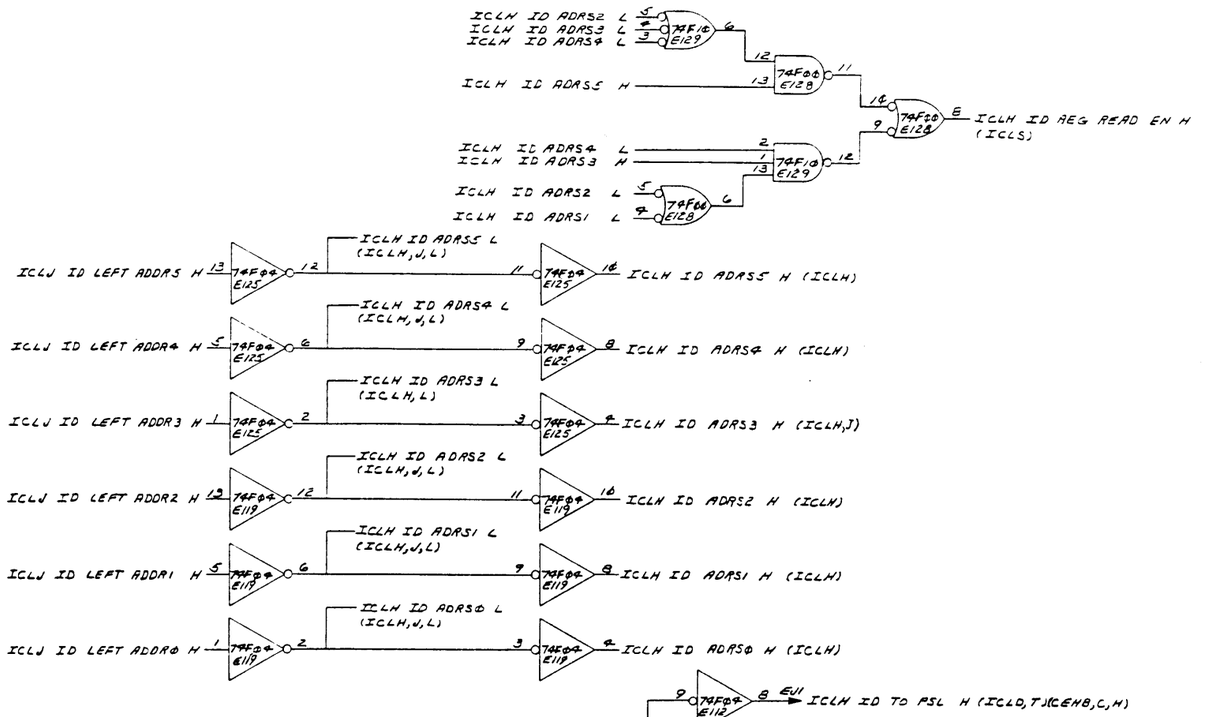

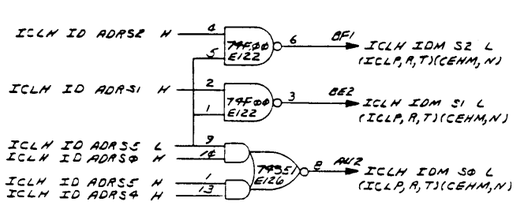

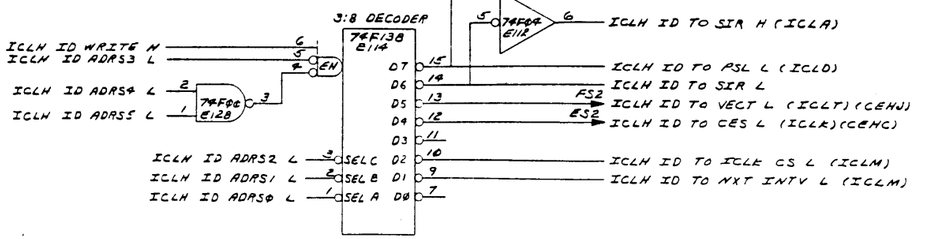

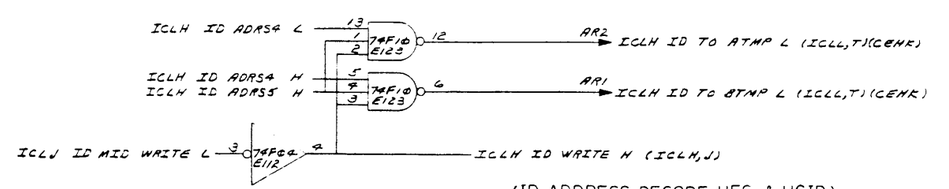

(ID ADDRESS DECODE, UFS & UCID) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLH)	D	CS	M7473-0-0	B
SCALE	SHEET 9 OF 21	DIST.		

M7473-0-0 REV B
DCS

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ICLH ID ADRS 5 L
ICLH ID ADRS 4 L
ICLH ID ADRS 3 H
74F11 E127
ICLH ID ADRS 2 L
ICLH ID ADRS 1 L
ICLH ID ADRS Ø L
74F11 E127
74F11 E127
ICLJ DG ADRS H (ICLJ)
CIBF ID MAINT (I) H FF1

74F157 E118
ICLJ ID MID WRITE H (ICLH,J,S)
ICLJ ID RIGHT WRITE L (SBHP)(TBMD)(IDPL)(IRCM) 7 EB2
ICLJ ID LEFT WRITE L (USCE)(CIBF)(SLOT 26) 4 EC1
CIBF XMT WRITE L BR1
ICLH UFS (1) H
ICLH UCID2 (1) H
ICLH UCID1 (1) H
ICLH CLR UWORD (Ø) H
74F20 E128
CIBF ID MAINT (Ø) H EA1
74F04 E120
NOTE: UNUSED OUTPUT
ICLJ ID MID WRITE L
ICLS CPTØ BF L
ICLH UFS (1) H
ICLH UCID2 (1) H
ICLH UCID1 (1) H
74F86 E121 BP2
ICLJ D TO ID L (ICLT)(DCPC)(DDPC)(DEPL,M)
ICLJ DG ADRS H
ICLH ID WRITE H
74F80 E122 BP1
ICLJ ID TO G L (ICLT)(DAPP)

74F158 - 2:1 MUX		
STB	SØ	OUTPUT
H	X	H
L	L	A → F
L	H	B → F

ICLF UKMX5 (1) H
DDPR SCØ5 (1) H BN2
ICLF UKMX4 (1) H
DDPR SCØ4 (1) H BF2
74F158 E103
CIBF XMT ADRS 5 L AK2
CIBF XMT ADRS 4 L AK1
74F158 E117
ICLJ ID RIGHT ADDR 5 H (SBHP)(TBMD)(IDPL) 12 EP1
ICLJ ID LEFT ADDR 5 H (ICLH)(USCE)(CIBF) (SLOT 24) 9 EA2
ICLJ ID RIGHT ADDR 4 H (SBHP)(TBMD)(IDPL) 7 EM2
ICLJ ID LEFT ADDR 4 H (ICLH)(USCE)(CIBF) (SLOT 24) 4 EP1

ICLF UKMX3 (1) H
DDPR SCØ3 H BE1
ICLF UKMX2 (1) H
DDPR SCØ2 H BD2
ICLF UKMX1 (1) H
DDPR SCØ1 H BB2
ICLF UKMXØ (1) H
DDPR SCØØ H BB1
74F158 E92
CIBF XMT ADRS 3 L AJ2
CIBF XMT ADRS 2 L AJ1
CIBF XMT ADRS 1 L AH2
CIBF XMT ADRS Ø L AF2
74F158 E116
ICLJ ID RIGHT ADDR 3 H (SBHP)(TBMD)(IDPL) (CENK) 12 EL2
ICLJ ID LEFT ADDR 3 H (ICLH)(USCE)(CIBF) (SLOT 24) 9 EN1
ICLJ ID RIGHT ADDR 2 H (SBHP)(TBMD)(IDPL) (CENK) 7 EL1
ICLJ ID LEFT ADDR 2 H (ICLH)(USCE)(CIBF) (SLOT 24) 4 EH2
ICLJ ID RIGHT ADDR 1 H (SBHP)(TBMD)(IDPL) (CENK) 12 EE2
ICLJ ID LEFT ADDR 1 H (ICLH)(USCE)(CIBF) (SLOT 24) 9 ED2
ICLJ ID RIGHT ADDR Ø H (SBHP)(TBMD)(IDPL) (CENK) 7 EE1
ICLJ ID LEFT ADDR Ø H (ICLH)(USCE)(CIBF) (SLOT 24) 4 ED1
ICLH CLR UWORD (Ø) H
ICLH UFS (1) H
ICLH UCID2 (1) H
ICLH UCID1 (1) H
74F10 E123
CIBF ID MAINT (I) H FF1

REVISIONS
CHK | CHANGE NO. | REV.

(ID BUS CONTROL) (SLOT 15)

TITLE INTERRUPT CONTROL AND LOW BITS (ICLJ)
SIZE D CODE CS NUMBER M7473-0 0 REV B
SCALE SHEET 10 OF 21 DIST.

8 7 6 5 4 3 2 1

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74F157 - 2:1 MUX		
STB	S0	OUTPUT
H	X	L
L	L	A → F
L	H	B → F

74F158 - 2:1 MUX		
STB	S0	OUTPUT
H	X	$\overline{A}$ → F
L	L	$\overline{B}$ → F
L	H	

74F192 - 4 BIT REG		
S1	S0	FUNCTION
L	L	HOLD
H	H	LOAD

ICLH IO TO CES L
CEHA CCL1 L
74F10 E60
EF2
74F157 E69
DDPN EALU 09 H
ICLS ID11 H
EF1
74F158 E64
DDPN EALU = 0 L
ICLK ID10 L
CEHB ALU NDATA L
ICLK ID09 L
EP2
CEHA ALU=0 L
ICLK ID06 L
DU2
DCPL ALU CARRY 32 L
ICLK ID07 L
BN1
74F00 E143
ICLH IO TO CES L
ICLK ID TO CES H (ICLK,T)
74F00 E53
ICLS ID10 H
ICLK ID10 L (ICLK)
ICLS ID09 H
ICLK ID09 L (ICLK)
ICLS ID08 H
ICLK ID08 L (ICLK)
ICLS ID07 H
ICLK ID07 L (ICLK)
74F192 E59
ICLK EALU N (1) H (ICLR)(USCN,T)
74F192 E65
AM2
ICLK EALU Z (1) H (ICLR)(USCN,T)
ICLK ALU N (1) H (ICLE,P)
AP1
ICLK ALU Z (1) H (ICLE,R)(USCN,S)
AE2
ICLK ALU C (1) H (ICLE,P)(USCN,S)
74F192 E56
ICLS ID03 H
ICLS ID02 H
ICLS ID01 H
ICLS ID00 H
AM1
ICLK PME (1) H (ICLK,P)
ICLK ASTLVL2 (1) H (ICLK,P)
ICLK ASTLVL1 (1) H (ICLK,P)
ICLK ASTLVL0 (1) H (ICLK,P)
ICLF SYS INIT B L
ICLS CPT0 B H

COMPARATOR 74F382 E95
ICLK ASTLVL2(1) H
ICLK ASTLVL1(1) H
K ASTLVL0 (1) H
CEHH CUR MODE 1 H
FV2
CEHH CUR MODE 0 H
ICLB +3VA H
ICLK CUR MOD LT AST H (ICLE)

ICLK CS PE2 (1) H
ICLK CS PE1 (1) H
ICLK CS PE0 (1) H
74F04 E94
74F11 E100
74F04 E97
74F04 E94
ICLK CS PE SUM H (ICLR)

74F192 E81
ICLK CS PE DATA2 (1) H
ICLK CS PE DATA1 (1) H
ICLK CS PE DATA0 (1) H
ICLK CS PE2 (1) H (ICLK,R)
ICLK CS PE1 (1) H (ICLK,R)
ICLK CS PE0 (1) H (ICLK,R)

ICLK ID TO CES H
ICLS ID15 H
ICLS CPT 2 BF H
ICLS CPT0 B H
74F10 E68
ICLF SYS INIT B L
74F08 E37

74F10 E66
CPI
ICLK CS PAR ERR H (TBMW,Y)

4 BIT REG 74F175 E67
PCSC PAR ERR (95:64) H
PCSC PAR ERR (63:32) H
PCSC PAR ERR (31:00) H
CU1
CU2
CV2
ICLK CS PE DATA2 (1) H (ICLK)
ICLK CS PE DATA1 (1) H (ICLK)
ICLK CS PE DATA0 (1) H (ICLK)
ICLF SYS INIT B L
ICLS CPT 1 A H

(CPU ERROR/STATUS REG (CES))
(SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLK)	D	CS	M7473 0-0	B
SCALE	SHEET 11 OF 21	DIST.		

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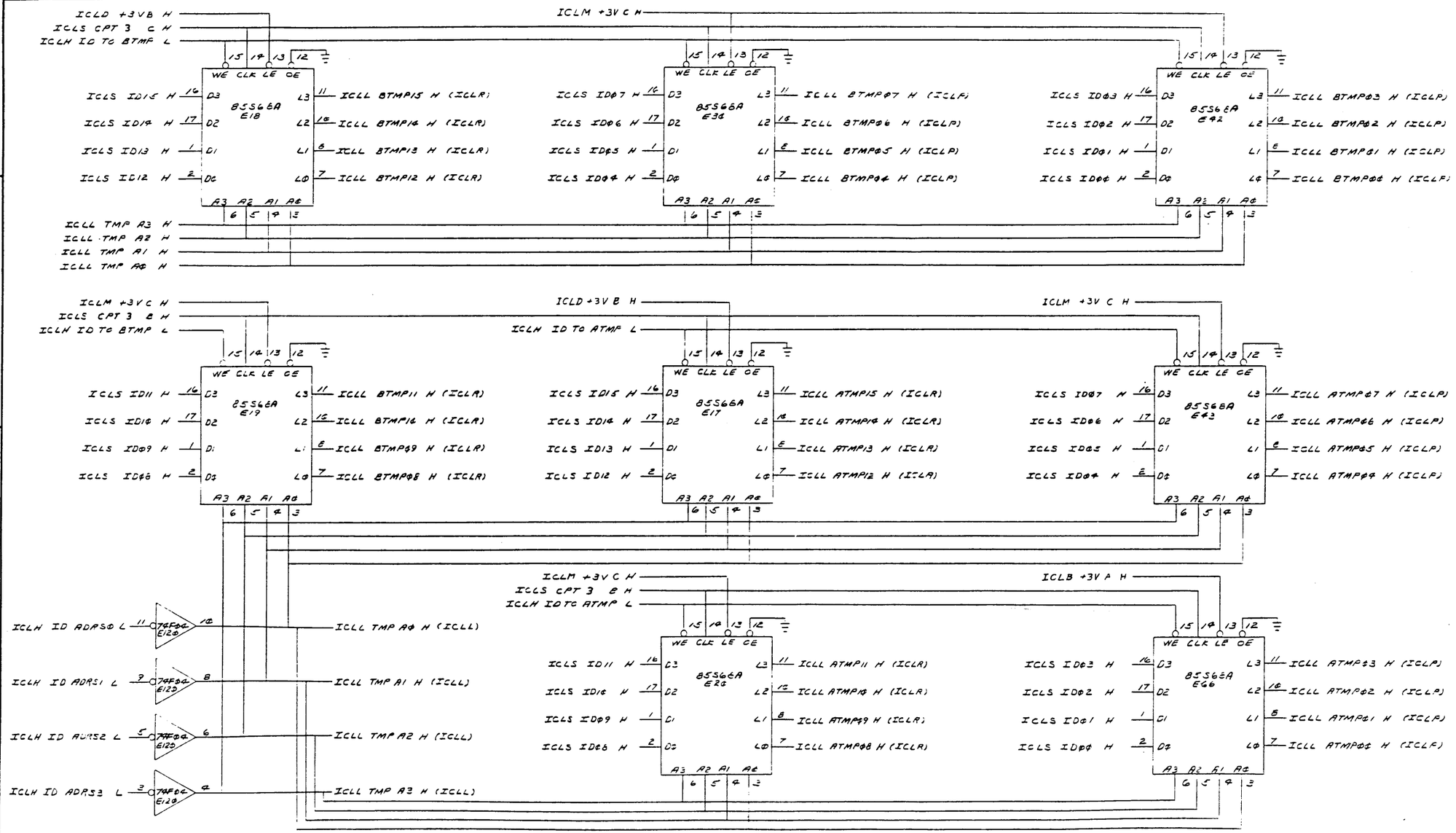
8555GA-16X4 EDGE TRIGGERED REG



REVISIONS		
CHK	CHANGE NO.	REV.

(ID REGISTERS (24 TO 2F) LOW BITS) (SLOT 15)

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLL)	D	CS	M7473-0-0	B
SCALE	SHEET 12 OF 21		DIST.	

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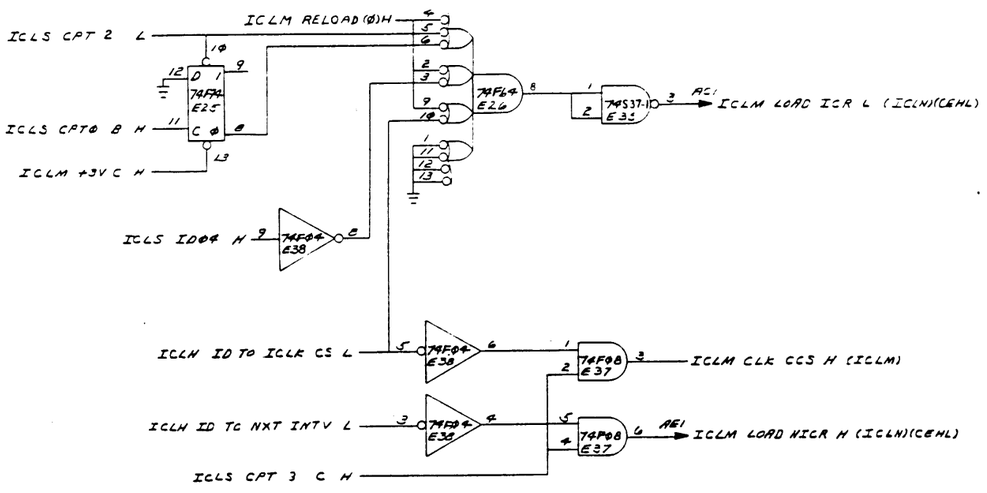
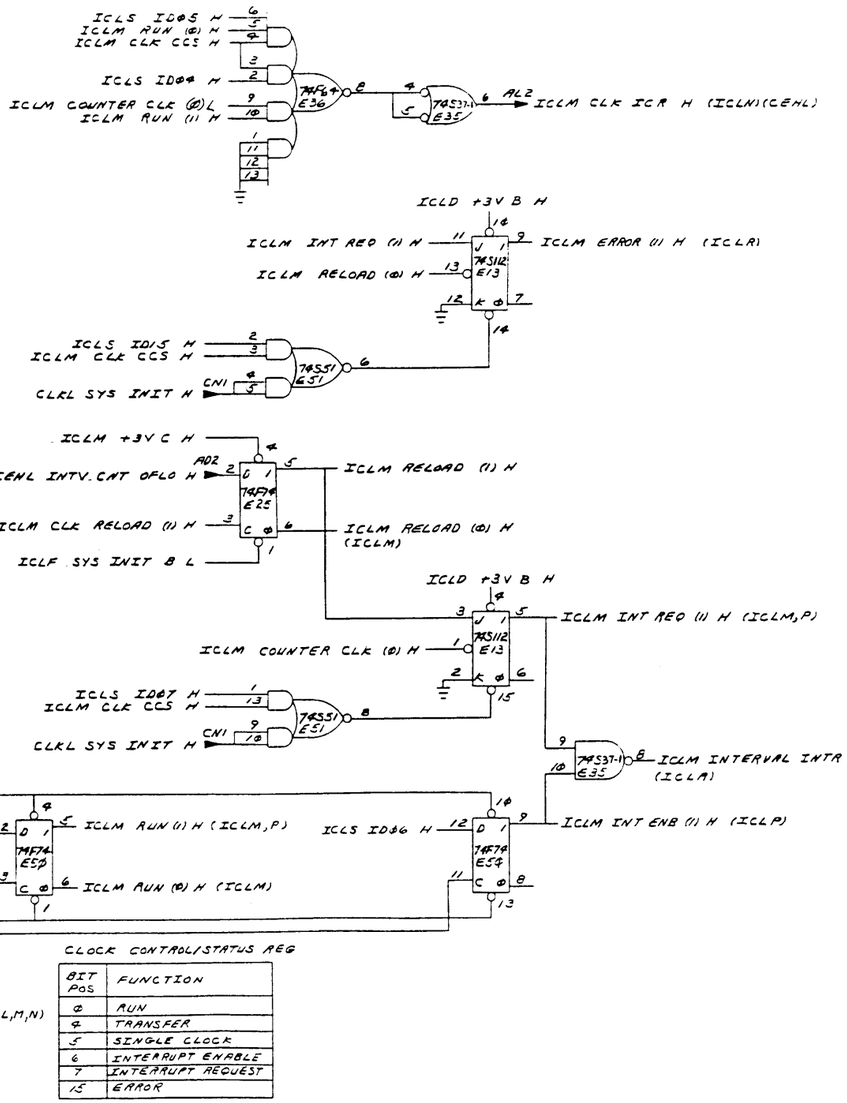
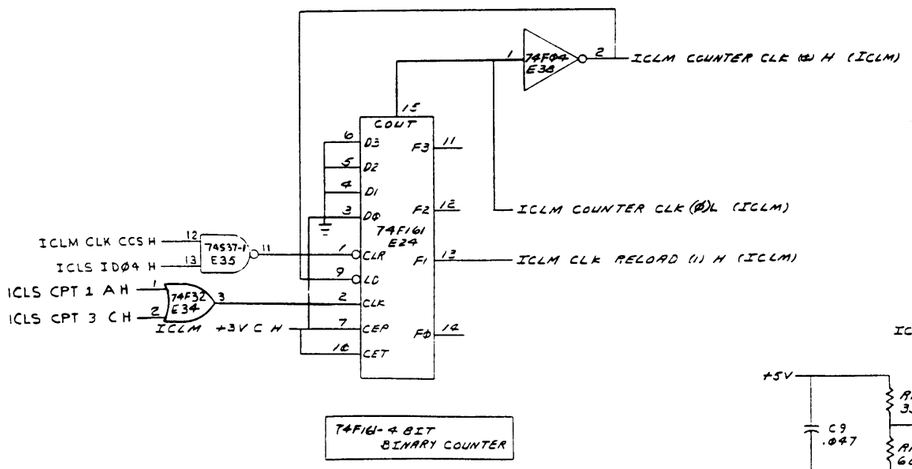
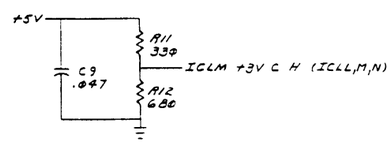






T4F161- 4 BIT BINARY COUNTER



CLOCK CONTROL/STATUS REG

BIT POS	FUNCTION
Ø	RUN
4	TRANSFER
5	SINGLE CLOCK
6	INTERRUPT ENABLE
7	INTERRUPT REQUEST
15	ERROR

(INTERVAL CLOCK CONTROL) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	INTERRUPT CONTROL AND LOW BITS (ICLM)		
SIZE	CODE	NUMBER	REV.
D	CS	M7473-0-0	B
SCALE		SHEET 13 OF 21	DIST.

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+5V
R13 33Ω
C8 .047
R14 68Ω
ICLN +3V D H (ICLE,C,F,M)

74F/W-42IT BINARY COUNTER

6 BIT REG 74F174 E8

ICLS ID15 H
ICLS ID14 H
ICLS ID13 H
ICLS ID12 H
D5 RS(1) D4 R4(1) D3 R3(1) D2 R2(1) D1 R1(1) D0 R0(1) CLR CLK
ICLN NINTV15 (1) H
ICLN NINTV14 (1) H
ICLN NINTV13 (1) H
ICLN NINTV12 (1) H

6 BIT REG 74F174 E22

ICLS ID11 H
ICLS ID10 H
ICLS ID09 H
ICLS ID08 H
ICLS ID07 H
ICLS ID06 H
ICLN NINTV11 (1) H
ICLN NINTV10 (1) H
ICLN NINTV09 (1) H
ICLN NINTV08 (1) H
ICLN NINTV07 (1) H
ICLN NINTV06 (1) H

6 BIT REG 74F174 E11

ICLS ID05 H
ICLS ID04 H
ICLS ID03 H
ICLS ID02 H
ICLS ID01 H
ICLS ID00 H
ICLN NINTV05 (1) H (ICLN)
ICLN NINTV04 (1) H (ICLN)
ICLN NINTV03 (1) H (ICLN)
ICLN NINTV02 (1) H (ICLN)
ICLN NINTV01 (1) H (ICLN)
ICLN NINTV00 (1) H (ICLN)

ICLF SYS INIT C L
ICLM LOAD NICR H

74F161 E9

AL1
ICLN ENT (19:16) H (CEHL)
COUT D3 D2 D1 D0 CLR LD CLK CEP CET
F3 F2 F1 F0
ICLN INTV CNT15 (1) H (ICLR)
ICLN INTV CNT14 (1) H (ICLR)
ICLN INTV CNT13 (1) H (ICLR)
ICLN INTV CNT12 (1) H (ICLR)

74F161 E16

COUT D3 D2 D1 D0 CLR LD CLK CEP CET
F3 F2 F1 F0
ICLN INTV CNT11 (1) H (ICLR)
ICLN INTV CNT10 (1) H (ICLR)
ICLN INTV CNT09 (1) H (ICLR)
ICLN INTV CNT08 (1) H (ICLR)

ICLN ENT (11:08) H
ICLF SYS INIT C L
ICLM LOAD ICR L
ICLM CLK ICR H
ICLC +3V B H

ICLN ENT (11:08) H (ICLN)

74F161 E23

ICLN NINTV07 (1) H
ICLN NINTV06 (1) H
ICLN NINTV05 (1) H
ICLN NINTV04 (1) H
ICLM +3V C H
COUT D3 D2 D1 D0 CLR LD CLK CEP CET
F3 F2 F1 F0
ICLN INTV CNT07 (1) H (ICLP)
ICLN INTV CNT06 (1) H (ICLP)
ICLN INTV CNT05 (1) H (ICLP)
ICLN INTV CNT04 (1) H (ICLP)

74F161 E12

ICLN NINTV03 (1) H
ICLN NINTV02 (1) H
ICLN NINTV01 (1) H
ICLN NINTV00 (1) H
COUT D3 D2 D1 D0 CLR LD CLK CEP CET
F3 F2 F1 F0
ICLN INTV CNT03 (1) H (ICLP)
ICLN INTV CNT02 (1) H (ICLP)
ICLN INTV CNT01 (1) H (ICLP)
ICLN INTV CNT00 (1) H (ICLP)

(NEXT INTERVAL REG & INTERVAL COUNTER LOW BITS) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLN)	D	CS	M7473-0-0	B
SCALE ←	SHEET 14 OF 21		DIST.	

M7473-0-0 B D CS

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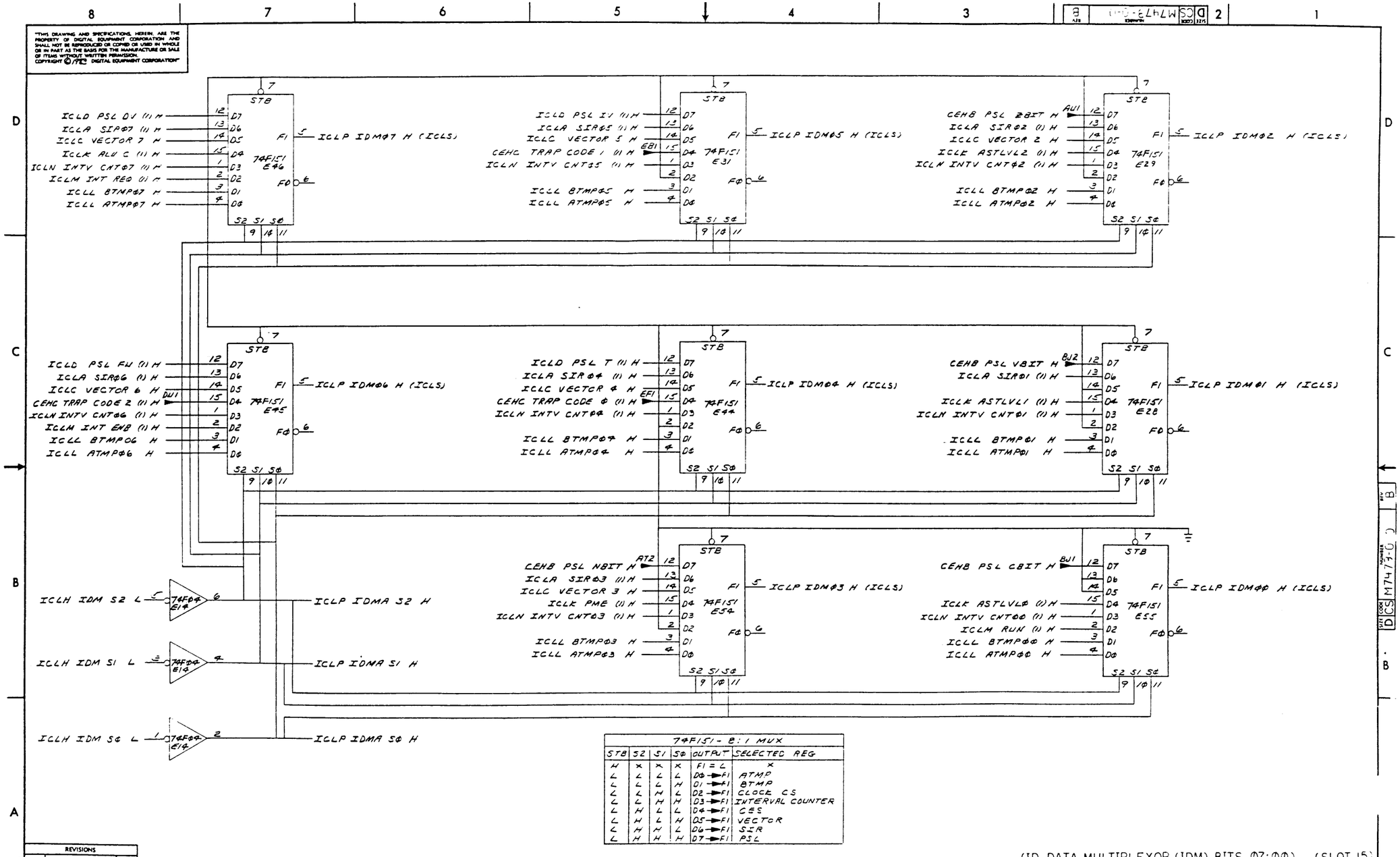

74F151 - 8:1 MUX

STB	S2	S1	S0	OUTPUT	SELECTED REG
H	X	X	X	F1 = L	X
L	L	L	L	D0 → F1	ATMP
L	L	L	H	D1 → F1	BTMP
L	L	H	L	D2 → F1	CLOCK CS
L	L	H	H	D3 → F1	INTERVAL COUNTER
L	H	L	L	D4 → F1	CES
L	H	L	H	D5 → F1	VECTOR
L	H	H	L	D6 → F1	SIR
L	H	H	H	D7 → F1	PSL

(ID DATA MULTIPLEXOR (IDM) BITS 07:00) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLP)	D	CS	M7473-0-0	3
SCALE	SHEET 15 OF 21		DIST.	

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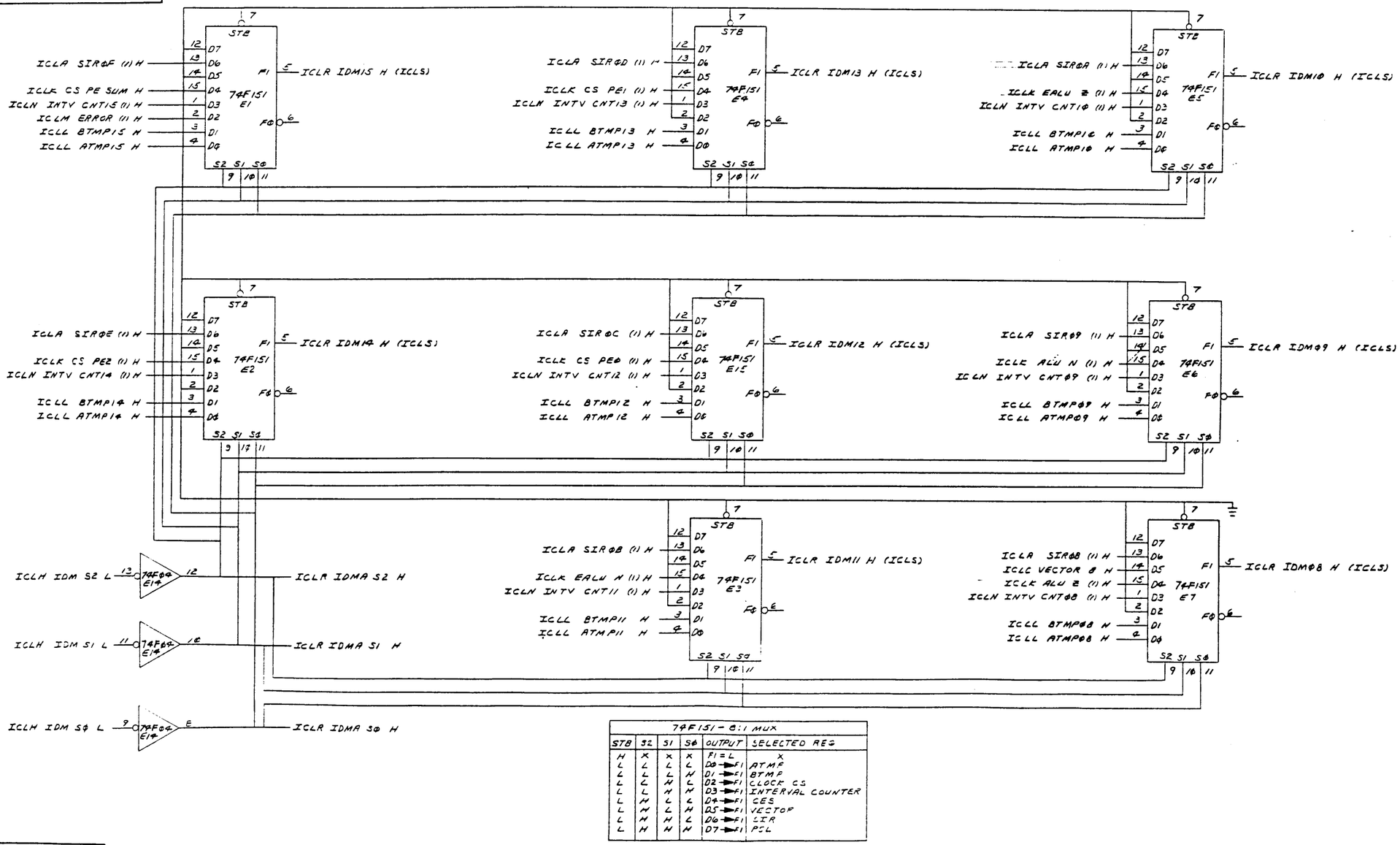

74F151 - 8:1 MUX

STB	S2	S1	S@	OUTPUT	SELECTED REG
H	X	X	X	FI = L	X
L	L	L	L	D@ → FI	ATMP
L	L	L	H	D1 → FI	BTMP
L	L	H	L	D2 → FI	CLOCK CS
L	L	H	H	D3 → FI	INTERVAL COUNTER
L	H	L	L	D4 → FI	CES
L	H	L	H	D5 → FI	VECTOR
L	H	H	L	D6 → FI	SIR
L	H	H	H	D7 → FI	PSL

REVISIONS

CHK	CHANGE NO.	REV.

(ID DATA MULTIPLEXOR (IDM) BITS 15:@8) (SLOT 15)

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLR)	D	CS	M7473-0-0	B

SCALE ——— SHEET 16 OF 21 DIST.

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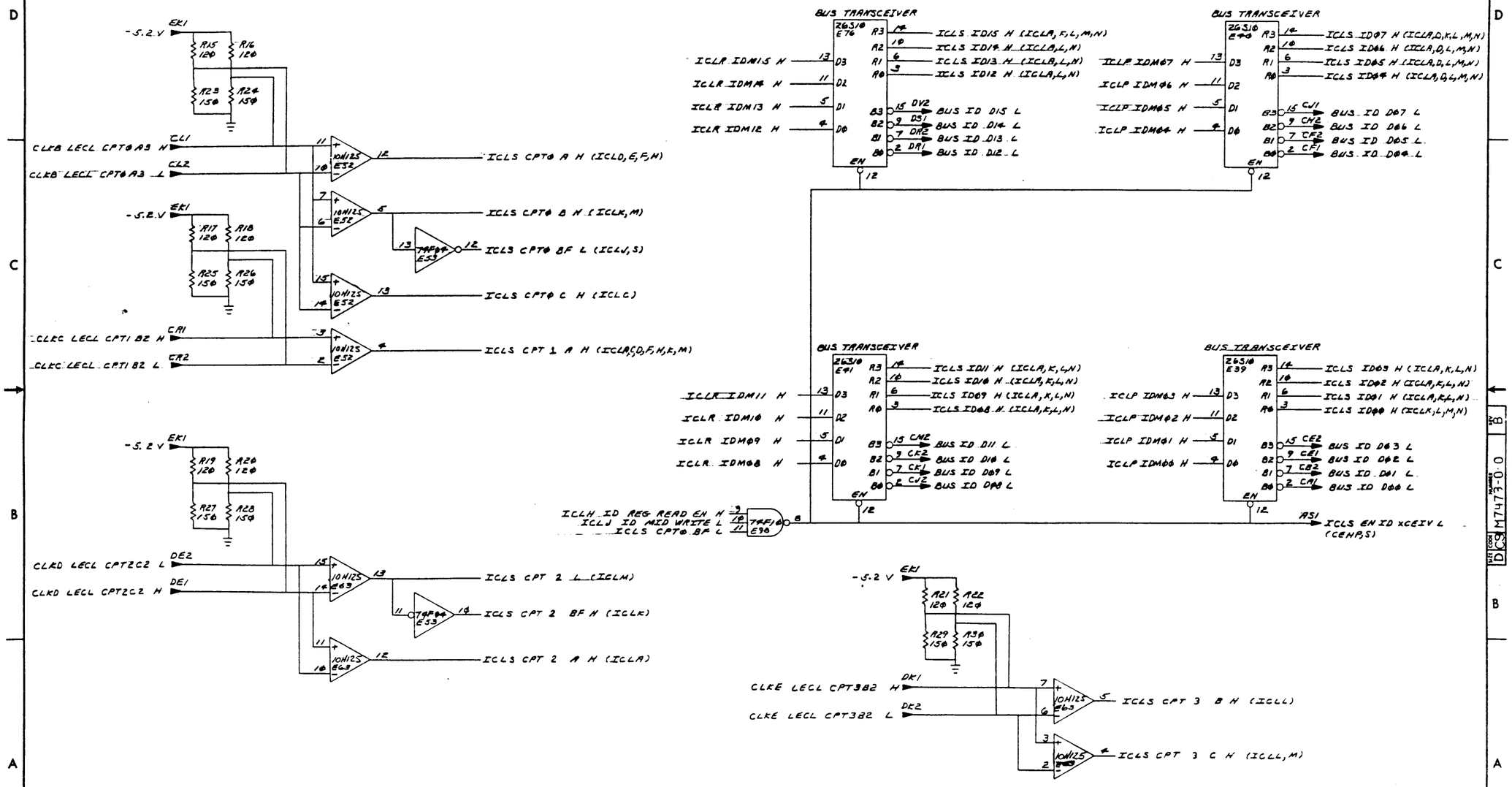

(CLOCK LOGIC & ID XCEIVERS LOW BITS) (SLOT 15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICLS)	D	CS	M7473-0-0	B
SCALE	SHEET 17 OF 21	DIST.		

M7473-0-0 B

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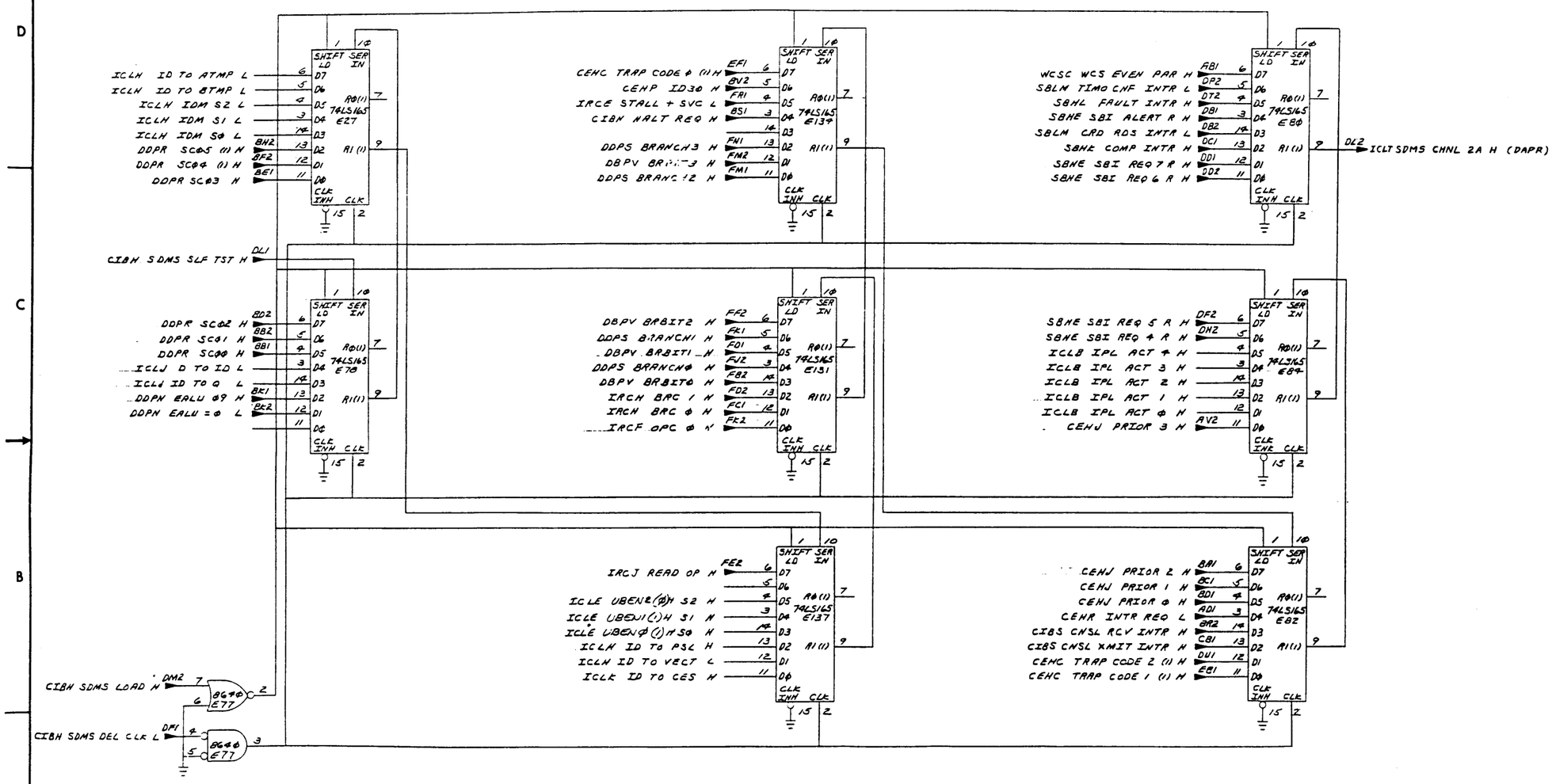
74LS/165 - 8 BIT SHIFT REG



REVISIONS		
CHK	CHANGE NO.	REV.

(SDMS BUS LOGIC) (SLOT 15)

TITLE INTERRUPT CONTROL AND LOW BITS (ICLT)

SIZE D | CODE CS | NUMBER M7473-0 0 | REV. B

SCALE | SHEET 18 OF 21 | DIST.

M7473-0 B

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VECTOR PROM

PROM ADDR	IPL ACT	PROM DATA M7	M6	M5	M4	M3	M2	M1	M0	VECTOR
		VECBIT (7,6)H		VECBIT (5:2) L					X	
Ø00	00	L	L	H	H	H	H	L	L	X
Ø01										
Ø02										
Ø03										
Ø04										
Ø05										
Ø06										
Ø07	▼									▼
Ø08	01	H	L	H	H	H	L	L	L	84
Ø09										
Ø0A										
Ø0B										
Ø0C										
Ø0D										
Ø0E										
Ø0F	▼									▼
Ø10	02	H	L	H	H	L	H	L	L	88
Ø11										
Ø12										
Ø13										
Ø14										
Ø15										
Ø16										
Ø17	▼									▼
Ø18	03	H	L	H	H	L	L	L	L	8C
Ø19										
Ø1A										
Ø1B										
Ø1C										
Ø1D										
Ø1E										
Ø1F	▼									▼
Ø20	Ø0	L	L	L	L	L	L	L	L	Ø0
▼ Ø3F										

PROM ADDR	IPL ACT	PROM DATA M7	M6	M5	M4	M3	M2	M1	M0	VECTOR
		VECBIT (7,6)H		VECBIT (5:2) L					X	
Ø40	04	H	L	H	L	H	H	L	L	98
Ø41										
Ø42										
Ø43										
Ø44										
Ø45										
Ø46										
Ø47	▼									▼
Ø48	05	H	L	H	L	H	L	L	L	94
Ø49										
Ø4A										
Ø4B										
Ø4C										
Ø4D										
Ø4E										
Ø4F	▼									▼
Ø50	06	H	L	H	L	L	H	L	L	98
Ø51										
Ø52										
Ø53										
Ø54										
Ø55										
Ø56										
Ø57	▼									▼
Ø58	07	H	L	H	L	L	L	L	L	9C
Ø59										
Ø5A										
Ø5B										
Ø5C										
Ø5D										
Ø5E										
Ø5F	▼									▼
Ø60	Ø0	L	L	L	L	L	L	L	L	Ø0
▼ Ø7F										

PROM ADDR	IPL ACT	PROM DATA M7	M6	M5	M4	M3	M2	M1	M0	VECTOR
		VECBIT (7,6)H		VECBIT (5:2)L					X	
Ø88	08	H	L	L	H	H	H	L	L	A8
Ø81										
Ø82										
Ø83										
Ø84										
Ø85										
Ø86										
Ø87	▼									▼
Ø88	09	H	L	L	H	H	L	L	L	A4
Ø89										
Ø8A										
Ø8B										
Ø8C										
Ø8D										
Ø8E										
Ø8F	▼									▼
Ø90	0A	H	L	L	H	L	H	L	L	A8
Ø91										
Ø92										
Ø93										
Ø94										
Ø95										
Ø96										
Ø97	▼									▼
Ø98	0B	H	L	L	H	L	L	L	L	AC
Ø99										
Ø9A										
Ø9B										
Ø9C										
Ø9D										
Ø9E										
Ø9F	▼									▼
ØA0	Ø0	L	L	L	L	L	L	L	L	Ø0
▼ ØBF										

PROM ADDR	IPL ACT	PROM DATA M7	M6	M5	M4	M3	M2	M1	M0	VECTOR
		VECBIT (7,6)H		VECBIT (5:2) L					X	
ØC0	0C	H	L	L	L	H	H	L	L	B0
ØC1										
ØC2										
ØC3										
ØC4										
ØC5										
ØC6										
ØC7	▼									▼
ØC8	0D	H	L	L	L	H	L	L	L	B4
ØC9										
ØCA										
ØCB										
ØCC										
ØCD										
ØCE										
ØCF	▼									▼
ØD0	0E	H	L	L	L	L	H	L	L	B8
ØD1										
ØD2										
ØD3										
ØD4										
ØD5										
ØD6										
ØD7	▼									▼
ØD8	0F	H	L	L	L	L	L	L	L	BC
ØD9										
ØDA										
ØDB										
ØDC										
ØDD										
ØDE										
ØDF	▼									▼
ØE0	Ø0	L	L	L	L	L	L	L	L	Ø0
▼ ØFF										

(VECTOR PROM TRUTH TABLE)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICL)	D	CS	M7473-0 0	3
SCALE	SHEET 19 OF 27		DIST.	

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VEC**** PROM

PROM ADDR	IPL ACT	VECBIT (7,6) H	VECBIT (5:2) L				X	VECTOR
		M7	M6	M5	M4	M3	M2	M1	M0	
100	10	L	L	H	H	H	H	L	L	X
101										
102										
103										
104										
105										
106										
107										
108	11	L	L	H	H	H	H	L	L	X
109										
10A										
10B										
10C										
10D										
10E										
10F										
110	12	L	L	H	H	H	H	L	L	X
111										
112										
113										
114										
115										
116										
117										
118	13	L	L	H	H	H	H	L	L	X
119										
11A										
11B										
11C										
11D										
11E										
11F										
120	00	L	L	L	L	L	L	L	L	00
13F										

PROM ADDR	IPL ACT	VECBIT (7,6) H	VECBIT (5:2) L				X	VECTOR
		M7	M6	M5	M4	M3	M2	M1	M0	
140	14	L	L	H	H	H	H	L	L	100 TO 13C
141										
142		H	H	L	L	L	L	L	L	FC
143										
144		H	H	L	L	L	H	L	L	F8
145										
146		L	L	H	H	H	H	L	L	X
147										
148	15	L	H	H	H	H	H	L	L	140 TO 17C
149										
14A										
14B										
14C										
14D										
14E										
14F										
150	16	H	L	H	H	H	H	L	L	180 TO 18C
151										
152										
153										
154										
155										
156										
157										
158	17	H	H	H	H	H	H	L	L	1C0 TO 1FC
159										
15A										
15B										
15C										
15D										
15E										
15F										
160	00	L	L	L	L	L	L	L	L	00
17F										

PROM ADDR	IPL ACT	VECBIT (7,6) H	VECBIT (5:2) L				X	VECTOR
		M7	M6	M5	M4	M3	M2	M1	M0	
180	18	H	H	H	H	H	H	L	L	C0
181										
182										
183										
184										
185										
186										
187										
188	19	L	H	H	L	H	H	L	L	50
189										
18A										
18B										
18C										
18D										
18E										
18F										
190	1A	L	H	H	L	H	L	L	L	54
191										
192										
193										
194										
195										
196										
197										
198	1B	L	H	H	L	L	H	L	L	58
199										
19A										
19B										
19C										
19D										
19E										
19F										
1A0	00	L	L	L	L	L	L	L	L	00
1BF										

PROM ADDR	IPL ACT	VECBIT (7,6) H	VECBIT (5:2) L				X	VECTOR
		M7	M6	M5	M4	M3	M2	M1	M0	
1C0	1C	L	H	H	L	L	L	L	L	5C
1C1										
1C2										
1C3										
1C4										
1C5										
1C6										
1C7										
1C8	1D	L	H	L	H	H	H	L	L	68
1C9										
1CA										
1CB										
1CC										
1CD										
1CE										
1CF										
1D0	1E	L	L	H	H	L	L	L	L	8C
1D1										
1D2										
1D3										
1D4										
1D5										
1D6										
1D7										
1D8	1F	L	L	H	H	H	H	L	L	X
1D9										
1DA										
1DB										
1DC										
1DD										
1DE										
1DF										
1E0	00	L	L	L	L	L	L	L	L	00
1FF										

(VECTOR PROM TRUTH TABLE)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
INTERRUPT CONTROL AND LOW BITS (ICL)	D	CS	M7473-0-0	B
SCALE	SHEET 28 OF 21		DIST.	

M7473-0-0 REV B

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DECODING LOGIC DESCRIPTION

(1CLD) HALT PENDING & TRACE TRAP PENDING

FUNCTION	HP LOAD COND	TP LOAD COND
ID TO PSL	HP	1039
IACK	HALT REQ	0
EACK	HALT REQ	0
CNSL CONT	0	PSL TP
DO NEXT INSTRUCTION (IPD STATE * $\overline{\text{STALL}}$ * $\overline{\text{SVC}}$)	HALT REQ	PSL T

(1CLF)
(1CLH)
(1CLJ) UNIBUS CONSOLE & ID BUS CONTROL

UFS	UCID	FUNCTIONS	
0	X	NO-OP	
1	0	NO-OP	
1	1	UNUSED	
1	2	CNSL ACK	
1	3	CNSL CONT	
1	4	ID DATA ◄ ID REG	ID ADDRS ◄ SC(5:0)
1	5		ID ADDRS ◄ UKMX
1	6	ID REG ◄ ID DATA	ID ADDRS ◄ SC(5:0)
1	7		ID ADDRS ◄ UKMX

(1CLD) UIEK DECODE

UIEK	FUNCTION
0	NO-OP
1	ISTR
2	IACK
3	EACK

(1CLD) A FORK PRIORITY

	CONDITION	SERV BIT CODE	PRIOR
SVC	ARITHMETIC TRAP	7	HIGHEST
SVC	HALT PENDING (HP)	5	
SVC	INTERRUPT REQ*EXT.DEV (NI)	6	
SVC	INTERRUPT REQ*INT.COND (NI)	4	
	TRACE TRAP PENDING (TP)	1	
STALL	IBUF STALL	0	
STALL	IBUF ERROR	0	
	NEXT INSTRUCTION	0	LOWEST

NI - MUTUALLY EXCLUSIVE

(1CLH) ID ADDRESS DECODE

ID ADDRS	ID REGISTER	ID REG READ EN H	IDM(S2:S0) L		
			S2	S1	S0
08	DQ (ID MAINT. ONLY)	L	X	X	X
09	NXT INTV	L	X	X	X
0A	CLOCK CS	H	H	L	H
0B	INTV CNT	H	H	L	L
0C	CES	H	L	H	H
0D	VECT	H	L	H	L
0E	SIR	H	L	L	H
0F	PSL	H	L	L	L
24-2F	ATMP	H	H	H	H
30-3F	BTMP	H	H	H	L

SIZE	CODE	NUMBER	REV.
B	DD	M7473-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		M7473-00	ICL	A1 B1
E-UA-M7473-0-0	1		UNIT ASSEMBLY	A B
K-PL-M7473-0-DBP	2		PARTS LIST	A B
K-PC-M7473-0-DBC	—		P.C. DESIGN DATA BASE	A1 A1
B-DD-5016100-0-0	1		DRAWING DIRECTORY	A B
D-CS-M7473-0-0	21		SCHEMATICS	A B

NOTES:

REVISIONS	DATE	CHG NO.	REV.
	8/83	INIT	A
	5/84	TW001	B

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USED ON OPTION/MODEL		

DRN.	S. MANSOR	26-AUG-83
CHK'D	F. GARUFALO	9-19-83
ENG.	Grant Lee	10-11-83
PROJ.	Michael Hunsch	10-11-83

TITLE: ICL

SIZE	CODE	NUMBER	REV.
B	DD	M7473-0-0	B

SHEET 1 OF 1

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF.

11.91 REF

1 14 64

TH2 TH1

E74 E65 E56 E48 E39 E34 E24 E14 E23 E33 E13 E22 E32 E12 E21 E31 E4 E8 E20 E30 E11 E19 E7 E3 E29 E10 E18 E6 E2 E28 E9 E17 E5 E1 E27 E26 E16 E25 E15 E73 E64 E55 E47 E38 E72 E63 E54 E46 E71 E62 E53 E45 E70 E61 E52 E44 E69 E60 E51 E43 E68 E59 E50 E42 E37 E67 E58 E49 E41 E36 E66 E57 E40 E35

C76 C75 C74 C73 C72 C71

F E D C B A

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	DATE
DRN. A.DEPISKI	82/08
CHK. C.MCKEON	82/08
TECH. ENG. J.KAY	82/08
PROJ. ENG. J.KAY	82/08
PROD. MGR.	
SCALE NONE	SHT. 1 OF 1

TITLE: CLOCK (CLK)

SIZE: E | NUMBER: M7474-0-0 | REV: A

NEXT HIGHER ASSY: 8-002-M7474-0-0

CHG	CHANGE NO	REV

NOTES
1. SPARE IX LOCI,E2,E4,E13,E19,E20,E25&E34.
2. M5L8214 IS USED.
3. M5L8214 ARE SPARES,DO NOT INSTALL.

STEP C	+ Y AXIS	STEP 1X TIMES
REPEAT	+ X AXIS	STEP 1X TIMES

E UA M7474-0-0

AUTOMATED BY PRTLST.4Q(50) P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION VARIATION REVISION LEVEL:	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1		5016101-01		ETCH CIRCUIT BOARD	1	
2	2		1000021-00		220.0 MMF 100V 5%200PPM MICA	2	C6,C8
3	3		1000024-00		470.0 MMF 100V 5%200PPM MICA	2	C3,C4
4	4		1001610-00		.01 MFD 50V +80-20% Z5U CER	44	C21,C24,C25,C27-C67
5	5		1001776-00		1 MFD 35V 10% S.TANT	1	C5
6	6		1004813-00		10 MFD 20V 10% S.TANT	1	C2
7	7		1009964-00		.68 MFD 35V 10% S.TANT	3	C1,C7,C10
8	8		1110864-00		LED 2MCD@10MA	8	D1-D4,D11-D14
9	9		1011740-00		5600.0 MMF 50V 10% CER	1	C11
10	10		1012784-00		.047 MFD 50V +80-20% CER	13	C9,C12-C20,C22,C23,C26
11	11		1017472-00		10 MFD 35V +50-10% AL EL	6	C71-C76
12	12		1100114-00		PIV= 25 IO=135 MA	6	D5-D10
13	13		1211164-07		SW,DIP 2POS/1PST 5VDC100MA F	15	S1-S15
14	14		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
15	15		1300271-00		220.0 .25 W 5.0 % CF	2	R99,R600
16	16		1300295-00		330.0 .25 W 5.0 % CF	8	R83,R86,R89,R92,R484,R487,R490, CONT R493
17	17		1300365-00		1.0 K .25 W 5.0 % CF	28	R94,R97,R98,R100,R103,R108, CONT R124-R128,R196,R219,R224-R227, CONT R229-R232,R312,R315,R318,R349, CONT R351,R354,R900
18	18		1300391-00		1.50 K .25 W 5.0 % CF	1	R195
19	19		1300439-00		3.30 K .25 W 5.0 % CF	1	R209
20	20		1300479-00		10.0 K .25 W 5.0 % CF	2	R104,R107
21	21		1301310-00		270.0 K .25 W 5.0 % CF	4	R199,R203,R210,R214
22	22		1301423-00		6.80 K .25 W 5.0 % CF	1	R208
23	23		1301972-00		270.0 .25 W 5.0 % CF	2	R228,R233
24	24		1302091-00		330.0 K .25 W 5.0 % CF	1	R198
25	25		1302092-00		220.0 K .25 W 5.0 % CF	4	R201,R212,R216,R364
26	26		1302394-00		30.0 K .25 W 5.0 % CF	6	R95,R96,R101,R102,R105,R106

REVISION HISTORY			BASIC PART NO: M7474				
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: SHEILA MANSOR	DATE: 06-JUL-83	D I G I T A L	
---	INITIAL	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	CHK'D: E.T.GERRY	DATE: 7-JUL-83	TITLE PARTS LIST CLOCK	
				DES.ENG: M.STEFANSKI	DATE: 20-SEP-83	DOCUMENT NUMBER SIZE: K; CODE: PL; NUMBER: M7474-0-DBP	REV: A
				RESP.ENG.: M.STEFANSKI	DATE: 20-SEP-83		
				MFG.ENG.: M.KRYSAK	DATE: 20-SEP-83	RELEASE DATE: 14-OCT-83	
				ASSEMBLY NUMBER: E-UA-M7474-0-0	TOP DOCUMENT NUMBER: B-DD-M7474-0-0	FILE NAME: Z3950A.PLS	EDIT # 19

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LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION VARIATION REVISION LEVEL:	QTY PER VARIATION 00	REFERENCE DESIGNATOR
27	27		1302874-00	147.0	.25 W 1.0 % RN55D-F10	4	R82,R84,R87,R90
28	28	SEE NOTE 66-68	1302956-00	196.0	.25 W 1.0 % RN55D-F10	179	R2,R4,R6,R8,R10,R12,R14,R16,R18, CONT R20,R22,R24,R26,R28,R30,R32,R34, CONT R36,R38,R40,R42,R44,R46,R48,R50, CONT R52,R54,R56,R58,R60,R62,R64,R66, CONT R68,R70,R72,R74,R76,R78,R80, CONT R110,R130,R134,R136,R138,R159, CONT R161,R163,R165,R175,R177,R221, CONT R223,R235,R237,R239,R241,R243, CONT R245,R247,R249,R251,R253,R255, CONT R257,R301,R303,R305,R307,R309, CONT R311,R313,R317,R319,R321,R323, CONT R325,R326,R329,R331,R335,R336, CONT R338,R339,R341,R343,R344,R347, CONT R352,R361,R363,R366,R367, CONT R369-R371,R373,R376,R378,R379, CONT R381,R382,R384,R386,R388,R390, CONT R393,R394,R396,R399,R401,R403, CONT R405,R407,R409,R411,R413,R415, CONT R417,R419,R420,R425,R427,R428, CONT R433,R435,R436,R444,R448,R450, CONT R452,R454,R457,R459,R472-R474, CONT R477,R478,R481,R483,R486,R489, CONT R492,R603,R605,R606,R610,R611, CONT R613,R614
29	29	SEE NOTE 69-71	1302957-00	121.0	.25 W 1.0 % RN55D-F10	185	R1,R3,R5,R7,R9,R11,R13,R15,R17, CONT R19,R21,R23,R25,R27,R29,R31,R33, CONT R35,R37,R39,R41,R43,R45,R47,R49, CONT R51,R53,R55,R57,R59,R61,R63,R65, CONT R67,R69,R71,R73,R75,R77,R79,R81, CONT R85,R88,R91,R109,R129,R133,R135, CONT R137,R154-R158,R160,R162,R164, CONT R174,R176,R220,R222,R234,R236, CONT R238,R240,R242,R244,R246,R248, CONT R250,R252,R254,R256,R300,R302, CONT R304,R306,R308,R310,R314,R316, CONT R320,R322,R324,R327,R328,R330, CONT R332-R334,R337,R340,R342,R345, CONT R346,R350,R355,R357,R360,R362, CONT R365,R368,R372,R374,R375,R377, CONT R380,R383,R385,R387,R389,R391, CONT R392,R397,R398,R400,R402,R404, CONT R406,R408,R410,R412,R414,R416, CONT R418,R424,R426,R432,R434, CONT R439-R443,R445,R446,R449,R451, CONT R453,R455,R456,R458,R470,R471, CONT R475,R476,R479,R480,R482,R485, CONT R488,R491,R601,R602,R604,

DIGITAL	TITLE	SECTION A OF A
	CLOCK	

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M7474-0-DBP	A

AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A3 OF A4

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
							CONT R607-R609
30	30		1309595-00		1.0 M .25 W 5.0 % CF	4	R202,R206,R213,R217
31	31		1310867-00		680.0 K .25 W 5.0 % CF	1	R197
32	32		1312930-00		5.10 K .25 W 5.0 % CF	6	R194,R200,R204,R207,R211,R215
33	33		1510959-00		2N 3725 NPN 3.5WC SI 50 60 P	38	Q1-Q38
34	34		1511686-00		DEC5433 FET N 350MW 10 25 1A	16	Q39-Q54
35	35		1910436-00		DEC 74123 ONE SHOT-DUAL,RETRIG	3	E5,E6,E10
36	36		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	2	E9,E11
37	37		1910645-00		75452 DRIVER,PERIPH,DUAL,	1	E3
38	38		1911324-00		7414 INVERTER,HEX 1IN SCH	1	E7
39	39		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E22
40	40		1912108-01		LM 339ANVOLT. CMPRTR,QUAD	1	E8
41	41		1912746-00		DEC 74S37 NAND GATE-QUAD 2IN	2	E21,E24
42	42		1912811-00		LS21 AND GATE-DUAL 4IN,PO	1	E23
43	43		1912838-00		LS132 NAND GATE-QUAD 2IN P	1	E12
44	44		1913220-00		10216 RECEIVER,TRIPLE LINE	2	E27,E37
45	45		1917261-00		100171 MUX,TRIPLE,4-IN W/EN	1	E48
46	46		1917271-00		100151 FF-D HEX	5	E42,E43,E49,E67,E70
47	47		1917277-00		100131 FF-D TRIPLE	11	E51,E53,E55,E56,E58,E59,E63,E64,
							CONT E68,E69,E71
48	48		1917280-00		100125 TRANSLATOR,ECL TO TT	1	E18
49	49		1917281-00		100124 TRANSLATOR,TTL TO EC	3	E15-E17
50	50		1917284-00		100118 OA/OAI,5 WIDE	1	E44
51	51		1917286-00		100114 RECEIVER,LINE,QUAD	1	E38
52	52		1917288-00		100107 OR/NOR,EXCLUSIVE,QUI	1	E62
53	53		1917289-00		100102 OR/NOR GATE,QUINT,2	7	E39,E47,E52,E57,E61,E66,E72
54	54		1917290-00		100101 OR/NOR GATE,TRIPLE,	3	E50,E54,E60
55	55		1921307-01		74F04 HEX INVERTER	1	E13
56	56		1921310-01		74F11 AND GATE,TRIPLE,3-IN	1	E14
57	57		1921718-01		10H101 OR/NOR GATE QUAD	6	E25,E26,E28,E29,E35,E36
58	58		1921719-01		10H105 OR/NOR GATE TRIPLE 2-3-2	2	E40,E41
59	59		1921720 01		10H125 TRANSLATOR ECL TO TTL QUA	2	E30,E31
60	60		9009185-00		JUMPER, WIRE, INSULATED, BLACK B	6	W17-W22
61	61		1821969-01		OSCILLATOR, XTAL 108.0 MHZ	1	E32
62	62		1821969-02		OSCILLATOR, XTAL 120.0 MHZ	1	E33
63	63		1821969-03		OSCILLATOR, XTAL 126.0 MHZ	1	E34
64	64		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
65	65		9007201-00		PAD,MOUNTING,COMPONENT	38	

66 NOTE: ITEM 28, REFERENCE DESIGNATORS CONT. ARE R616,R618,R620,
67 NOTE: R623,R630,R800,R802,R804,R811,R821,R888,R950,R977-R979,R987,
68 NOTE: R989,R995,R807,R996,R998,R999,R500-R505
69 NOTE: ITEM 29, REFERENCE DESIGNATORS CONT. ARE R612,R615,R617,
70 NOTE: R619,R621,R622,R801,R805,R806,R810,R820,R822,R951,R506-R511,R803

DIGITAL	TITLE	SECTION A OF A
	CLOCK	

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M7474-0-DBP	A

AUTOMATED BY PRTLST.4Q(50) P A R T S L I S T SHEET A4 OF A4

LINE ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
				VARIATION REVISION LEVEL:		
71	NOTE:	R959,R986,R988,R990,R991,R993,R994				

D I G I T A L	TITLE CLOCK	SECTION A OF A	

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M7474-0-DBP	A

CPU AND SBI CLOCK

RUN H

FREQUENCY GENERATION AND SELECTION (CLKM,V,W)

SBI OSC4XF H
SBI OSC2XF H
SBI OSC2XF L
CPU OSC2XF H
CPU OSC2XF L
CPU OSC4XF H

START/STOP/STEP CONTROL (CLKN)

START CLK (0) H

STOPPED H

SBI SEQUENCE GENERATOR (CLKS)

SBI TP (1) H
SBI TP (0) H
SBI PCLK (1) H
SBI PCLK (0) H
SBI PDCLK (1) H
SBI PDCLK (0) H

SBI DESKEW/ DRIVER (CLKS)

SBI INDICATOR LEDS (CLKJ)

SBI T2 H

SBI TP H
SBI TP L
SBI PCLK H
SBI PCLK L
SBI PDCLK H
SBI PDCLK L
TO SBI BUS

EXT OSC H
EXT OSC L

SYNC 2XF H

FROM CIB: FR0 L, FR1 L, STS L, SBC L, SDMM L, PROCEED L

CONTROL SIGNAL SYNCHRONIZER (CLKT)

STSSYNC (0) H
SBCSYNC (0) H
SDMM ENAB (0) H
PROSYNC (1) H

FROM USC: BRKMAT L

CLOCK PHASE ERROR DETECTION (CLKW)

CLOCK PHASE ERR L

CPU SEQUENCE GENERATOR (CLKU)

CPU TP (1) H
CPU TP (0) H
CPU PCLK (1) H
CPU PCLK (0) H
CPU PDCLK (1) H
CPU PDCLK (0) H

CPU DESKEW/ DRIVER (CLKU)

DP CPU TP H
CPU TP H
DP CPU TP L
CPU TP L
DP CPU PCLK H
CPU PCLK H
DP CPU PCLK L
CPU PCLK L
DP CPU PDCLK H
CPU PDCLK H
DP CPU PDCLK L
CPU PDCLK L
TO CPU CLOCK DISTRIBUTION

STARTUP H

POWER UP SEQUENCER (CLKP)

FAKEFAIL L
FAKEDEAD L

POWER FAIL FETS (CLKR)

SBI DEAD L
SBI FAIL L
PS DCLO L
PS ACLO L

1 2 3 4 1 2 3 4
DCLO ACLO
FROM POWER SUPPLIES

POWER FAIL SEQUENCER (CLKK,L)

CNSL RESET L
QBUS ACLO L
BAT DCLO H
ACK PWR FAIL L

CPU DCLO L
CPU ACLO L
P FAIL INIT (1) H
ACLO OR FAIL H
SYS INIT A L
SYS INIT B L
SYS INIT H
UPROG INIT H

MAINT PF TEST POINT L

CPU POWER FAIL SEQUENCER

CPU CLOCK DISTRIBUTION

CPU TP H
CPU TP L
CPU PCLK H
CPU PCLK L
CPU PDCLK H
CPU PDCLK L

RECIEVER (CLKA)

DECODERS (CLKA)

DRIVERS (CLKB,C,D,E,F,H,J)

PSEUDO-ECL CLOCK SIGNALS TO CLOCK MODULES

CPU INDICATOR LEDS (CLKJ)

M7474 BLOCK DIAGRAM

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REVISIONS		
CHK	CHANGE NO.	REV

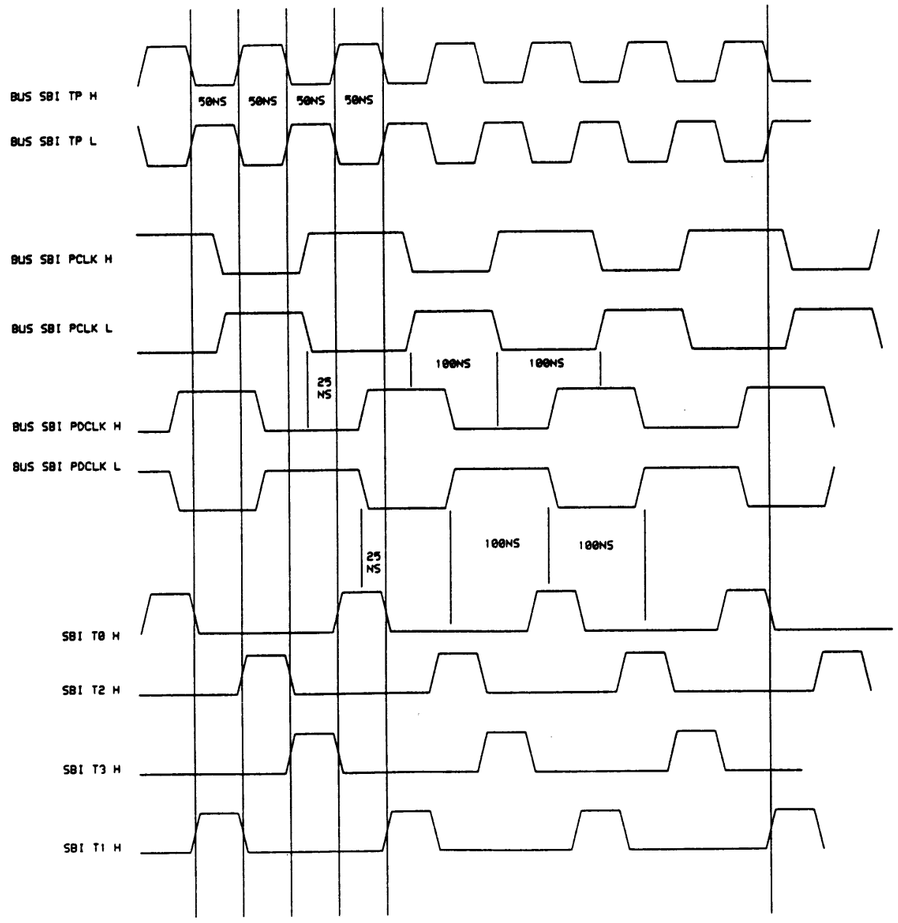
digital

DRN: Taylor DATE 30-SEP-83
CHK D. ENG. M. Atkinson DATE 10-NOV-83
DATE BOARD LOCATION: AF16
SHEET 1 OF 1

DSKB:<TAYLOR>CLK1.DRW 30-SEP-83 10:20
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE K | CODE CS | NUMBER M7474-0-CLK1 | REV. A



(SBI TIMING)

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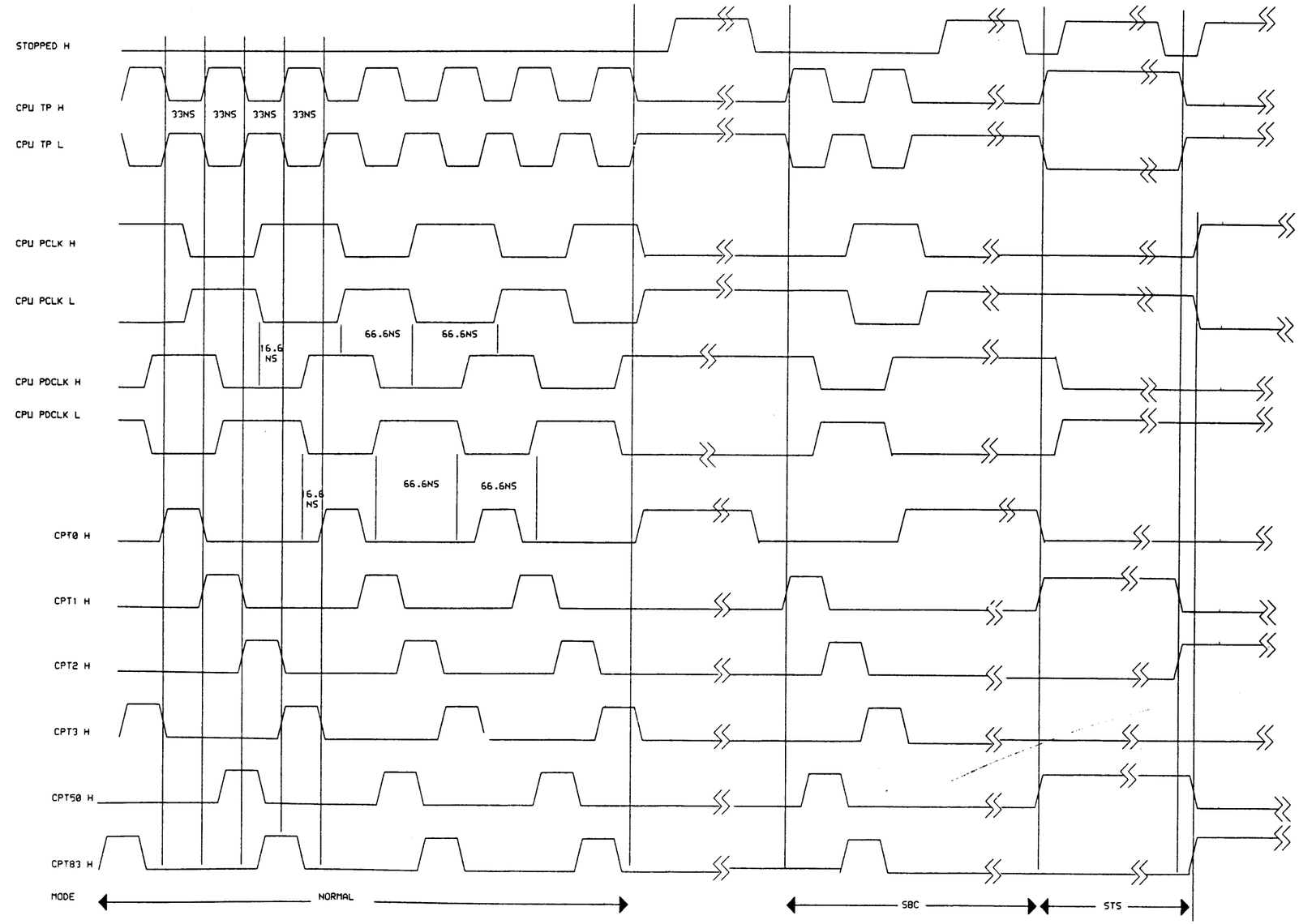
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: [illegible] DATE 30-SEP-83
CHK'D: [illegible] DATE
ENG. [illegible] DATE 10-11-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLK2.DRW 30-SEP-83 08:43
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLK2	A



(CPU TIMING)

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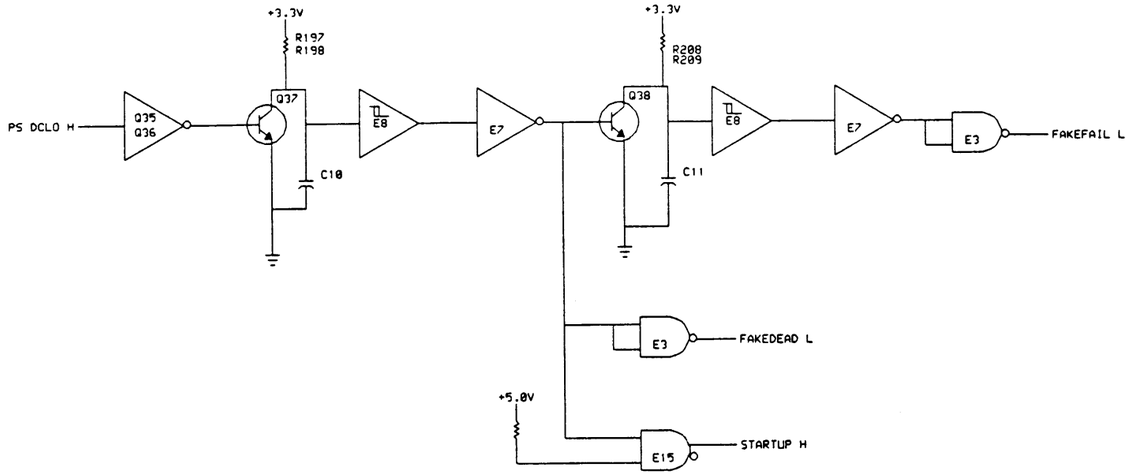
REVISIONS		
CHK	CHANGE NO.	REV

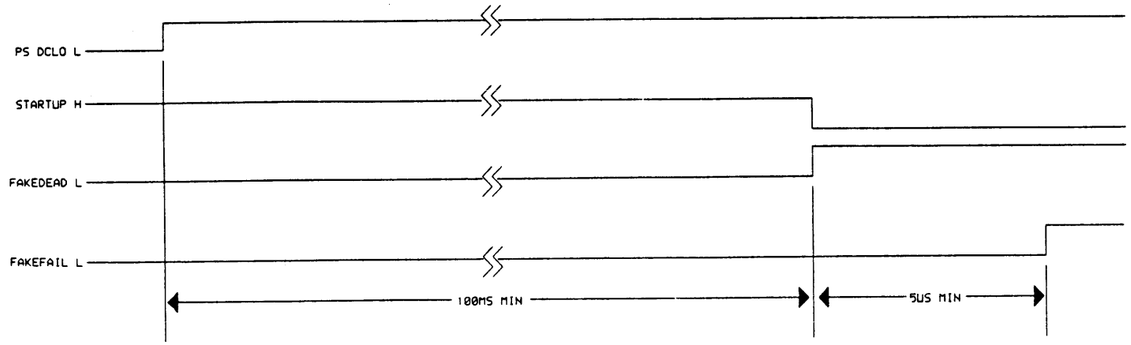
digital

DRN. Wayne R Taylor — DATE 30-SEP-83
CHK 'D' [illegible] — DATE
ENG. [illegible] — DATE 10-11-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLK3.DRW 30-SEP-83 02:54
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLK3	A





(SBI CLOCK POWER UP SEQUENCER TIMING)

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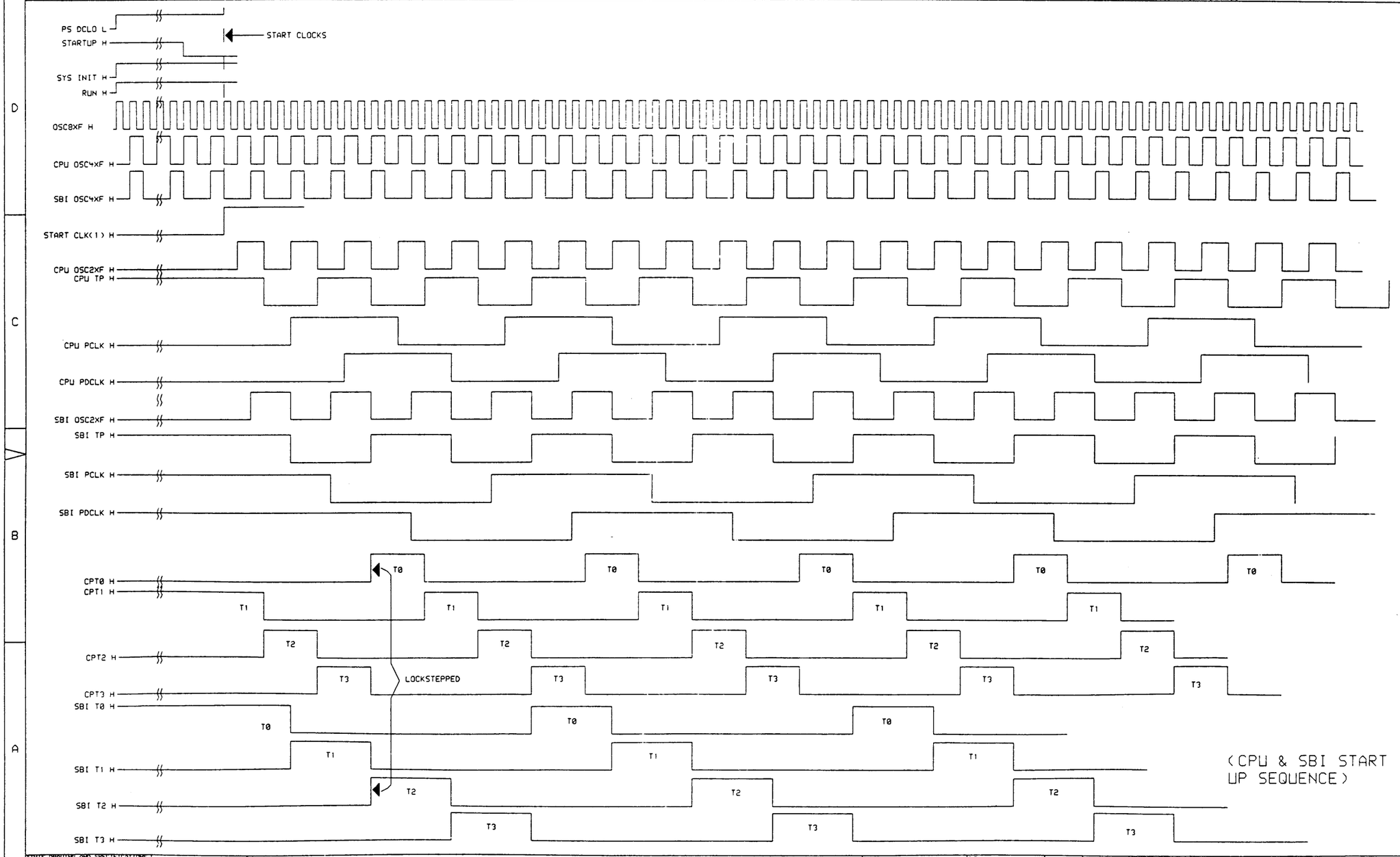
REVISIONS		
CHK	CHANGE NO.	REV

DSKB:<TAYLOR>CLK4.DRW 30-SEP-83 10:32
FIRST USED ON OPTION/MODEL: 11/785

DRN: [signature] DATE 30-SEP-83
CHK 'D. [signature] DATE
ENG. [signature] DATE 10-11-83
BOARD LOCATION: AF16
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLK4	A



(CPU & SBI START UP SEQUENCE)

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REVISIONS		
CHK	CHANGE NO.	REV

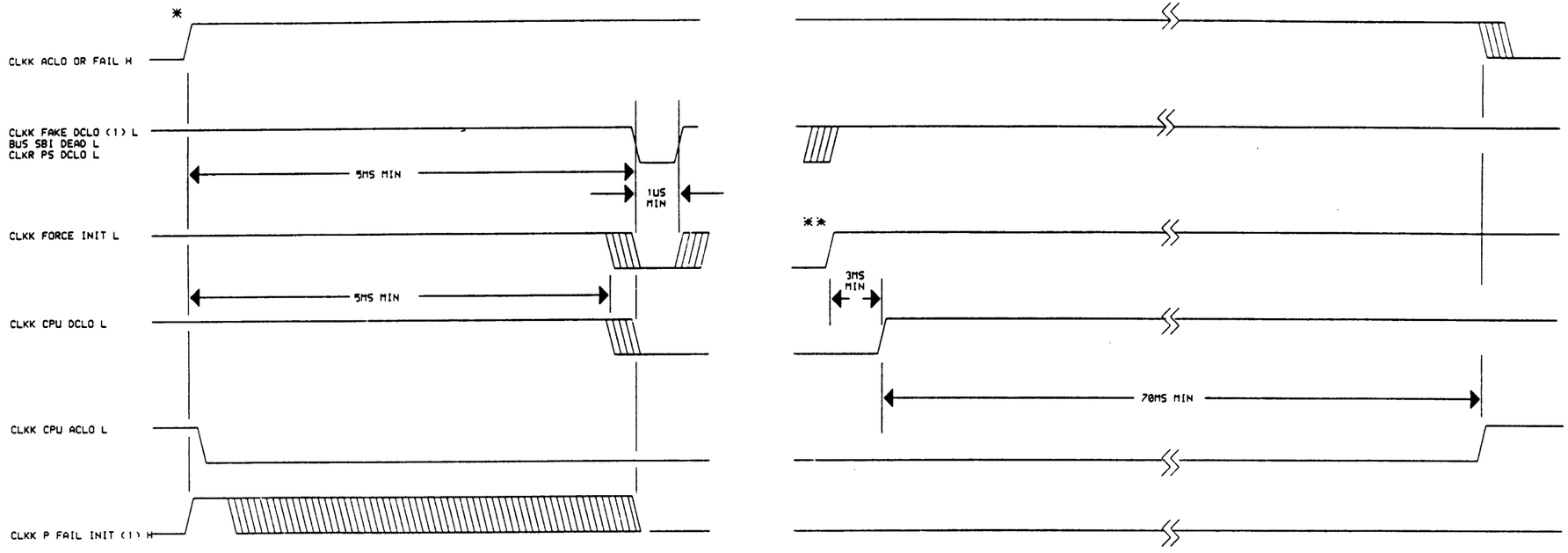
digital

DRN: Wayne Taylor
CHK'D:
DATE 30-SEP-83
ENG. M. Shenkin
DATE 10-OCT-83
BOARD LOCATION: AF16
SHEET 1 OF 1

DSKB:<TAYLOR>CLK5.DRW 30-SEP-83 08:59
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLK5	A



POWER DOWN SEQUENCE

* TRIGGERED FROM THE FIRST ASSERTION OF AN ACLO EQUIVALENT SIGNAL

POWER UP SEQUENCE

** TRIGGERED FROM THE LAST DEASSERTION OF A DCLO EQUIVALENT SIGNAL.

ACLO EQUIVALENT SIGNALS: CLKR PS ACLO L
BUS SBI FAIL L
CIBV QBUS ACLO L
IRCM BAT DCLO H
CLKL MAINT PF (1) H

DCLO EQUIVALENT SIGNALS: CLKR PS DCLO L
BUS SBI DEAD L
CLKK FAKE DCLO (1) L

(CPU POWER FAIL SEQUENCER TIMING)

SIZE	CODE	NUMBER	REV.
B	CS	M7474-0-CLK6	A

DSKB:<TAYLOR>CLK6.DRW 30-SEP-83 FIRST USED ON OPTION MODEL: M7474-0-CLK6

JUMPER IDENTIFICATION	SCHEMATIC REFERENCE	PURPOSE	INSTALLATION DATA
S1,S2,S4 THROUGH S9	CLKB,CLKC,CLKD, CLKE,CLKF,CLKH	SEND ECL CLOCK SIGNALS TO THE ACCELERATOR (SLOT 24, 25,26 AND 28)	SWITCHED "ON" ONLY WHEN ACCELERATOR IS INSTALLED.
S3	CLKR	DRIVE SBI FAIL AND SBI DEAD ONTO THE BUS IN THE EVENT OF POWER FAILURE IN THE CPU SUBSYSTEM.	S3 "OFF" AND W17 THROUGH W22 ARE REMOVED ONLY WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE ON THE SBI (SUCH AS A SECOND CPU).
W17 THROUGH W22	CLKS	DRIVE THE SBI CLOCK SIGNALS ONTO THE BUS.	
S10 THROUGH S15	CLKU	DRIVE THE CPU CLOCK SIGNALS TO THE CPU DISTRIBUTION CIRCUITS.	S13 THROUGH S15 ARE "ON" FOR A SINGLE PROCESSOR CONFIGURATION. S10 THROUGH S12 ARE "ON" WHEN THE CPU RECIEVES IT'S CLOCK SIGNALS FROM ANOTHER DEVICE (SUCH AS A SECOND CPU).

(SWITCH & JUMPER SELECT DATA)

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REVISIONS		
CHK	CHANGE NO.	REV

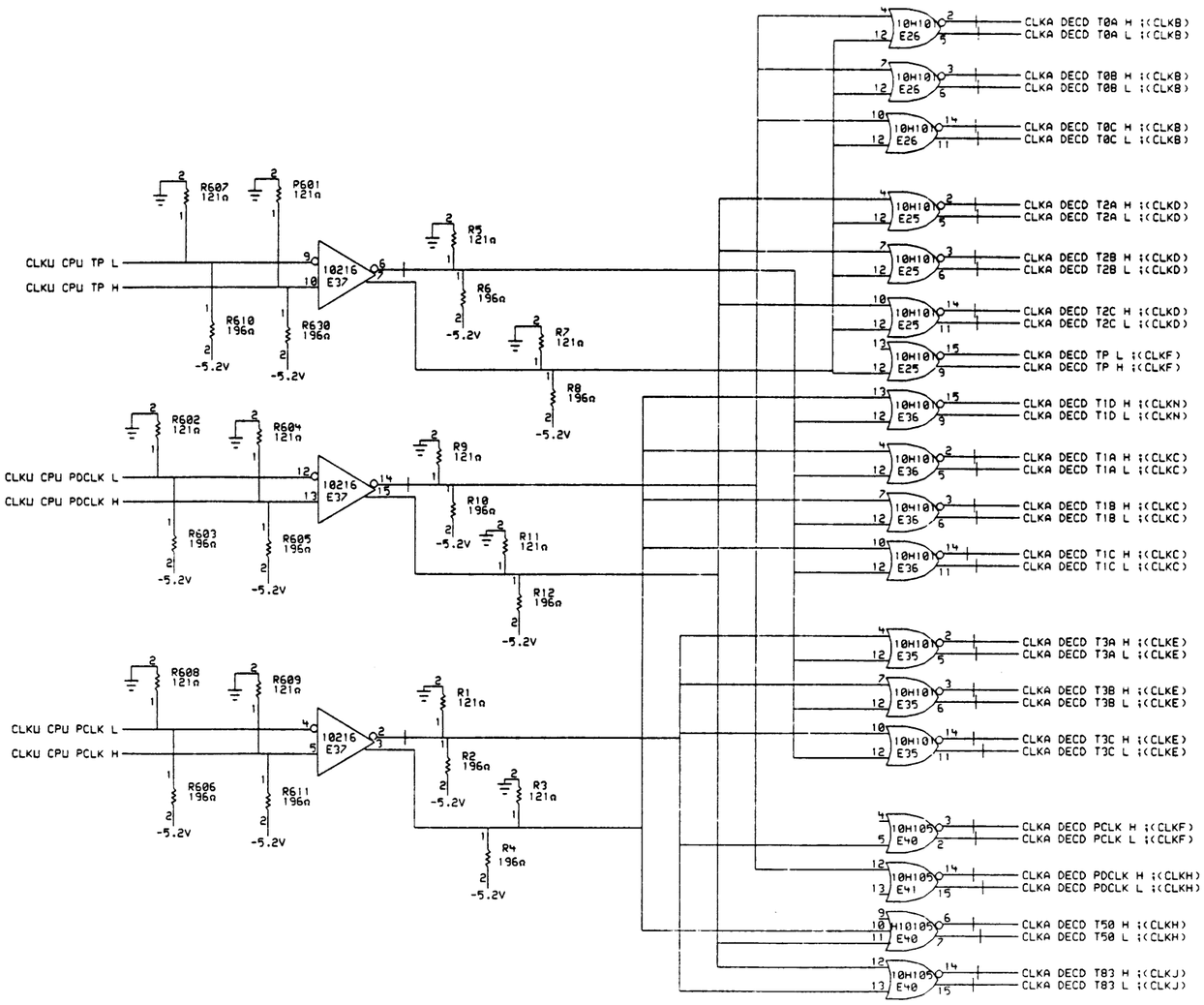
digital

DRN: [illegible] DATE 30-SEP-83
CHK 'D.' DATE
ENG [illegible] DATE 1-11-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLK7.DRW 29-SEP-83 15:46
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLK7	A

SIZE K | CODE CS | NUMBER M7474-0-CLK7 | REV. A



[CLKA]

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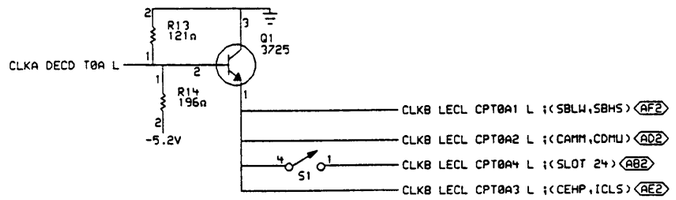
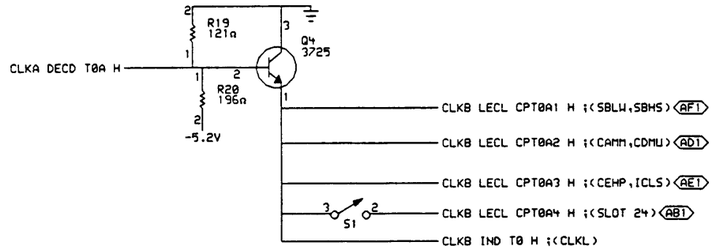
REVISIONS		
CHK	CHANGE NO.	REV

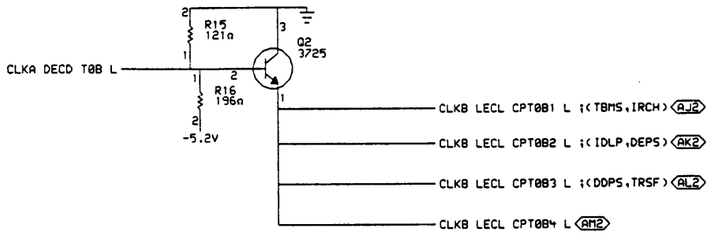
DRN: Wayne Taylor	DATE 30-SEP-83	ENG.	DATE 30-SEP-83
CHK'D.	DATE	BOARD LOCATION: AF16	
		SHEET 1 OF 1	
DSKB:<TAYLOR>CLKA.DRW	27-SEP-83 13:09	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7474-0-0	

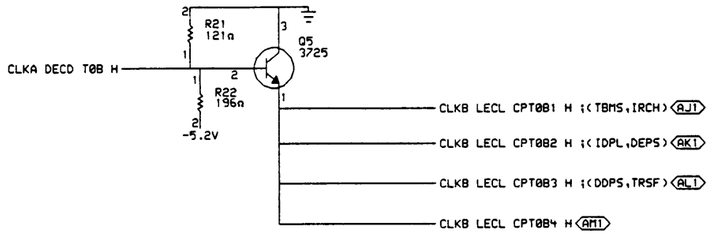
TITLE: CLOCK (CLK)

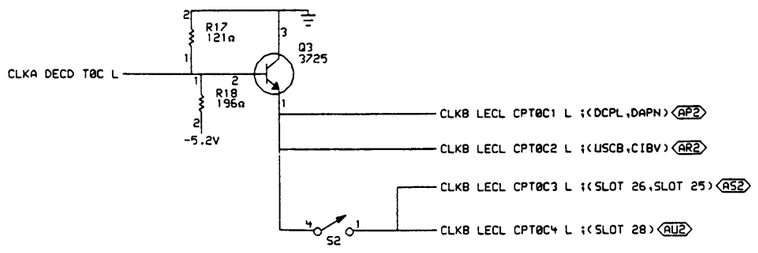
SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKA	A

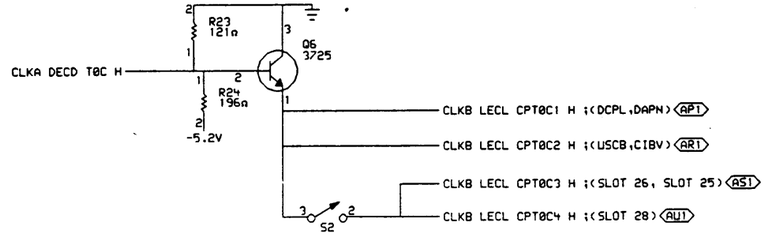












[CLKB]

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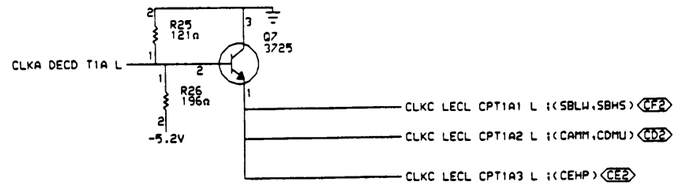
REVISIONS		
CHK	CHANGE NO.	REV

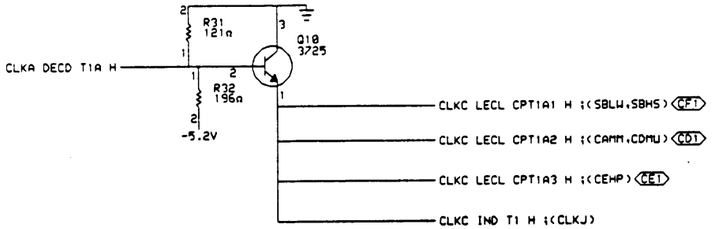
DRN: CHK 'D.' DATE 31-AUG-83 ENG. DATE 31-AUG-83
DATE BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLCB.DRW 31-AUG-83 11:04 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7474-0-0

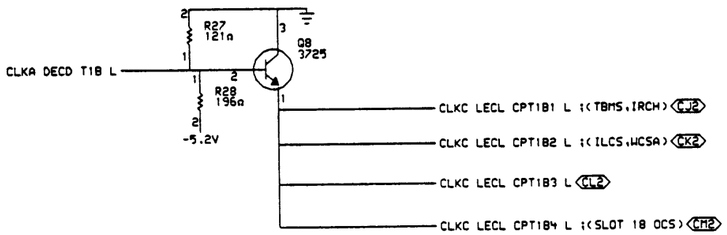
TITLE: CLOCK (CLK)

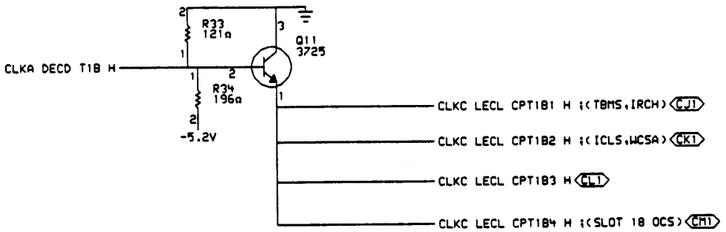
SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKB	A

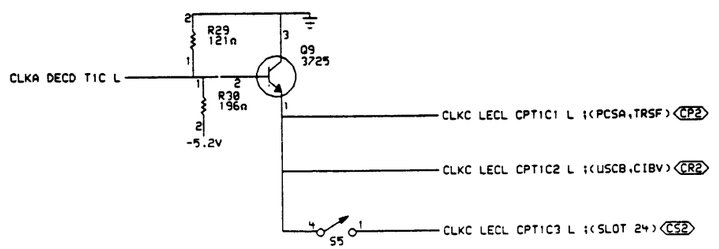
REV. A | NUMBER M7474-0-CLKB | CODE CS | SIZE K

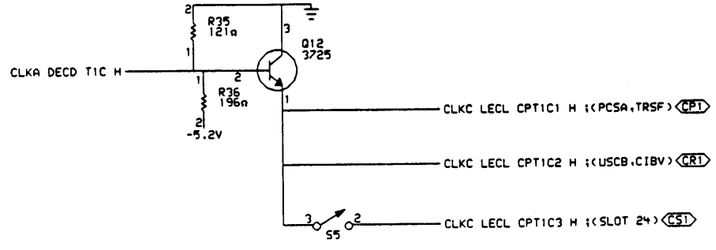












[CLKC]

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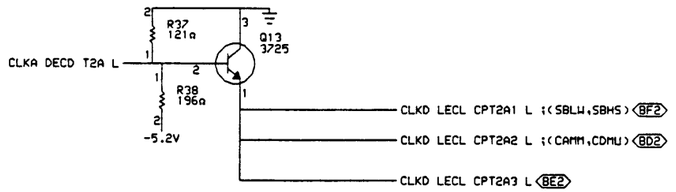
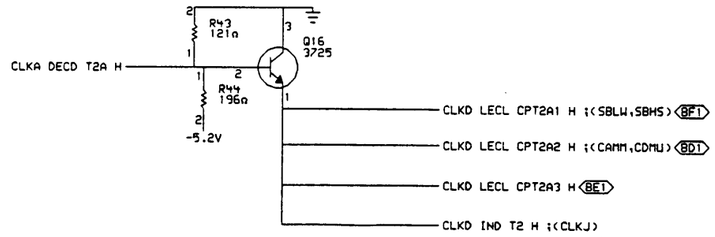
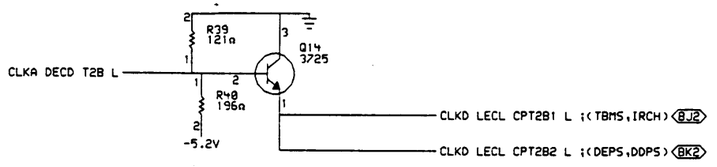
REVISIONS		
CHK	CHANGE NO.	REV

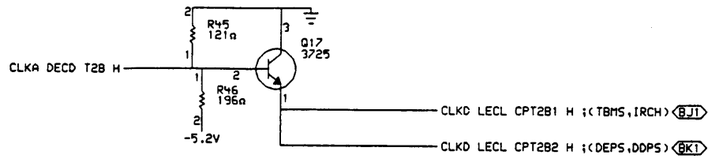
digital	DRN: [illegible]	DATE 31-AUG-83	ENG: [illegible]	DATE 31-AUG-83	TITLE:	CLOCK (CLK)	
	CHK 'D. [illegible]	DATE	BOARD LOCATION: AF15				
			SHEET 1 OF 1				
DSKB:<TAYLOR>CLCC.DRW 31-AUG-83 11:04			NEXT HIGHER ASSEMBLY:		SIZE K	CODE CS	NUMBER M7474-0-CLKC
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7474-0-0				REV. A

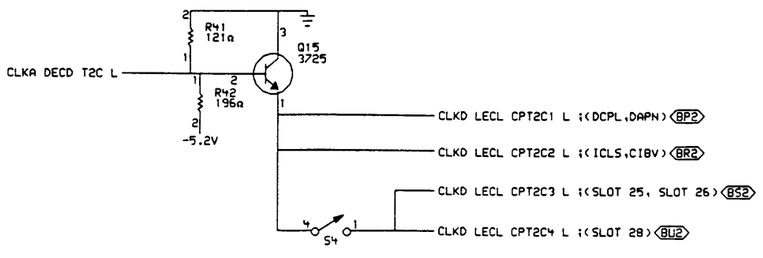
8 7 6 5 4 3 2 1

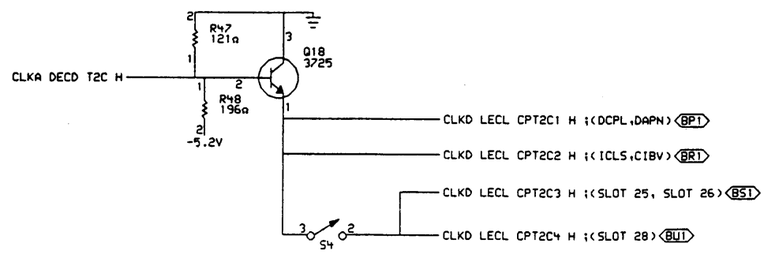












[CLKD]

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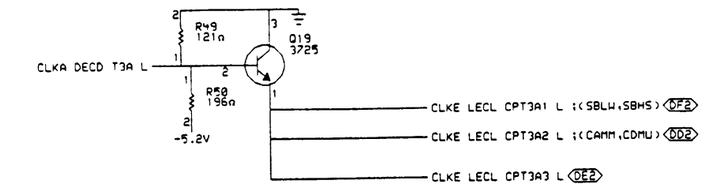
REVISIONS		
CHK	CHANGE NO.	REV

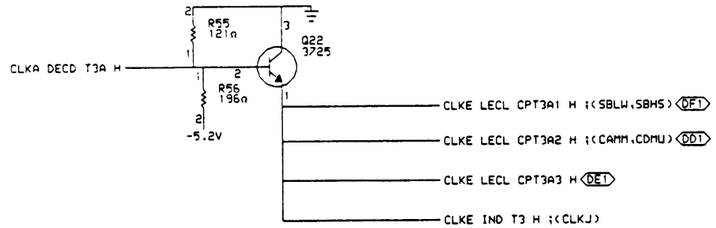
digital

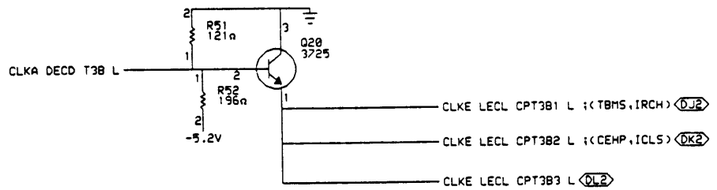
DRN: Wayne Taylor DATE 31-AUG-83
CHK'D: DATE
ENG: M. Glanski DATE 31-AUG-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLCD.DRW 31-AUG-83 11:04
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0
FIRST USED ON OPTION/MODEL: 11/785

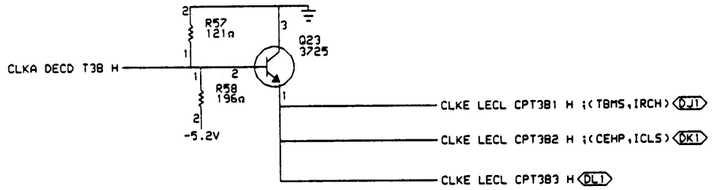
TITLE: CLOCK (CLK)

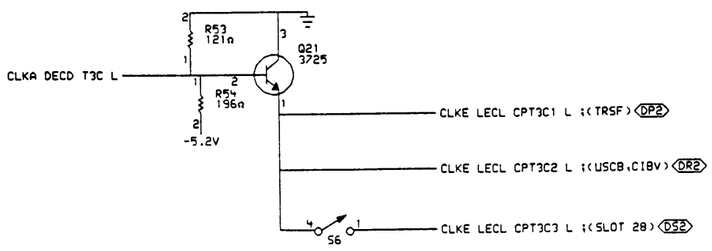
SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKD	A

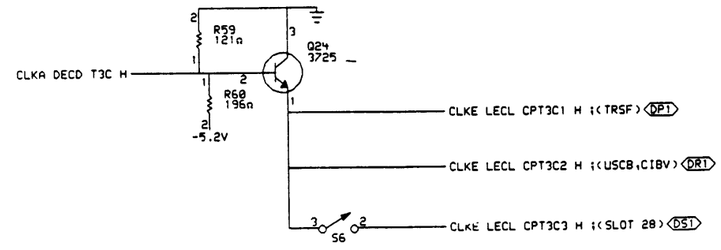












[CLKE]

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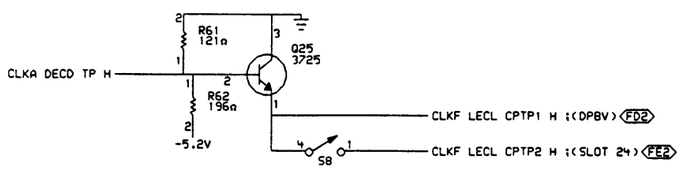
REVISIONS		
CHK	CHANGE NO.	REV

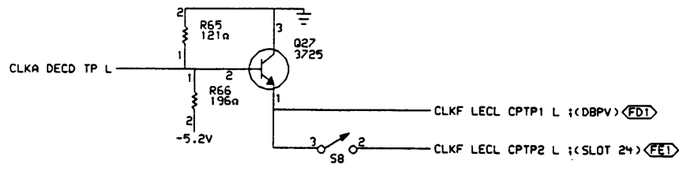
digital

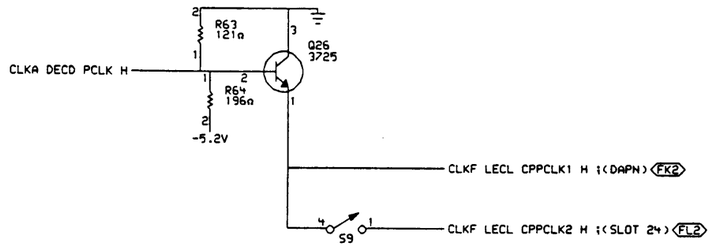
DRN: Barbara Taylor DATE 31-AUG-83
CHK'D. DATE
ENG. DATE 31-AUG-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLCE.DRW 31-AUG-83 11:04
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

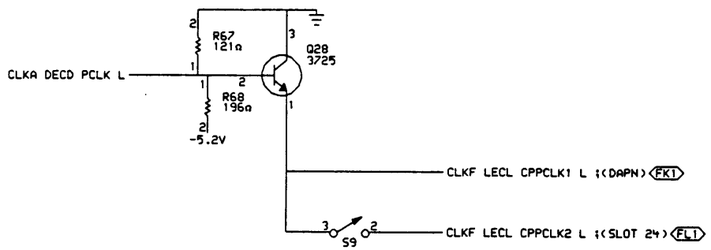
TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKE	A









[CLKF]

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKF	A

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REVISIONS		
CHK	CHANGE NO.	REV

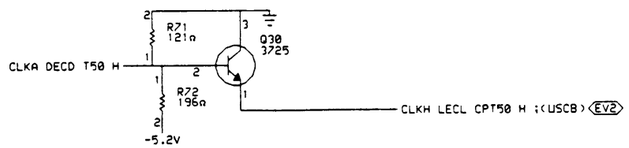
digital

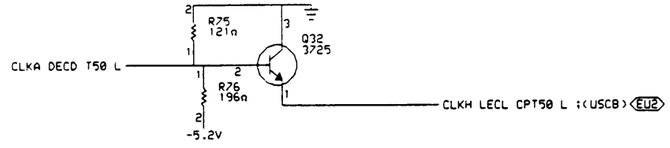
DRN: Wayne Taylor — DATE 31-AUG-83
CHK 'D.' — DATE
ENG M. Wanski — DATE 31-AUG-83
BOARD LOCATION: AF16
SHEET 1 OF 1

TITLE: CLOCK (CLK)

DSKB:<TAYLOR>CLCF.DRW | 31-AUG-83 11:05 | NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

FIRST USED ON OPTION/MODEL: 11/785





[CLKH]

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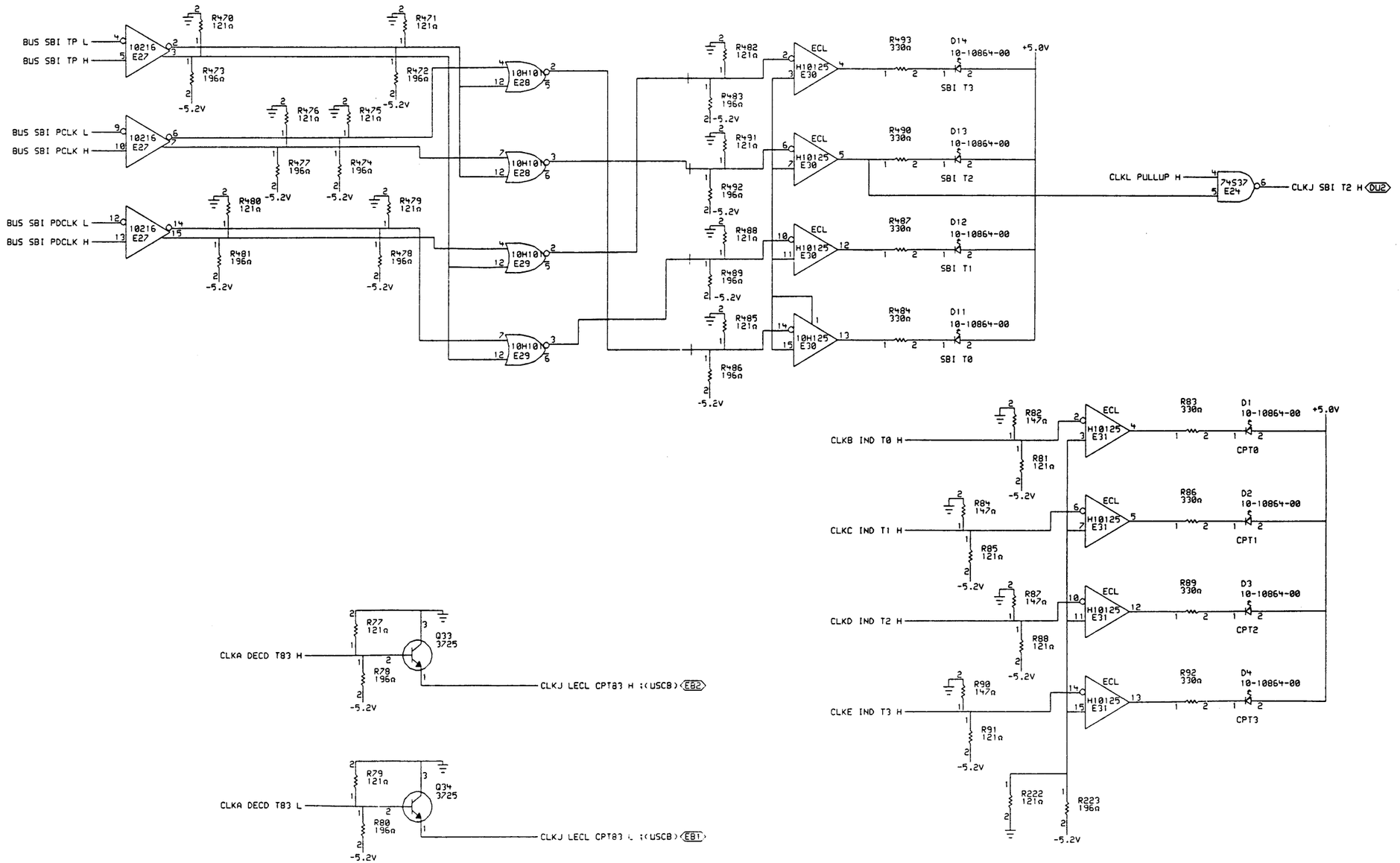
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: [illegible] DATE 30-SEP-83
CHK 'D. [illegible] DATE
ENG [illegible] DATE 30-SEP-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLKH.DRW 27-SEP-83 13:11
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKH	A



(CPU CLOCK T125 DRIVER & LED DISPLAY)

[CLKJ]

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REVISIONS		
CHK	CHANGE NO.	REV

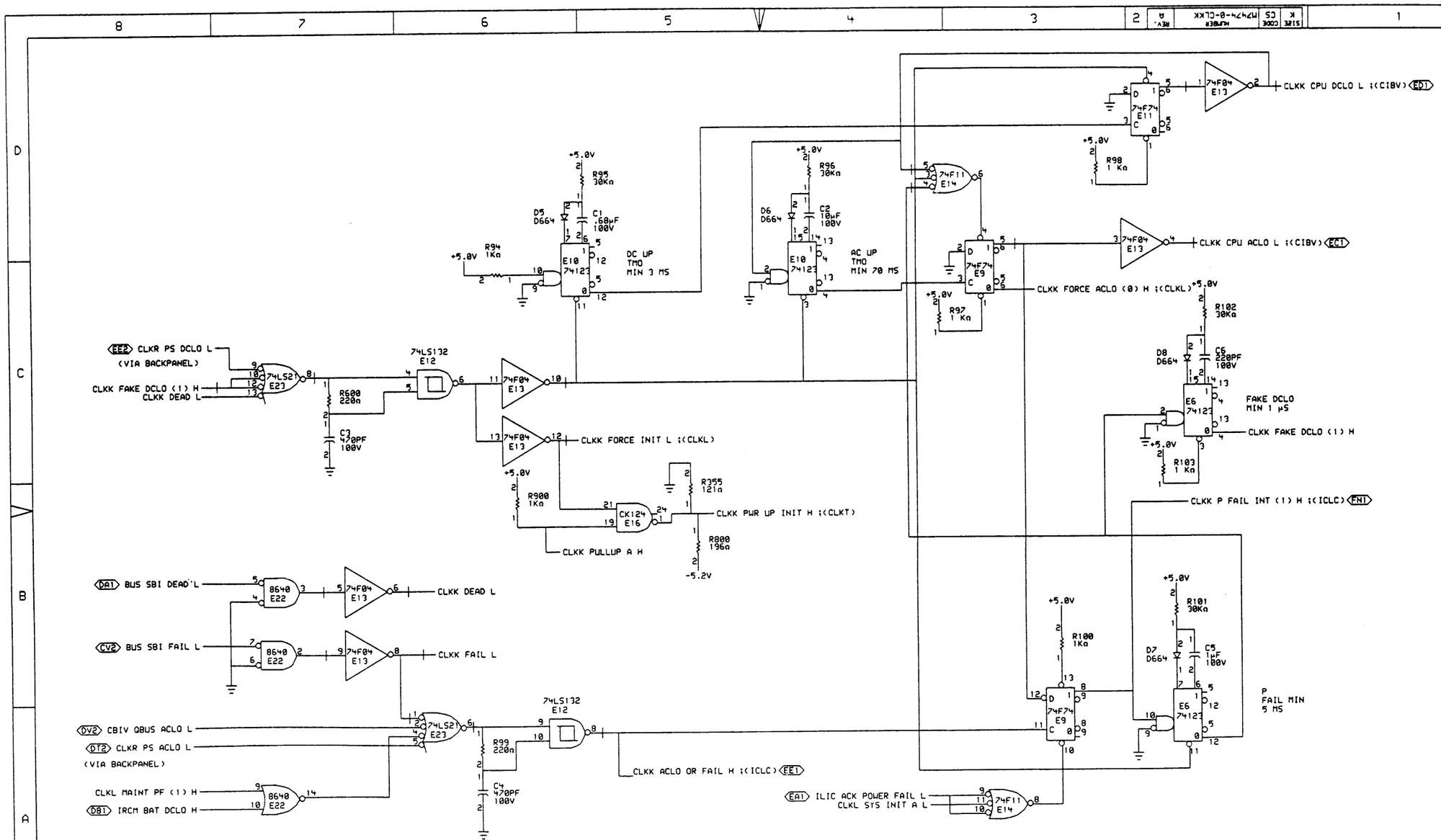
digital

DRN: Wayne Tarka
CHK 'D.'
DSKB:<TATLOR>CLKJ.DRW 27-SEP-83 13:12
FIRST USED ON OPTION/MODEL: 11/785

DATE 30-SEP-83 ENG. M. Utsumi DATE 30-SEP-83
DATE BOARD LOCATION: AF16
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKJ	A



(CPU POWER FAIL SEQUENCER) [CLKK]

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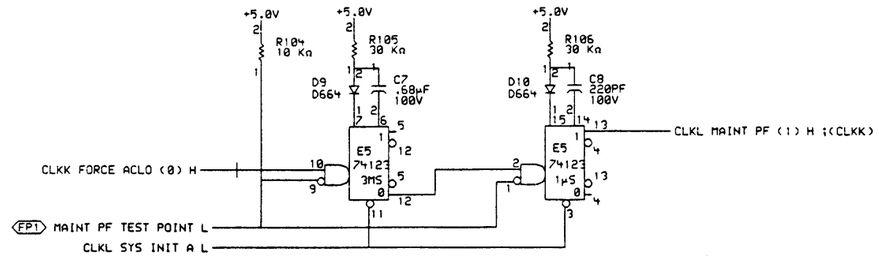
REVISIONS		
CHK	CHANGE NO.	REV

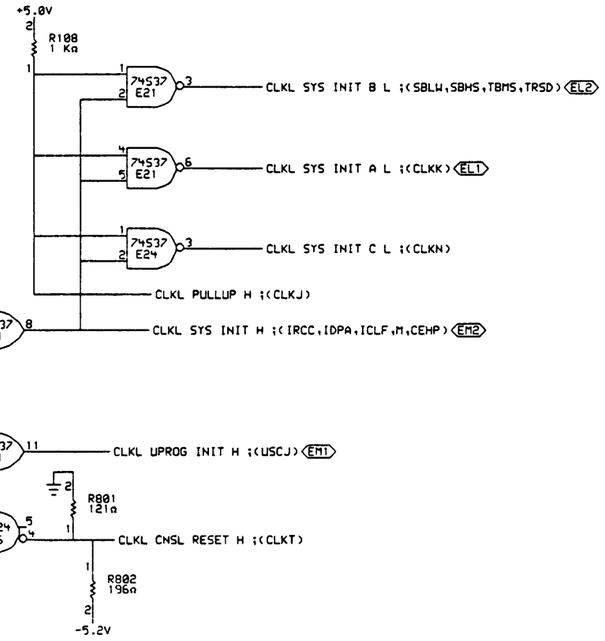
digital

DRN: Wayne Taylor DATE 31-AUG-83
CHK'D. DATE
ENG. DATE 31-AUG-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLCK.DRW 31-AUG-83 11:05
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKK	A





(CPU POWER FAIL SEQUENCER) [CLKL]

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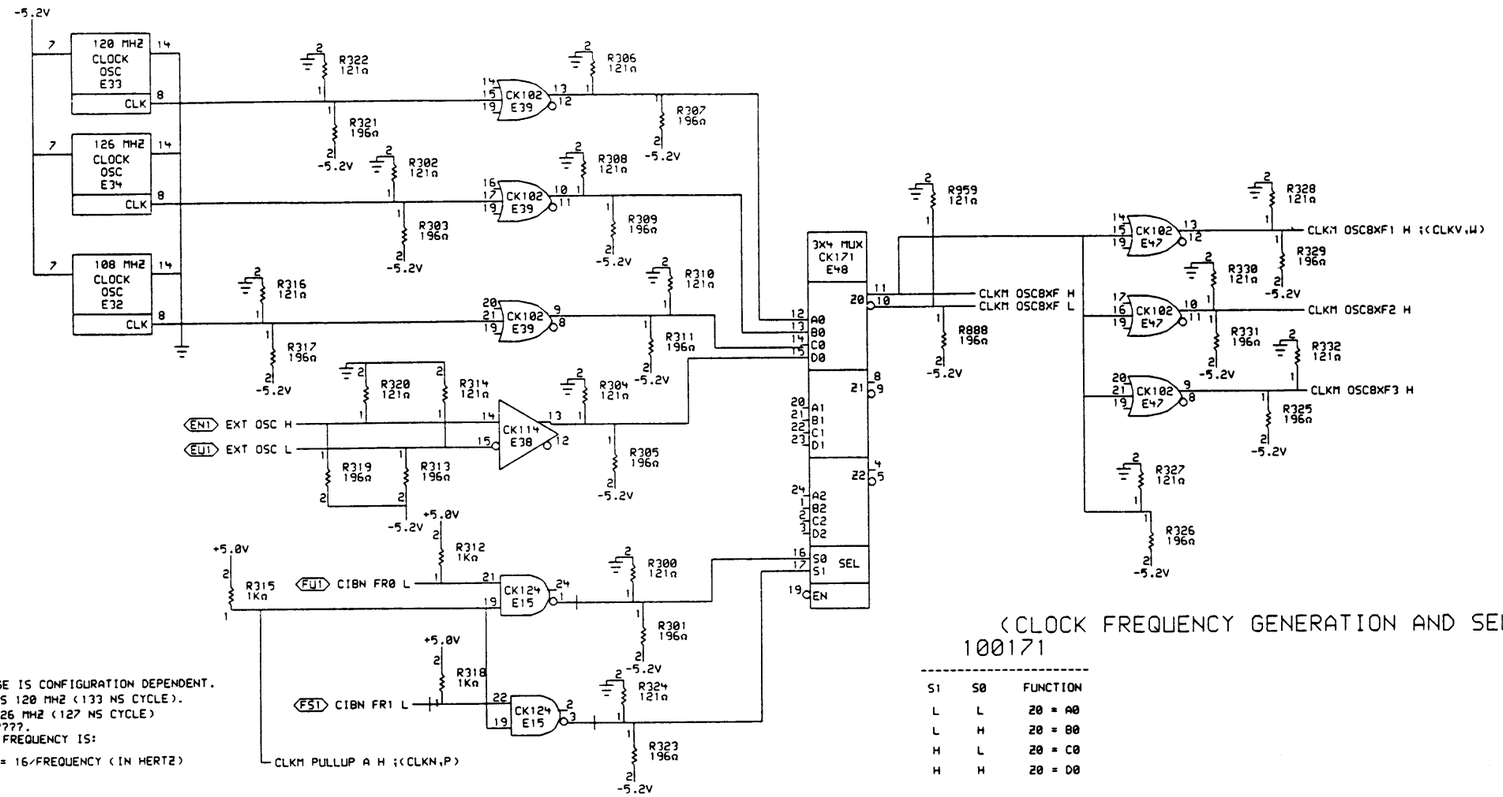
REVISIONS		
CHK	CHANGE NO.	REV

DRN: DATE 31-AUG-83 ENG: DATE 31-AUG-83
CHK "D." DATE BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLCL.DRW 31-AUG-83 11:05 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKL	A



(CLOCK FREQUENCY GENERATION AND SELECTION)

100171

S1	S0	FUNCTION
L	L	Z0 = A0
L	H	Z0 = B0
H	L	Z0 = C0
H	H	Z0 = D0

NOTE: EXTERNAL OSCILLATOR INPUT RANGE IS CONFIGURATION DEPENDENT.
GUARANTEED MAXIMUM FREQUENCY IS 120 MHZ (133 NS CYCLE).
TYPICAL MAXIMUM FREQUENCY IS 126 MHZ (127 NS CYCLE)
TYPICAL MINIMUM FREQUENCY IS ????.
THE RELATION OF CYCLE TIME TO FREQUENCY IS:

CYCLE (IN SECONDS) = 16/FREQUENCY (IN HERTZ)

(CLOCK FREQUENCY GENERATION AND SELECTION)

[CLKM]

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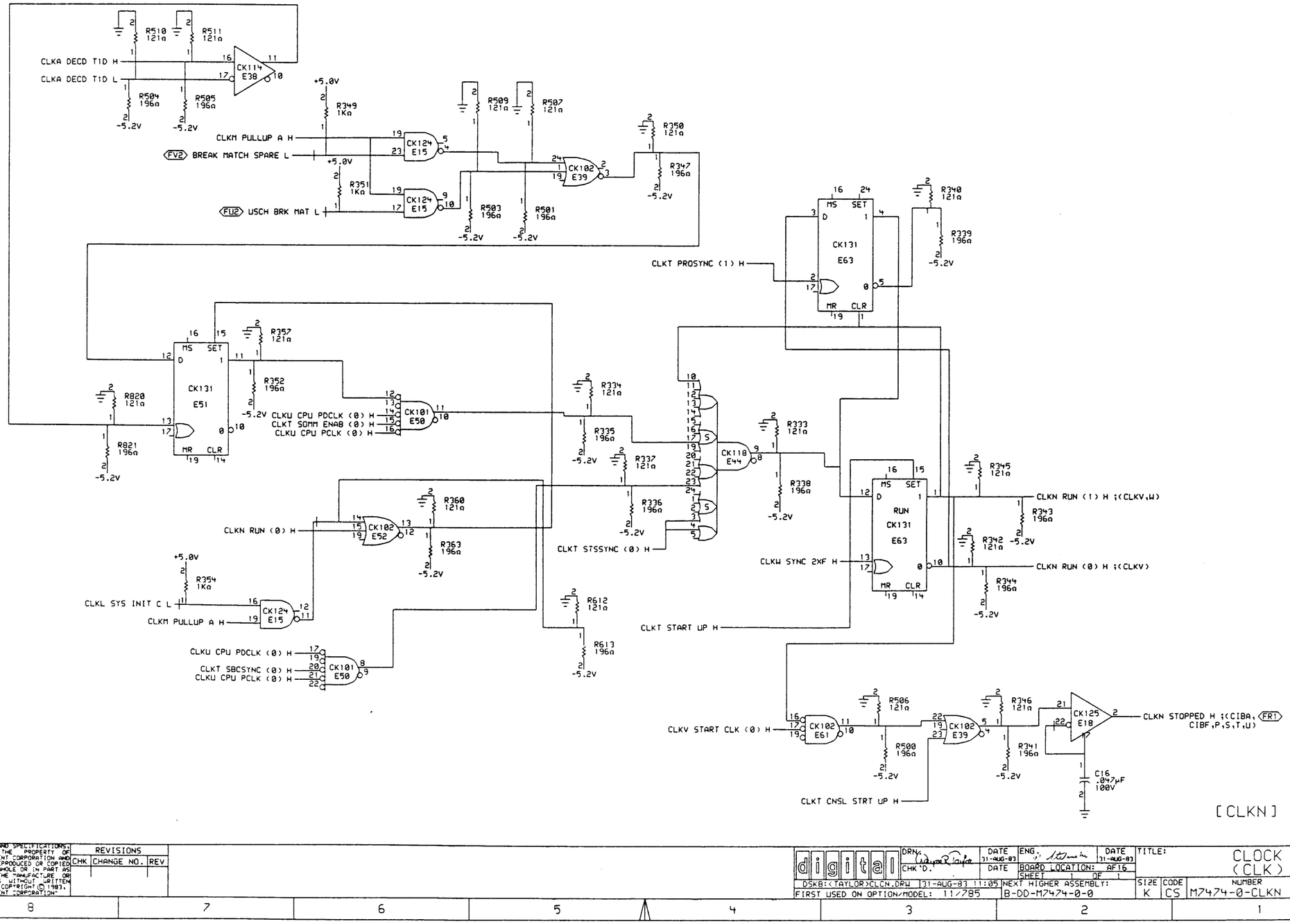
REVISIONS		
CHK	CHANGE NO.	REV

DRN: Wayne Taylor DATE 31-AUG-83
CHK'D. DATE
ENG: M. Moreau DATE 31-AUG-83
BOARD LOCATION: AF16
SHEET 1 OF 1
DSKB:<TAYLOR>CLCM.DRW 31-AUG-83 11:05
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKM	A



REVISIONS		
CHK	CHANGE NO.	REV

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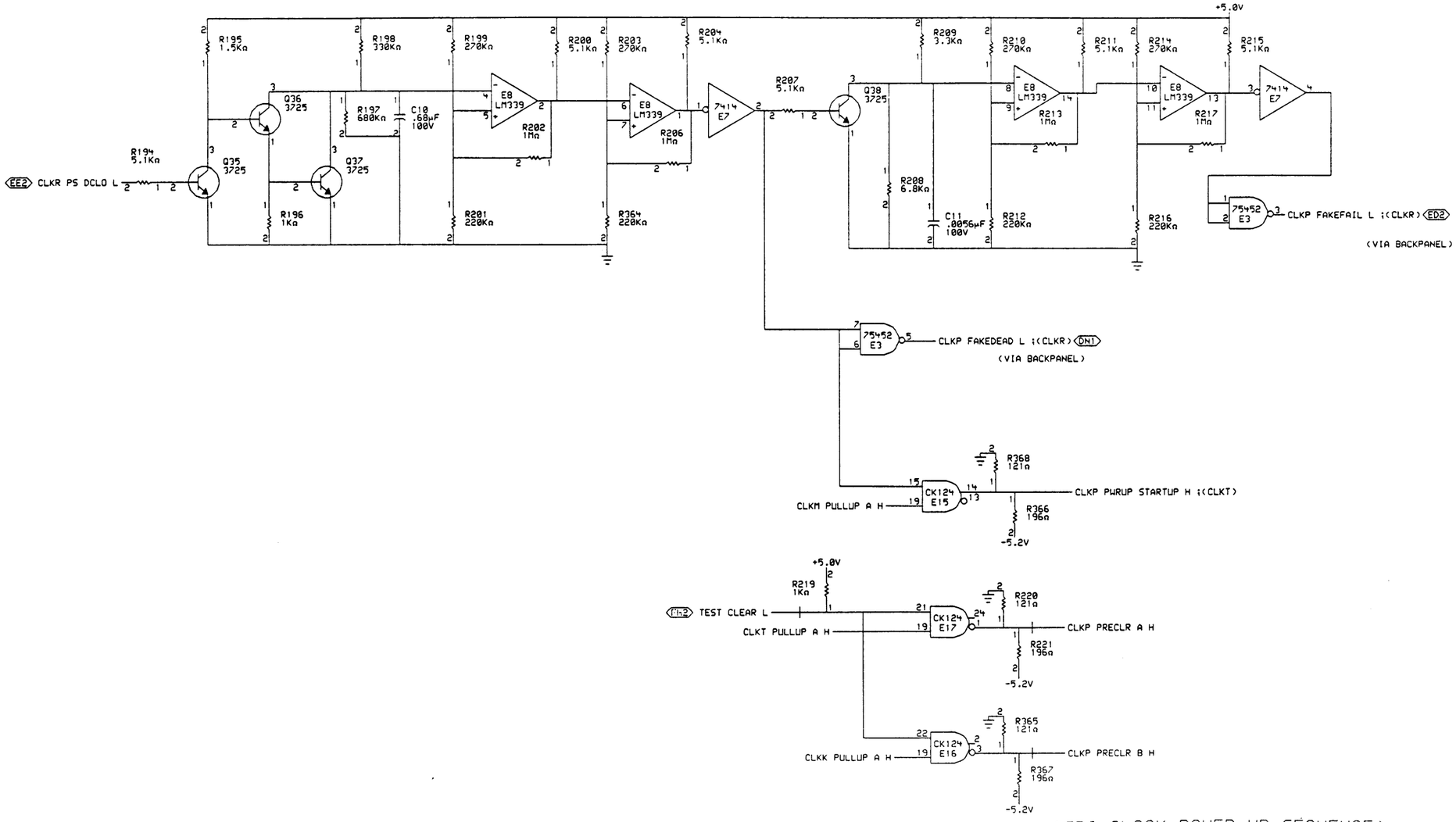
DRN: DATE 31-AUG-83 ENG: DATE 31-AUG-83
CHK'D: DATE BOARD LOCATION: AF16
SHEET 1 OF 1

DSKB:<TAYLOR>CLCN.DRW 31-AUG-83 11:05 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKN	A



(SBI CLOCK POWER UP SEQUENCE)

[CLKP]

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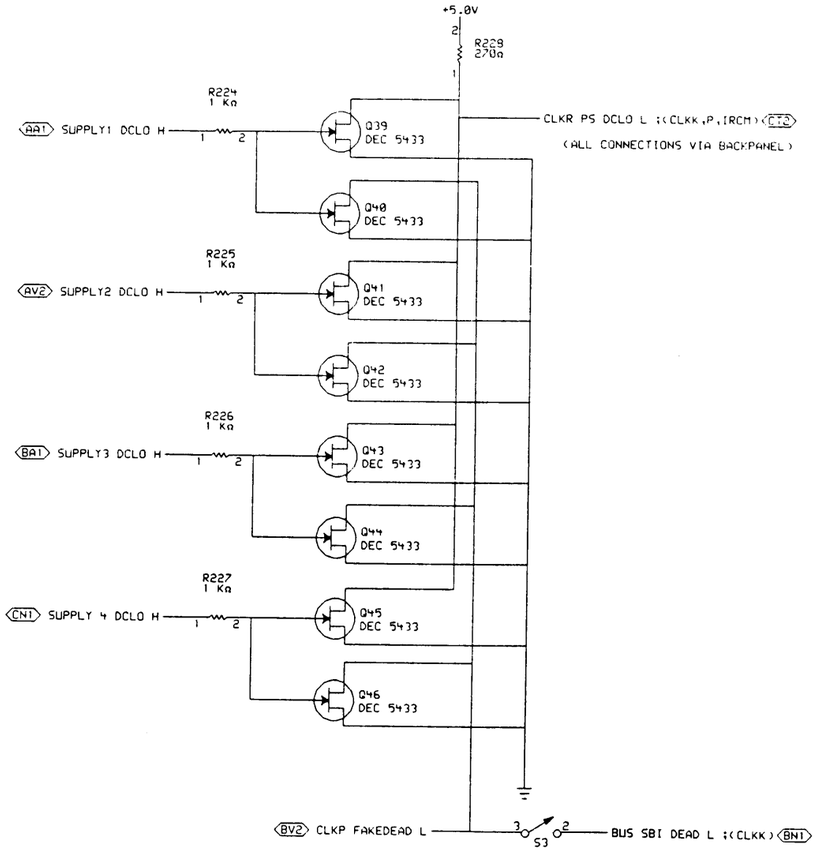
REVISIONS		
CHK	CHANGE NO.	REV

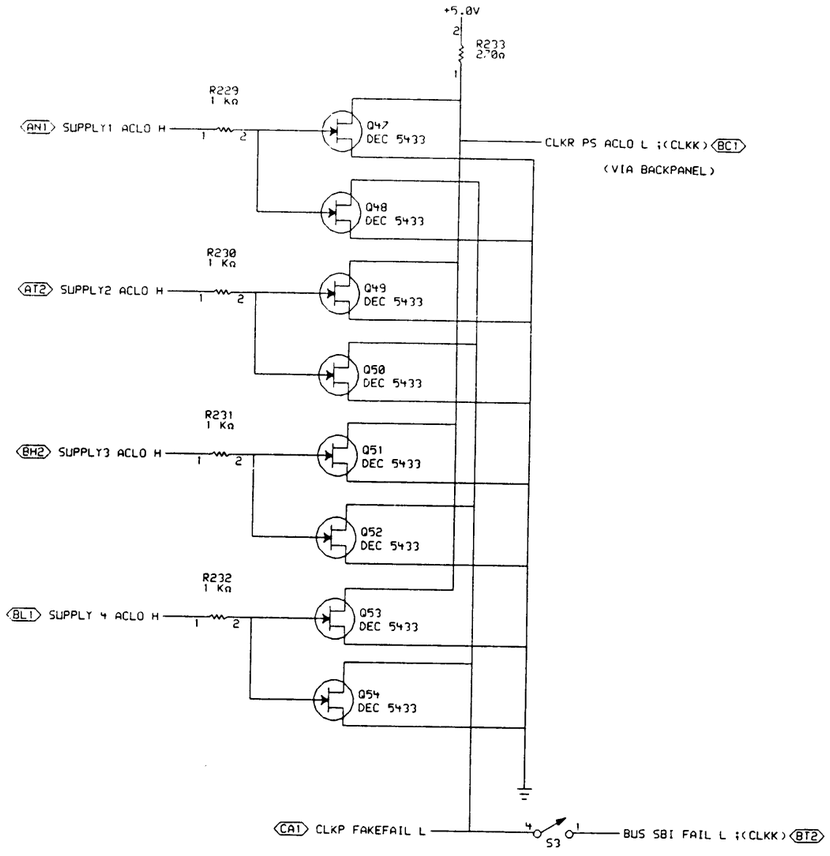
DRN: Wayne Taylor DATE 31-AUG-83
CHK: D. DATE
ENG: DATE 31-AUG-83
BOARD LOCATION: AF15
DSKB:<TAYLOR>CLCP.DRW 31-AUG-83 11:05
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0
SHEET 1 OF 1

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKP	A



NOTE: LOGIC LEVELS
H: APPROX. 0 V
L: APPROX. < -7 V



NOTE: LOGIC LEVELS
H: APPROX. 0 V
L: APPROX. < -7 V

NOTE: FOR TEST AND DIAGNOSIS PURPOSES THE CIRCUITS ON THIS PAGE ARE CONNECTED TO OTHER PARTS OF THE MODULE BY BACKPANEL CONNECTIONS.

[CLKR]

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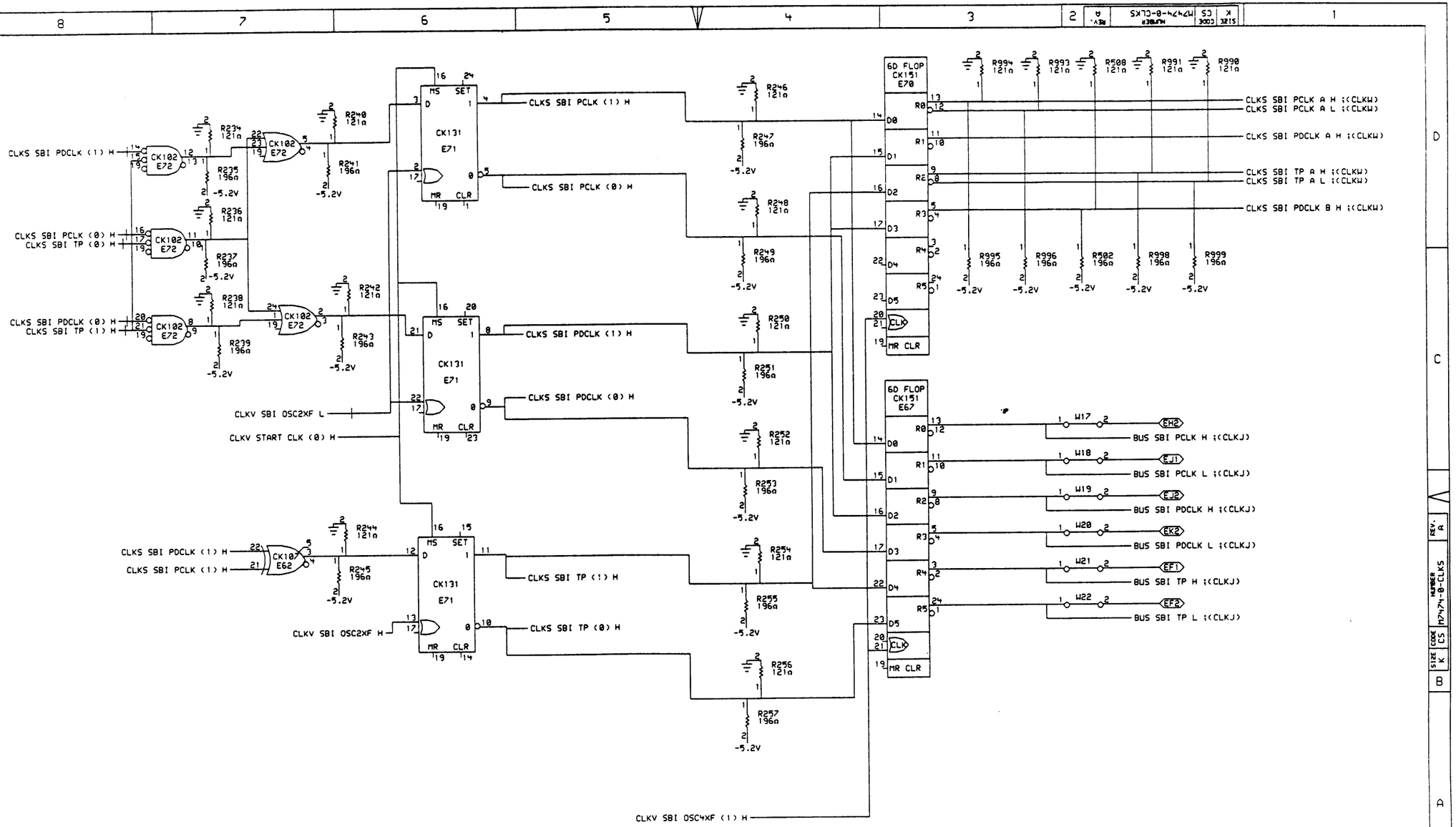
REVISIONS		
CHK	CHANGE NO.	REV

DRN: Wayne Taylor DATE 31-AUG-83
CHK'D. DATE
ENG. DATE 31-AUG-83
BOARD LOCATION: AF15
SHEET 1 OF 1
DSKB:<TAYLOR>CLCR.DRW 31-AUG-83 11:05
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKR	A



[CLKS]

(SBI CLOCK SEQUENCE GENERATOR & DRIVER)

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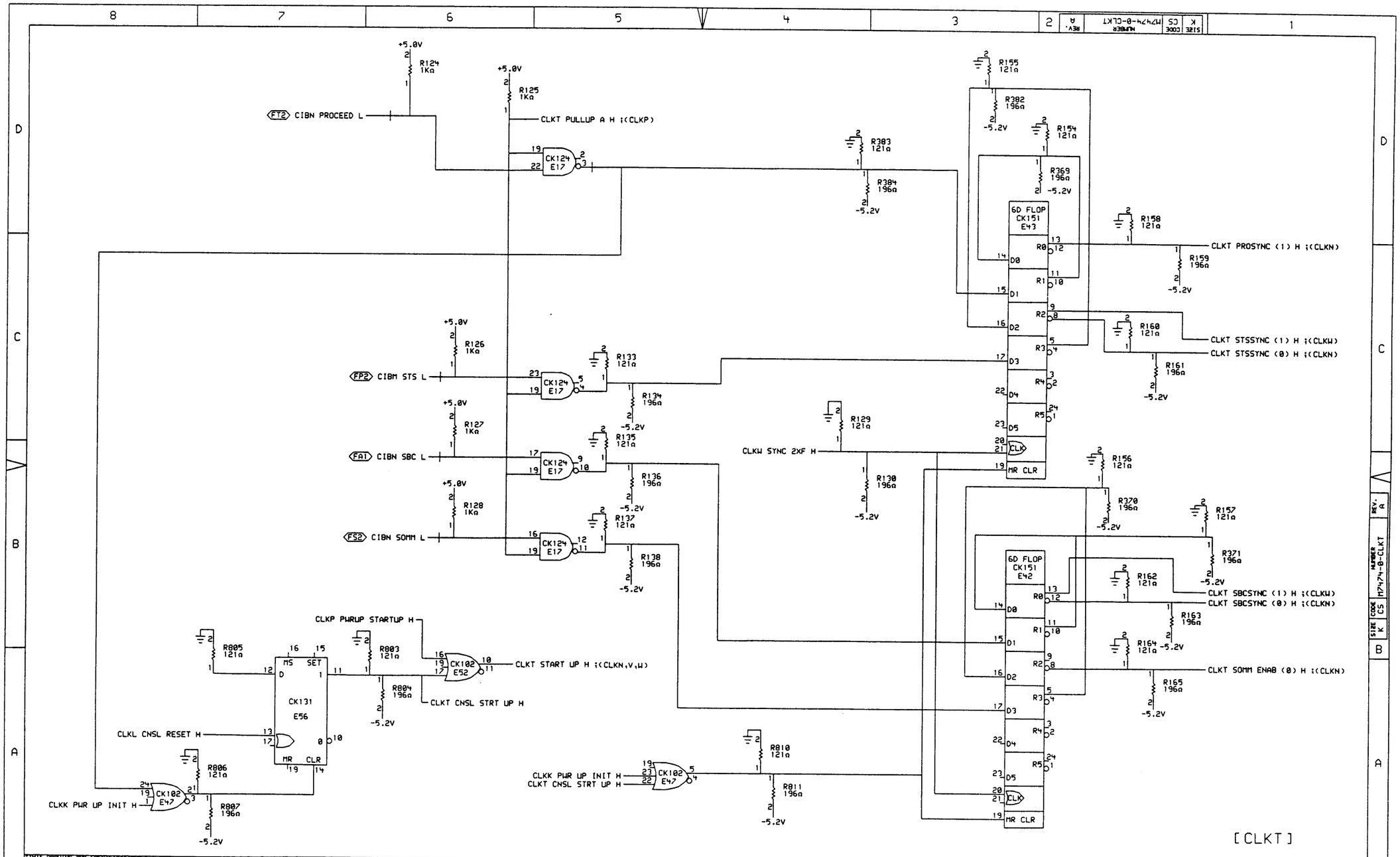
REVISIONS		
CHK	CHANGE NO.	REV

DRN:	DATE 31-AUG-83	ENG:	DATE 31-AUG-83
CHK 'D.	DATE	BOARD LOCATION: AF16	
DSKB:<TAYLOR>CLCS.DRW 31-AUG-83 11:05	SHEET 1 OF 1		
FIRST USED ON OPTION/MODEL: 11/785	NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0		

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKS	A



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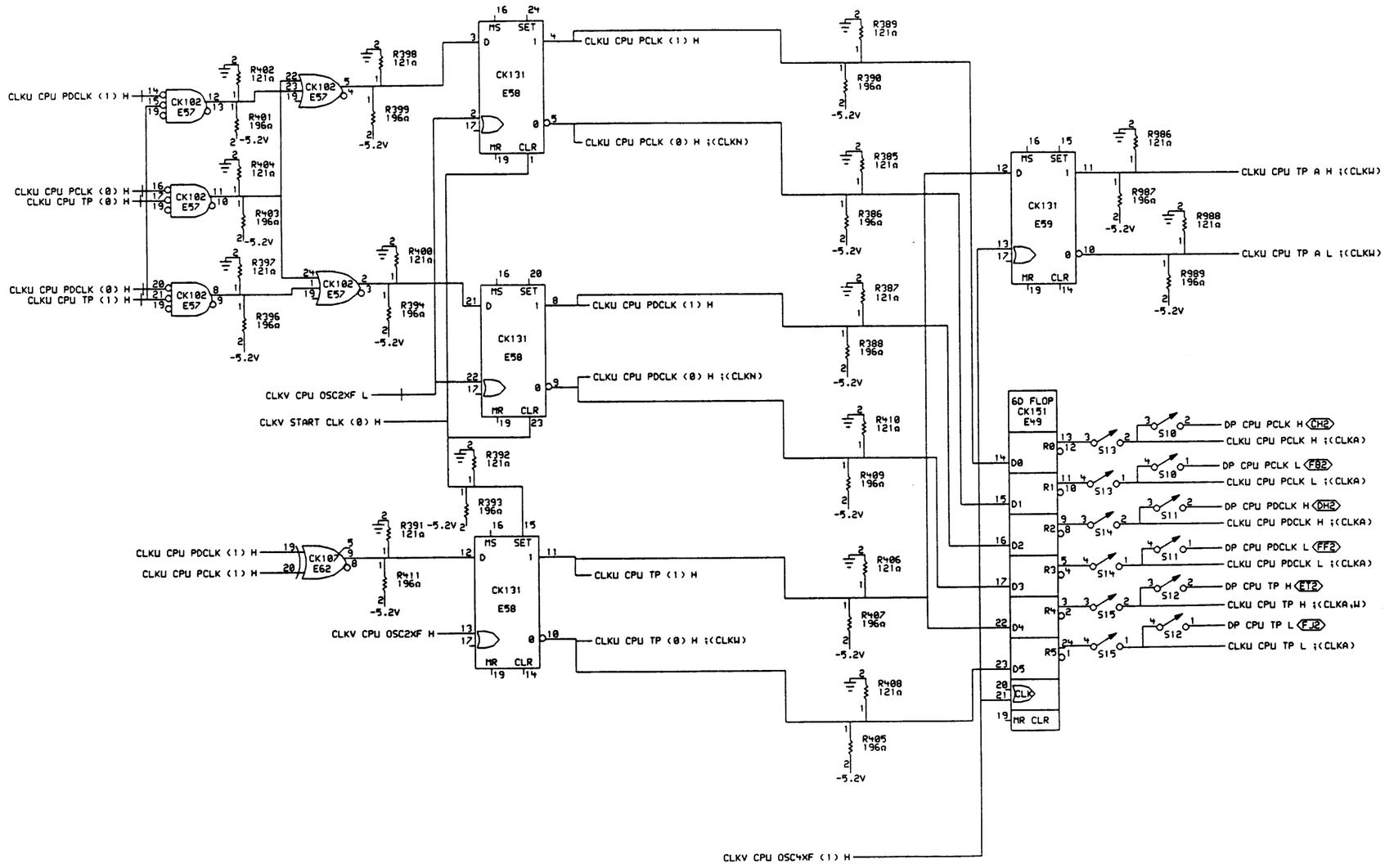
REVISIONS		
CHK	CHANGE NO.	REV

DRN:		DATE 31-AUG-83	ENG:
CHK'D:		DATE	BOARD LOCATION: AF16
DSKB:<TAYLOR>CLCT.DRW 31-AUG-83 11:05			SHEET 1 OF 1
FIRST USED ON OPTION/MODEL: 11/785		NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0	

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKT	A



(CPU CLOCK SEQUENCE GENERATOR & DRIVER)

[CLKU]

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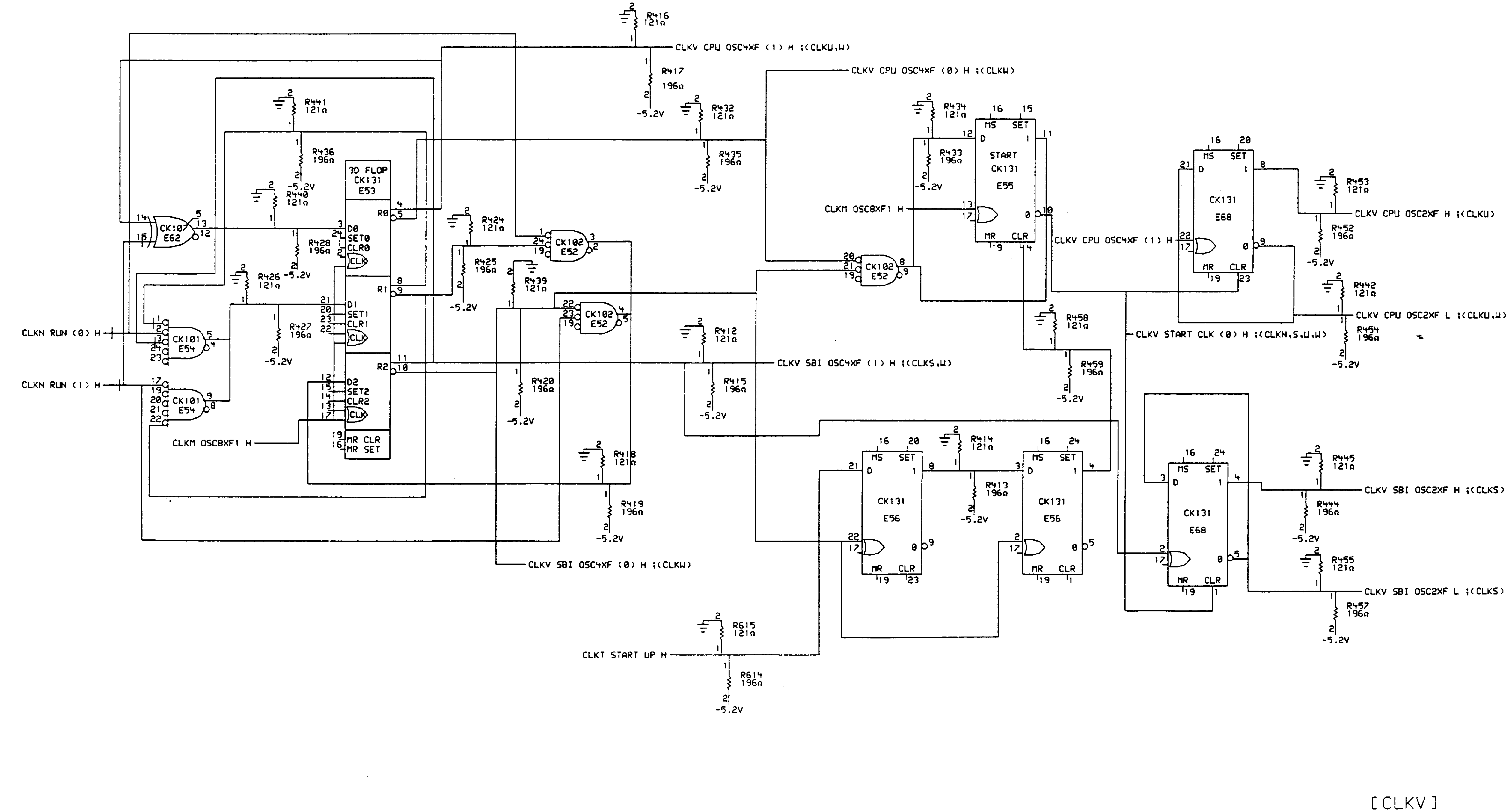
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: Wayne Taylor DATE: 31-AUG-83
CHK'D: DATE:
ENG: Stu Musti DATE: 31-AUG-83
DSKB:<TAYLOR>CLCU.DRW 31-AUG-83 11:05
FIRST USED ON OPTION/MODEL: 11/785
BOARD LOCATION: AF16
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKU	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. — DATE 31-AUG-83 — ENG. — DATE 31-AUG-83

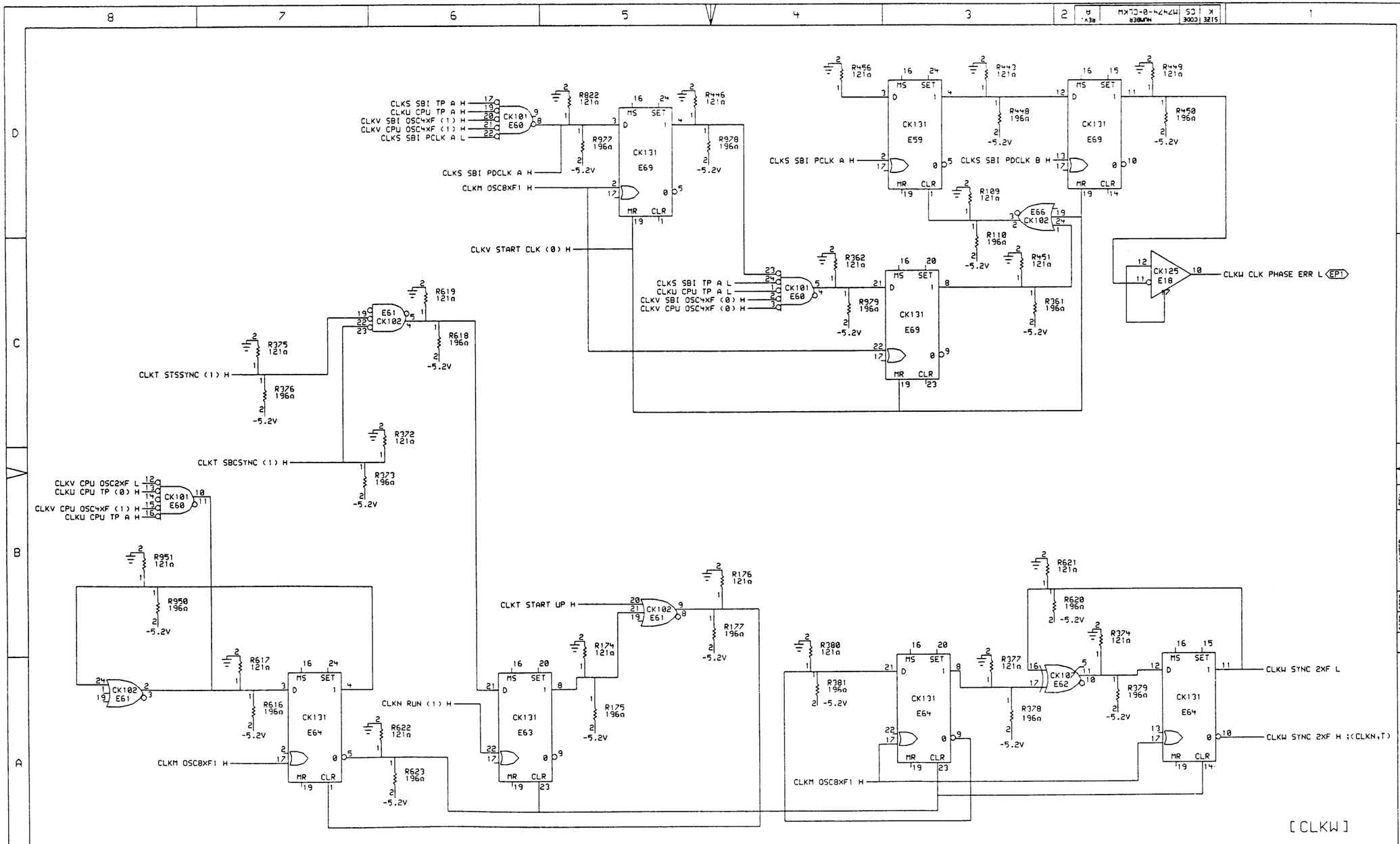
CHK'D. — DATE — BOARD LOCATION: AF16 — SHEET 1 OF 1

DSKB:<TAYLOR>CLCV.DRW 31-AUG-83 11:05 — NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKV	A



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REVISIONS		
CHK	CHANGE NO.	REV

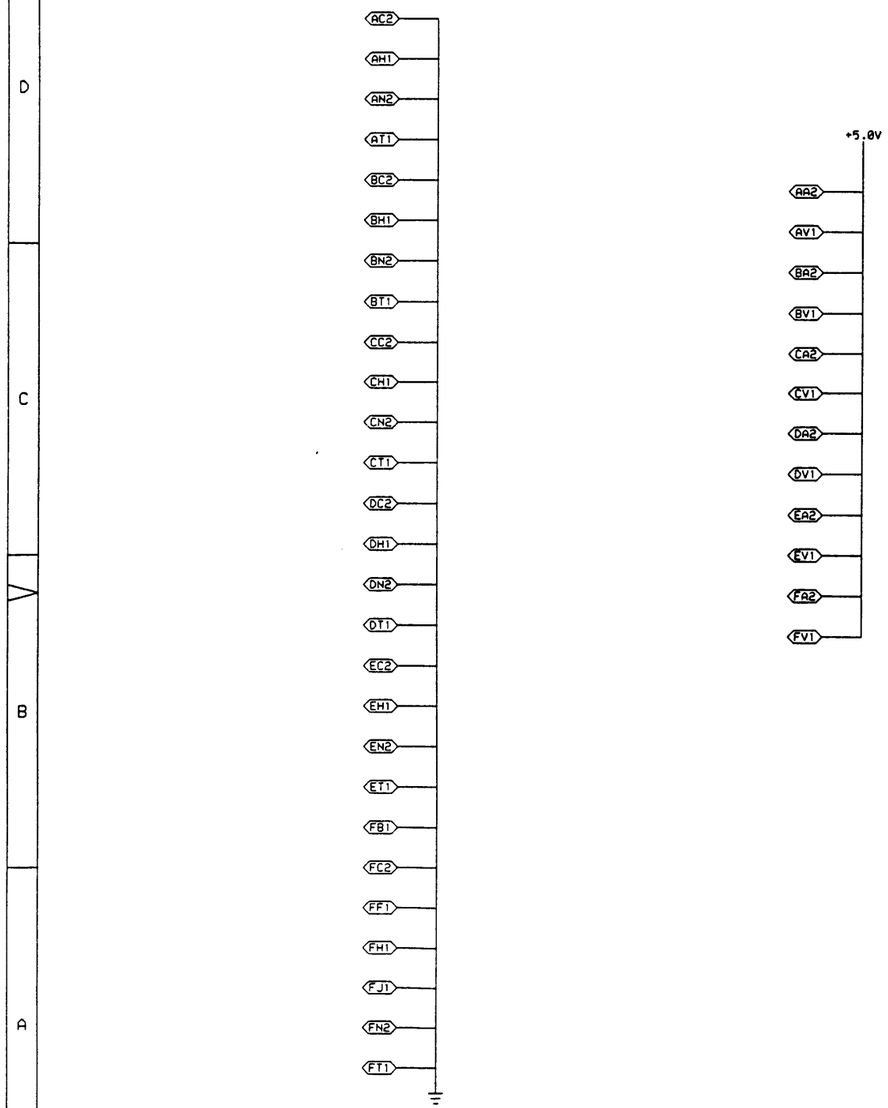
digital

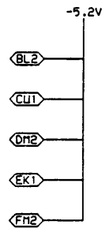
DRN: Wayne Taylor — DATE: 31-AUG-83
CHK'D: — DATE:
ENG. — DATE: 31-AUG-83
BOARD LOCATION: AF15
SHEET 1 OF 1

DSKB:<TAYLOR>CLCW.DRW 31-AUG-83 11:06
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKW	A





[CLKX]

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REVISIONS		
CHK	CHANGE NO.	REV

digital

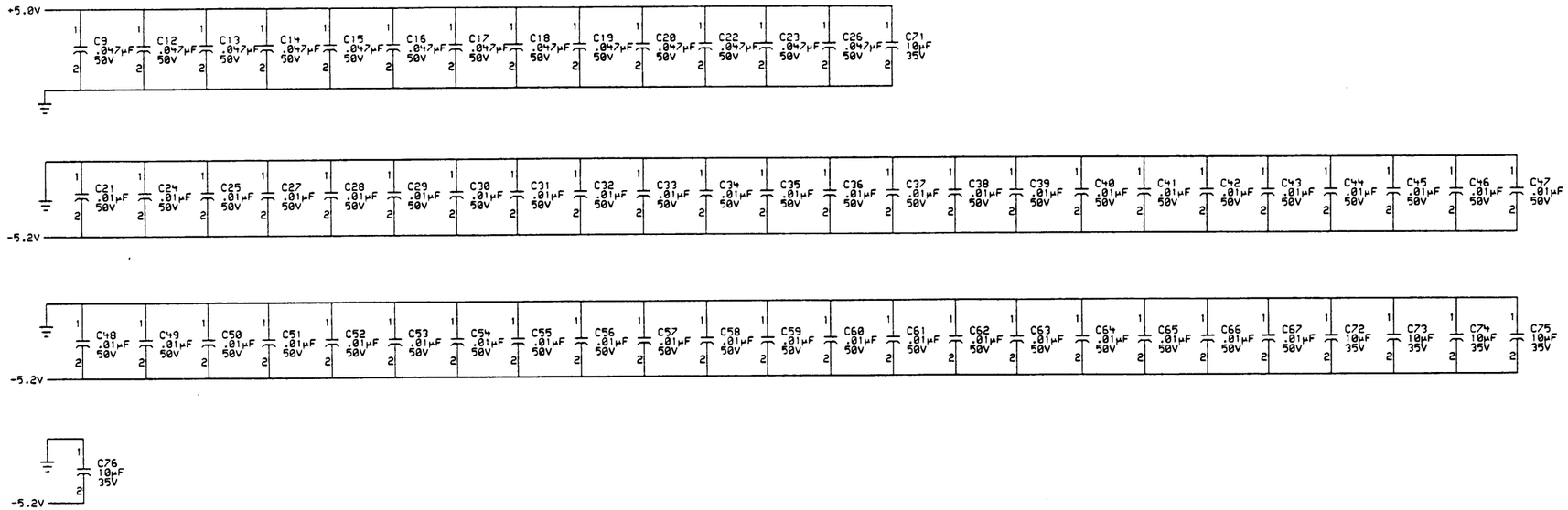
DRN: Wayne Taylor
CHK'D.
DATE 31-AUG-83
ENG. M. Schwartz
DATE 31-AUG-83
DATE
BOARD LOCATION: AF16
SHEET 1 OF 1

DSKB:<TAYLOR>CLCX.DRW 31-AUG-83 11:06
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKX	A

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLCX	A



[CLKY]

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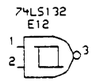
REVISIONS		
CHK	CHANGE NO.	REV

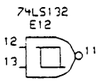
DRN: Wayne Taylor	DATE 31-AUG-83	ENG: [illegible]	DATE [illegible]
CHK "D."	DATE	BOARD LOCATION: AF16	
		SHEET 1 OF 1	
DSKB:<TAYLOR>CLCY.DRW	31-AUG-83 11:06	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7474-0-0	

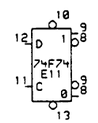
TITLE: CLOCK (CLK)

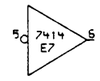
SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKY	A

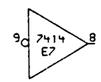
SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKY	A

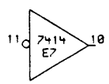


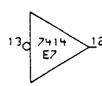


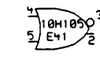


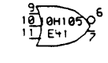


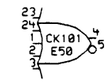


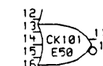


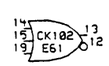


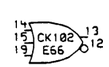


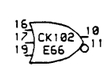


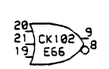


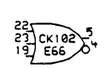


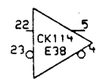


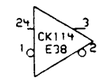


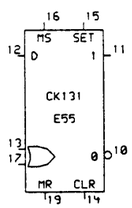


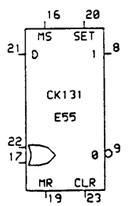


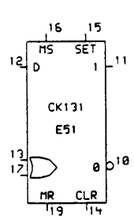


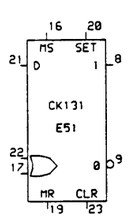


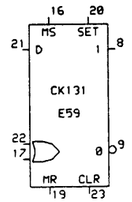


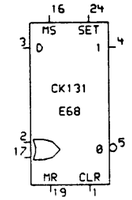


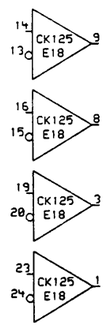


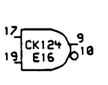


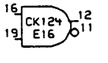


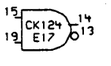












SPARE GATES

[CLKZ]

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: [illegible] DATE 31-AUG-83
CHK "D." DATE
ENG: [illegible] DATE 3-[illegible]-83
BOARD LOCATION: AF16
SHEET 1 OF 1

DSKB:<TAYLOR>CLC2.DRW 31-AUG-83 11:06
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7474-0-0

TITLE: CLOCK (CLK)

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKZ	A

SIZE	CODE	NUMBER	REV.
K	CS	M7474-0-CLKZ	A

SIZE	CODE	NUMBER	REV.
B	DD	M7474-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		M7474-0C	CLK PART REVISION	A1 B1
E-UA-M7474-0-0	1		UNIT ASSEMBLY	A A
K-PL-M7474-0-DPP	4		PART LIST	A B
K-PC-M7474-0-DBI	-		P.C. DATA BASE	B1 B1
B-DD-5016101-0-0	1		DRAWING DIRECTORY	A B
K-CS-M7474-0-DBS	1		SUD DATA BASE	A B
K-CS-M7474-0-CLKA	1		SCHEMATIC	A A
K-CS-M7474-0-CLKB	1		SCHEMATIC	A A
K-CS-M7474-0-CLKC	1		SCHEMATIC	A A
K-CS-M7474-0-CLKD	1		SCHEMATIC	A A
K-CS-M7474-0-CLKE	1		SCHEMATIC	A A
K-CS-M7474-0-CLKF	1		SCHEMATIC	A A
K-CS-M7474-0-CLKH	1		SCHEMATIC	A A
K-CS-M7474-0-CLKJ	1		SCHEMATIC	A A
K-CS-M7474-0-CLKL	1		SCHEMATIC	A A
K-CS-M7474-0-CLKM	1		SCHEMATIC	A B
K-CS-M7474-0-CLKN	1		SCHEMATIC	A A
K-CS-M7474-0-CLKP	1		SCHEMATIC	A A
K-CS-M7474-0-CLKR	1		SCHEMATIC	A A
K-CS-M7474-0-CLKS	1		SCHEMATIC	A A
K-CS-M7474-0-CLKT	1		SCHEMATIC	A A
K-CS-M7474-0-CLKU	1		SCHEMATIC	A A
K-CS-M7474-0-CLKV	1		SCHEMATIC	A A
K-CS-M7474-0-CLKW	1		SCHEMATIC	A A
K-CS-M7474-0-CLKX	1		SCHEMATIC	A A
K-CS-M7474-0-CLKY	1		SCHEMATIC	A A

NOTES:

REVISIONS			
REV.	A	B	
CHG NO.	INIT	TW001	
DATE	9/83	3/84	

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USED ON OPTION/MODEL

DRN.	[illegible]	28-Sep-83
CHK'D	[illegible]	10-4-83
ENG.	[illegible]	10-11-83
PROD.	[illegible]	10-11-83

TITLE: CLK

SIZE	CODE	NUMBER	REV.
B	DD	M7474-0-0	B

SHEET 1 OF 2

DRB 126

TN

SIZE	CODE	NUMBER	REV.
B	DD	M7474-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7474-0-CLK2	1		SCHEMATIC	A A
K-CS-M7474-0-CLK1	1		SCHEMATIC	A A
K-CS-M7474-0-CLK2	1		SCHEMATIC	A A
K-CS-M7474-0-CLK3	1		SCHEMATIC	A A
K-CS-M7474-0-CLK4	1		SCHEMATIC	A A
K-CS-M7474-0-CLK5	1		SCHEMATIC	A A
K-CS-M7474-0-CLK6	1		SCHEMATIC	A A
K-CS-M7474-0-CLK7	1		SCHEMATIC	A A
K CS M7474 0 CLKK	1		SCHEMATIC	A A

NOTES:

REVISIONS		
DATE	CHG NO.	REV.
10/83	INIT.	A
3/84	TW001	B

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USED ON OPTION/MODEL

DRN.	S. CORCORAN	28 SEP 83
CHK'D		10-4-83
ENG.		10-11-83
PROD.		10-11-83

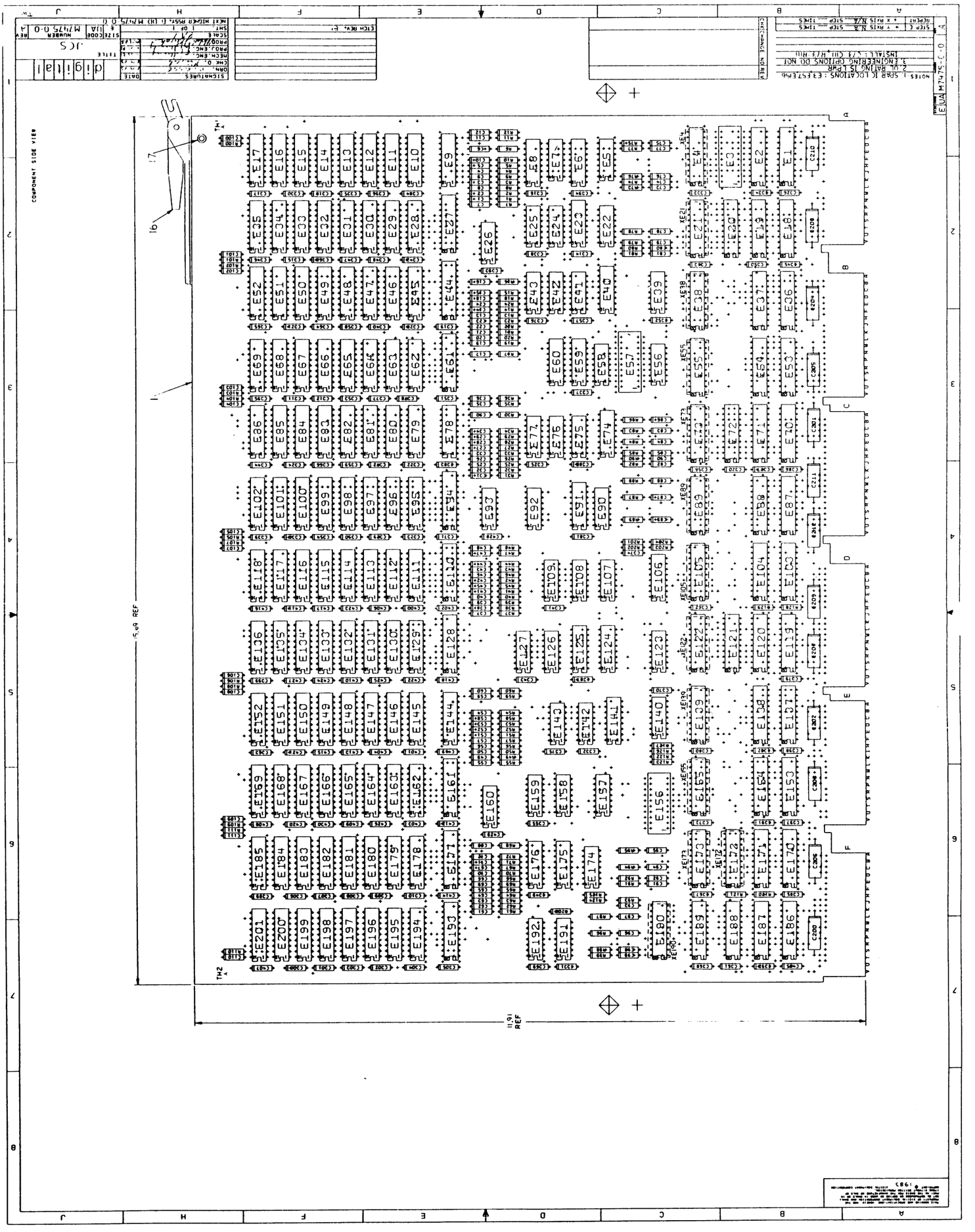
TITLE: CLK

SIZE	CODE	NUMBER	REV.
B	DD	M7474-0-0	B

SHEET 2 OF 2

DRB 126

TW



AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T — SHEET A1 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:	B1	
1	1	D-MD-5016102-0-0	5016102-01		ETCH CIRCUIT BOARD	1	
2	2		23043B2-00		B2-03	1	E172
3	3		23044B2-00		B2-03	1	E173
4	4		23045B2-00		B2-03	1	E155
5	5		23046B2-00		B2-03	1	E139
6	6		23047B2-00		B2-03	1	E105
7	7		23048B2-00		B2-03	1	E122
8	8		23049B2-00		B2-03	1	E89
9	9		23050B2-00		B2-03	1	E73
10	10		23051B2-00		B2-03	1	E55
11	11		23052B2-00		B2-03	1	E38
12	12		23053B2-00		B2-03	1	E21
13	13		23054B2-00		B2-03	1	E4
14	14		23055B2-00		B2-03	1	E190
15	15		1920572-01		74F244 BUFFER/LINE DRIVER,O	9	E27,E44,E61,E94,E110,E128,E161,
						CONT	E177,E193
16	16		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
17	17		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
18	18		1017472-00		10 MFD 35V +75-10% AL EL	13	C200-C212
19	19		1300250-00		150.0 .25 W 5.0 % CF	2	R203,R204
20	20		1300247-00		120.0 .25 W 5.0 % CF	2	R201,R202
21	21		1300365-00		1.0 K .25 W 5.0 % CF	1	R200
22	22		1301775-00		820.0 .25 W 5.0 % CF	5	R121,R123,R125,R127,R129
23	23		1300295-00		330.0 .25 W 5.0 % CF	5	R120,R122,R124,R126,R128
24	24		1300229-00		100.0 .25 W 5.0 % CF	72	R1-R72
25	25		1921720-01		10H125 TRANSLATOR ECL TO TTL	1	E106
26	26		1921311-01		74F20 NAND GATE,DUAL,4-IN	2	E142,E159
27	27		1921315-01		74F86 EXCLUSIVE OR GATE,QU	1	E192
28	28		1921318-01		74F151 MUX,8-IN	1	E176
29	29		1912746-01		74S37-1BUFFER-GATE	1	E126

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A
JS	M7475-TW001	B

BASIC PART NO: M7475

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: S.MANSOR	DATE: 22-JUN-83	D I G I T A L
CHK'D: F.GAROFALO	DATE: 27-JUN-83	TITLE PARTS LIST JOINT CONTROL STORE
DES.ENG: J.STICKNEY	DATE: 22-JUN-83	DOCUMENT NUMBER
RESP.ENG.: J.STICKNEY	DATE: 22-JUN-83	SIZE: K; CODE: PL; NUMBER: M7475-0-DBP; REV: B
MFG.ENG.: M.KRYSAK	DATE: 25-OCT-83	RELEASE DATE: 25-JAN-84

ASSEMBLY NUMBER: E-UA-M7475-0-0

TOP DOCUMENT NUMBER: B-DD-M7475-0-0

FILE NAME: Z3957B.PLS

EDIT #: 9

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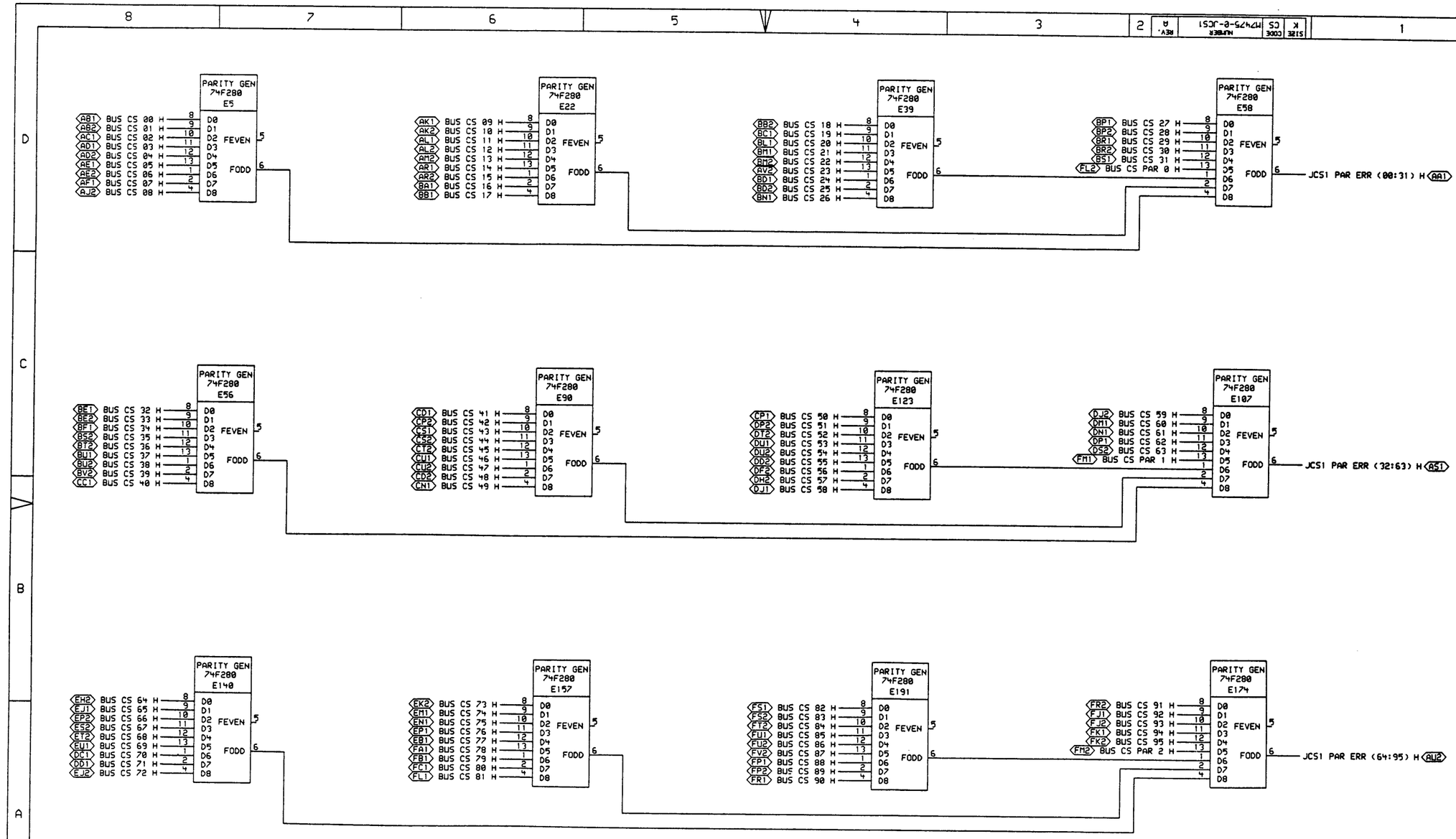
LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION		QTY PER VARIATION 00 / 01	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:			
30	30		1921307-01		74F04 HEX INVERTER		2	E127,E143
31	31		1913788-00		26S10 TRANSCEIVER,BUS,QUA		8	E6,E8,E23,E40,E59,E74,E91,E125
32	32		1921305-01		74F00 NAND GATE,QUAD,2-IN		12	E24-E26,E42,E43,E76,E77,E92,E93,
								CONT E109,E158,E160
33	33		1921332-01		74F280 PARITY GEN/CHECK,9-B		16	E5,E7,E22,E39,E41,E56,E58,E75,
								CONT E90,E107,E108,E123,E140,E157,
								CONT E174,E191
34	34		2114523-03		2147H-1 4K MOS RAM 35NS	8	99	E9-E17,E28-E35,E45-E52,E62-E69,
								CONT E78-E86,E95-E102,E111-E118,
								CONT E129-E136,E144-E152,E162-E169,
								CONT E178-E185,E194-E201
35	35		1921008-01		74F240 BUFFER/LINE DRIVER,I		29	E1,E2,E18-E20,E36,E37,E53,E54,
								CONT E70-E72,E87,E88,E103,E104,
								CONT E119-E121,E137,E138,E153,E154,
								CONT E170,E171,E186-E189
36	36		1921321-01		74F158 MUX,QUAD,2-IN		4	E60,E124,E141,E175
37	37		1012784-00		.047 MFD 50V +80-20%	CER	131	C300-C430
38	38		1013466-06		100.0 MMF 50V 5%	CER	72	C1-C72
39	39		1215006-04		SKT,IC 20PIN DIP TIN	SOLD	13	XE4,XE21,XE38,XE55,XE73,XE89,
								CONT XE105,XE122,XE139,XE155,XE172,
								CONT XE173,XE190

40 NOTE: E3,E57,E156 ARE SPARE I.C. LOCATIONS
41 NOTE: ENGINEERING OPTION, DO NOT INSTALL C73-C111,R73-R111.

DIGITAL	TITLE: JOINT CONTROL STORE	SECTION A OF A	SIZE: K	CODE: PL	DOCUMENT NUMBER: M7475-0-DBP	REV: B



(BUS CS PARITY CHECK)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J Floyd — DATE 31-AUG-83 — ENG. Ray Shirley — DATE
CHK'D. — DATE — BOARD LOCATION — SHEET 1 OF 1

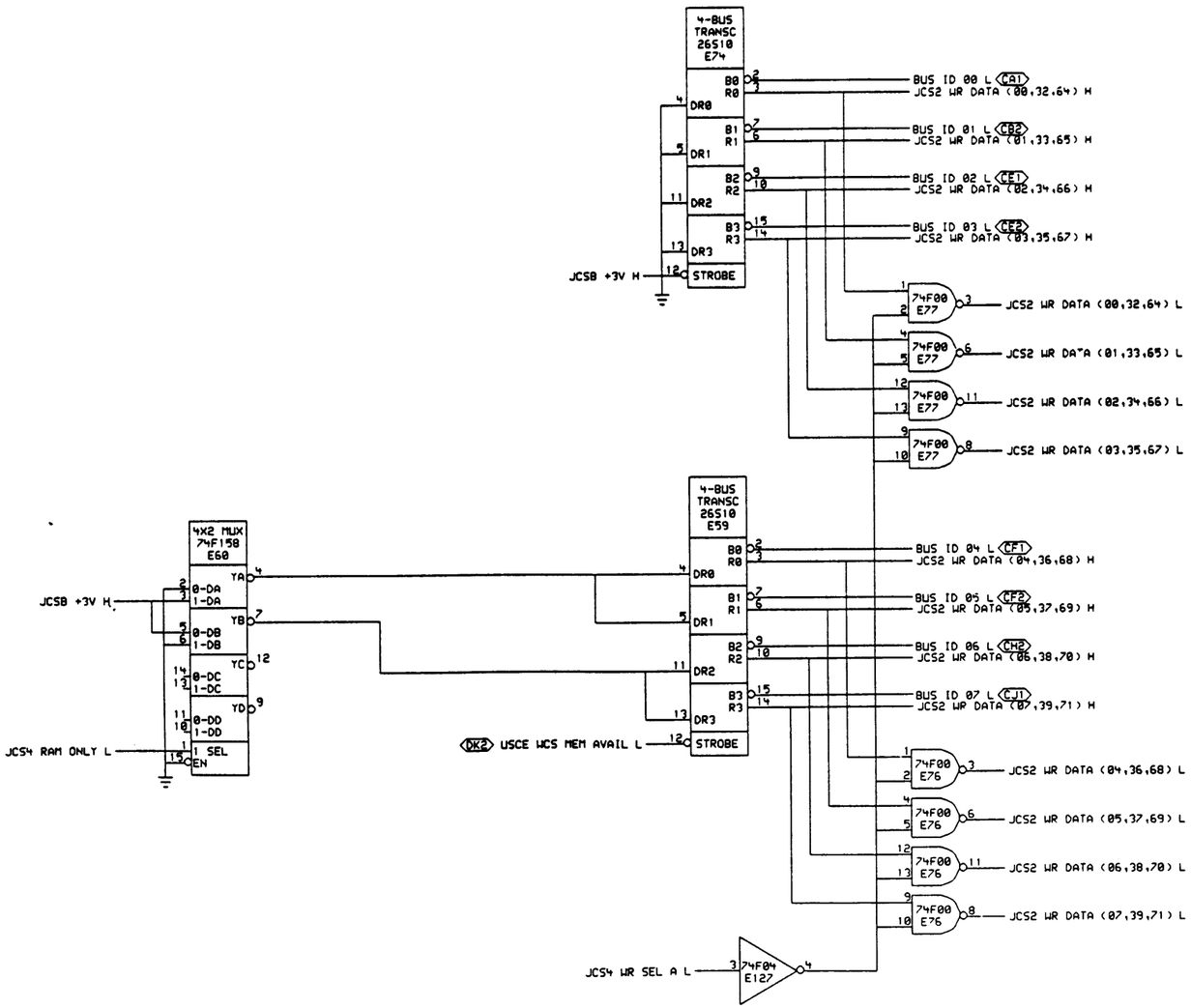
DSKB:<STICKNEY>JCS1.DRW 02-AUG-83 12:59 — NEXT HIGHER ASSEMBLY: 8-DD-M7475-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCS1)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS1	A

REV. A
NUMBER M7475-0-JCS1
SIZE K CODE CS



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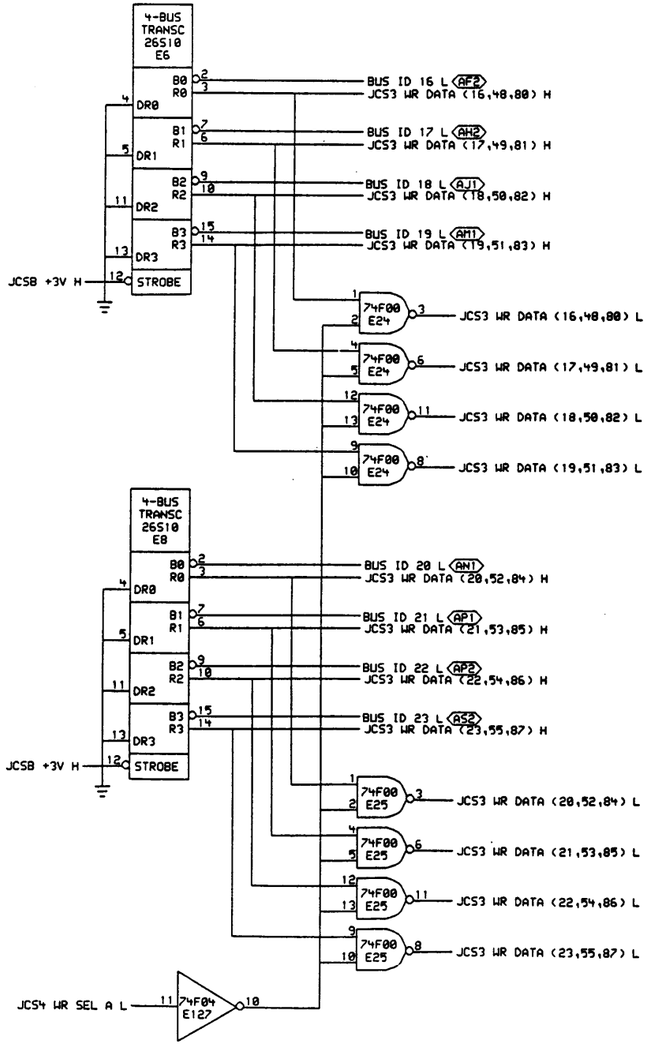
REVISIONS		
CHK	CHANGE NO.	REV

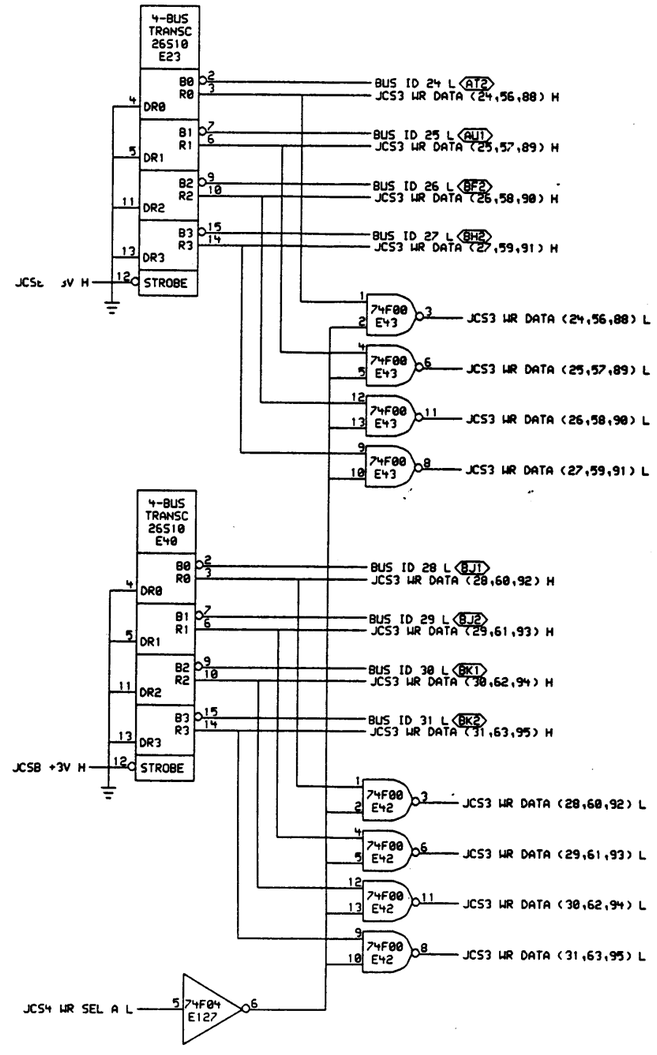
digital

DRN. JMoyle DATE 28-SEP-83
CHK'D. DATE
ENG. [illegible] DATE 23 83
BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNEY>JCS2.DRW 28-SEP-83 15:22
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS2)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS2	A





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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J.Floyd DATE 31-AUG-83
CHK'D. DATE
ENG'G DATE
BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNEY>JCS3.DRW 02-AUG-83 13:00
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS3)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS3	A

REV. A
NUMBER M7475-0-JCS3
CODE CS
SIZE K

PARITY GEN 74F280 E7
JCS3 WR DATA (26,58,90) H
JCS3 WR DATA (25,57,89) H
JCS3 WR DATA (24,56,88) H
JCS3 WR DATA (23,55,87) H
JCS3 WR DATA (22,54,86) H
JCS3 WR DATA (21,53,85) H
JCS3 WR DATA (20,52,84) H
JCS3 WR DATA (19,51,83) H
JCS3 WR DATA (18,50,82) H
D0 D1 D2 FEVEN D3 D4 D5 FODD D6 D7 D8

PARITY GEN 74F280 E41
DL2 USCC WCS PAR IN (1) L
JCS3 WR DATA (31,63,95) H
JCS3 WR DATA (30,62,94) H
JCS3 WR DATA (29,61,93) H
JCS3 WR DATA (28,60,92) H
JCS3 WR DATA (27,59,91) H
D0 D1 D2 FEVEN D3 D4 D5 FODD D6 D7 D8

JCS4 WR SEL H
7453?-01 E126
JCS4 ODD PAR L
DM2 JCS4 WCS EVEN PAR H

-5.2V
R201 120Ω
R202 120Ω
CR1 CLKC LECL CPT1 B2 H
CR2 CLKC LECL CPT1 B2 L
ECL 10H125 E106
74F04 E143
74F04 E143
JCS4 T1 DELAYED L
R204 150Ω
R203 150Ω

PARITY GEN 74F280 E108
JCS3 WR DATA (17,49,81) H
JCS3 WR DATA (16,48,80) H
JCS2 WR DATA (15,47,79) H
JCS2 WR DATA (14,46,78) H
JCS2 WR DATA (13,45,77) H
JCS2 WR DATA (12,44,76) H
JCS2 WR DATA (11,43,75) H
JCS2 WR DATA (10,42,74) H
JCS2 WR DATA (09,41,73) H
D0 D1 D2 FEVEN D3 D4 D5 FODD D6 D7 D8

JCS4 T1 DELAYED L
74F00 E158 JCS4 CS PROM EN (00:31) L
74F00 E158 JCS4 CS PROM EN (32:63) L
74F00 E158 JCS4 CS PROM EN (64:95) L
74F20 E142 JCS4 CS RAM EN (00:31) L
74F20 E142 JCS4 CS RAM EN (32:63) L
74F20 E159 JCS4 CS RAM EN (64:95) L

DB2 USCE CS WR (64:95) H
74F00 E160 JCS4 WR EN (88:95) L
74F00 E160 JCS4 WR EN (80:87) L
74F00 E160 JCS4 WR EN (72:79) L
74F00 E160 JCS4 WR EN (64:71) L

PARITY GEN 74F280 E75
JCS2 WR DATA (08,40,72) H
JCS2 WR DATA (07,39,71) H
JCS2 WR DATA (06,38,70) H
JCS2 WR DATA (05,37,69) H
JCS2 WR DATA (04,36,68) H
JCS2 WR DATA (03,35,67) H
JCS2 WR DATA (02,34,66) H
JCS2 WR DATA (01,33,65) H
JCS2 WR DATA (00,32,64) H
D0 D1 D2 FEVEN D3 D4 D5 FODD D6 D7 D8

+5.0V
R200 1KΩ
CB1 JCS4 RAM ONLY L
FM2 BUS UPC 12 L
74F86 E192
74F04 E143

8 MUX 74F151 E176
0D 1D 2D 3D 4D 5D 6D 7D
BUS UPC 11 L
BUS UPC 10 L
BUS UPC 09 L
2 SEL
EN
74F04 E143
74F04 E143
FN1 USCC WCS ADRS 12 L
74F86 E192
DL1 USCE WCS WR CYCLE H
7453?-01 E126
JCS4 WR SEL A L
JCS4 WR SEL L
74F04 E143
JCS4 WR SEL H

DB1 USCE CS WR (32:63) H
74F00 E93 JCS4 WR EN (56:63) L
74F00 E93 JCS4 WR EN (48:55) L
74F00 E93 JCS4 WR EN (40:47) L
74F00 E93 JCS4 WR EN (32:39) L

DA1 USCE CS WR (00:31) H
74F00 E26 JCS4 WR EN (24:31) L
74F00 E26 JCS4 WR EN (16:23) L
74F00 E26 JCS4 WR EN (08:15) L
74F00 E26 JCS4 WR EN (00:07) L

(PARITY GENERATE, R/W CONTROL)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JPCoyle 03-NOV-83 | ENG. | DATE
CHK'D. | DATE | BOARD LOCATION: | DATE
DSKB:<STICKNEY>JCS4.DRW 03-NOV-83 17:00 | SHEET 1 OF 1 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS4)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS4	A

AA2 +5.0V
AV1 +5.0V
BA2 +5.0V
BV1 +5.0V
CA2 +5.0V
CV1 +5.0V
DA2 +5.0V
DV1 +5.0V
EA2 +5.0V
EV1 +5.0V
FA2 +5.0V
FV1 +5.0V

C200 10µF 35V, C201 10µF 35V, C202 10µF 35V, C203 10µF 35V, C204 10µF 35V, C205 10µF 35V, C206 10µF 35V, C207 10µF 35V, C209 10µF 35V, C210 10µF 35V, C211 10µF 35V, C212 10µF 35V

C300 .047µF 50V, C301 .047µF 50V, C302 .047µF 50V, C303 .047µF 50V, C304 .047µF 50V, C305 .047µF 50V, C306 .047µF 50V, C307 .047µF 50V, C308 .047µF 50V, C309 .047µF 50V, C310 .047µF 50V, C311 .047µF 50V, C312 .047µF 50V, C313 .047µF 50V, C314 .047µF 50V, C315 .047µF 50V, C316 .047µF 50V, C317 .047µF 50V, C318 .047µF 50V, C319 .047µF 50V, C320 .047µF 50V, C321 .047µF 50V, C322 .047µF 50V, C323 .047µF 50V, C324 .047µF 50V, C325 .047µF 50V, C326 .047µF 50V, C327 .047µF 50V, C328 .047µF 50V, C329 .047µF 50V, C330 .047µF 50V, C331 .047µF 50V, C332 .047µF 25V

C333 .047µF 50V, C334 .047µF 50V, C335 .047µF 50V, C336 .047µF 50V, C337 .047µF 50V, C338 .047µF 50V, C339 .047µF 50V, C340 .047µF 50V, C341 .047µF 50V, C342 .047µF 50V, C343 .047µF 50V, C344 .047µF 50V, C345 .047µF 50V, C346 .047µF 50V, C347 .047µF 50V, C348 .047µF 50V, C349 .047µF 50V, C350 .047µF 50V, C351 .047µF 50V, C352 .047µF 50V, C353 .047µF 50V, C354 .047µF 50V, C355 .047µF 50V, C356 .047µF 50V, C357 .047µF 50V, C358 .047µF 50V, C359 .047µF 50V, C360 .047µF 50V, C361 .047µF 50V, C362 .047µF 50V, C363 .047µF 50V, C364 .047µF 50V, C365 .047µF 25V

C366 .047µF 50V, C367 .047µF 50V, C368 .047µF 50V, C369 .047µF 50V, C370 .047µF 50V, C371 .047µF 50V, C372 .047µF 50V, C373 .047µF 50V, C375 .047µF 50V, C376 .047µF 50V, C377 .047µF 50V, C378 .047µF 50V, C379 .047µF 50V, C380 .047µF 50V, C381 .047µF 50V, C382 .047µF 50V, C383 .047µF 50V, C384 .047µF 50V, C385 .047µF 50V, C386 .047µF 50V, C387 .047µF 50V, C388 .047µF 50V, C389 .047µF 50V, C390 .047µF 50V, C391 .047µF 50V, C392 .047µF 50V, C393 .047µF 50V, C394 .047µF 50V, C395 .047µF 50V, C396 .047µF 50V, C397 .047µF 50V, C398 .047µF 50V, C399 .047µF 25V

C400 .047µF 50V, C401 .047µF 50V, C402 .047µF 50V, C403 .047µF 50V, C404 .047µF 50V, C405 .047µF 50V, C406 .047µF 50V, C407 .047µF 50V, C408 .047µF 50V, C409 .047µF 50V, C410 .047µF 50V, C411 .047µF 50V, C412 .047µF 50V, C413 .047µF 50V, C414 .047µF 50V, C415 .047µF 50V, C416 .047µF 50V, C417 .047µF 50V, C418 .047µF 50V, C419 .047µF 50V, C420 .047µF 50V, C421 .047µF 50V, C422 .047µF 50V, C423 .047µF 50V, C424 .047µF 50V, C425 .047µF 50V, C426 .047µF 50V, C427 .047µF 50V, C428 .047µF 50V, C429 .047µF 50V, C430 .047µF 50V

EK1 -5.2V
C208 10µF 35V
C374 .047µF 50V

AC2, AH1, AN2, AT1, BC2, BH1

BN2, BT1, CC2, CH1, CN2, CT1

DC2, DH1, DN2, DT1, EC2, EH1

EN2, ET1, FC2, FH1, FN2, FT1

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JMoyle DATE 31-AUG-83
CHK'D. DATE
ENG. DATE
BOARD LOCATION:
SHEET 1 OF 1

DSKB:<ST|CKMEY>JCS5.DRW 17-AUG-83 14:26
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS5)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS5	A

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS5	A

SIGNAL NAME	PAGE NUMBER(S)
BUS CS 00 H	JCSD,1
BUS CS 01 H	JCSD,1
BUS CS 02 H	JCSD,1
BUS CS 03 H	JCSD,1
BUS CS 04 H	JCSD,1
BUS CS 05 H	JCSD,1
BUS CS 06 H	JCSD,1
BUS CS 07 H	JCSD,1
BUS CS 08 H	JCS1,D
BUS CS 09 H	JCSD,1
BUS CS 10 H	JCSD,1
BUS CS 11 H	JCSD,1
BUS CS 12 H	JCSD,1
BUS CS 13 H	JCSD,1
BUS CS 14 H	JCSD,1
BUS CS 15 H	JCSD,1
BUS CS 16 H	JCS1,E
BUS CS 17 H	JCS1,E
BUS CS 18 H	JCSE,1
BUS CS 19 H	JCSE,1
BUS CS 20 H	JCSE,1
BUS CS 21 H	JCSE,1
BUS CS 22 H	JCSE,1
BUS CS 23 H	JCSE,1
BUS CS 24 H	JCS1,E
BUS CS 25 H	JCS1,E
BUS CS 26 H	JCS1,E
BUS CS 27 H	JCSE,1
BUS CS 28 H	JCSE,1
BUS CS 29 H	JCSE,1
BUS CS 30 H	JCSE,1
BUS CS 31 H	JCSE,1
BUS CS 32 H	JCS1,F
BUS CS 33 H	JCS1,F
BUS CS 34 H	JCS1,F
BUS CS 35 H	JCS1,F
BUS CS 36 H	JCS1,F
BUS CS 37 H	JCS1,F
BUS CS 38 H	JCS1,F
BUS CS 39 H	JCS1,F
BUS CS 40 H	JCS1,F
BUS CS 41 H	JCSF,1
BUS CS 42 H	JCSF,1
BUS CS 43 H	JCSF,1
BUS CS 44 H	JCSF,1
BUS CS 45 H	JCSF,1
BUS CS 46 H	JCSF,1
BUS CS 47 H	JCSF,1
BUS CS 48 H	JCS1,H
BUS CS 49 H	JCS1,H

SIGNAL NAME	PAGE NUMBER(S)
BUS CS 50 H	JCSH,1
BUS CS 51 H	JCSH,1
BUS CS 52 H	JCSH,1
BUS CS 53 H	JCSH,1
BUS CS 54 H	JCSH,1
BUS CS 55 H	JCSH,1
BUS CS 56 H	JCSH,1
BUS CS 57 H	JCSH,1
BUS CS 58 H	JCSH,1
BUS CS 59 H	JCSH,1
BUS CS 60 H	JCSH,1
BUS CS 61 H	JCSH,1
BUS CS 62 H	JCSH,1
BUS CS 63 H	JCSH,1
BUS CS 64 H	JCSJ,1
BUS CS 65 H	JCSJ,1
BUS CS 66 H	JCSJ,1
BUS CS 67 H	JCSJ,1
BUS CS 68 H	JCSJ,1
BUS CS 69 H	JCSJ,1
BUS CS 70 H	JCSJ,1,L
BUS CS 71 H	JCSJ,1,L
BUS CS 72 H	JCS1,J
BUS CS 73 H	JCSJ,1
BUS CS 74 H	JCSJ,1
BUS CS 75 H	JCSJ,1
BUS CS 76 H	JCSJ,1
BUS CS 77 H	JCSJ,1
BUS CS 78 H	JCSJ,1
BUS CS 79 H	JCSJ,1
BUS CS 80 H	JCS1,K
BUS CS 81 H	JCS1,K
BUS CS 82 H	JCSK,1
BUS CS 83 H	JCSK,1
BUS CS 84 H	JCSK,1
BUS CS 85 H	JCSK,1
BUS CS 86 H	JCSK,1
BUS CS 87 H	JCSK,1
BUS CS 88 H	JCSK,1
BUS CS 89 H	JCSK,1
BUS CS 90 H	JCSK,1
BUS CS 91 H	JCSK,1
BUS CS 92 H	JCSK,1
BUS CS 93 H	JCSK,1
BUS CS 94 H	JCSK,1
BUS CS 95 H	JCSK,1
BUS CS PAR 0 H	JCS1,L
BUS CS PAR 1 H	JCS1,L
BUS CS PAR 2 H	JCS1,L
BUS ID 00 L	JCS2

SIGNAL NAME	PAGE NUMBER(S)
BUS ID 01 L	JCS2
BUS ID 02 L	JCS2
BUS ID 03 L	JCS2
BUS ID 04 L	JCS2
BUS ID 05 L	JCS2
BUS ID 06 L	JCS2
BUS ID 07 L	JCS2
BUS ID 08 L	JCS2
BUS ID 09 L	JCS2
BUS ID 10 L	JCS2
BUS ID 11 L	JCS2
BUS ID 12 L	JCS2
BUS ID 13 L	JCS2
BUS ID 14 L	JCS2
BUS ID 15 L	JCS2
BUS ID 16 L	JCS3
BUS ID 17 L	JCS3
BUS ID 18 L	JCS3
BUS ID 19 L	JCS3
BUS ID 20 L	JCS3
BUS ID 21 L	JCS3
BUS ID 22 L	JCS3
BUS ID 23 L	JCS3
BUS ID 24 L	JCS3
BUS ID 25 L	JCS3
BUS ID 26 L	JCS3
BUS ID 27 L	JCS3
BUS ID 28 L	JCS3
BUS ID 29 L	JCS3
BUS ID 30 L	JCS3
BUS ID 31 L	JCS3
BUS UPC 00 L	JCSB,A
BUS UPC 01 L	JCSB,A
BUS UPC 02 L	JCSB,A
BUS UPC 03 L	JCSB,A
BUS UPC 04 L	JCSB,A
BUS UPC 05 L	JCSB,A
BUS UPC 06 L	JCSB,A
BUS UPC 07 L	JCSB,A
BUS UPC 08 L	JCSB,A
BUS UPC 09 L	JCSA,4
BUS UPC 10 L	JCSA,4
BUS UPC 11 L	JCSA,4
BUS UPC 12 L	JCS4
CLKC LECL CPT1 B2 H	JCS4
CLKC LECL CPT1 B2 L	JCS4
JCS CS SPARE H	JCSL
JCS1 PAR ERR (00:31) H	JCS1
JCS1 PAR ERR (32:63) H	JCS1
JCS1 PAR ERR (64:95) H	JCS1

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. [signature] DATE 31-AUG-83
CHK 'D. [signature] DATE
ENG. [signature] DATE 9-22-83
BOARD LOCATION:
SHEET 1 OF 1

DSKB:<STICKNET>JCS6.DRW 02-AUG-83 18:13
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS6)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS6	A

SIGNAL NAME	PAGE NUMBER(S)
JCS2 WR DATA (00,32,64) H	JCS2,4
JCS2 WR DATA (00,32,64) L	JCSM,2,S,W
JCS2 WR DATA (01,33,65) H	JCS2,4
JCS2 WR DATA (01,33,65) L	JCSM,2,S,W
JCS2 WR DATA (02,34,66) H	JCS2,4
JCS2 WR DATA (02,34,66) L	JCSM,2,S,W
JCS2 WR DATA (03,35,67) H	JCS2,4
JCS2 WR DATA (03,35,67) L	JCSM,2,S,W
JCS2 WR DATA (04,36,68) H	JCS2,4
JCS2 WR DATA (04,36,68) L	JCSM,2,S,W
JCS2 WR DATA (05,37,69) H	JCS2,4
JCS2 WR DATA (05,37,69) L	JCSM,2,S,W
JCS2 WR DATA (06,38,70) H	JCS2,4
JCS2 WR DATA (06,38,70) L	JCSM,S,W
JCS2 WR DATA (07,39,71) H	JCS2,4
JCS2 WR DATA (07,39,71) L	JCSM,2,S,W
JCS2 WR DATA (08,40,72) H	JCS4,2
JCS2 WR DATA (08,40,72) L	JCSN,2,T,X
JCS2 WR DATA (09,41,73) H	JCS2,4
JCS2 WR DATA (09,41,73) L	JCSN,2,T,X
JCS2 WR DATA (10,42,74) H	JCS2,4
JCS2 WR DATA (10,42,74) L	JCSN,2,T,X
JCS2 WR DATA (11,43,75) H	JCS2,4
JCS2 WR DATA (11,43,75) L	JCSN,2,T,X
JCS2 WR DATA (12,44,76) H	JCS4,2
JCS2 WR DATA (12,44,76) L	JCSN,T,2,X
JCS2 WR DATA (13,45,77) H	JCS4,2
JCS2 WR DATA (13,45,77) L	JCSN,T,2,X
JCS2 WR DATA (14,46,78) H	JCS4,2
JCS2 WR DATA (14,46,78) L	JCSN,T,2,X
JCS2 WR DATA (15,47,79) H	JCS4,2
JCS2 WR DATA (15,47,79) L	JCSN,T,2,X
JCS3 WR DATA (16,48,80) H	JCS3,4
JCS3 WR DATA (16,48,80) L	JCS3,P,U,Y
JCS3 WR DATA (17,49,81) H	JCS3,4
JCS3 WR DATA (17,49,81) L	JCS3,P,U,Y
JCS3 WR DATA (18,50,82) H	JCS3,4
JCS3 WR DATA (18,50,82) L	JCS3,P,U,Y
JCS3 WR DATA (19,51,83) H	JCS3,4
JCS3 WR DATA (19,51,83) L	JCS3,P,U,Y
JCS3 WR DATA (20,52,84) H	JCS4,3
JCS3 WR DATA (20,52,84) L	JCS3,P,U,Y
JCS3 WR DATA (21,53,85) H	JCS4,3
JCS3 WR DATA (21,53,85) L	JCS3,P,U,Y
JCS3 WR DATA (22,54,86) H	JCS4,3
JCS3 WR DATA (22,54,86) L	JCS3,P,U,Y
JCS3 WR DATA (23,55,87) H	JCS4,3
JCS3 WR DATA (23,55,87) L	JCS3,P,U,Y
JCS3 WR DATA (24,56,88) H	JCS4,3
JCS3 WR DATA (24,56,88) L	JCS3,R,V,Z

SIGNAL NAME	PAGE NUMBER(S)
JCS3 WR DATA (25,57,89) H	JCS4,3
JCS3 WR DATA (25,57,89) L	JCS3,R,V,Z
JCS3 WR DATA (26,58,90) H	JCS4,3
JCS3 WR DATA (26,58,90) L	JCS3,R,V,Z
JCS3 WR DATA (27,59,91) H	JCS3,4
JCS3 WR DATA (27,59,91) L	JCS3,R,V,Z
JCS3 WR DATA (28,60,92) H	JCS3,4
JCS3 WR DATA (28,60,92) L	JCS3,R,V,Z
JCS3 WR DATA (29,61,93) H	JCS3,4
JCS3 WR DATA (29,61,93) L	JCS3,R,V,Z
JCS3 WR DATA (30,62,94) H	JCS3,4
JCS3 WR DATA (30,62,94) L	JCS3,R,V,Z
JCS3 WR DATA (31,63,95) H	JCS3,4
JCS3 WR DATA (31,63,95) L	JCS3,R,V,Z
JCS4 CS PROM EN (00:31) L	JCSD,E,4
JCS4 CS PROM EN (32:63) L	JCSF,H,4
JCS4 CS PROM EN (64:95) L	JCSJ,4,K,L
JCS4 CS RAM EN (00:31) L	JCSD,E,4
JCS4 CS RAM EN (32:63) L	JCSF,H,4
JCS4 CS RAM EN (64:95) L	JCSJ,4,K,L
JCS4 ODD PAR L	JCSL,4
JCS4 RAM ONLY L	JCS2,4
JCS4 T1 DELAYED L	JCS4
JCS4 WCS EVEN PAR H	JCS4
JCS4 WR EN (00:07) L	JCSC,L,M,4
JCS4 WR EN (08:15) L	JCSC,4,N
JCS4 WR EN (16:23) L	JCSC,4,P
JCS4 WR EN (24:31) L	JCSC,4,R
JCS4 WR EN (32:39) L	JCSC,L,S,4
JCS4 WR EN (40:47) L	JCSC,4,T
JCS4 WR EN (48:55) L	JCSC,4,U
JCS4 WR EN (56:63) L	JCSC,4,V
JCS4 WR EN (64:71) L	JCSC,L,W,4
JCS4 WR EN (72:79) L	JCSC,4,X
JCS4 WR EN (80:87) L	JCSC,4,Y
JCS4 WR EN (88:95) L	JCSC,4,Z
JCS4 WR SEL A L	JCS4,2,3
JCS4 WR SEL H	JCS4
JCS4 WR SEL L	JCSA,4
JCSA CSA 00 H	JCSA,B
JCSA CSA 01 H	JCSA,B
JCSA CSA 02 H	JCSA,B
JCSA CSA 03 H	JCSA,B
JCSA CSA 04 H	JCSA,B
JCSA CSA 05 H	JCSA,B
JCSA CSA 06 H	JCSA,B
JCSA CSA 07 H	JCSA,B
JCSA CSA 08 H	JCSA,B
JCSA CSA 09 H	JCSA,B
JCSA CSA 10 H	JCSA,B

SIGNAL NAME	PAGE NUMBER(S)
JCSA CSA 11 H	JCSA,B
JCSA RADR 00 (00:15) H	JCSC,L,M,A,N
JCSA RADR 00 (16:31) H	JCSC,A,P,R
JCSA RADR 00 (32:47) H	JCSC,L,S,A,T
JCSA RADR 00 (48:63) H	JCSC,V,A,U
JCSA RADR 01 (00:15) H	JCSC,L,M,A,N
JCSA RADR 01 (16:31) H	JCSC,A,P,R
JCSA RADR 01 (32:47) H	JCSC,L,S,A,T
JCSA RADR 01 (48:63) H	JCSC,V,A,U
JCSA RADR 02 (00:15) H	JCSC,L,M,A,N
JCSA RADR 02 (16:31) H	JCSC,A,P,R
JCSA RADR 02 (32:47) H	JCSC,L,S,A,T
JCSA RADR 02 (48:63) H	JCSC,V,A,U
JCSA RADR 03 (00:15) H	JCSC,L,M,A,N
JCSA RADR 03 (16:31) H	JCSC,A,P,R
JCSA RADR 03 (32:47) H	JCSC,L,S,A,T
JCSA RADR 03 (48:63) H	JCSC,V,A,U
JCSA RADR 04 (00:15) H	JCSC,L,M,A,N
JCSA RADR 04 (16:31) H	JCSC,P,A,R
JCSA RADR 04 (32:47) H	JCSC,L,S,A,T
JCSA RADR 04 (48:63) H	JCSC,A,V,U
JCSA RADR 05 (00:15) H	JCSC,L,M,A,N
JCSA RADR 05 (16:31) H	JCSC,P,A,R
JCSA RADR 05 (32:47) H	JCSC,L,S,A,T
JCSA RADR 05 (48:63) H	JCSC,A,V,U
JCSA RADR 06 (00:15) H	JCSC,L,M,A,N
JCSA RADR 06 (16:31) H	JCSC,P,A,R
JCSA RADR 06 (32:47) H	JCSC,L,S,A,T
JCSA RADR 06 (48:63) H	JCSC,A,V,U
JCSA RADR 07 (00:15) H	JCSC,L,M,A,N
JCSA RADR 07 (16:31) H	JCSC,P,A,R
JCSA RADR 07 (32:47) H	JCSC,L,S,A,T
JCSA RADR 07 (48:63) H	JCSC,A,V,U
JCSA RADR 08 (00:15) H	JCSC,L,M,N,A
JCSA RADR 08 (16:31) H	JCSC,P,A,R
JCSA RADR 08 (32:47) H	JCSC,L,S,T,A
JCSA RADR 08 (48:63) H	JCSC,A,V,U
JCSA RADR 09 (00:15) H	JCSC,L,M,N,A
JCSA RADR 09 (16:31) H	JCSC,P,A,R
JCSA RADR 09 (32:47) H	JCSC,L,S,T,A
JCSA RADR 09 (48:63) H	JCSC,A,V,U
JCSA RADR 10 (00:15) H	JCSC,L,M,N,A
JCSA RADR 10 (16:31) H	JCSC,P,A,R
JCSA RADR 10 (32:47) H	JCSC,L,S,T,A
JCSA RADR 10 (48:63) H	JCSC,A,V,U
JCSA RADR 11 (00:15) H	JCSC,L,M,N,A
JCSA RADR 11 (16:31) H	JCSC,P,A,R
JCSA RADR 11 (32:47) H	JCSC,L,S,T,A
JCSA RADR 11 (48:63) H	JCSC,A,V,U
JCSB +3V H	JCS3,2,B,L

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REVISIONS		
CHK	CHANGE NO.	REV

DRN.	DATE 31-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATIONS	
		SHEET 1 OF 1	

DSKB:<STICKNEY>JCS7.DRW 02-AUG-83 17:47

FIRST USED ON OPTION/MODEL: 11/785

NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS7)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS7	A

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS7	A

SIGNAL NAME	PAGE NUMBER(S)
JCSB PRADR 00 (00:31) H	JCSC,D,B,E
JCSB PRADR 00 (32:63) H	JCSC,B,F,H
JCSB PRADR 00 (64:95) H	JCSC,B,J,K,L
JCSB PRADR 01 (00:31) H	JCSC,D,B,E
JCSB PRADR 01 (32:63) H	JCSC,B,F,H
JCSB PRADR 01 (64:95) H	JCSC,B,J,K,L
JCSB PRADR 02 (00:31) H	JCSC,D,B,E
JCSB PRADR 02 (32:63) H	JCSC,B,F,H
JCSB PRADR 02 (64:95) H	JCSC,B,J,K,L
JCSB PRADR 03 (00:31) H	JCSC,D,B,E
JCSB PRADR 03 (32:63) H	JCSC,B,F,H
JCSB PRADR 03 (64:95) H	JCSC,B,J,K,L
JCSB PRADR 04 (00:31) H	JCSC,D,B,E
JCSB PRADR 04 (32:63) H	JCSC,B,F,H
JCSB PRADR 04 (64:95) H	JCSC,B,J,K,L
JCSB PRADR 05 (00:31) H	JCSC,D,B,E
JCSB PRADR 05 (32:63) H	JCSC,B,F,H
JCSB PRADR 05 (64:95) H	JCSC,B,J,K,L
JCSB PRADR 06 (00:31) H	JCSC,D,B,E
JCSB PRADR 06 (32:63) H	JCSC,B,F,H
JCSB PRADR 06 (64:95) H	JCSC,J,K,B,L
JCSB PRADR 07 (00:31) H	JCSC,D,B,E
JCSB PRADR 07 (32:63) H	JCSC,F,H,B
JCSB PRADR 07 (64:95) H	JCSC,J,K,B,L
JCSB PRADR 08 (00:31) H	JCSC,D,E,B
JCSB PRADR 08 (32:63) H	JCSC,F,H,B
JCSB PRADR 08 (64:95) H	JCSC,J,K,B,L
JCSB RADR 00 (64:79) H	JCSC,L,W,B,X
JCSB RADR 00 (80:95) H	JCSC,Z,B,Y
JCSB RADR 01 (64:79) H	JCSC,L,W,B,X
JCSB RADR 01 (80:95) H	JCSC,Z,B,Y
JCSB RADR 01 (64:79) H	JCSC,L,W,B,X
JCSB RADR 02 (80:95) H	JCSC,Z,B,Y
JCSB RADR 03 (64:79) H	JCSC,L,W,B,X
JCSB RADR 03 (80:95) H	JCSC,Z,B,Y
JCSB RADR 04 (64:79) H	JCSC,L,W,B,X
JCSB RADR 04 (80:95) H	JCSC,B,Z,Y
JCSB RADR 05 (64:79) H	JCSC,L,W,B,X
JCSB RADR 05 (80:95) H	JCSC,B,Z,Y
JCSB RADR 06 (64:79) H	JCSC,L,W,B,X
JCSB RADR 06 (80:95) H	JCSC,B,Z,Y
JCSB RADR 07 (64:79) H	JCSC,L,W,B,X
JCSB RADR 07 (80:95) H	JCSC,B,Z,Y
JCSB RADR 08 (64:79) H	JCSC,L,W,X,B
JCSB RADR 08 (80:95) H	JCSC,B,Z,Y
JCSB RADR 09 (64:79) H	JCSC,L,W,X,B
JCSB RADR 09 (80:95) H	JCSC,B,Z,Y
JCSB RADR 10 (64:79) H	JCSC,L,W,X,B
JCSB RADR 10 (80:95) H	JCSC,B,Z,Y
JCSB RADR 11 (64:79) H	JCSC,L,W,X,B

SIGNAL NAME	PAGE NUMBER(S)
JCSB RADR 11 (80:95) H	JCSC,B,Z,Y
JCSM RAM OUT 00 L	JCSD,M
JCSM RAM OUT 01 L	JCSD,M
JCSM RAM OUT 02 L	JCSD,M
JCSM RAM OUT 03 L	JCSD,M
JCSM RAM OUT 04 L	JCSD,M
JCSM RAM OUT 05 L	JCSD,M
JCSM RAM OUT 06 L	JCSD,M
JCSM RAM OUT 07 L	JCSD,M
JCSN RAM OUT 08 L	JCSD,N
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JCSN RAM OUT 10 L	JCSD,N
JCSN RAM OUT 11 L	JCSD,N
JCSN RAM OUT 12 L	JCSD,N
JCSN RAM OUT 13 L	JCSD,N
JCSN RAM OUT 14 L	JCSD,N
JCSN RAM OUT 15 L	JCSD,N
JCSP RAM OUT 16 L	JCSE,P
JCSP RAM OUT 17 L	JCSE,P
JCSP RAM OUT 18 L	JCSE,P
JCSP RAM OUT 19 L	JCSE,P
JCSP RAM OUT 20 L	JCSE,P
JCSP RAM OUT 21 L	JCSE,P
JCSP RAM OUT 22 L	JCSE,P
JCSP RAM OUT 23 L	JCSE,P
JCSR RAM OUT 24 L	JCSE,R
JCSR RAM OUT 25 L	JCSE,R
JCSR RAM OUT 26 L	JCSE,R
JCSR RAM OUT 27 L	JCSE,R
JCSR RAM OUT 28 L	JCSE,R
JCSR RAM OUT 29 L	JCSE,R
JCSR RAM OUT 30 L	JCSE,R
JCSR RAM OUT 31 L	JCSE,R
JCSS RAM OUT 32 L	JCSF,S
JCSS RAM OUT 33 L	JCSF,S
JCSS RAM OUT 34 L	JCSF,S
JCSS RAM OUT 35 L	JCSF,S
JCSS RAM OUT 36 L	JCSF,S
JCSS RAM OUT 37 L	JCSF,S
JCSS RAM OUT 38 L	JCSF,S
JCSS RAM OUT 39 L	JCSF,S
JCST RAM OUT 40 L	JCSF,T
JCST RAM OUT 41 L	JCSF,T
JCST RAM OUT 42 L	JCSF,T
JCST RAM OUT 43 L	JCSF,T
JCST RAM OUT 44 L	JCSF,T
JCST RAM OUT 45 L	JCSF,T
JCST RAM OUT 46 L	JCSF,T
JCST RAM OUT 47 L	JCSF,T
JCSU RAM OUT 48 L	JCSH,U

SIGNAL NAME	PAGE NUMBER(S)
JCSU RAM OUT 49 L	JCSH,U
JCSU RAM OUT 50 L	JCSH,U
JCSU RAM OUT 51 L	JCSH,U
JCSU RAM OUT 52 L	JCSH,U
JCSU RAM OUT 53 L	JCSH,U
JCSU RAM OUT 54 L	JCSH,U
JCSU RAM OUT 55 L	JCSH,U
JCSV RAM OUT 56 L	JCSH,V
JCSV RAM OUT 57 L	JCSH,V
JCSV RAM OUT 58 L	JCSH,V
JCSV RAM OUT 59 L	JCSH,V
JCSV RAM OUT 60 L	JCSH,V
JCSV RAM OUT 61 L	JCSH,V
JCSV RAM OUT 62 L	JCSH,V
JCSV RAM OUT 63 L	JCSH,V
JCSW RAM OUT 64 L	JCSJ,W
JCSW RAM OUT 65 L	JCSJ,W
JCSW RAM OUT 66 L	JCSJ,W
JCSW RAM OUT 67 L	JCSJ,W
JCSW RAM OUT 68 L	JCSJ,W
JCSW RAM OUT 69 L	JCSJ,W
JCSW RAM OUT 70 L	JCSJ,W
JCSW RAM OUT 71 L	JCSJ,W
JCSX RAM OUT 72 L	JCSJ,X
JCSX RAM OUT 73 L	JCSJ,X
JCSX RAM OUT 74 L	JCSJ,X
JCSX RAM OUT 75 L	JCSJ,X
JCSX RAM OUT 76 L	JCSJ,X
JCSX RAM OUT 77 L	JCSJ,X
JCSX RAM OUT 78 L	JCSJ,X
JCSX RAM OUT 79 L	JCSJ,X
JCSY RAM OUT 80 L	JCSK,Y
JCSY RAM OUT 81 L	JCSK,Y
JCSY RAM OUT 82 L	JCSK,Y
JCSY RAM OUT 83 L	JCSK,Y
JCSY RAM OUT 84 L	JCSK,Y
JCSY RAM OUT 85 L	JCSK,Y
JCSY RAM OUT 86 L	JCSK,Y
JCSY RAM OUT 87 L	JCSK,Y
JCSZ RAM OUT 88 L	JCSK,Z
JCSZ RAM OUT 89 L	JCSK,Z
JCSZ RAM OUT 90 L	JCSK,Z
JCSZ RAM OUT 91 L	JCSK,Z
JCSZ RAM OUT 92 L	JCSK,Z
JCSZ RAM OUT 93 L	JCSK,Z
JCSZ RAM OUT 94 L	JCSK,Z
JCSZ RAM OUT 95 L	JCSK,Z
USCC WCS ADR 00 L	JCSA
USCC WCS ADR 01 L	JCSA
USCC WCS ADR 02 L	JCSA

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. D. Toomey 31-AUG-83
CHK "D."
ENG. [signature] 25-SEP-83
DATE
BOARD LOCATION?
SHEET 1 OF 1
DSKB:<STICKNEY>JCS8.DRW 02-AUG-83 17:50
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785
B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS8)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS8	A

SIGNAL NAME	PAGE NUMBER(S)
USCC WCS ADR 03 L	JCSA
USCC WCS ADR 04 L	JCSA
USCC WCS ADR 05 L	JCSA
USCC WCS ADR 06 L	JCSA
USCC WCS ADR 07 L	JCSA
USCC WCS ADR 08 L	JCSA
USCC WCS ADR 09 L	JCSA
USCC WCS ADR 10 L	JCSA
USCC WCS ADR 11 L	JCSA
USCC WCS ADRS 12 L	JCS4
USCC WCS PAR IN (0)H	JCS4
USCE CS WR (00:31) H	JCS4
USCE CS WR (32:63) H	JCS4
USCE CS WR (64:95) H	JCS4
USCE WCS MEM AVAIL L	JCS2
USCE WCS WR CYCLE H	JCS4

SIGNAL NAME	PAGE NUMBER(S)

SIGNAL NAME	PAGE NUMBER(S)

NOTES:
1. THIS PAGE LISTS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED.

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REVISIONS		
CHK	CHANGE NO.	REV

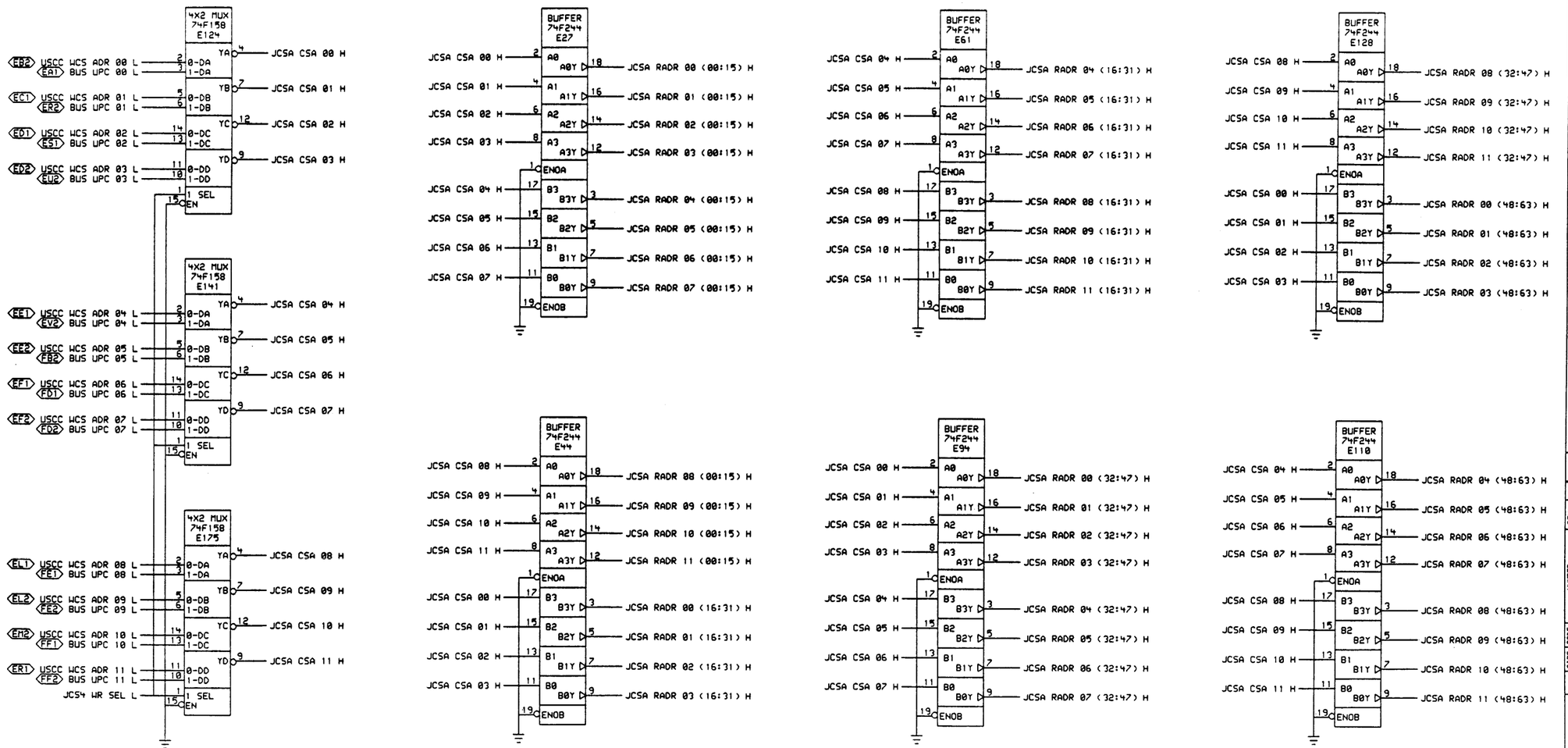
digital

DRN. S. Looney — DATE 31-AUG-83 — ENG. Jay Sweeney — DATE 2-Sep-83
CHK'D. — DATE — BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNET>JCS9.DRW 02-AUG-83 12:51 — NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCS9)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS9	A

SIZE K | CODE CS | NUMBER M7475-0-JCS9 | REV. A



(ADDRESS MUX & DRIVERS)

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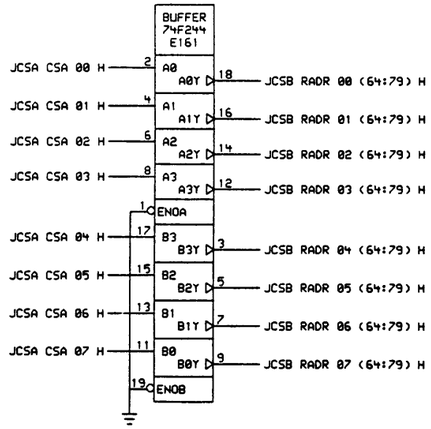
REVISIONS		
CHK	CHANGE NO.	REV

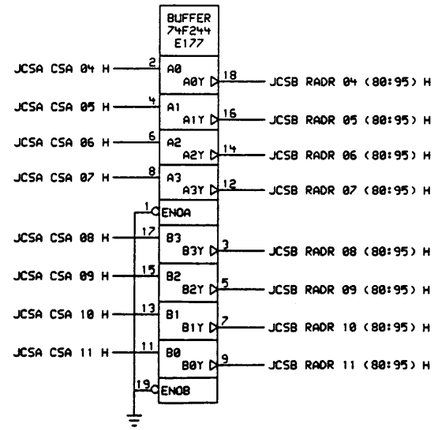
DRN. JPLoyle	DATE 31-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION:	
DSKB:<STICKNEY>JCSA.DRW 02-AUG-83 08:52		SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: 11/785		NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0	

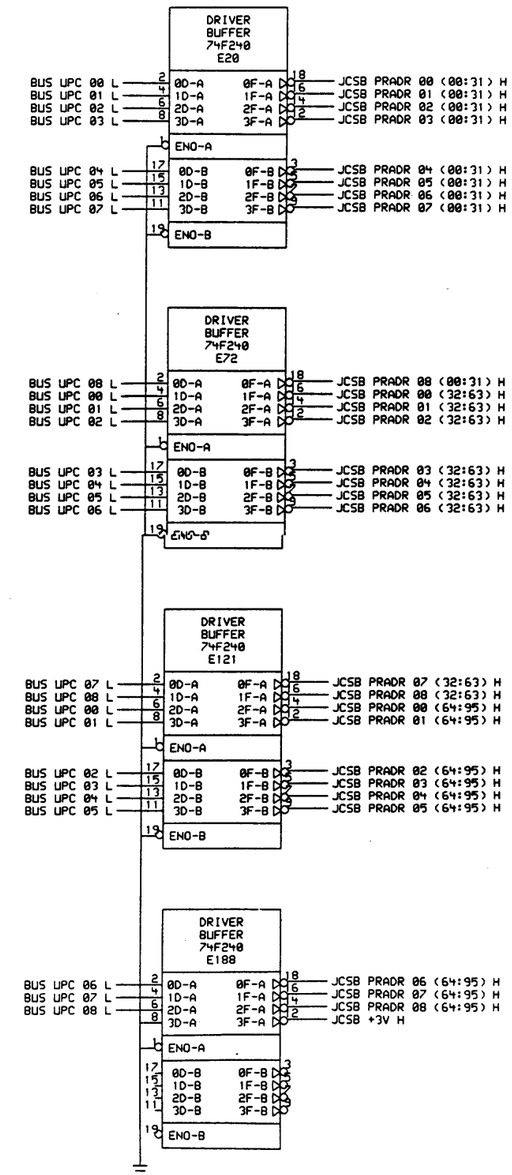
TITLE: JOINT CONTROL STORE (JCSA)

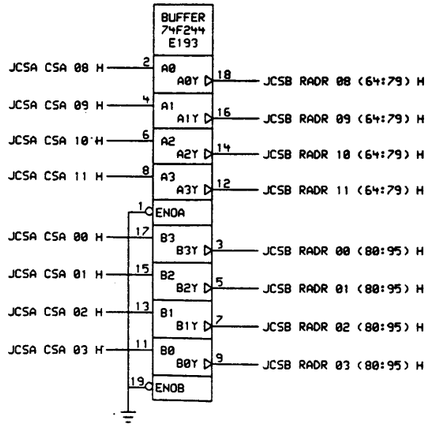
SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSA	A

M7475-0-JCSA REV. A SIZE K CODE CS









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REVISIONS		
CHK	CHANGE NO.	REV

DRN. J.Floyle 31-AUG-83 | ENG. | DATE | DATE
CHK D. | DATE | BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNET>JCSB.DRW 02-AUG-83 08:54 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 | B-DD-M7475-0-0

TITLE: JOINT CONTRO- STORE (JCSB)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSB	A

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSC	A

JCSA RADR 00 (00:15) H — C1 100µµF 100Ω 50V — R1 22
JCSA RADR 01 (00:15) H — C2 100µµF 100Ω 50V — R2 22
JCSA RADR 02 (00:15) H — C3 100µµF 100Ω 50V — R3 22
JCSA RADR 03 (00:15) H — C4 100µµF 100Ω 50V — R4 22
JCSA RADR 04 (00:15) H — C5 100µµF 100Ω 50V — R5 22
JCSA RADR 05 (00:15) H — C6 100µµF 100Ω 50V — R6 22
JCSA RADR 06 (00:15) H — C7 100µµF 100Ω 50V — R7 22
JCSA RADR 07 (00:15) H — C8 100µµF 100Ω 50V — R8 22
JCSA RADR 08 (00:15) H — C9 100µµF 100Ω 50V — R9 22
JCSA RADR 09 (00:15) H — C10 100µµF 100Ω 50V — R10 22
JCSA RADR 10 (00:15) H — C11 100µµF 100Ω 50V — R11 22
JCSA RADR 11 (00:15) H — C12 100µµF 100Ω 50V — R12 22
JCSA RADR 00 (16:31) H — C13 100µµF 100Ω 50V — R13 22
JCSA RADR 01 (16:31) H — C14 100µµF 100Ω 50V — R14 22
JCSA RADR 02 (16:31) H — C15 100µµF 100Ω 50V — R15 22
JCSA RADR 03 (16:31) H — C16 100µµF 100Ω 50V — R16 22
JCSA RADR 04 (16:31) H — C17 100µµF 100Ω 50V — R17 22
JCSA RADR 05 (16:31) H — C18 100µµF 100Ω 50V — R18 22
JCSA RADR 06 (16:31) H — C19 100µµF 100Ω 50V — R19 22
JCSA RADR 07 (16:31) H — C20 100µµF 100Ω 50V — R20 22

JCSA RADR 08 (16:31) H — C21 100µµF 100Ω 50V — R21 22
JCSA RADR 09 (16:31) H — C22 100µµF 100Ω 50V — R22 22
JCSA RADR 10 (16:31) H — C23 100µµF 100Ω 50V — R23 22
JCSA RADR 11 (16:31) H — C24 100µµF 100Ω 50V — R24 22
JCSA RADR 00 (32:47) H — C25 100µµF 100Ω 50V — R25 22
JCSA RADR 01 (32:47) H — C26 100µµF 100Ω 50V — R26 22
JCSA RADR 02 (32:47) H — C27 100µµF 100Ω 50V — R27 22
JCSA RADR 03 (32:47) H — C28 100µµF 100Ω 50V — R28 22
JCSA RADR 04 (32:47) H — C29 100µµF 100Ω 50V — R29 22
JCSA RADR 05 (32:47) H — C30 100µµF 100Ω 50V — R30 22
JCSA RADR 06 (32:47) H — C31 100µµF 100Ω 50V — R31 22
JCSA RADR 07 (32:47) H — C32 100µµF 100Ω 50V — R32 22
JCSA RADR 08 (32:47) H — C33 100µµF 100Ω 50V — R33 22
JCSA RADR 09 (32:47) H — C34 100µµF 100Ω 50V — R34 22
JCSA RADR 10 (32:47) H — C35 100µµF 100Ω 50V — R35 22
JCSA RADR 11 (32:47) H — C36 100µµF 100Ω 50V — R36 22
JCSA RADR 00 (48:63) H — C37 100µµF 100Ω 50V — R37 22
JCSA RADR 01 (48:63) H — C38 100µµF 100Ω 50V — R38 22
JCSA RADR 02 (48:63) H — C39 100µµF 100Ω 50V — R39 22
JCSA RADR 03 (48:63) H — C40 100µµF 100Ω 50V — R40 22

JCSA RADR 04 (48:63) H — C41 100µµF 100Ω 50V — R41 22
JCSA RADR 05 (48:63) H — C42 100µµF 100Ω 50V — R42 22
JCSA RADR 06 (48:63) H — C43 100µµF 100Ω 50V — R43 22
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JCSA RADR 09 (48:63) H — C46 100µµF 100Ω 50V — R46 22
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JCSA RADR 11 (48:63) H — C48 100µµF 100Ω 50V — R48 22
JCSB RADR 00 (64:79) H — C49 100µµF 100Ω 50V — R49 22
JCSB RADR 01 (64:79) H — C50 100µµF 100Ω 50V — R50 22
JCSB RADR 02 (64:79) H — C51 100µµF 100Ω 50V — R51 22
JCSB RADR 03 (64:79) H — C52 100µµF 100Ω 50V — R52 22
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JCSB RADR 05 (64:79) H — C54 100µµF 100Ω 50V — R54 22
JCSB RADR 06 (64:79) H — C55 100µµF 100Ω 50V — R55 22
JCSB RADR 07 (64:79) H — C56 100µµF 100Ω 50V — R56 22
JCSB RADR 08 (64:79) H — C57 100µµF 100Ω 50V — R57 22
JCSB RADR 09 (64:79) H — C58 100µµF 100Ω 50V — R58 22
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JCSB RADR 00 (80:95) H — C61 100µµF 100Ω 50V — R61 22
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JCSB RADR 07 (80:95) H — C68 100µµF 100Ω 50V — R68 22
JCSB RADR 08 (80:95) H — C69 100µµF 100Ω 50V — R69 22
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JCSB RADR 10 (80:95) H — C71 100µµF 100Ω 50V — R71 22
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JCSB PRADR 05 (00:31) H — C78 100µµF 100Ω 50V — R78 22
JCSB PRADR 06 (00:31) H — C79 100µµF 100Ω 50V — R79 22
JCSB PRADR 07 (00:31) H — C80 100µµF 100Ω 50V — R80 22

JCSB PRADR 08 (00:31) H — C81 100µµF 100Ω 50V — R81 22
JCSB PRADR 00 (32:63) H — C82 100µµF 100Ω 50V — R82 22
JCSB PRADR 01 (32:63) H — C83 100µµF 100Ω 50V — R83 22
JCSB PRADR 02 (32:63) H — C84 100µµF 100Ω 50V — R84 22
JCSB PRADR 03 (32:63) H — C85 100µµF 100Ω 50V — R85 22
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JCSB PRADR 07 (32:63) H — C89 100µµF 100Ω 50V — R89 22
JCSB PRADR 08 (32:63) H — C90 100µµF 100Ω 50V — R90 22
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JCSB PRADR 01 (64:95) H — C92 100µµF 100Ω 50V — R92 22
JCSB PRADR 02 (64:95) H — C93 100µµF 100Ω 50V — R93 22
JCSB PRADR 03 (64:95) H — C94 100µµF 100Ω 50V — R94 22
JCSB PRADR 04 (64:95) H — C95 100µµF 100Ω 50V — R95 22
JCSB PRADR 05 (64:95) H — C96 100µµF 100Ω 50V — R96 22
JCSB PRADR 06 (64:95) H — C97 100µµF 100Ω 50V — R97 22
JCSB PRADR 07 (64:95) H — C98 100µµF 100Ω 50V — R98 22
JCSB PRADR 08 (64:95) H — C99 100µµF 100Ω 50V — R99 22
JCS4 WR EN (00:07) L — C100 100µµF 100Ω 50V — R100 22

JCS4 WR EN (08:15) L — C101 100µµF 100Ω 50V — R101 22
JCS4 WR EN (16:23) L — C102 100µµF 100Ω 50V — R102 22
JCS4 WR EN (24:31) L — C103 100µµF 100Ω 50V — R103 22
JCS4 WR EN (32:39) L — C104 100µµF 100Ω 50V — R104 22
JCS4 WR EN (40:47) L — C105 100µµF 100Ω 50V — R105 22
JCS4 WR EN (48:55) L — C106 100µµF 100Ω 50V — R106 22
JCS4 WR EN (56:63) L — C107 100µµF 100Ω 50V — R107 22
JCS4 WR EN (64:71) L — C108 100µµF 100Ω 50V — R108 22
JCS4 WR EN (72:79) L — C109 100µµF 100Ω 50V — R109 22
JCS4 WR EN (80:87) L — C110 100µµF 100Ω 50V — R110 22
JCS4 WR EN (88:95) L — C111 100µµF 100Ω 50V — R111 22

NOTE: R73-R111 & C73-C111 ARE NOT USED

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J Boyle — DATE 31-AUG-83 — ENG. Jay Stevens — DATE J 2.' 83

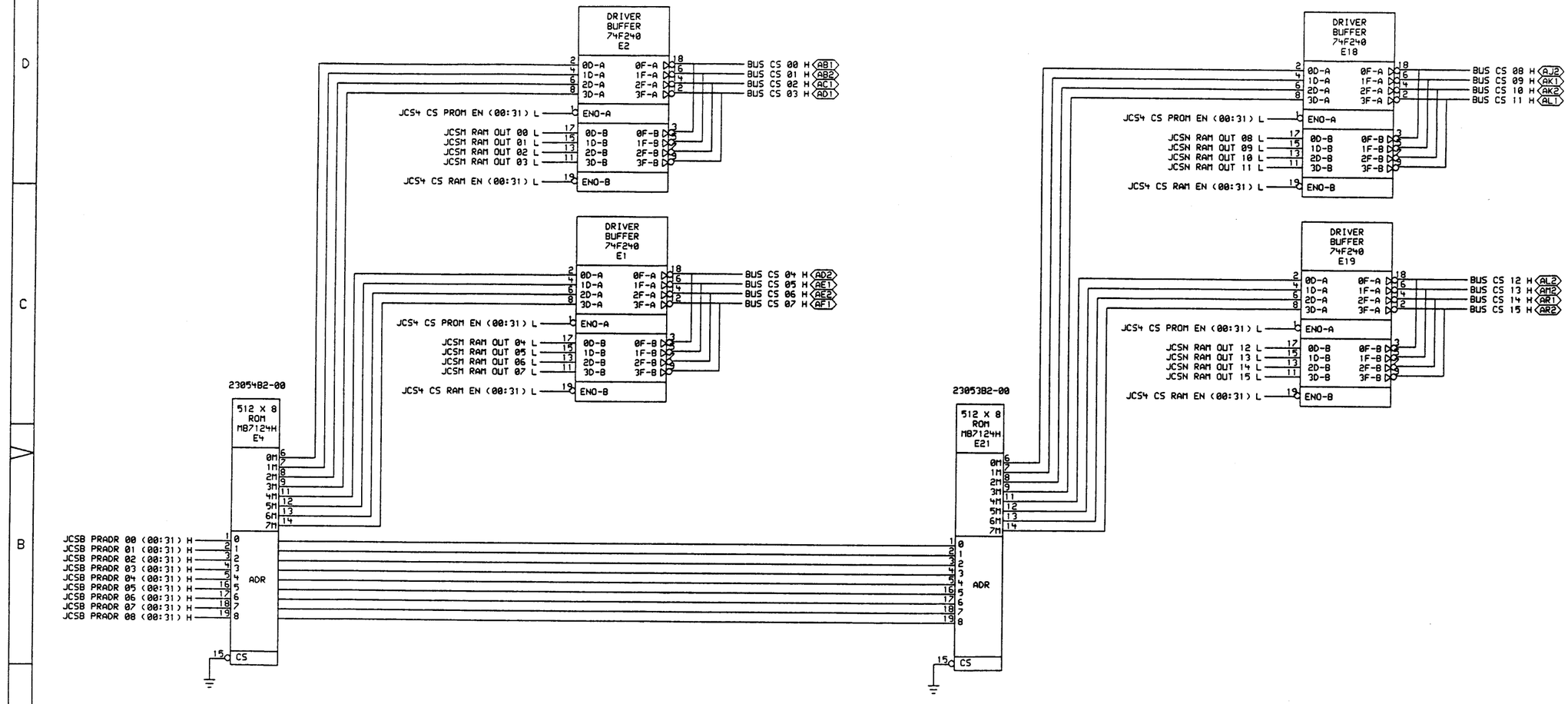
CHK 'D. — DATE — BOARD LOCATION: — SHEET 1 OF 1

DSKB:<ST|CKNEY>JCSC.DRW 02-AUG-83 00:57 — NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCSC)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSC	A



(PROM 00:15, BUS CS 00:15)

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REVISIONS		
CHK	CHANGE NO.	REV

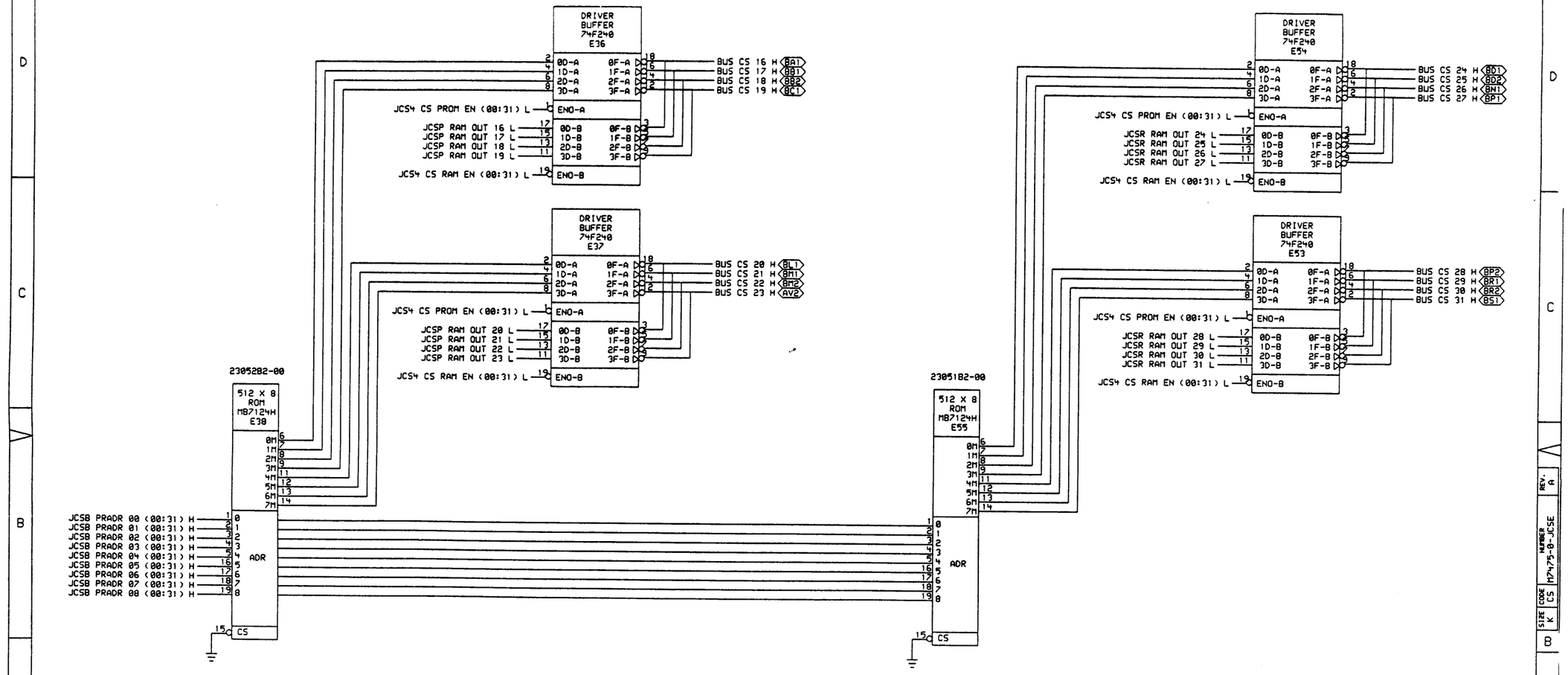
DRN. J.Moyle	DATE 31-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION:	
		SHEET 1 OF 1	

DSKB:<STICKNEY>JCSD.DRW 02-AUG-83 09:01
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSD)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSD	A

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSD	A



(PROM 16:31, BUS CS 16:31)

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REVISIONS		
CHK	CHANGE NO.	REV

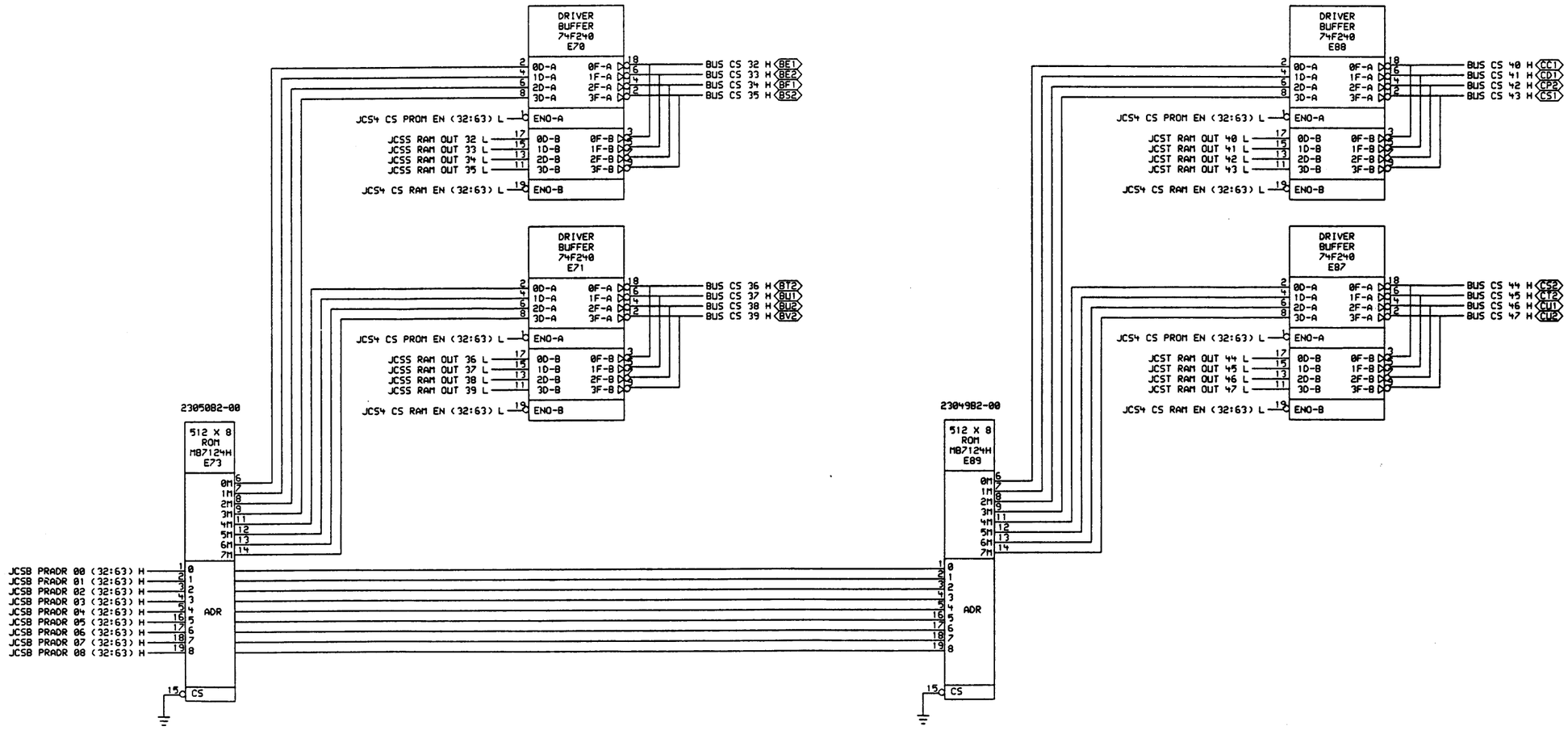
digital

DRN. JPLoyle 31-AUG-83 | ENG. | DATE | CHK'D. | DATE | BOARD LOCATION: | SHEET 1 OF 1

DSKB:<STICKNEY>JCSE.DRW 02-AUG-83 09:03 | FIRST USED ON OPTION/MODEL: 11/785 | NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSE)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSE	A



(PROM 32:47, BUS CS 32:47)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN. JPMoyle DATE 31-AUG-83 ENG. DATE

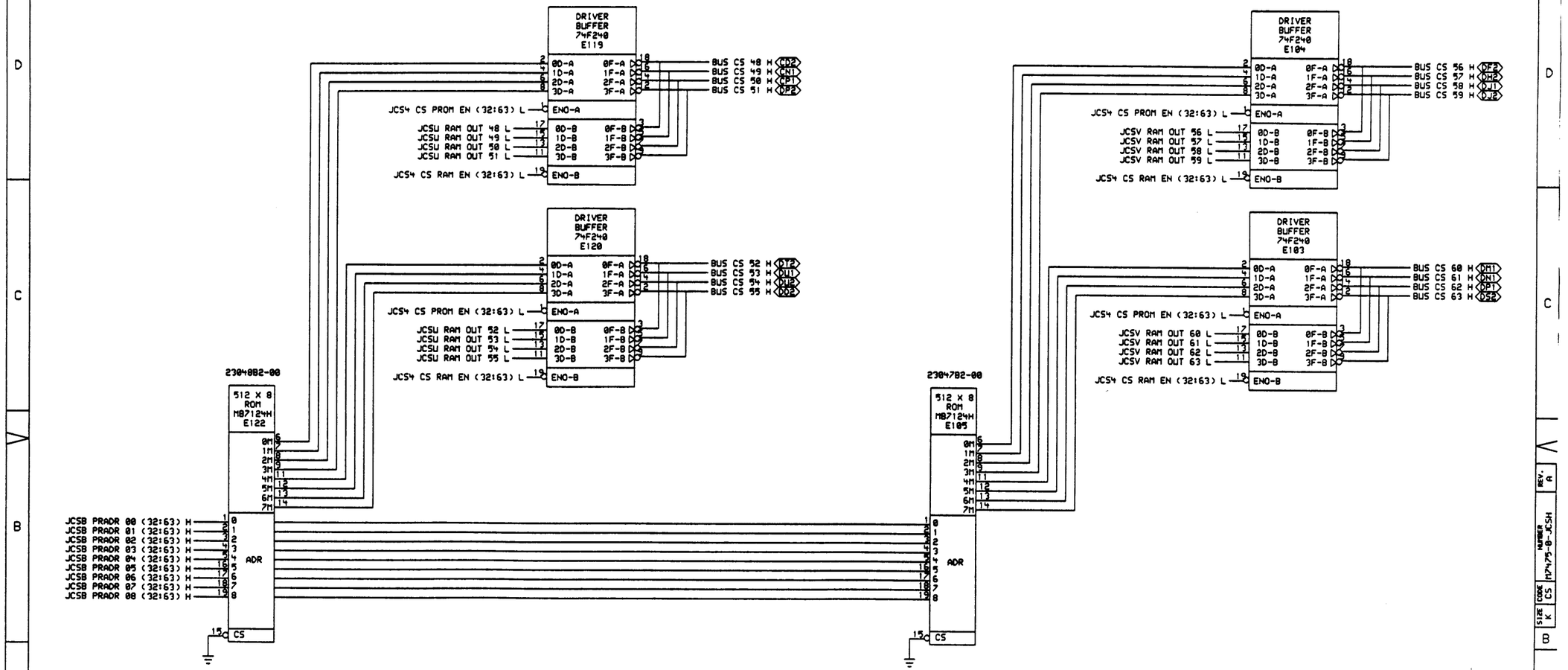
CHK'D. DATE BOARD LOCATION: SHEET 1 OF 1

DSKB:<STICKNEY>JCSF.DRW 02-AUG-83 09:06 NEXT HIGHER ASSEMBLY:

FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSF)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSF	A



(PROM 48:63, BUS CS 48:63)

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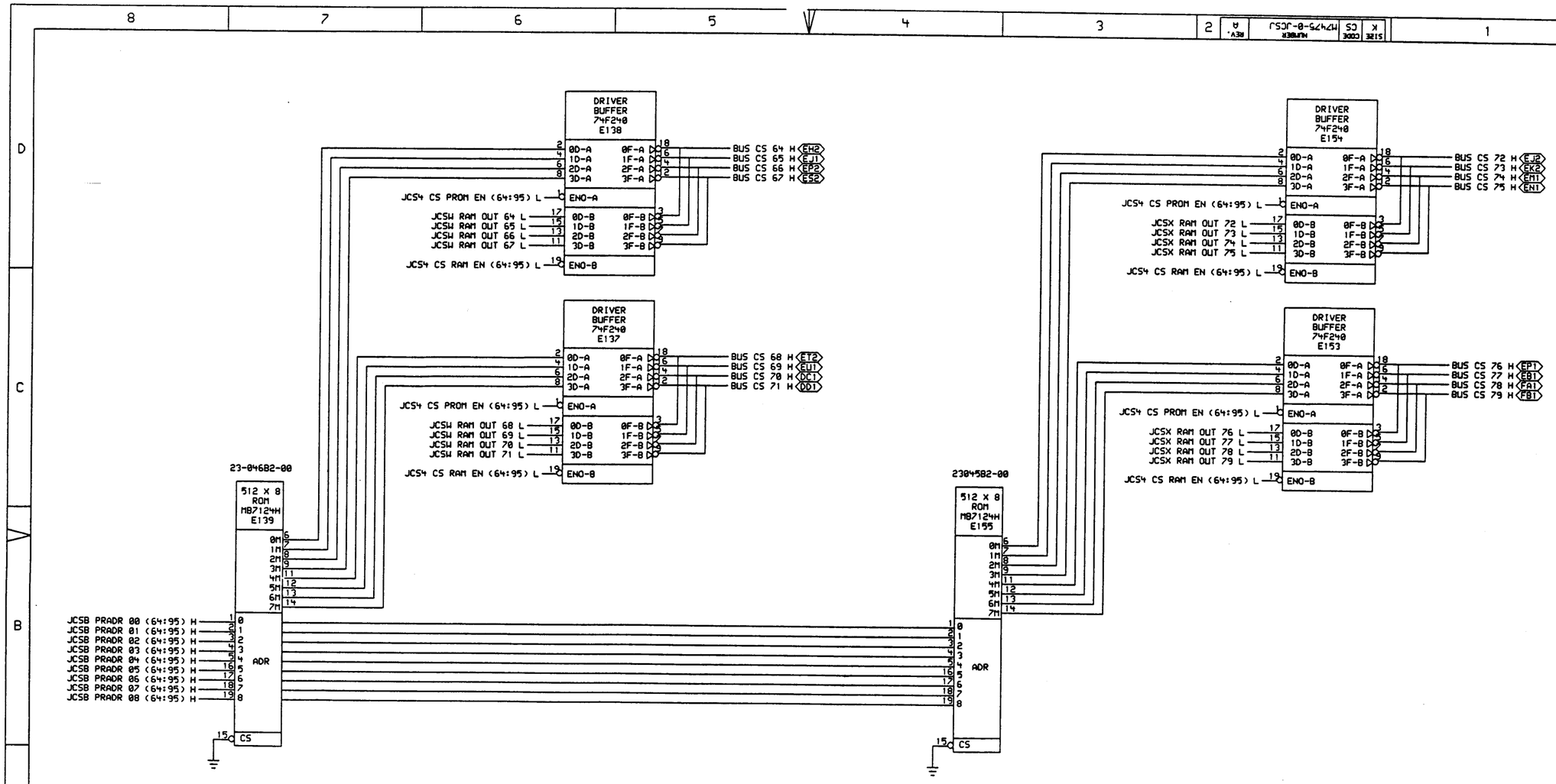
REVISIONS		
CHK	CHANGE NO.	REV

DSK0:<STICKNEY>JCSH.DRW 02-AUG-83 09:08
FIRST USED ON OPTION/MODEL: 11/785

DRN. JPCoyle DATE 31-AUG-83
CHK "D." DATE
ENG. [illegible] DATE
BOARD LOCATION:
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSH)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSH	A



(PROM 64:79, BUS CS 64:79)

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REVISIONS		
CHK	CHANGE NO.	REV

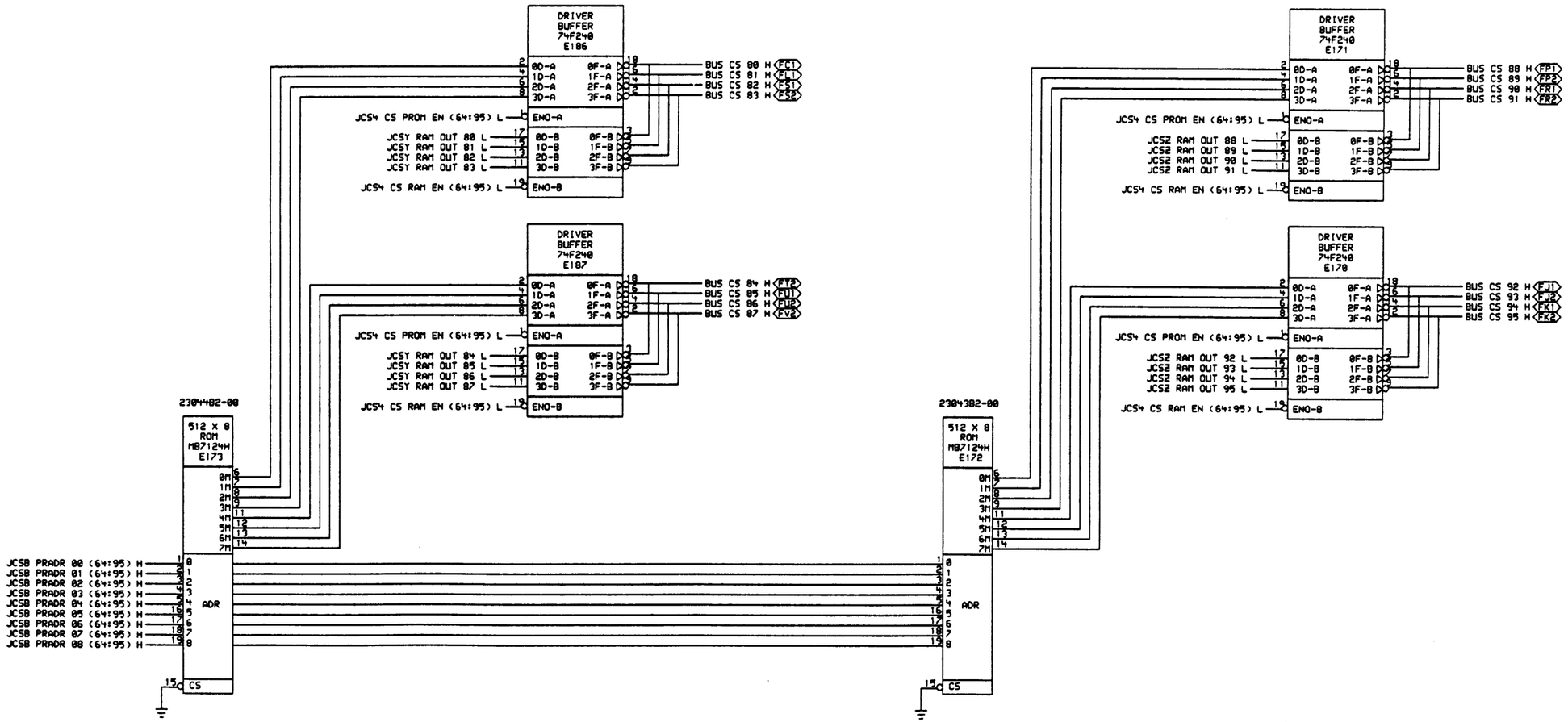
DRN. JFMoyle 31-AUG-83 | ENG. [illegible] DATE | TITLE: JOINT CONTROL STORE (JCSJ)

CHK'D. DATE | BOARD LOCATION: SHEET 1 OF 1

DSKB:<STICKNEY>JCSJ.DRW 02-AUG-83 09:11 | NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

FIRST USED ON OPTION/MODEL: 11/785

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSJ	A



(PROM 80:95, BUS CS 80:95)

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REVISIONS		
CHK	CHANGE NO.	REV

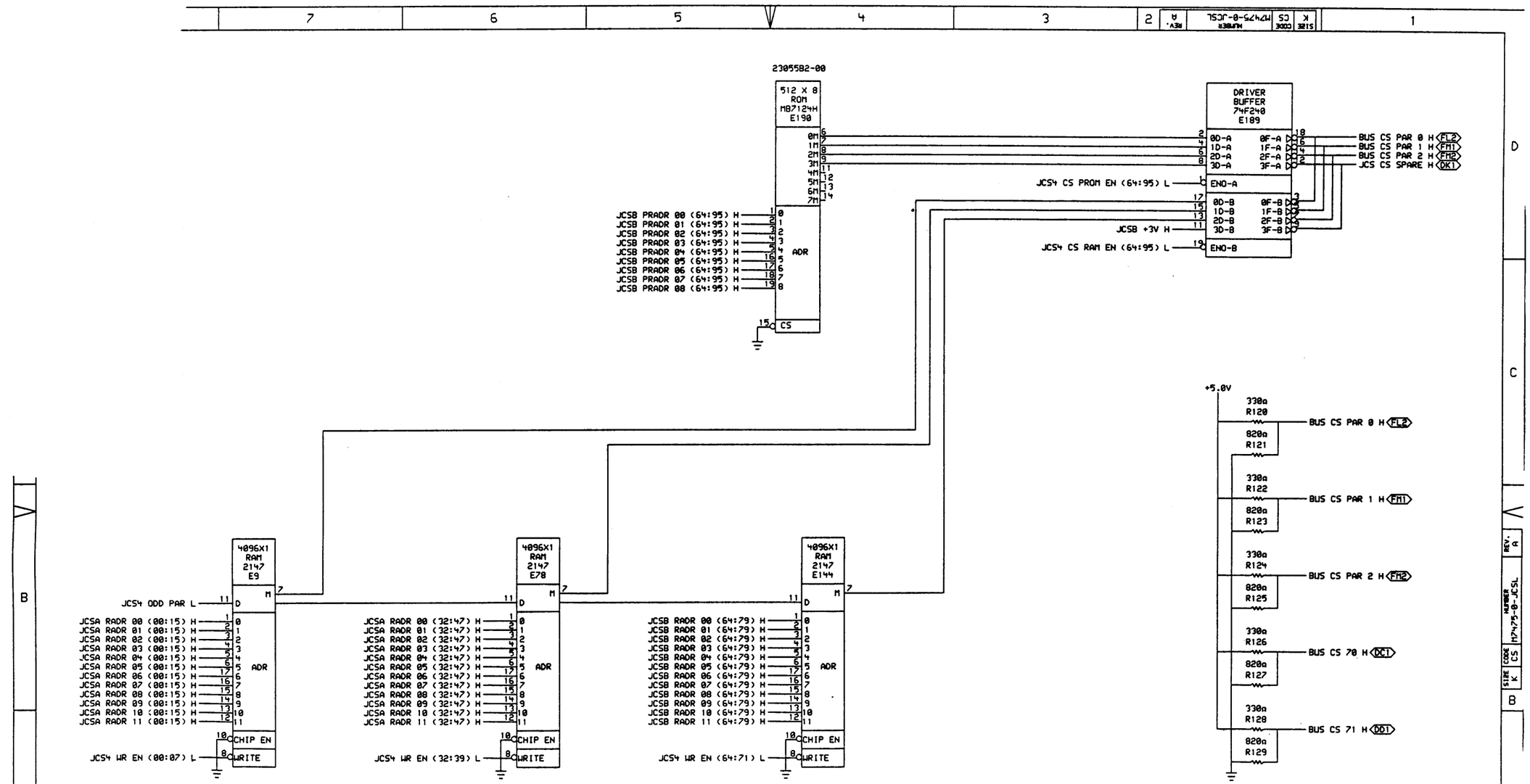
digital

DRN. J Moyle — DATE 31-AUG-83 — ENG. — DATE
CHK'D. — DATE — BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNEY>JCSK.DRW 02-AUG-83 13:08
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCSK)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSK	A

REV. A
NUMBER M7475-0-JCSK
CODE CS
SIZE K
B



(PROM PAR 0:2, PROM SPARE, RAM PAR 0:2)

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REVISIONS

CHK	CHANGE NO.	REV

digital

DRN. J Boyle — DATE 31-AUG-83 — ENG. Jay Stevens — DATE 10:15 B?

CHK'D. — DATE — BOARD LOCATION: — SHEET 1 OF 1

DSKB:<STICKNEY>JCSL.DRW 02-AUG-83 13:09 — NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCSL)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSL	A

REV.	NUMBER	SIZE	CODE
A	M7475-0-JCSM	K	CS

4096X1 RAM 2147 E10

JCS2 WR DATA (00,32,64) L
JCSA RADR 00 (00:15) H
JCSA RADR 01 (00:15) H
JCSA RADR 02 (00:15) H
JCSA RADR 03 (00:15) H
JCSA RADR 04 (00:15) H
JCSA RADR 05 (00:15) H
JCSA RADR 06 (00:15) H
JCSA RADR 07 (00:15) H
JCSA RADR 08 (00:15) H
JCSA RADR 09 (00:15) H
JCSA RADR 10 (00:15) H
JCSA RADR 11 (00:15) H
JCS4 WR EN (00:07) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 00 L

4096X1 RAM 2147 E12

JCS2 WR DATA (02,34,66) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 02 L

4096X1 RAM 2147 E14

JCS2 WR DATA (04,36,68) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 04 L

4096X1 RAM 2147 E16

JCS2 WR DATA (06,38,70) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 06 L

4096X1 RAM 2147 E11

JCS2 WR DATA (01,33,65) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 01 L

4096X1 RAM 2147 E13

JCS2 WR DATA (03,35,67) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 03 L

4096X1 RAM 2147 E15

JCS2 WR DATA (05,37,69) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 05 L

4096X1 RAM 2147 E17

JCS2 WR DATA (07,39,71) L
D
ADR
CHIP EN
WRITE
M
JCSM RAM OUT 07 L

(RAM 00:07)

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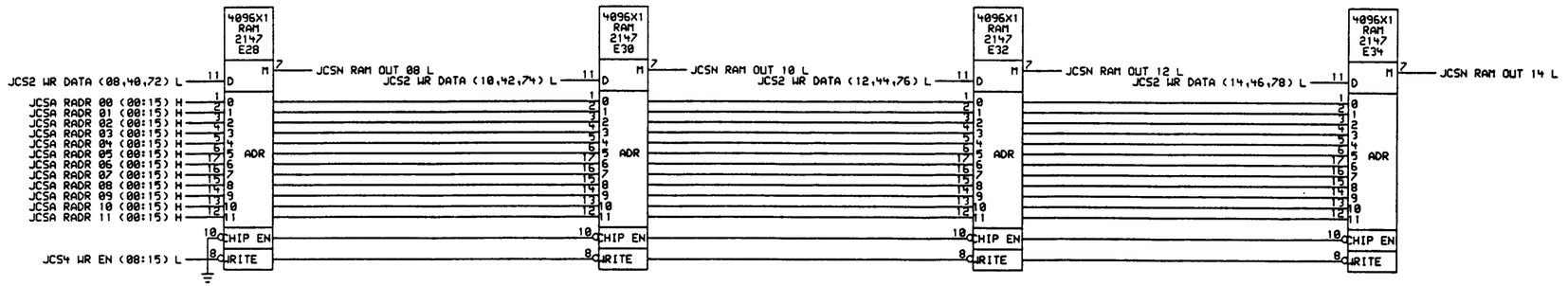
REVISIONS		
CHK	CHANGE NO.	REV

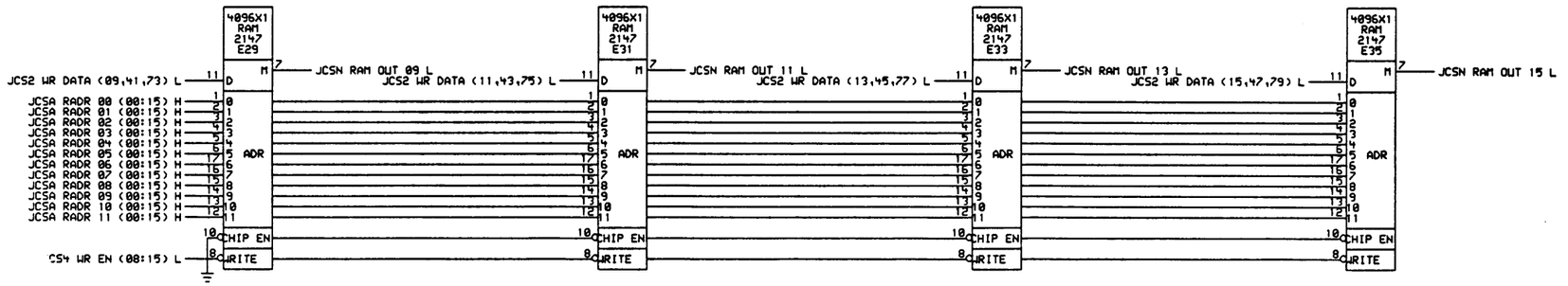
digital

DRN. JPoyle
CHK'D.
DATE 31-AUG-83
ENG. Jay Stevens
DATE
BOARD LOCATION#
SHEET 1 OF 1
DSKB:<STICKNEY>JCSM.DRW 02-AUG-83 13:09
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSM	A





(RAM 08:15)

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REVISIONS		
CHK	CHANGE NO.	REV

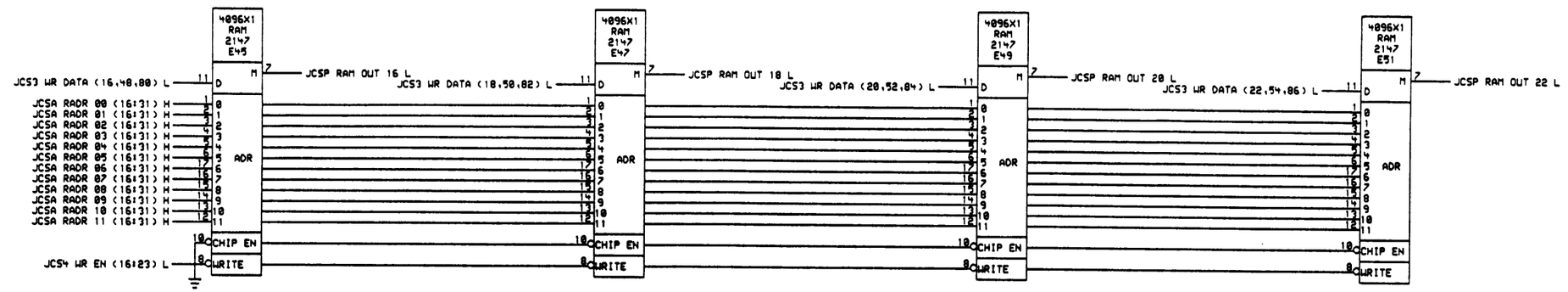
digital

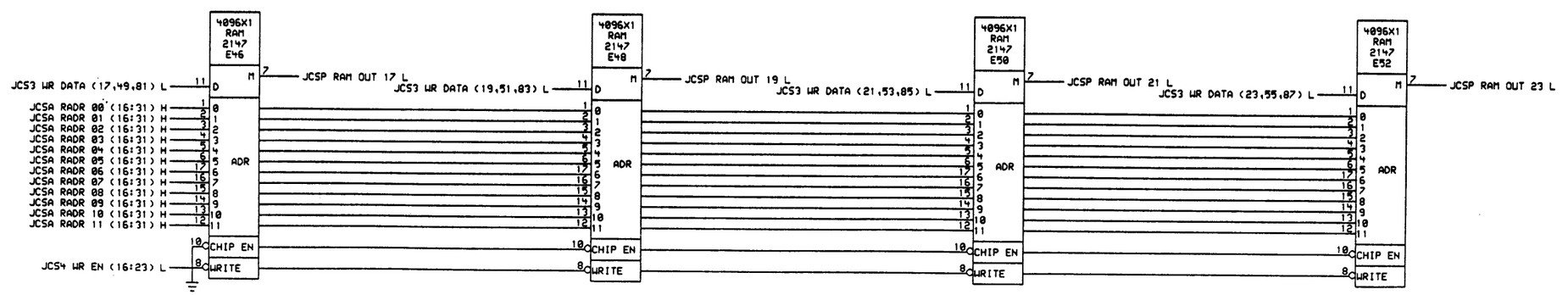
DRN. JPoyle — DATE 31-AUG-83 — ENG. — DATE
CHK'D. — DATE — BOARD LOCATION: — SHEET 1 OF 1

TITLE: JOINT CONTROL STORE (JCSN)

DSKB:<STICKNEY>JCSN.DRW 02-AUG-83 13:11
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSN	A





(RAM 16:23)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN. JPLoyle	DATE 31-AUG-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION:	
		SHEET 1 OF 1	
DSKB:<STICKNEY>JCSP.DRW 02-AUG-83 13:11		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7475-0-0	

TITLE: JOINT CONTROL STORE (JCSP)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSP	A

(RAM 24:31)

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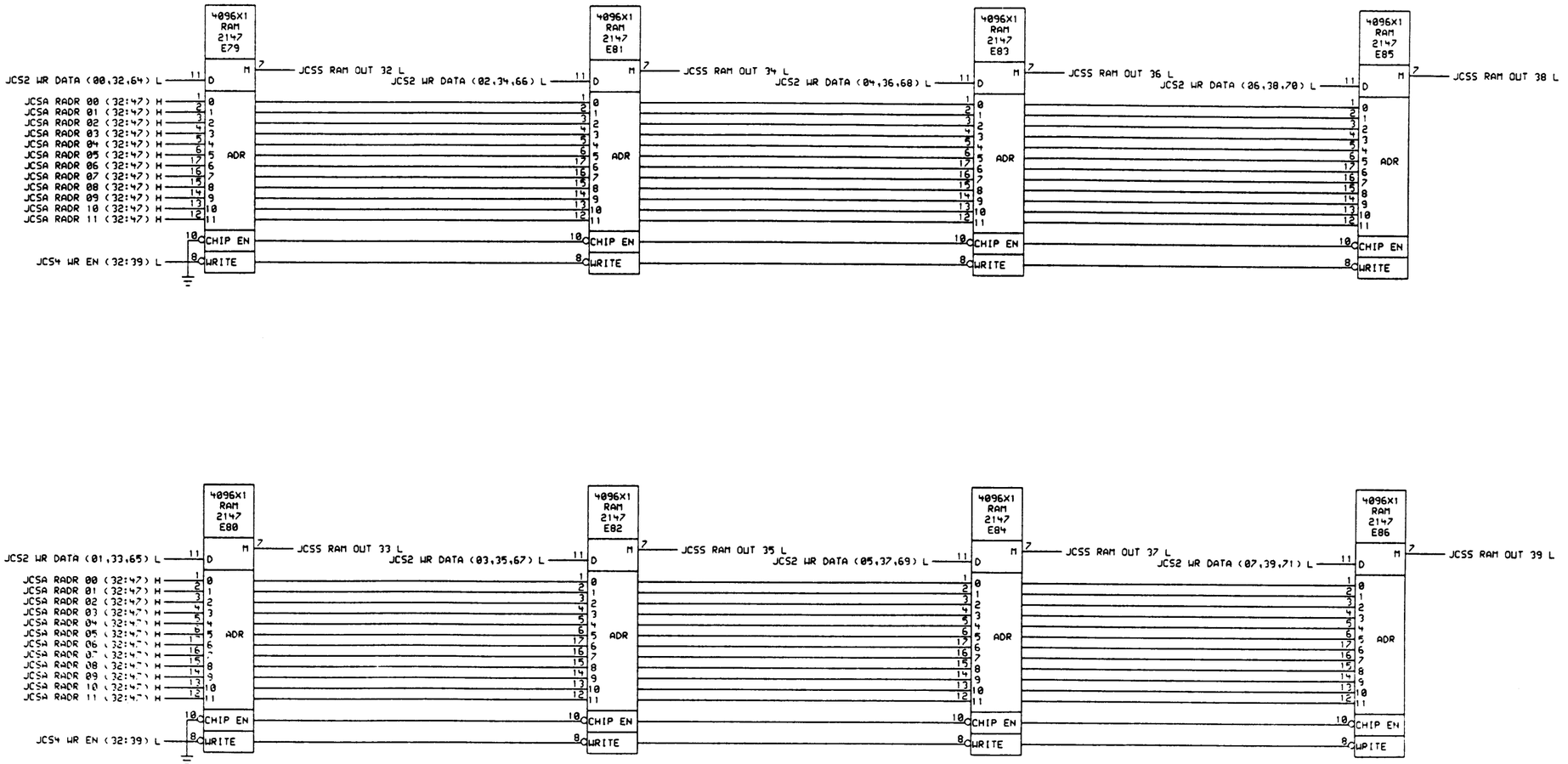
REVISIONS		
CHK	CHANGE NO.	REV

DRN. JFMoyle — DATE 31-AUG-83
CHK'D. — DATE
ENG. — DATE
BOARD LOCATION:
SHEET 1 OF 1

DSKB:<STICKNEY>JCSR.DRW 02-AUG-83 13:06
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSR)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSR	A



(RAM 32:39)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JPoyle DATE 31-AUG-83 ENG. DATE

CHK'D. DATE BOARD LOCATION:

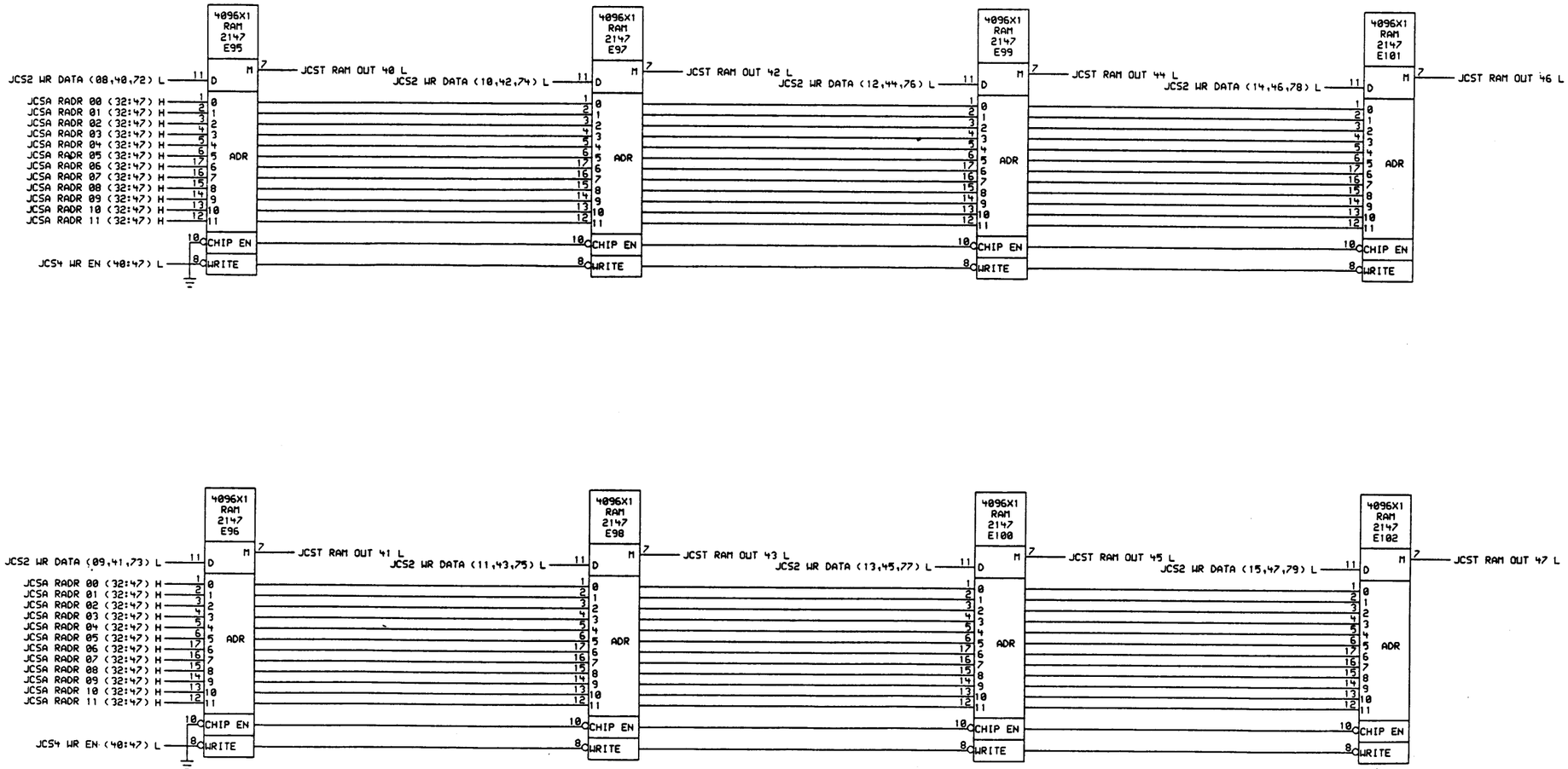
SHEET 1 OF 1

DSKB:<STICKNEY>JCSS.DRW 02-AUG-83 13:05 NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCSS)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSS	A



(RAM 40:47)

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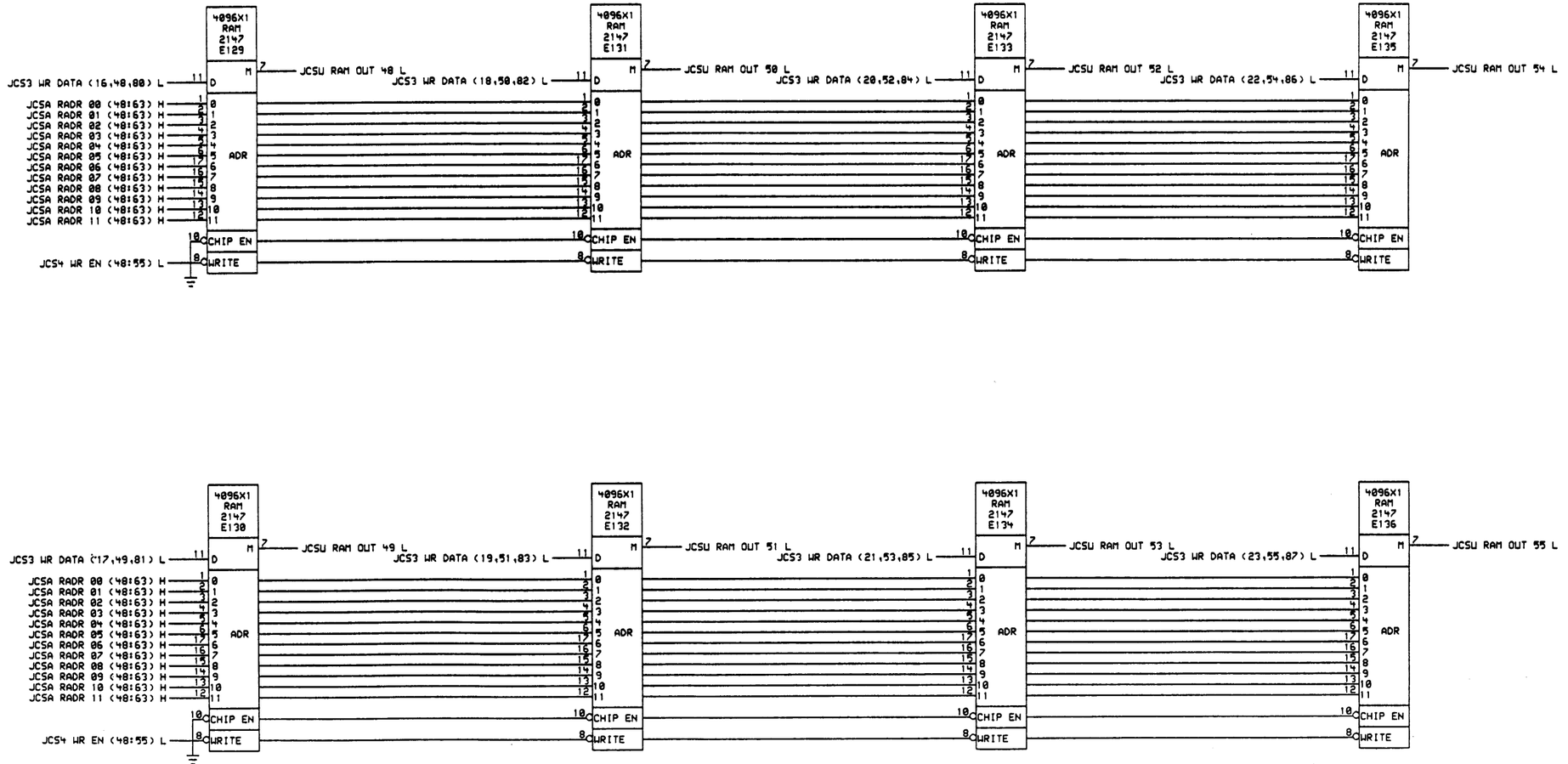
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J.Moyle DATE 31-AUG-83 ENG. Jay Harvey DATE 31-AUG-83
CHK D. DATE BOARD LOCATION: SHEET 1 OF 1
DSKB:<STICKNEY>JCST.DRW 02-AUG-83 17:56 NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCST)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCST	A



(RAM 48:55)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JPlayle — DATE 31-AUG-83 — ENG. [signature] — DATE 6 SEP 83

CHK'D. — DATE — BOARD LOCATION:

SHEET 1 OF 1

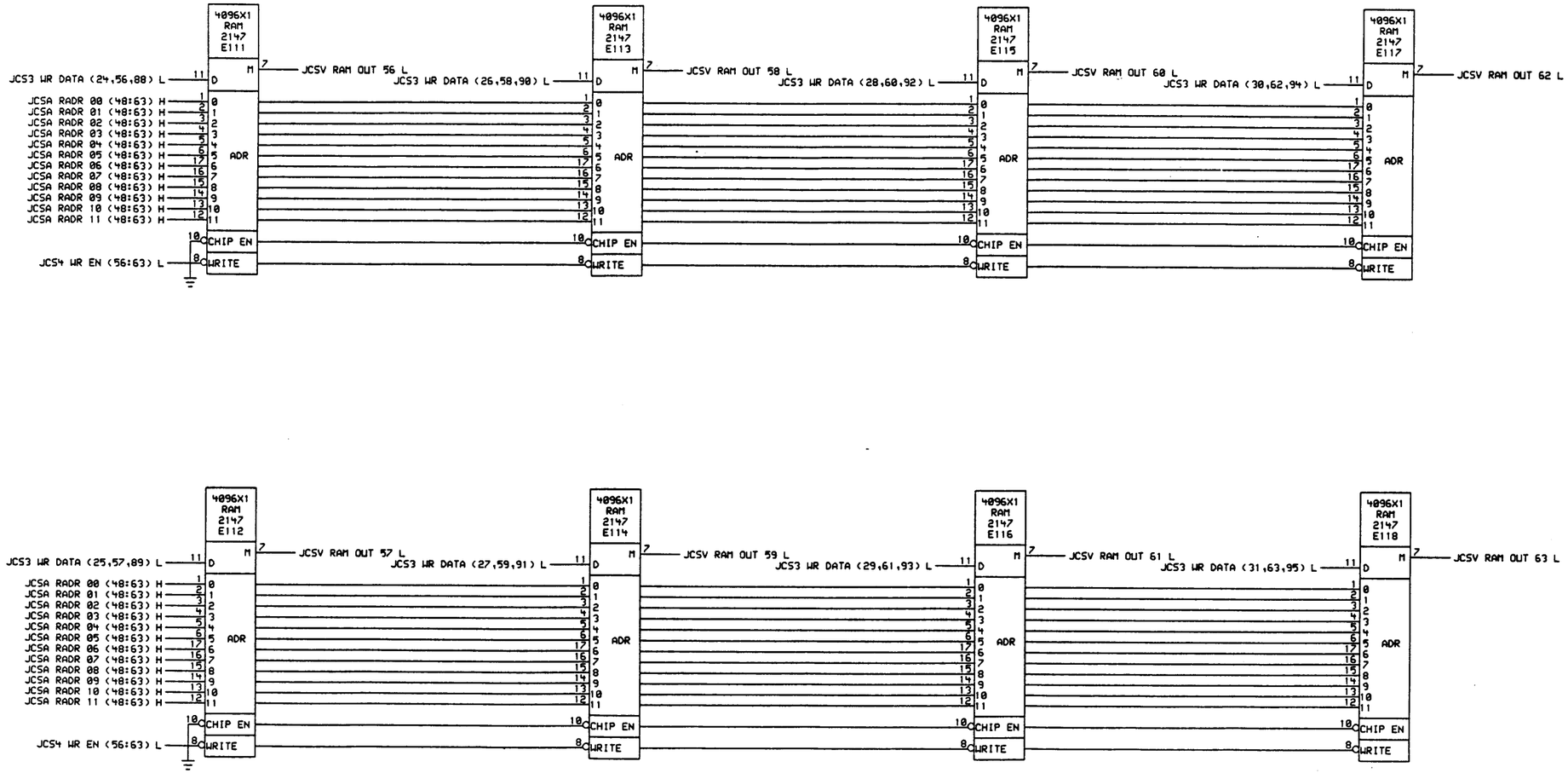
DSKB:<STICKNEY>JCSU.DRW 02-AUG-83 13:04 — NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: JOINT CONTROL STORE (JCSU)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSU	A

M7475-0-JCSU A CS K



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REVISIONS		
CHK	CHANGE NO.	REV

digital

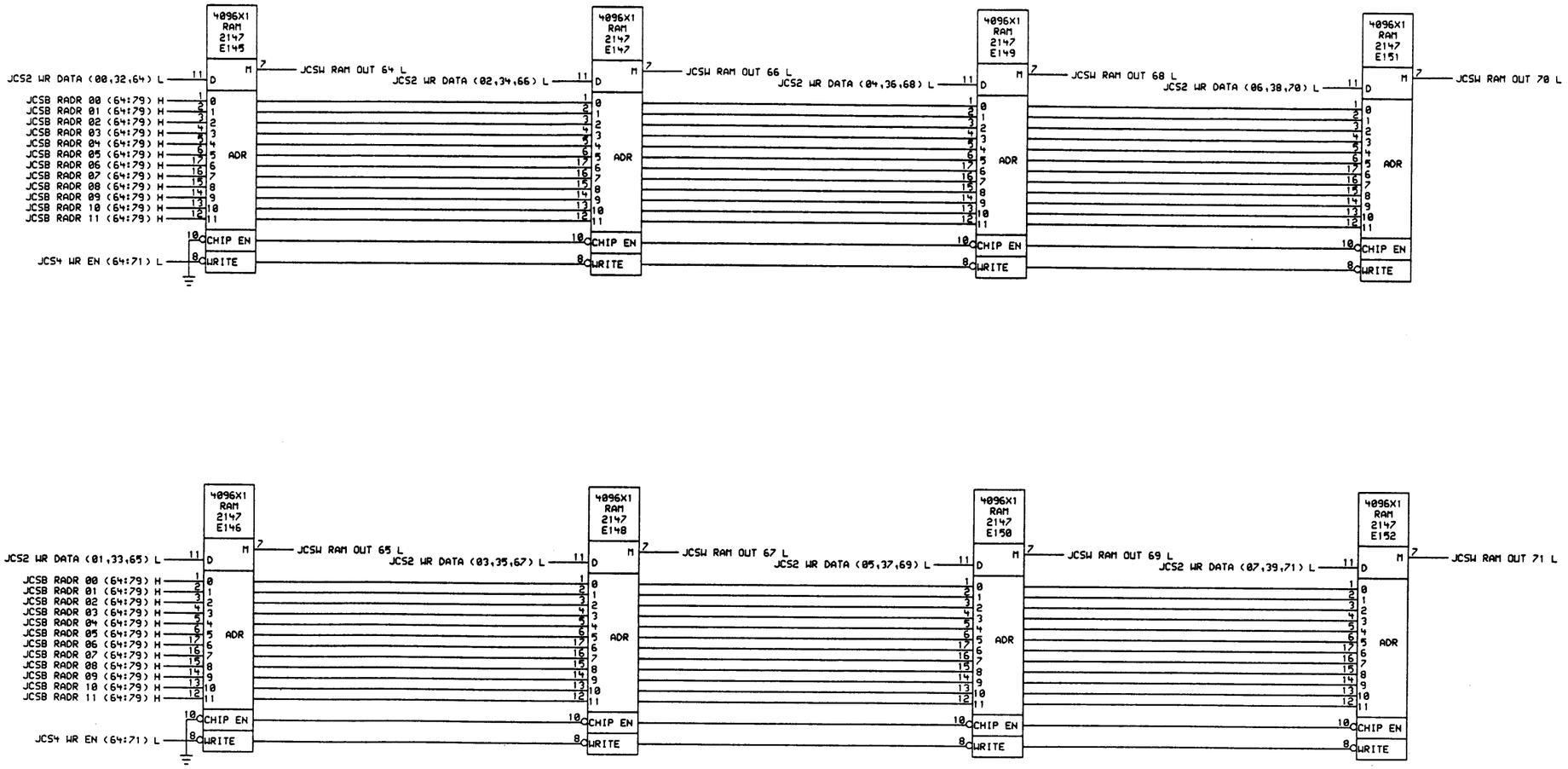
DRN. J.Moyle DATE 31-AUG-83
CHK'D. DATE
ENG. [illegible] DATE 12 SEP 83
BOARD LOCATION:
SHEET 1 OF 1

DSKB:<STICKNEY>JCSV.DRW 02-AUG-83 13:04
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSV)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSV	A

REV. A
NUMBER M7475-0-JCSV
SIZE CODE K CS
B



(RAM 64:71)

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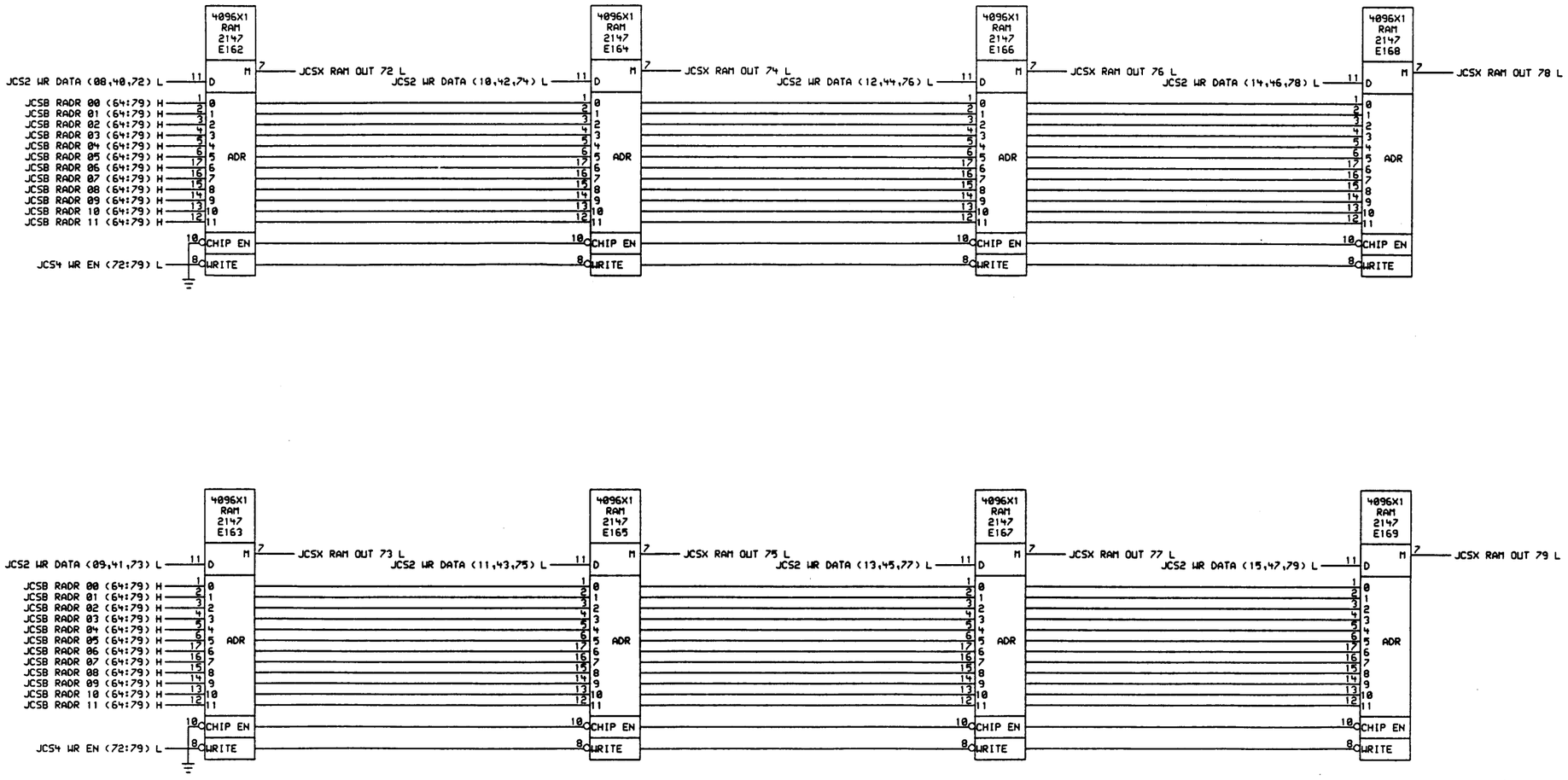
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JPMoyle DATE 31-AUG-83 ENG. Jay Stickney DATE 25 ;)
CHK'D. DATE BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNEY>JCSW.DRW 02-AUG-83 13:03 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSW)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSW	A



(RAM 72:79)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. J.Boyle 31-AUG-83 | ENG. [signature] DATE | CHK'D. [signature] DATE | BOARD LOCATION | SHEET 1 OF 1

DSKB:<STICKNEY>JCSX.DRW 02-AUG-83 13:03

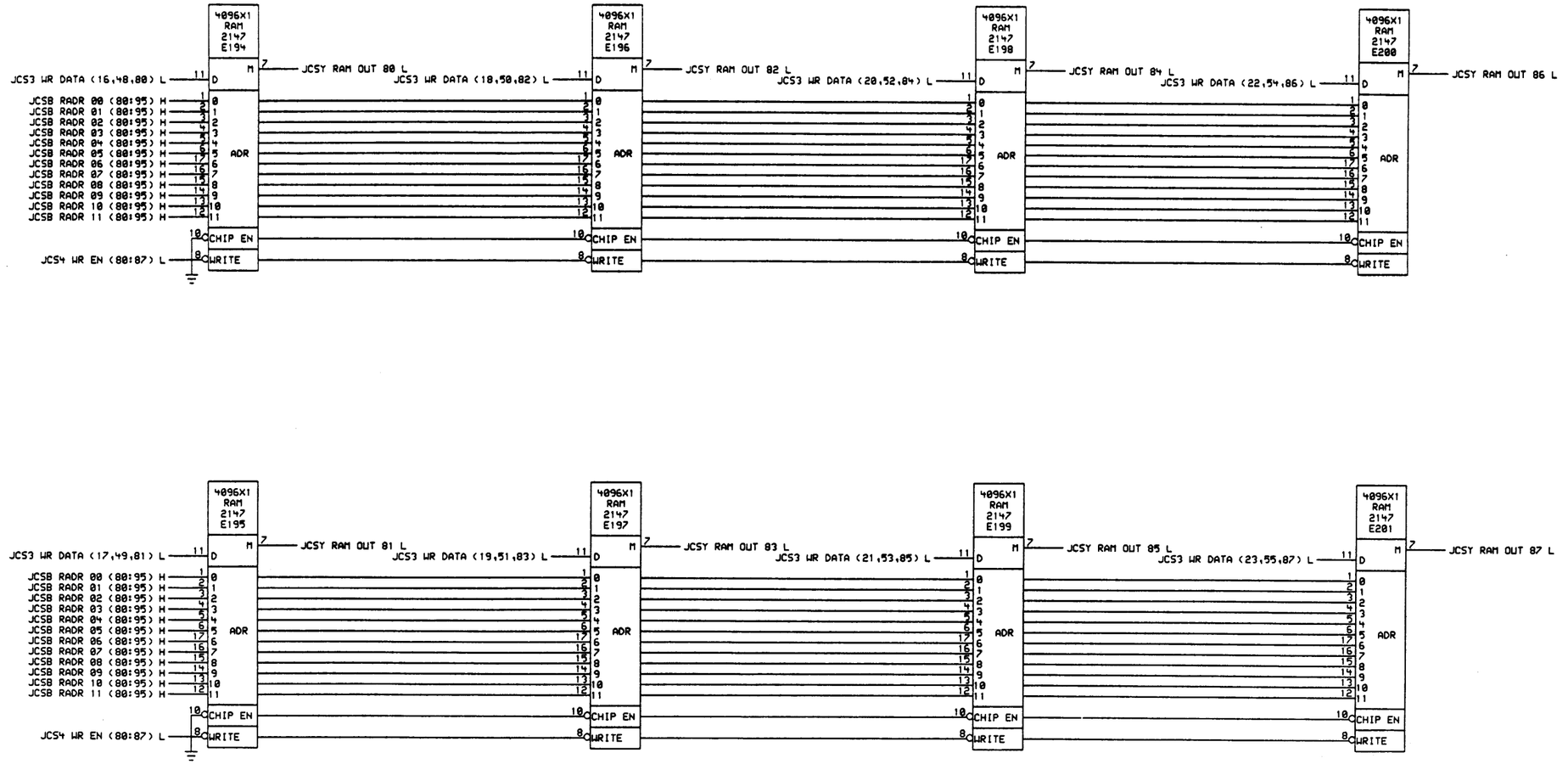
FIRST USED ON OPTION/MODEL: 11/785

NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSX)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSX	A

REV.	NUMBER	CODE	SIZE
A	M7475-0-JCSX	CS	K



(RAM 80:87)

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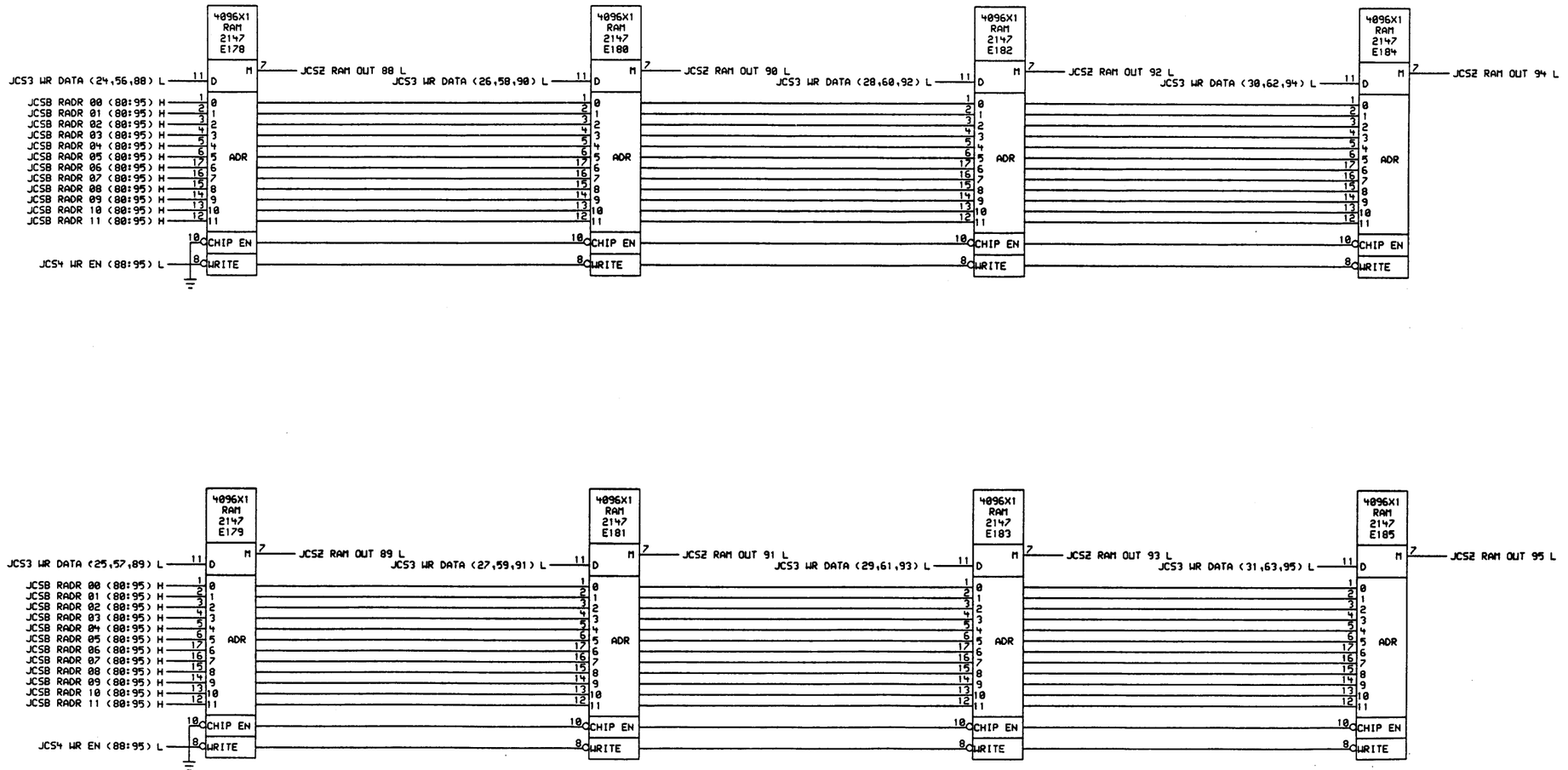
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JPMoyle — DATE 31-AUG-83
CHK'D. — DATE
ENG. — DATE 10-25-83
BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNEY>JCSY.DRW 02-AUG-83 13:03
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCSY)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCSY	A



(RAM 88:95)

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. JPoyle DATE 31-AUG-83 ENG. [illegible] DATE [illegible]
CHK'D. DATE BOARD LOCATION:
SHEET 1 OF 1
DSKB:<STICKNEY>JCS2.DRW 02-AUG-83 13:02 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7475-0-0

TITLE: JOINT CONTROL STORE (JCS2)

SIZE	CODE	NUMBER	REV.
K	CS	M7475-0-JCS2	A

SIZE	CODE	NUMBER	REV.
B	DD	M7475-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		M7475-00	J.C.S.	A B
E-UA-M7475-0-0	1		UNIT ASSEMELY	A A
K-FL-M7475-0-DBP	2		PARTS LIST	A B
K-FC-M7475-0-DBI	–		P.C. DATA BASE	B B
K-CS-M7475-0-DBS	–		SUDS DATA BASE	A A
K-CS-M7475-0-JCSA	1		SCHEMATIC	A A
K-CS-M7475-0-JCSB	1		SCHEMATIC	A A
K-CS-M7475-0-JCSC	1		SCHEMATIC	A A
K-CS-M7475-0-JCSD	1		SCHEMATIC	A A
K-CS-M7475-0-JCSE	1		SCHEMATIC	A A
K-CS-M7475-0-JCSF	1		SCHEMATIC	A A
K-CS-M7475-0-JCSH	1		SCHEMATIC	A A
K-CS-M7475-0-JCSJ	1		SCHEMATIC	A A
K-CS-M7475-0-JCSK	1		SCHEMATIC	A A
K-CS-M7475-0-JCSL	1		SCHEMATIC	A A
K-CS-M7475-0-JCSM	1		SCHEMATIC	A A
K-CS-M7475-0-JCSN	1		SCHEMATIC	A A
K-CS-M7475-0-JCSP	1		SCHEMATIC	A A
K-CS-M7475-0-JCSR	1		SCHEMATIC	A A
K-CS-M7475-0-JCSS	1		SCHEMATIC	A A
K-CS-M7475-0-JCST	1		SCHEMATIC	A A
K-CS-M7475-0-JCSU	1		SCHEMATIC	A A
K-CS-M7475-0-JCSV	1		SCHEMATIC	A A
K-CS-M7475-0-JCSW	1		SCHEMATIC	A A
K-CS-M7475-0-JCSX	1		SCHEMATIC	A A
K-CS-M7475-0-JCSY	1		SCHEMATIC	A A

NOTES:

REVISIONS			
REV.	A	B	
CHG NO.	INIT	TW	
DATE	9/83	1/84	

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digital

USED ON OPTION/MODEL			

DRN.		
CHK'D		10-18-83
ENG.		10-25-83
PROD.		10-25-83

TITLE: J.C.S.

SIZE	CODE	NUMBER	REV.
B	DD	M7475-0-0	B

SHEET 1 OF 2

DRB 126

TW

SIZE	CODE	NUMBER	REV.
B	DD	M7475-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7475-0-JCSZ	1		SCHEMATIC	A A
K-CS-M7475-0-JCS1	1		SCHEMATIC	A A
K-CS-M7475-0-JCS2	1		SCHEMATIC	A A
K-CS-M7475-0-JCS3	1		SCHEMATIC	A A
K-CS-M7475-0-JCS4	1		SCHEMATIC	A A
K-CS-M7475-0-JCS5	1		SCHEMATIC	A A
K-CS-M7475-0-JCS6	1		SCHEMATIC	A A
K-CS-M7475-0-JCS7	1		SCHEMATIC	A A
K-CS-M7475-0-JCS8	1		SCHEMATIC	A A
K-CS-M7475-0-JCS9	1		SCHEMATIC	A A
B-DD-5016102-0-0	1		DRAWING DIRECTORY	A A
K-BD-M7475-0-JCS	1		BLOCK DIAGRAM	A A

NOTES:

REVISIONS		
DATE	CHG NO.	REV.
9/83	INIT	A

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digital

USED ON OPTION/MODEL			

DRN.		23-SEP-83
CHK'D		10-18-83
ENG.		10-25-83
PROJ.		10-25-83

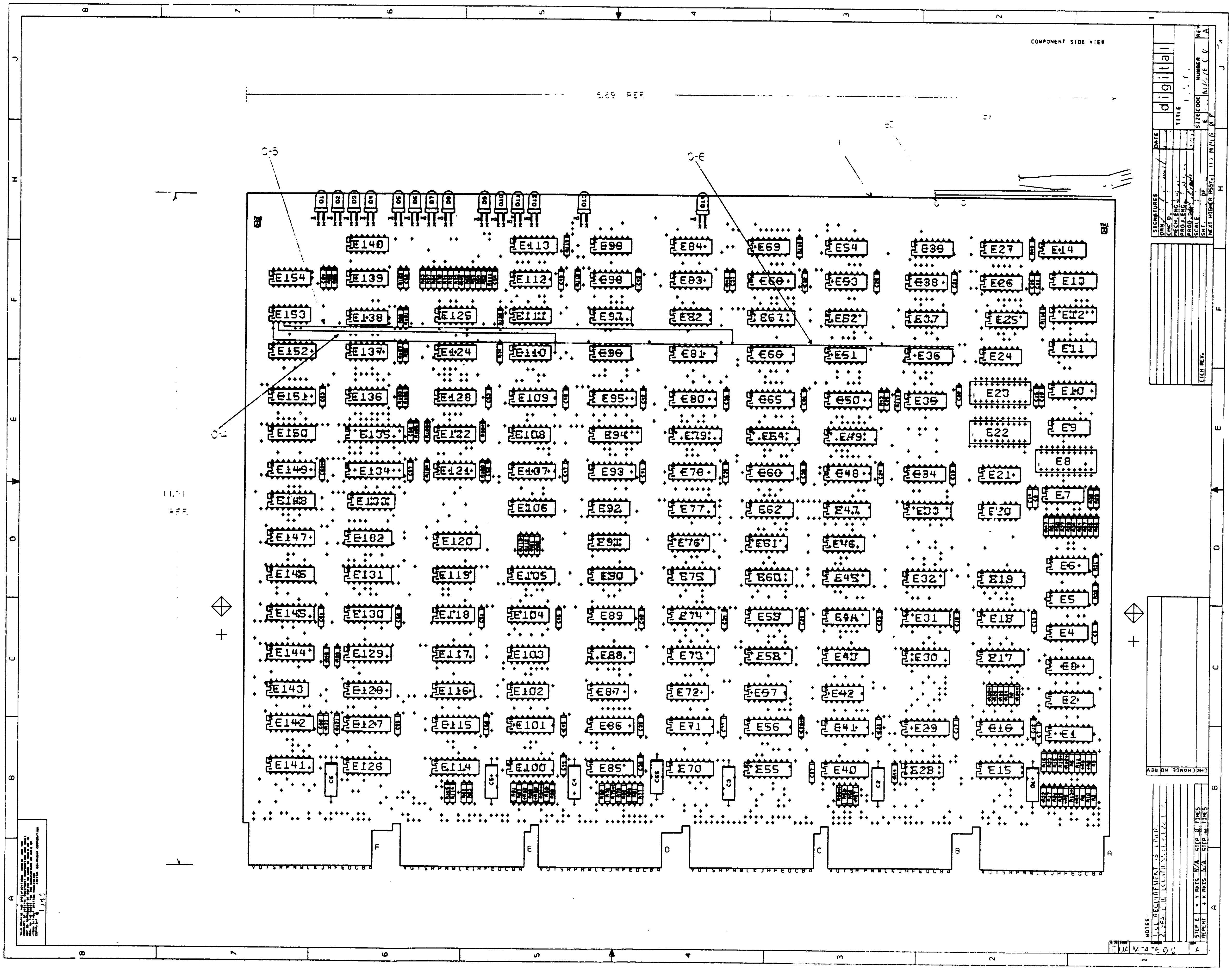
TITLE: J.C.S.

SIZE	CODE	NUMBER	REV.
B	DD	M7475-0-0	B

SHEET 2 OF 2

DRB 126

TW


COMPONENT SIDE VIEW
6.89 REF
digital
TITLE
SIZE E
REV A
SIGNATURES
DATE
DRN
CHK'D.
MECH.ENG.
PROJ.ENG.
PROD.
SCALE
SHT. OF
NEXT HIGHER ASSY.
ETCH REV.
CHK CHANGE NO REV
NOTES:
STEP & REPEAT
+ Y AXIS N/A STEP
+ X AXIS N/A STEP
TIMES

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REWORK INSTRUCTIONS

WIRE ADDS - SIDE 1

0-4 FROM E153-2 TO PTH RIGHT OF E11C
0-5 FROM E 53-3 TO PTH RIGHT OF E81
0-6 FROM E153-1 TO PTH RIGHT OF E36

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE	DOCUMENT NUMBER	
USC	SIZE E / CODE MJA / NUMBER M7476-0-0	REV A
	SCALE	SHEET 3 OF 3

AUTOMATED BY PRTLST.4Q(50)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00 B1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	D-MD-5016103-0-0	5016103-01		ETCH CIRCUIT BOARD	1	
2	2		1300247-00		120.0 .25 W 5.0 % CF	10	R56,R58,R76,R78,R79,R81,R90-R93
3	3		1300250-00		150.0 .25 W 5.0 % CF	10	R57,R59,R75,R77,R80,R82,R87-R89,
							CONT R94
4	4		1300295-00		330.0 .25 W 5.0 % CF	17	R1,R3,R4,R9,R12-R15,R18,R19,R22,
							CONT R23,R26,R60,R62,R112,R114
5	5		1300316-00		470.0 .25 W 5.0 % CF	22	R28,R29,R31,R33,R45,R46,R51-R55,
							CONT R64,R67,R70-R73,R83-R86,R111
6	6		1300365-00		1.0 K .25 W 5.0 % CF	26	R43,R44,R48,R49,R74,R95-R108,
							CONT R110,R116-R121
7	7		1301775-00		820.0 .25 W 5.0 % CF	25	R2,R5-R8,R10,R11,R16,R17,R20,
							CONT R21,R24,R25,R27,R30,R32,R34,R47,
8	8		1921305-01		74F00 NAND GATE,QUAD,2-IN	4	CONT R50,R61,R63,R65,R66,R113,R115
9	9		1910533-00		74S03 NAND GATE-QUAD 2IN,O	3	E32,E53,E97,E119
10	10		1921307-01		74F04 HEX INVERTER	6	E4,E6,E7
11	11		1910535-00		74S05 INVERTER GATE-HEX 1	4	E9,E51,E82,E143,E103,E117
12	12		1921309-01		74F10 NAND GATE,TRIPLE,3-I	6	E5,E123,E124,E154
13	13		1921310-01		74F11 AND GATE,TRIPLE,3-IN	5	E99,E116,E118,E72,E87,E102
14	14		1921311-01		74F20 NAND GATE,DUAL,4-IN	6	E27,E83,E84,E96,E104
15	15		1910540-00		74S22 NAND GATE-DUAL 4INPU	7	E20,E46,E61,E76,E91,E108
16	16		1910541-00		74S40 BUFFER,POS-NAND,DUAL	1	E121,E122,E136-E140
17	17		1921313-01		74F64 AND OR INVERT GATE,4-	2	E21
18	18		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	5	E54,E69
19	19		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	1	E38,E26,E37,E92,E98
20	20		1910546-00		74S140 NAND GATE-DUAL 4INPU	1	E14
21	21		1921319-01		74F153 MUX,DUAL,4-IN	13	E28
							E1,E31,E55,E43,E44,E58,E59,E70,
22	22		1921320-01		74F157 MUX,QUAD,2-IN	5	CONT E73,E74,E88,E89,E101
23	23		1921323-01		74F174 FF-D,HEX	4	E12,E50,E65,E80,E95
							E2,E3,E62,E77

REVISION HISTORY			BASIC PART NO: M7476
ENG	ECO NUMBER	REV	SECTION A OF A
---	INITIAL	A	SECTION.VARIATION INDEX
KS	M7476-TW001	B	[A] 00
			[B]
			[C]
			[D]
			[E]
			[F]
			[H]
			[J]
			[K]
			[L]
			[M]
			[N]

DRN: S.MANSOR	DATE: 05-AUG-83	D I G I T A L	
CHK'D: F.GAROFALO	DATE: 10-AUG-83	TITLE PARTS LIST MICRO SEQUENCER CONTROL (USC)	
DES.ENG: K.SPENCER	DATE: 10-AUG-83	DOCUMENT NUMBER	
RESP.ENG.: K.SPENCER	DATE: 10-AUG-83	SIZE: K	CODE: PL
MFG.ENG.: M.KRYSAK	DATE: 27-SEP-83	RELEASE DATE: 01-FEB-84	
ASSEMBLY NUMBER: E-UA-M7476-0-0	TOP DOCUMENT NUMBER: B-DD-M7476-0-0	FILE NAME: Z3955B.PLS	EDIT #: 11

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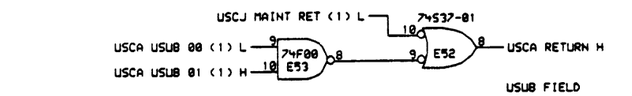
AUTOMATED BY PRTLST.4Q(50) — P A R T S L I S T —

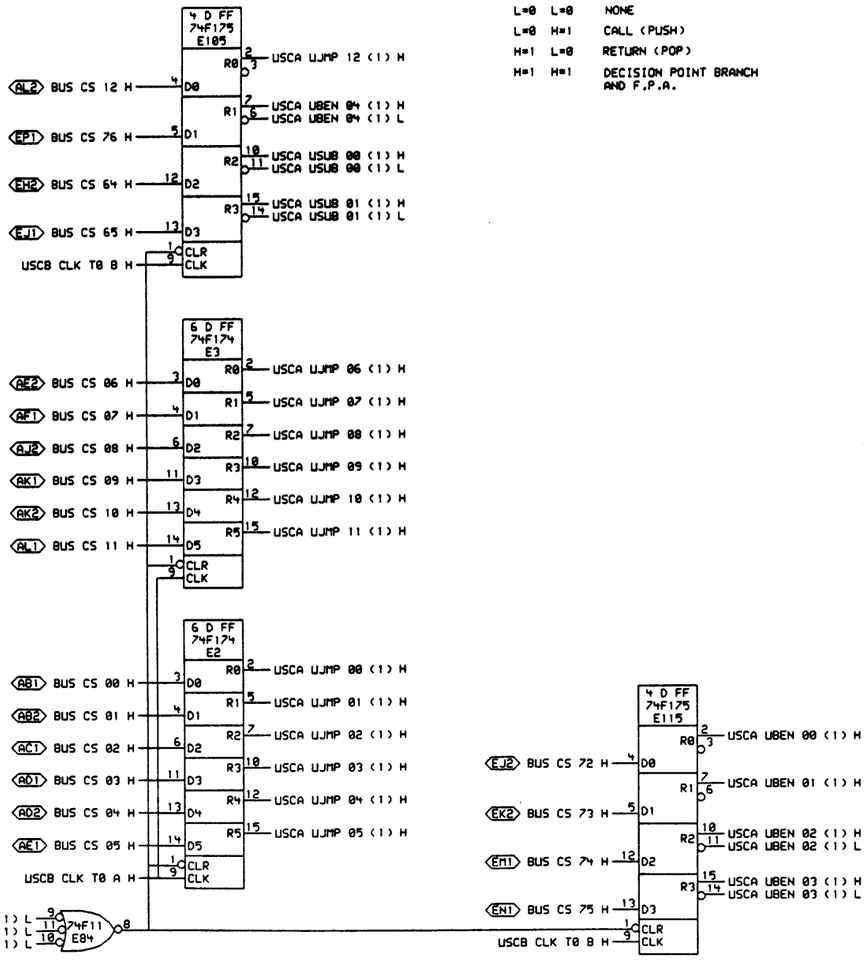
LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:	B1	
24	24		1921327-01		74F194 SHIFT REG,UNIV,BIDIR	5	E10,E48,E63,E78,E93
25	25	BLANK			*** THIS ITEM IS NOT USED ***	-	
26	26		1921318-01		74F151 MUX,8-IN	3	E17,E18,E29
27	27		1921324-01		74F175 FF-D,QUAD	6	E67,E105,E115,E146,E148,E150
28	28		1921720-01		10H125 TRANSLATOR ECL TO TTL	3	E40,E85,E100
29	29		1911469-00		DEC 8640 RECEIVER,BUS,QUAD,U	1	E110
30	30		1921316-01		74F138 DECODER/DEMUX,1-OF-8	1	E114
31	31		1921317-01		74F139 DECODER,DUAL,1-OF-4	1	E81
32	32		1911712-00		74S51 AND-OR GATE-INVERT D	1	E24
33	33		1912089-00		74S85 CMPRTR-4BIT MAGNITUD	4	E106,E107,E113,E120
34	34		1921306-01		74F02 NOR GATE,QUAD,2-IN	2	E112,E153
35	35		1921308-01		74F08 AND GATE,QUAD,2-IN	2	E39,E42
36	36		1912586-01		85S68A REGISTER,16X4 EDGE T	4	E49,E64,E79,E94
37	37		1921329-01		74F253 MUX,DUAL,4-IN	4	E129,E141,E142,E144
38	38		1921328-01		74F251 MUX,8-IN	1	E145
39	39		1912746-01		74S37-1BUFFER-GATE	3	E52,E57,E111
40	40		1912796-00		74148 ENCODER,PRIORITY,8 T	1	E68
41	41		1912820-00		LS51 A-O-I GATE 2-WIDE 2I	1	E25
42	42		1921333-01		74F283 BINARY FULL ADDER,4	2	E11,E13
43	43		1921322-01		74F161 BINARY COUNTER,PRESE	4	E45,E60,E75,E90
44	44		1921312-01		74F32 OR GATE,QUAD,2-IN	3	E34,E35,E125
45	45		1921008-01		74F240 BUFFER/LINE DRIVER,I	2	E134,E135
46	46		1913788-00		26S10 TRANSCEIVER,BUS,QUA	4	E41,E56,E71,E86
47	47		1913839-00		LS165 SHIFT REG.,8BIT	13	E15,E16,E19,E30,E33,E36,E47,E66,
						CONT	E109,E147,E149,E151,E152
48	48		1110324-00		LED 1MCD@10MA PIV=3	14	D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,
						CONT	D11,D12,D13,D14
49	49		1017472-00		10 MFD 35V +75-10% AL EL	7	C1-C6,C65
50	50		1012784-00		.047 MFD 50V +80-20% CER	58	C7-C64
51	51		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
52	52		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
53	53		1922191-01		74F353 DUAL 4IN MULTIPLEXER TRI-	7	E130-E133,E126-E128

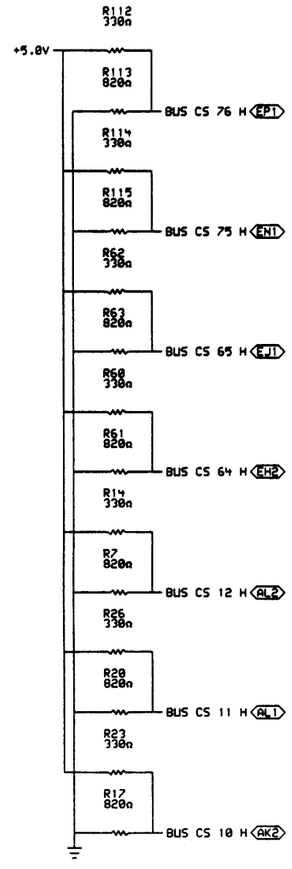
54 NOTE: SPARE I.C. LOC. ARE E8,E22,E23

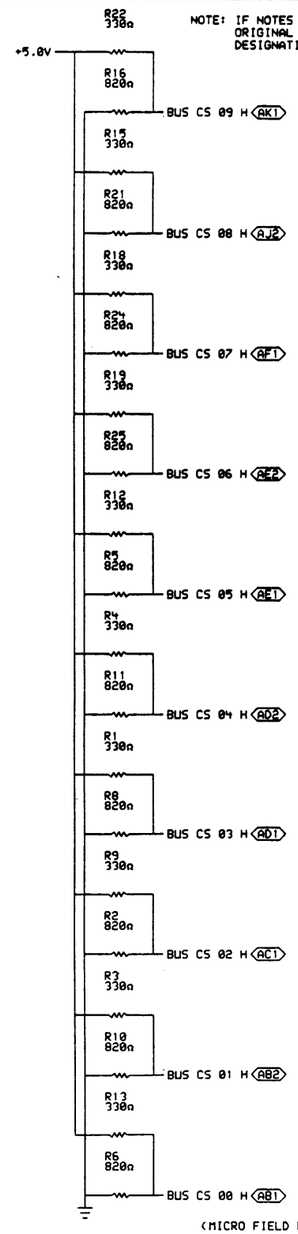
DIGITAL	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
	MICRO SEQUENCER CONTROL (USC)	A OF A	K	PL	M7476-0-DBP	B



USUB FIELD 01	USUB FIELD 00	FUNCTION
L=0	L=0	NONE
L=0	H=1	CALL (PUSH)
H=1	L=0	RETURN (POP)
H=1	H=1	DECISION POINT BRANCH AND F.P.A.







NOTE: IF NOTES ON RES VALUES ARE ON ORIGINAL CK FOR PROPER RESISTORS DESIGNATIONS.

(MICRO FIELD REGISTERS) (SLOT 23)

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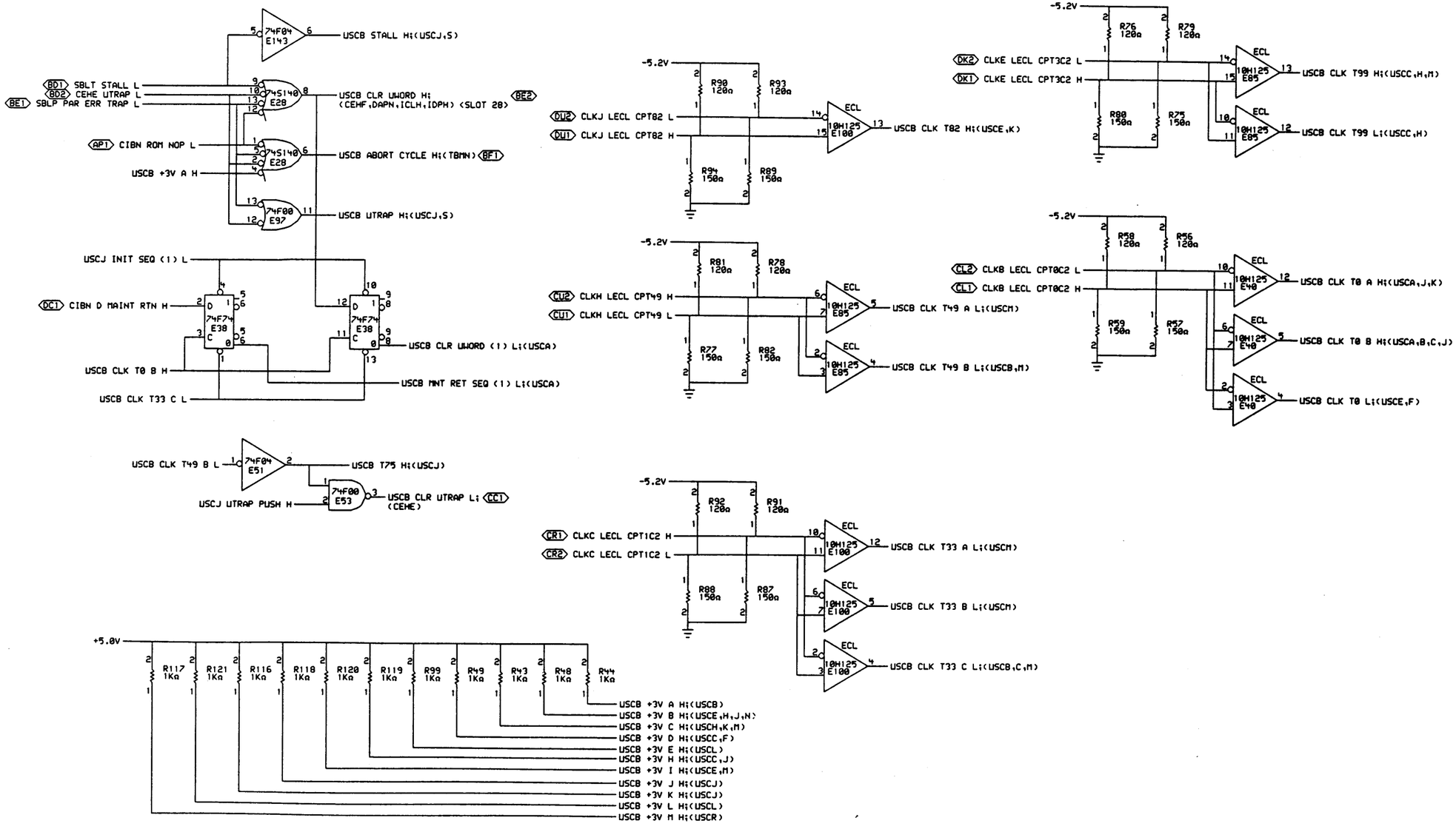
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE
	CHK 'D.	DATE	BOARD LOCATION: AE23 SHEET 1 OF 1	

TITLE: MICRO SEQUENCER CONTROL

DSKB:<TAYLOR>USCA.DRW 15-SEP-83 15:13 | NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0 | FIRST USED ON OPTION/MODEL: 11/785

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCA	A



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REVISIONS		
CHK	CHANGE NO.	REV

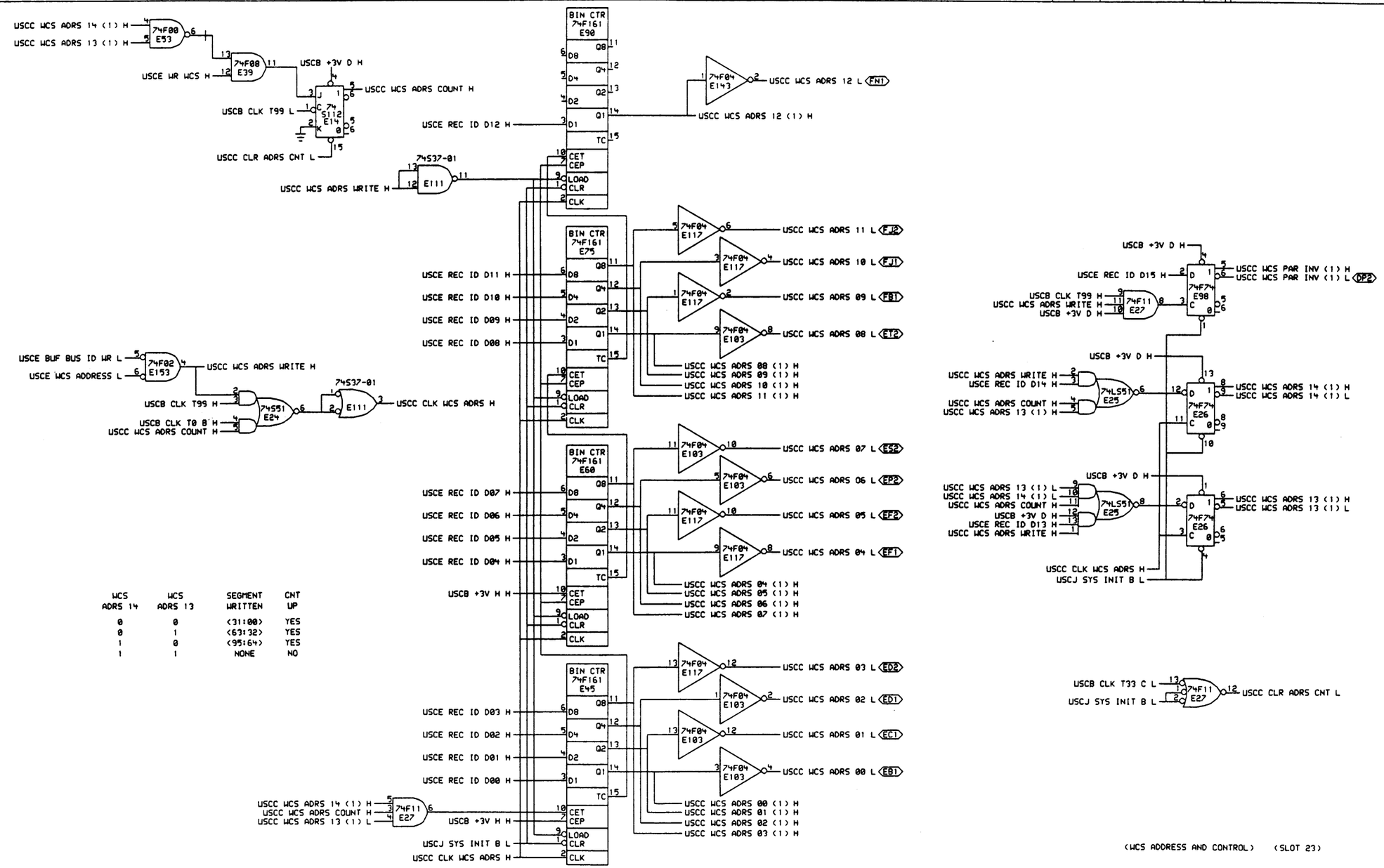
digital	DRN. ROGER G. DAME	DATE 15-SEP-83	ENG. DATE
	CHK'D.	DATE	BOARD LOCATION: AF23
			SHEET 1 OF 1

DSKB:<TAYLOR>USCB.DRW 15-SEP-83 15:13 | NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

FIRST USED ON OPTION/MODEL: 11/785

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCB	A



WCS ADRS 14	WCS ADRS 13	SEGMENT WRITTEN	CNT UP
0	0	<31:00>	YES
0	1	<63:32>	YES
1	0	<95:64>	YES
1	1	NONE	NO

(WCS ADDRESS AND CONTROL) (SLOT 23)

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REVISIONS

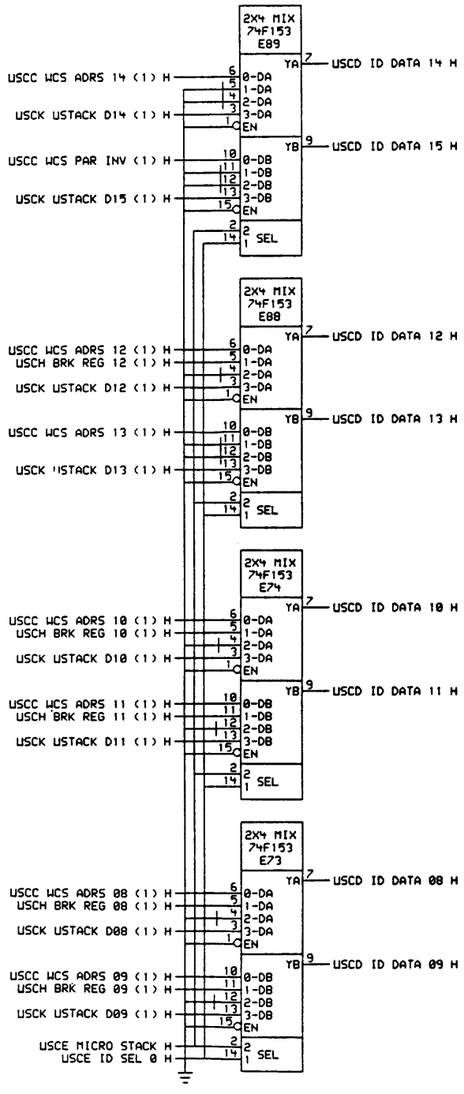
CHK	CHANGE NO.	REV

digital

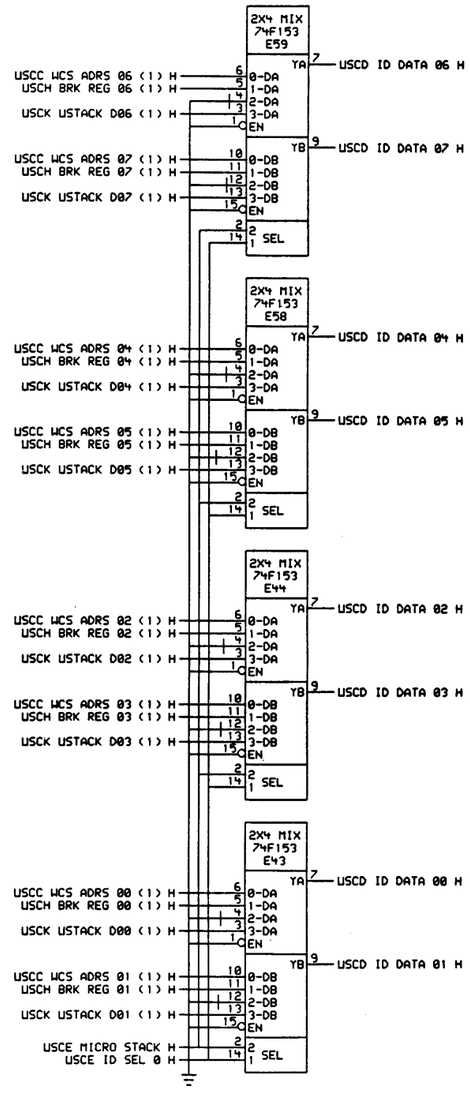
DRN. ROGER G. DAME — DATE 15-SEP-83
CHK'D. — DATE
ENG. — DATE
BOARD LOCATION: AF23
SHEET 1 OF 1
DSKB:<TAYLOR>USCC.DRW 15-SEP-83 15:13
NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: MICRO SEQUENCER CONTROL (USCC)

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCC	A



S1	S0	DATA SOURCE	INPUT
L	L	WCS ADRS	A
L	H	UPC BREAK	B
H	L	NOT USED	C
H	H	USTACK	D



(ID BUS DATA MUX) (SLOT 23)

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REVISIONS		
CHK	CHANGE NO.	REV

DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	
		SHEET 1 OF 1	

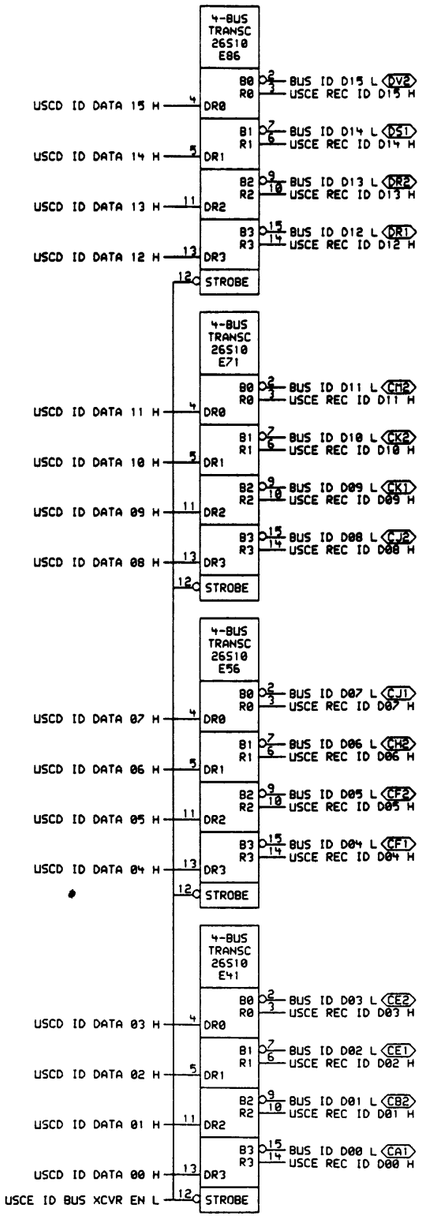
DSKB:<TAYLOR>USCD.DRW 15-SEP-83 15:13 | NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

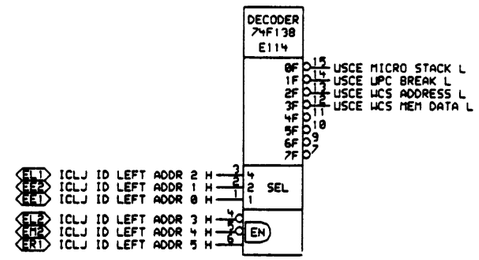
FIRST USED ON OPTION/MODEL: 11/785

TITLE: MICRO SEQUENCER CONTROL

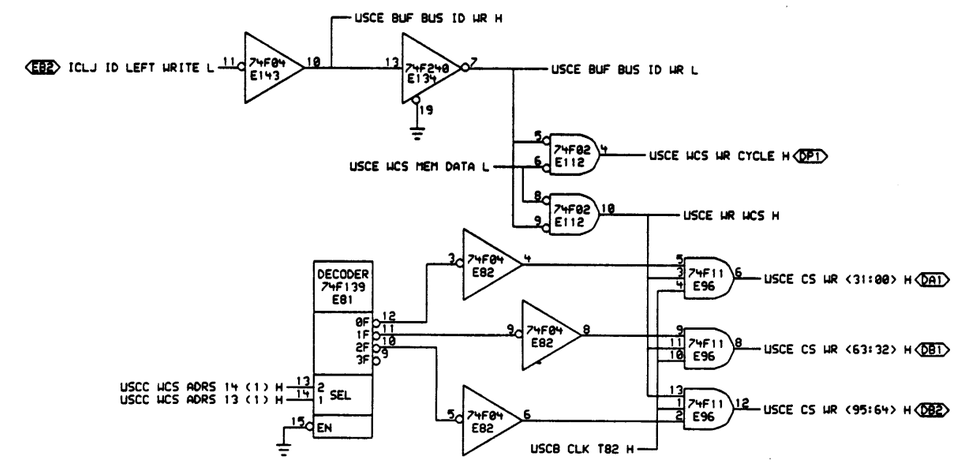
SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCD	A

REV. A | NUMBER M7476-0-USCD | CODE CS | SIZE K





ID ADRS BIT						FUNCTION	HEX ADDRESS
05	04	03	02	01	00		
L	X	X	X	X	X	NONE	00 - 17
H	L	H	X	X	X	NONE	28 - 2F
H	H	L	X	X	X	NONE	30 - 37
H	H	H	X	X	X	MICRO STACK	20
H	L	L	L	L	L	UPC BREAK	21
H	L	L	L	L	H	WCS ADDRS	22
H	L	L	L	H	H	WCS MEM DATA	23
H	L	L	H	X	X	NONE	24 - 27



(ID BUS DRIVERS AND SELECTION DECODE) (SLOT 23)

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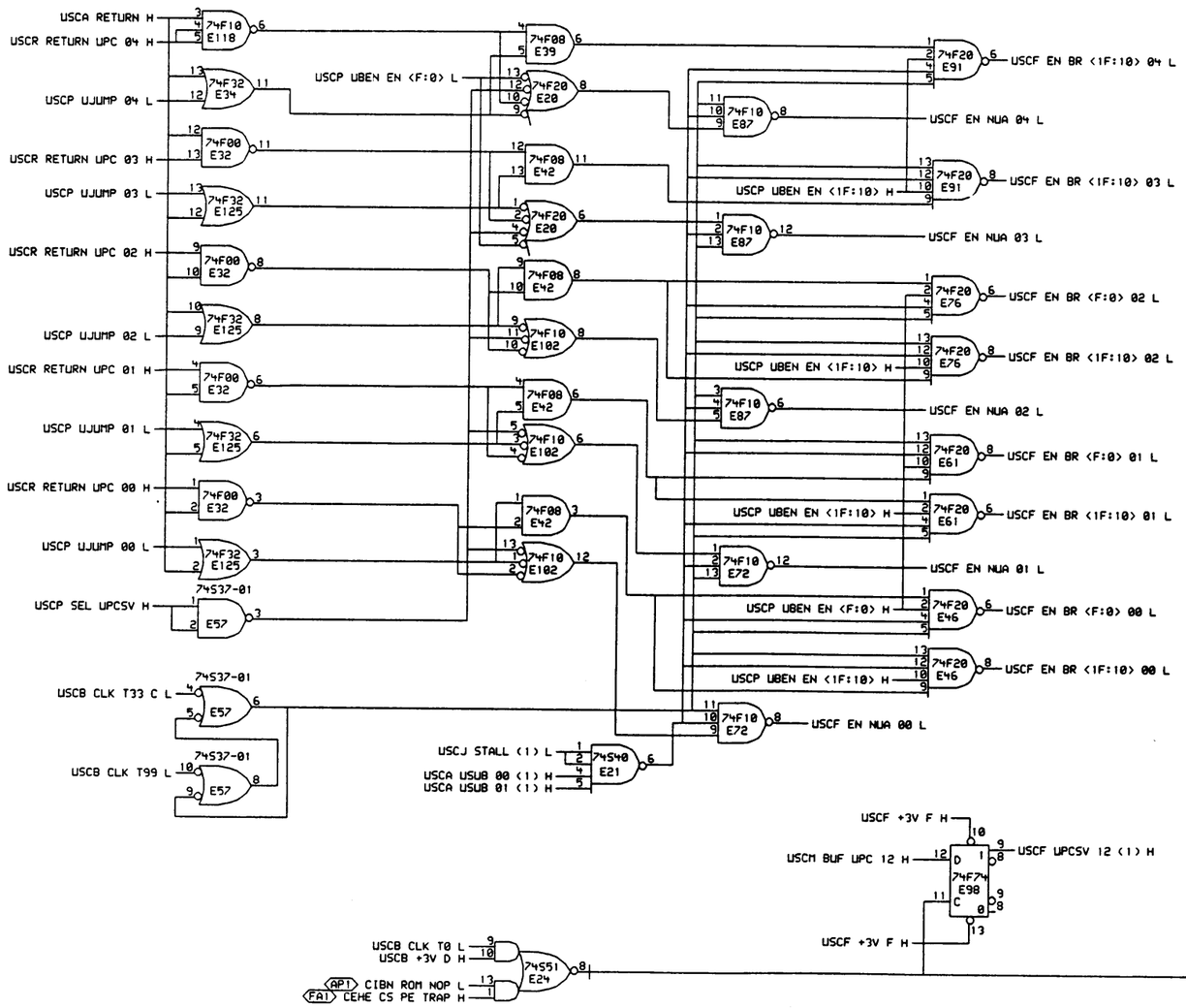
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE	TITLE: MICRO SEQUENCER CONTROL
	CHK'D.	DATE	BOARD LOCATION: AF23		
			SHEET 1 OF 1		
DSKB1:<TAYLOR>USCE.DRW 15-SEP-83 15:13		NEXT HIGHER ASSEMBLY:	SIZE K	CODE CS	NUMBER M7476-0-USCE REV. A
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7476-0-0			

REV. A | NUMBER M7476-0-USCE | CODE CS | SIZE K



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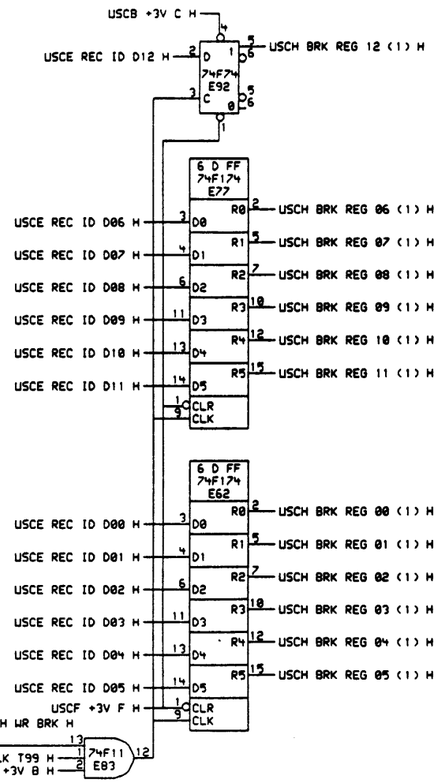
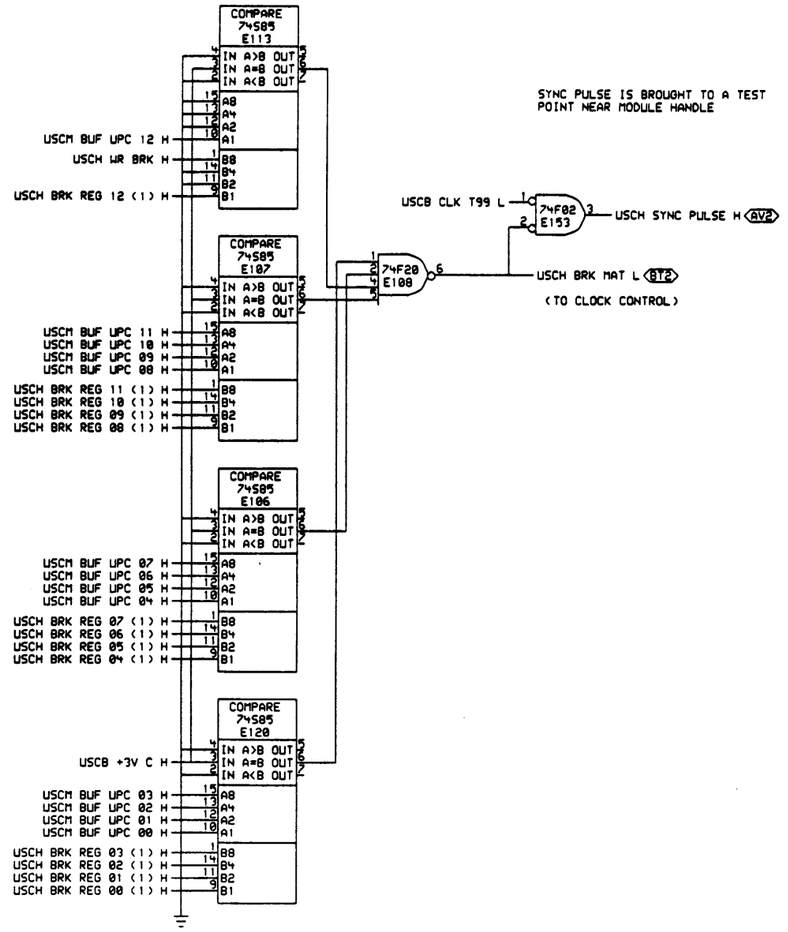
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. ROGER G. DAME	DATE 15-SEP-83	ENG. DATE
	CHK'D.	DATE	BOARD LOCATION: AF23
			SHEET OF
DSKB:<TAYLOR>USCF.DRW 15-SEP-83 15:13			NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785			B-DD-M7476-0-0

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCF	A





SYNC PULSE IS BROUGHT TO A TEST POINT NEAR MODULE HANDLE

(MICRO BREAK REG AND COMPARE) (SLOT 23)

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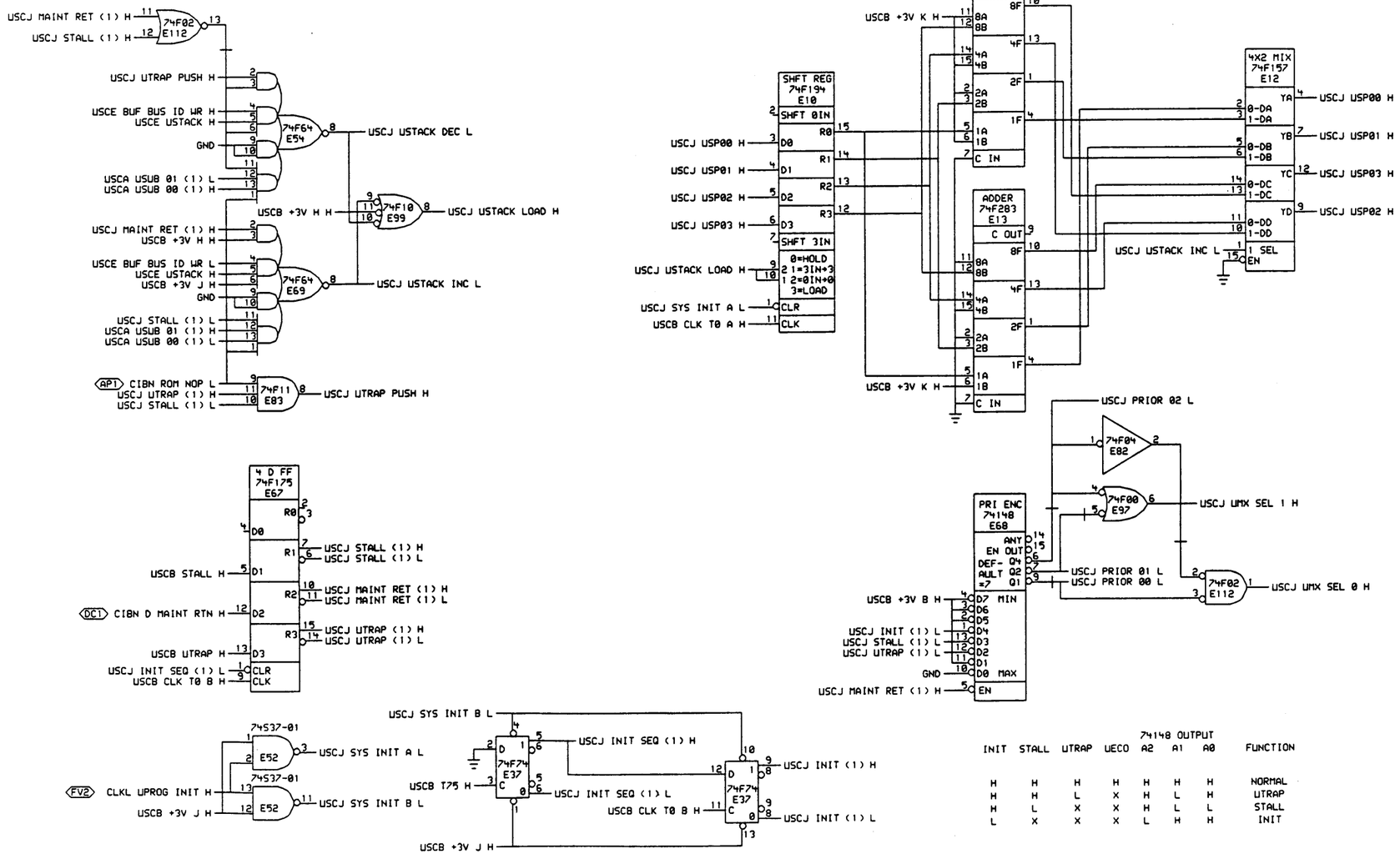
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. ROGER G. DAME — DATE 12-OCT-83
CHK'D. — DATE
ENG. — DATE
BOARD LOCATION: AF23
SHEET 1 OF 1
DSKC:<MISKA>USCH.DRW 11-OCT-83 08:43
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCH	A



74148 OUTPUT

INIT	STALL	UTRAP	UECO	A2	A1	A0	FUNCTION
H	H	H	H	H	H	H	NORMAL
H	H	L	X	H	L	H	UTRAP
H	L	X	X	H	L	L	STALL
L	X	X	X	L	H	H	INIT

(INTERNAL CONTROL, MICRO STACK POINTER, AND INIT) (SLOT 23)

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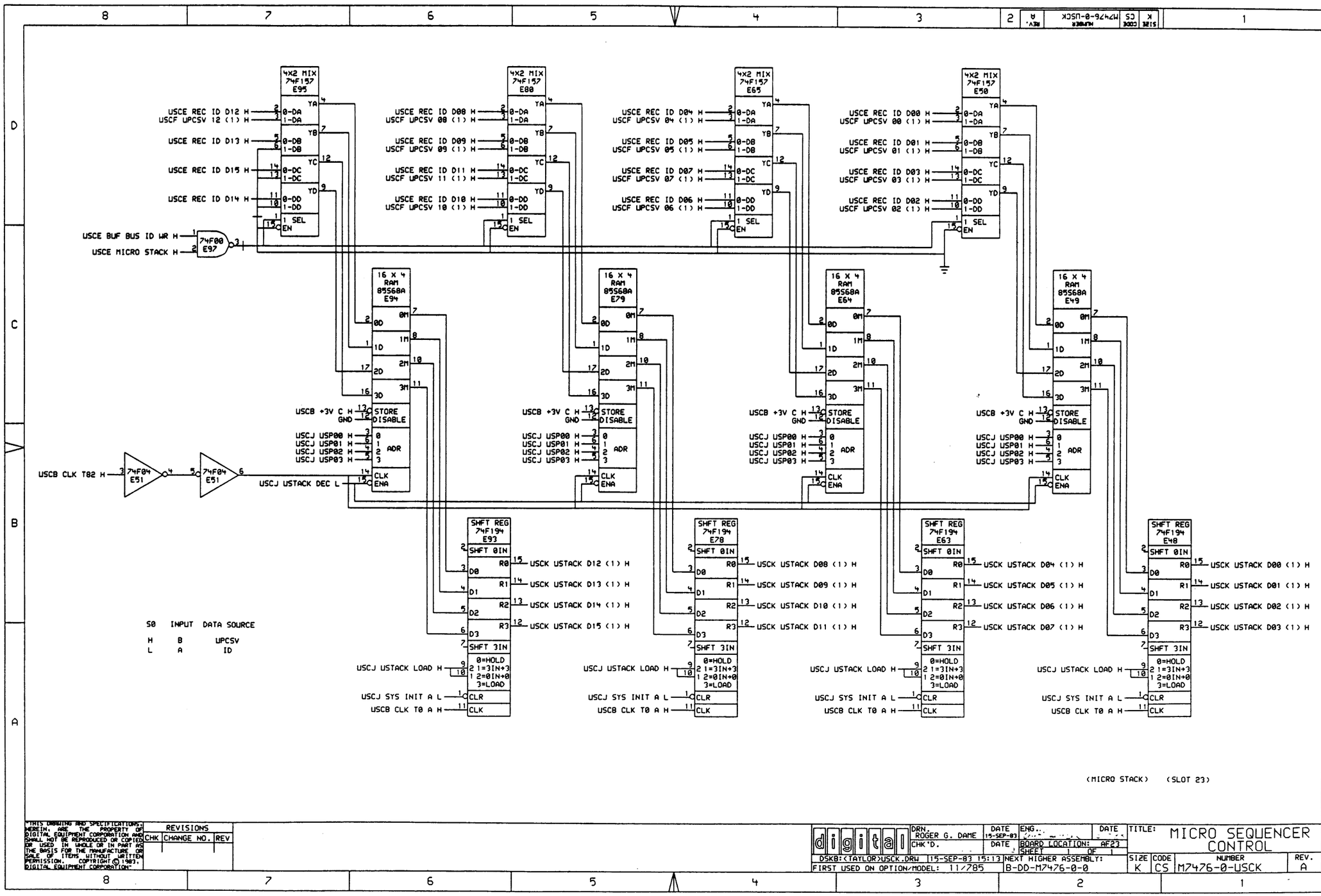
REVISIONS		
CHK	CHANGE NO.	REV

DRN ROGER G. DAME	DATE 12-OCT-83	ENG.	DATE
CHK D.	DATE	BOARD LOCATION: AF23	
DSKC:<MISKA>USCJ.DRW 11-OCT-83 08:50		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7476-0-0	

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCJ	A

SHEET 1 OF 1



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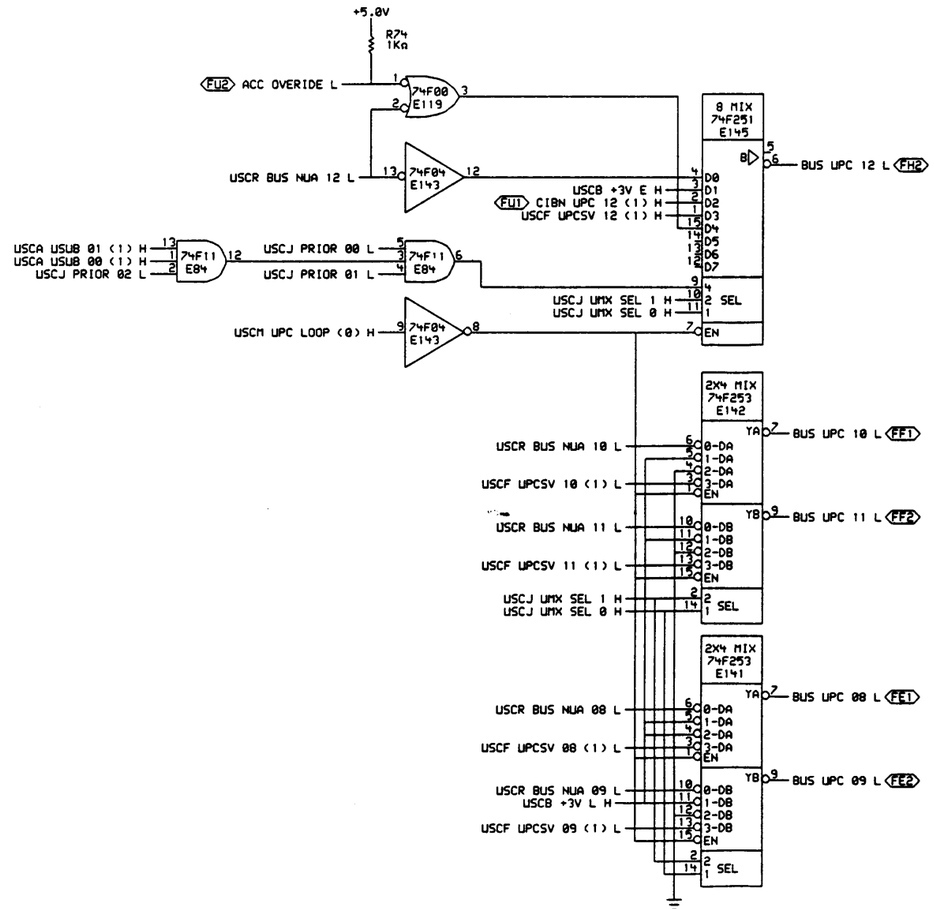
REVISIONS		
CHK	CHANGE NO.	REV

DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	
		SHEET 1 OF 1	
DSKB:<TAYLOR>USCK.DRW 15-SEP-83 15:13		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7476-0-0	

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCK	A



S2	S1	S0	INPUT	BIT <11:00> FUNCTION	INPUT	BIT <12> FUNCTION
L	L	L	A	NUA	D0	NUA
L	H	L	C	INIT OR TRAP	D2	INIT OR UTRAP
L	H	H	D	STALL	D3	STALL
H	L	L	A	NUA	D4	FPA

(MICRO MULTIPLEXER) (SLOT 23)

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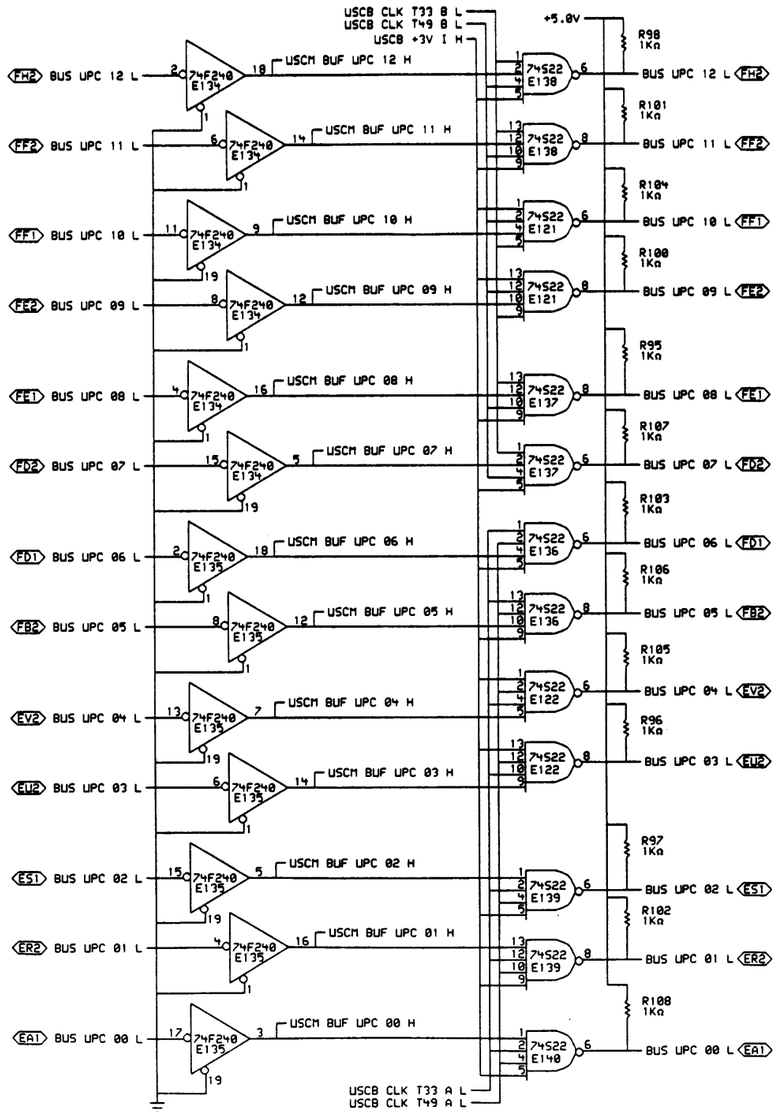
REVISIONS		
CHK	CHANGE NO.	REV

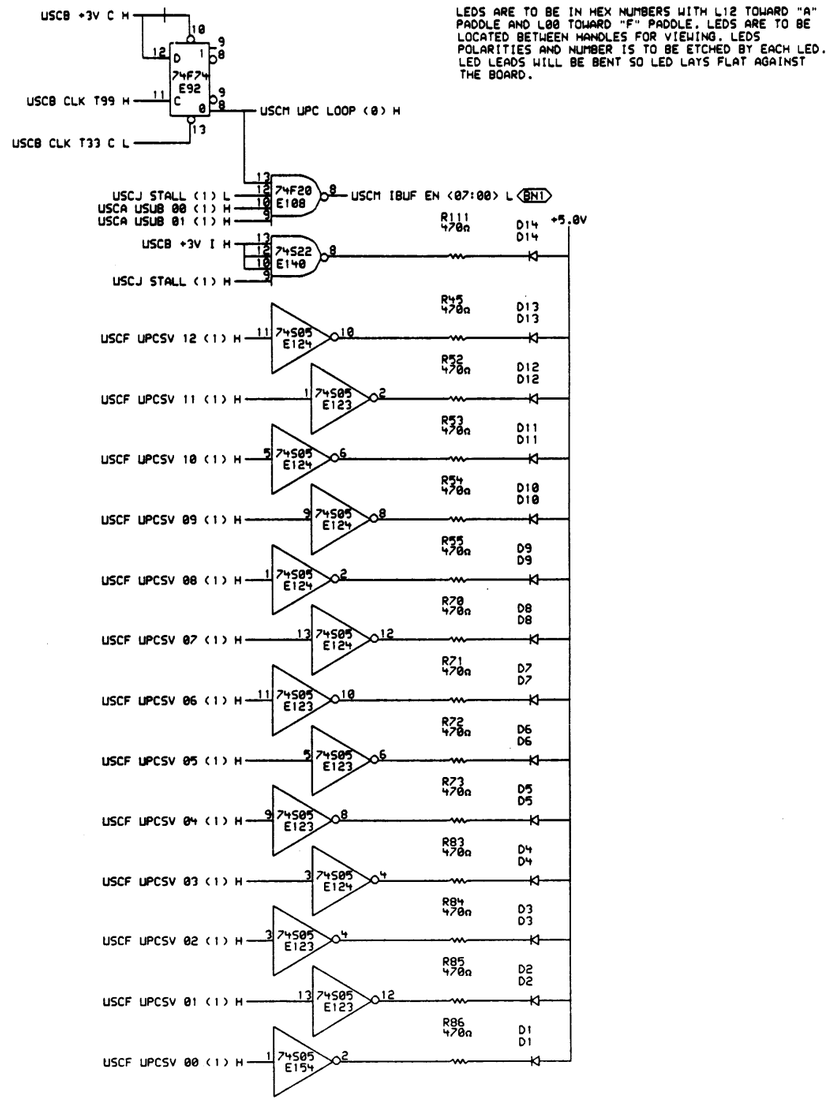
digital

DRN. ROGER G. DAME	DATE 12-OCT-83	ENG:	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	
		SHEET 1 OF 1	
DSKC:<MISKA>USCL.DRW 11-OCT-83 08:53		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7476-0-0	

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCL	A





LEDS ARE TO BE IN HEX NUMBERS WITH L12 TOWARD "A" PADDLE AND L00 TOWARD "F" PADDLE. LEDS ARE TO BE LOCATED BETWEEN HANDLES FOR VIEWING. LEDS POLARITIES AND NUMBER IS TO BE ETCHED BY EACH LED. LED LEADS WILL BE BENT SO LED LAYS FLAT AGAINST THE BOARD.

(UPC LATCH) (SLOT 23)

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REVISIONS		
CHK	CHANGE NO.	REV

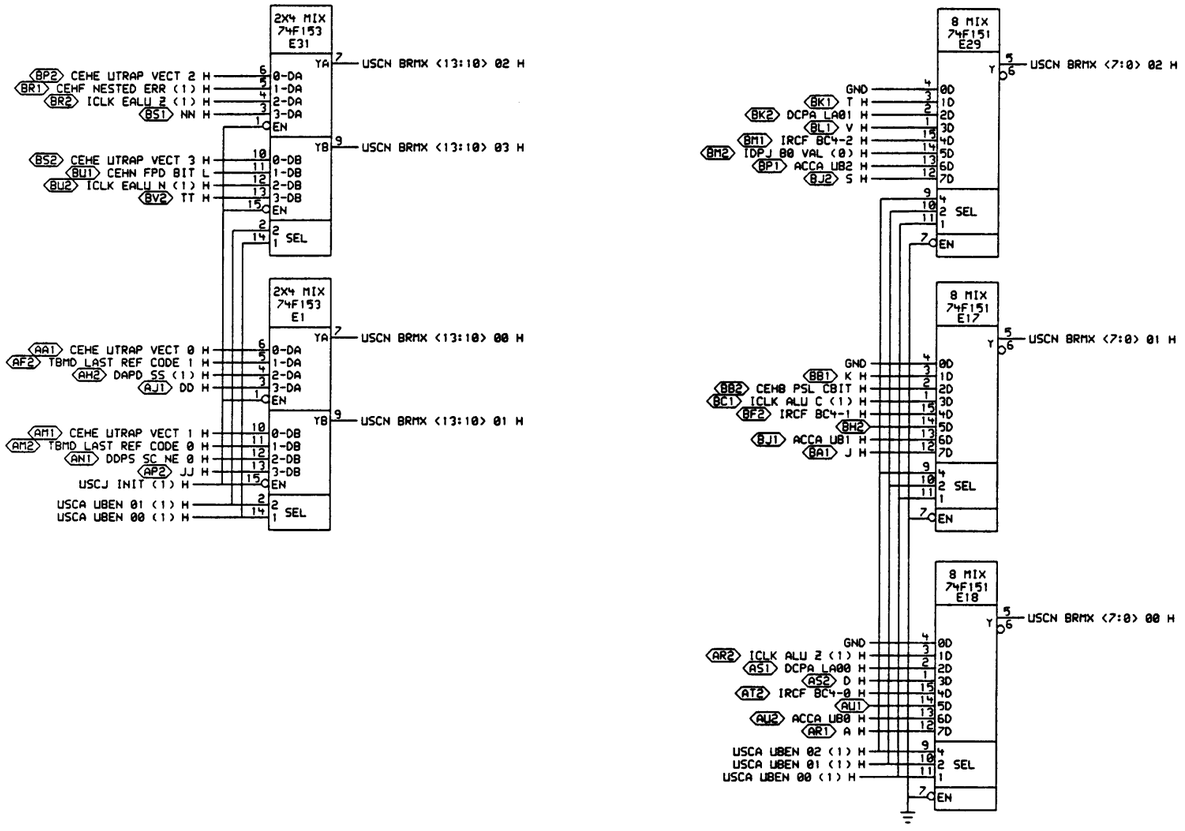
digital

DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE
CHK D.	DATE	BOARD LOCATION: AF23	
DSKB:<TAYLOR>USCM.DRW 15-SEP-83 15:13		SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: 11/785		NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0	

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCM	A

SIZE K | CODE CS | NUMBER M7476-0-USCM | REV. A



(BRANCH MUX'S) (SLOT 23)

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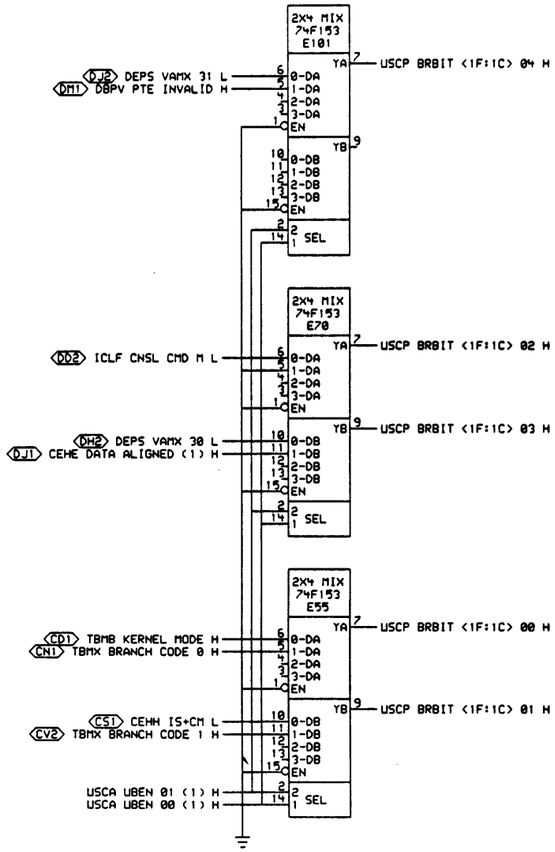
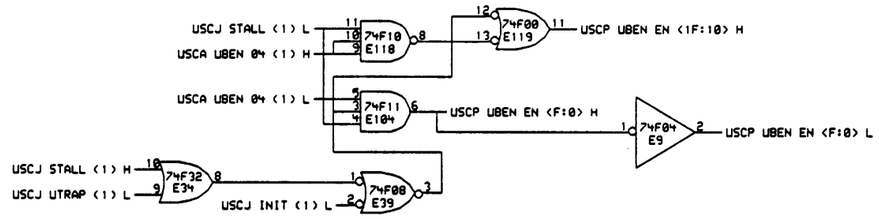
REVISIONS		
CHK	CHANGE NO.	REV

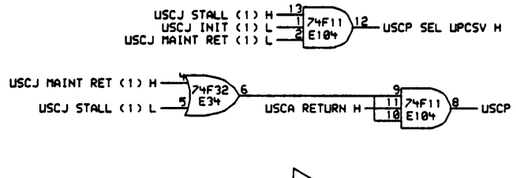
DRN. ROGER G. DAME	DATE 12-OCT-83	ENG	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	
		SHEET 1 OF 1	
DSKC:<MISKA>USCN.DRW 11-OCT-83 08:55		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7476-0-0	

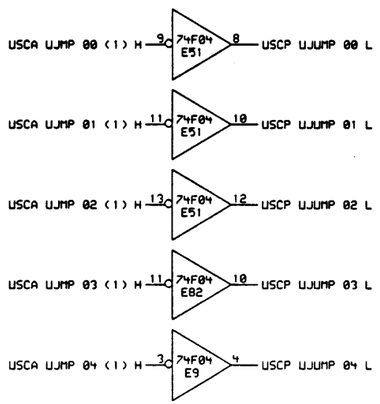
TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCN	A









(BRANCH) (SLOT 23)

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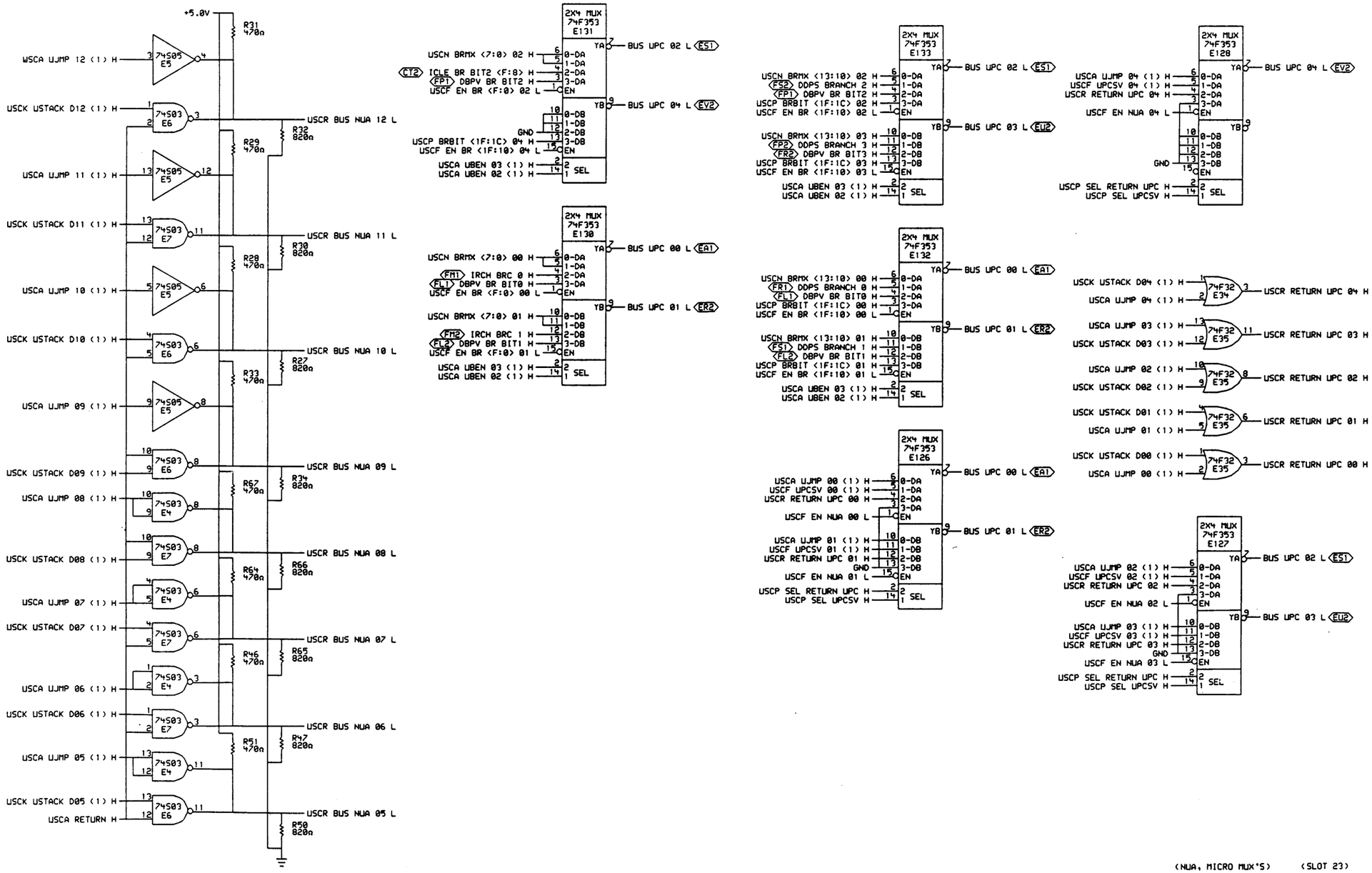
REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. ROGER G. DAME — DATE 15-SEP-83
CHK'D. — DATE
ENG. — DATE
DSKB:<TAYLOR>USCP.DRW 15-SEP-83 15:13
FIRST USED ON OPTION/MODEL: 11/785
BOARD LOCATION: AF23
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCP	A



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REVISIONS		
CHK	CHANGE NO.	REV

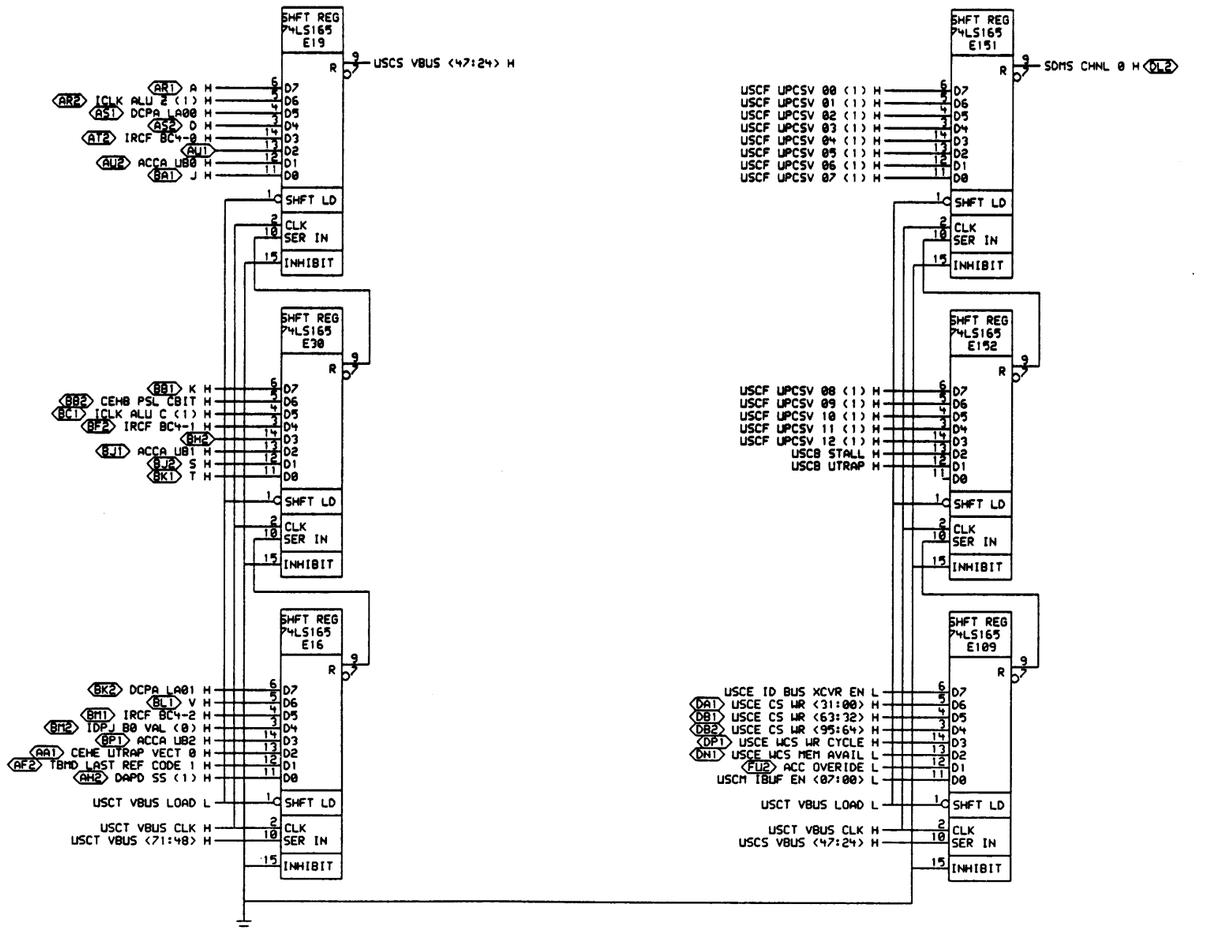
digital

DRN. ROGER G. DAME	DATE 12-OCT-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	SHEET 1 OF 1

DSKC:<MISKA>USCR.DRW 11-OCT-83 08:57 | NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 117785 | B-DD-M7476-0-0

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCR	A



(VBUS) (SLOT 23)

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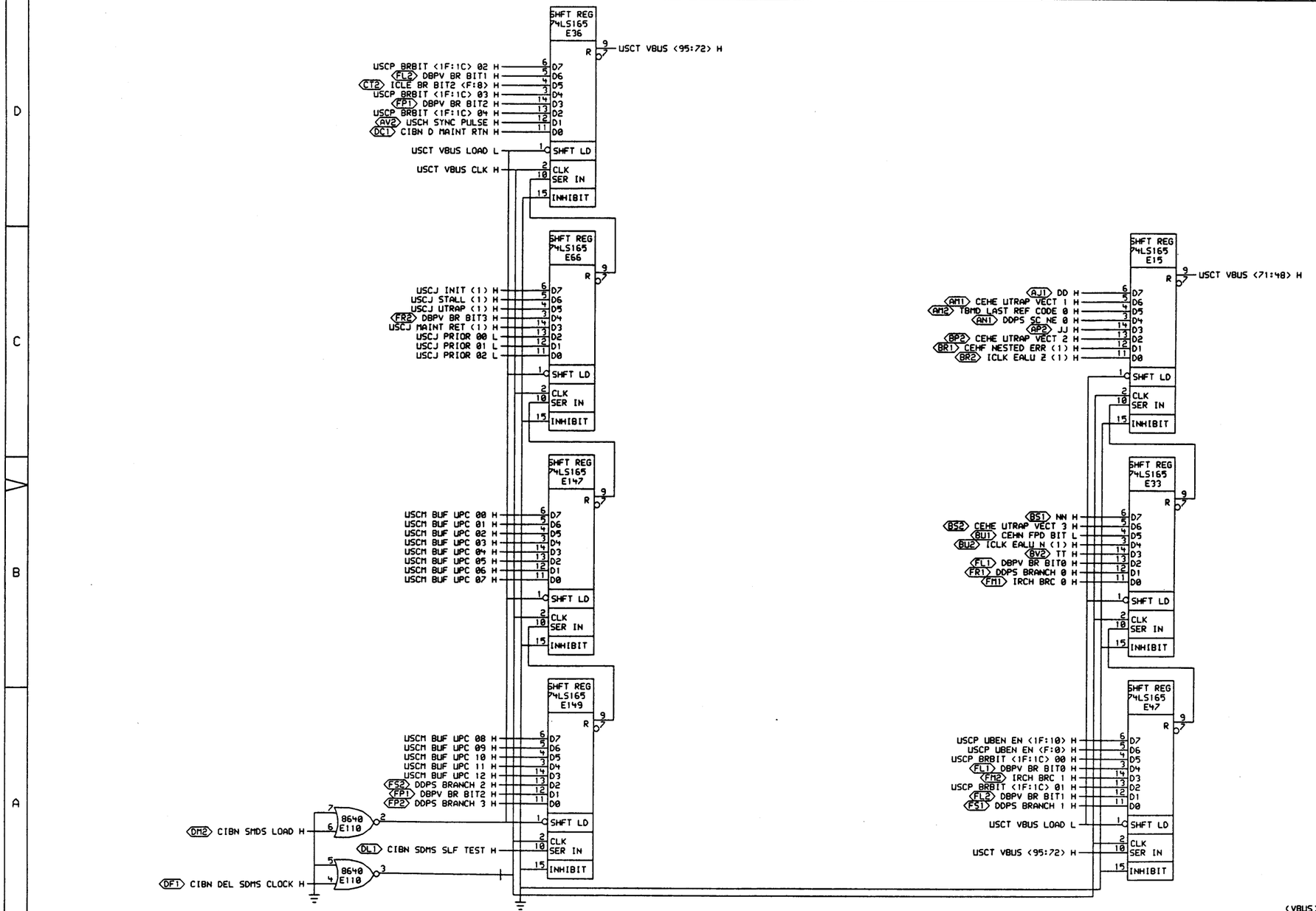
REVISIONS		
CHK	CHANGE NO.	REV

DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	
		SHEET 1 OF 1	
DSKB:<TAYLOR>USCS.DRW 15-SEP-83 15:13		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: 11/785		B-DD-M7476-0-0	

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCS	A



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REVISIONS		
CHK	CHANGE NO.	REV

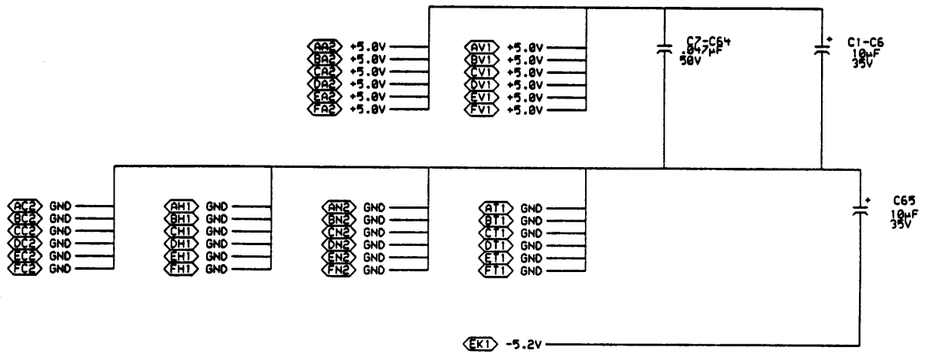
(VBUS) (SLOT 23)

digital

DRN. ROGER G. DAME	DATE 15-SEP-83	ENG.	DATE
CHK'D.	DATE	BOARD LOCATION: AF23	
DSKB:<TAYLOR>USCT.DRW 15-SEP-83 15:13		SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: 11/785		NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0	

TITLE: MICRO SEQUENCER CONTROL

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCT	A



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN D. Toomey DATE 22-SEP-83 ENG DATE
CHK D. DATE BOARD LOCATION: AF23
SHEET 1 OF 1
DSKC:<MISKA>USCU.DRW 21-SEP-83 11:00 NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL: 11/785 B-DD-M7476-0-0

TITLE: USC POWER/GROUND

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCU	A

SIZE K | CODE CS | NUMBER M7476-0-USCU | REV. A

SIGNAL NAME	PAGE NUMBER(S)
%AU1	USCN
%AU1	USCS
%BH2	USCN
%BH2	USCS
A H	USCN,S
ACC OVERIDE L	USCS,L
ACCA UB0 H	USCN,S
ACCA UB1 H	USCN,S
ACCA UB2 H	USCS,N
BUS CS 00 H	USCA
BUS CS 01 H	USCA
BUS CS 02 H	USCA
BUS CS 03 H	USCA
BUS CS 04 H	USCA
BUS CS 05 H	USCA
BUS CS 06 H	USCA
BUS CS 07 H	USCA
BUS CS 08 H	USCA
BUS CS 09 H	USCA
BUS CS 10 H	USCA
BUS CS 11 H	USCA
BUS CS 12 H	USCA
BUS CS 64 H	USCA
BUS CS 65 H	USCA
BUS CS 72 H	USCA
BUS CS 73 H	USCA
BUS CS 74 H	USCA
BUS CS 75 H	USCA
BUS CS 76 H	USCA
BUS ID D00 L	USCE
BUS ID D01 L	USCE
BUS ID D02 L	USCE
BUS ID D03 L	USCE
BUS ID D04 L	USCE
BUS ID D05 L	USCE
BUS ID D06 L	USCE
BUS ID D07 L	USCE
BUS ID D08 L	USCE
BUS ID D09 L	USCE
BUS ID D10 L	USCE
BUS ID D11 L	USCE
BUS ID D12 L	USCE
BUS ID D13 L	USCE
BUS ID D14 L	USCE
BUS ID D15 L	USCE
BUS UPC 00 L	USCR,M
BUS UPC 01 L	USCR,M
BUS UPC 02 L	USCR,M
BUS UPC 03 L	USCM,R
BUS UPC 04 L	USCM,R

SIGNAL NAME	PAGE NUMBER(S)
BUS UPC 05 L	USCL,M
BUS UPC 06 L	USCM,L
BUS UPC 07 L	USCM,L
BUS UPC 08 L	USCM,L
BUS UPC 09 L	USCM,L
BUS UPC 10 L	USCM,L
BUS UPC 11 L	USCM,L
BUS UPC 12 L	USCM,L
CEHB PSL CBIT H	USCN,S
CEHE CS PE TRAP H	USCF
CEHE DATA ALIGNED (1)H	USCP
CEHE UTRAP L	USCB
CEHE UTRAP VECT 0 H	USCN,S
CEHE UTRAP VECT 1 H	USCN,T
CEHE UTRAP VECT 2 H	USCT,N
CEHE UTRAP VECT 3 H	USCN,T
CEHF NESTED ERR (1)H	USCT,N
CEHH IS+CM L	USCP
CEHN FPD BIT L	USCN,T
CIBN D MAINT RTN H	USCT,B,J
CIBN DEL SDMS CLOCK H	USCT
CIBN ROM NOP L	USCF,B,J
CIBN SDMS SLF TEST H	USCT
CIBN SMDS LOAD H	USCT
CIBN UPC 12 (1)H	USCL
CLKB LECL CPT0C2 H	USCB
CLKB LECL CPT0C2 L	USCB
CLKC LECL CPT1C2 H	USCB
CLKC LECL CPT1C2 L	USCB
CLKE LECL CPT3C2 H	USCB
CLKE LECL CPT3C2 L	USCB
CLKH LECL CPT75 H	USCB
CLKH LECL CPT75 L	USCB
CLKJ LECL CPT125 H	USCB
CLKJ LECL CPT125 L	USCB
CLKL UPROG INIT H	USCJ
D H	USCN,S
DAPD SS (1)H	USCN,S
DBPV BR BIT0 H	USCT,R
DBPV BR BIT1 H	USCT,R
DBPV BR BIT2 H	USCT,R
DBPV BR BIT3 H	USCT,R
DBPV PTE INVALID H	USCP
DCPA LA00 H	USCN,S
DCPA LA01 H	USCS,N
DD H	USCN,T
DDPS BRANCH 0 H	USCT,R
DDPS BRANCH 1 H	USCT,R
DDPS BRANCH 2 H	USCR,T
DDPS BRANCH 3 H	USCR,T

SIGNAL NAME	PAGE NUMBER(S)
DDPS SC NE 0 H	USCN,T
DEPS VAMX 30 L	USCP
DEPS VAMX 31 L	USCP
ICLE BR BIT2 <F:8> H	USCT,R
ICLF CNSL CMD M L	USCP
ICLJ ID LEFT ADDR 0 H	USCE
ICLJ ID LEFT ADDR 1 H	USCE
ICLJ ID LEFT ADDR 2 H	USCE
ICLJ ID LEFT ADDR 3 H	USCE
ICLJ ID LEFT ADDR 4 H	USCE
ICLJ ID LEFT ADDR 5 H	USCE
ICLJ ID LEFT WRITE L	USCE
ICLK ALU C (1)H	USCN,S
ICLK ALU Z (1)H	USCN,S
ICLK EALU N (1)H	USCN,T
ICLK EALU Z (1)H	USCT,N
IDPJ B0 VAL (0)H	USCS,N
IRCF BC4-0 H	USCN,S
IRCF BC4-1 H	USCN,S
IRCF BC4-2 H	USCS,N
IRCH BRC 0 H	USCT,R
IRCH BRC 1 H	USCT,R
J H	USCN,S
JJ H	USCN,T
K H	USCN,S
NN H	USCN,T
S H	USCN,S
SBLP PAR ERR TRAP L	USCB
SBLT STALL L	USCB
SDMS CHNL 0 H	USCS
T H	USCN,S
TBMB KERNEL MODE H	USCP
TBMD LAST REF CODE 0 H	USCN,T
TBMD LAST REF CODE 1 H	USCN,S
TBMX BRANCH CODE 0 H	USCP
TBMX BRANCH CODE 1 H	USCP
TT H	USCN,T
USCA RETURN H	USCR,F,A,P
USCA UBEN 00 (1)H	USCN,P,A
USCA UBEN 01 (1)H	USCN,P,A
USCA UBEN 02 (0)H	USCA
USCA UBEN 02 (1)H	USCN,A,R
USCA UBEN 03 (0)H	USCA
USCA UBEN 03 (1)H	USCA,R
USCA UBEN 04 (0)H	USCP,A
USCA UBEN 04 (1)H	USCA,P
USCA UJMP 00 (1)H	USCA,R,P
USCA UJMP 01 (1)H	USCA,R,P
USCA UJMP 02 (1)H	USCA,R,P
USCA UJMP 03 (1)H	USCA,R,P

NOTES:
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REVISIONS		
CHK	CHANGE NO.	REV

DSKC:<MISKA>USCV.DRW 21-SEP-83 11:11 | FIRST USED ON OPTION/MODEL: 11/785

DRN: JD | DATE 22-SEP-83 | ENG: | DATE | CHK'D: | DATE | BOARD LOCATION: AF23 | SHEET 1 OF 1 | NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

TITLE: USC FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCV	A

SIGNAL NAME	PAGE NUMBER(S)
USCA UJMP 04 (1)H	USCA,P,R
USCA UJMP 05 (1)H	USCA,R
USCA UJMP 06 (1)H	USCA,R
USCA UJMP 07 (1)H	USCA,R
USCA UJMP 08 (1)H	USCA,R
USCA UJMP 09 (1)H	USCA,R
USCA UJMP 10 (1)H	USCA,R
USCA UJMP 11 (1)H	USCA,R
USCA UJMP 12 (1)H	USCR,A
USCA USUB 00 (0)H	USCA,J
USCA USUB 00 (1)H	USCF,J,L,A,M
USCA USUB 01 (0)H	USCJ,A
USCA USUB 01 (1)H	USCF,A,J,L,M
USCB +3V A H	USCB
USCB +3V B H	USCJ,H,E,B
USCB +3V C H	USCK,H,M,B
USCB +3V D H	USCC,F,B
USCB +3V E H	USCL,B
USCB +3V H H	USCC,J,B
USCB +3V I H	USCE,M,B
USCB +3V J H	USCJ,B
USCB +3V K H	USCJ,B
USCB +3V L H	USCL,B
USCB +3V M H	USCB
USCB ABORT CYCLE H	USCB
USCB CLK T0 A H	USCA,J,B,K
USCB CLK T0 B H	USCC,J,B,A
USCB CLK T0 L	USCF,B,E
USCB CLK T125 H	USCK,E,B
USCB CLK T150 H	USCC,H,B,M
USCB CLK T150 L	USCC,F,B,H
USCB CLK T50 A L	USCB,M
USCB CLK T50 B L	USCB,M
USCB CLK T50 C L	USCC,B,F,M
USCB CLK T75 A L	USCB,M
USCB CLK T75 B L	USCB,M
USCB CLR UTRAP L	USCB
USCB CLR UWORD (0)H	USCB,A
USCB CLR UWORD H	USCB
USCB MNT RET SEQ (0)H	USCB,A
USCB STALL H	USCJ,B,S
USCB T75 H	USCJ,B
USCB UTRAP H	USCJ,B,S
USCC CLK WCS ADRS H	USCC
USCC CLR ADRS CNT L	USCC
USCC WCS ADRS 00 (1)H	USCD,C
USCC WCS ADRS 00 L	USCC
USCC WCS ADRS 01 (1)H	USCD,C
USCC WCS ADRS 01 L	USCC
USCC WCS ADRS 02 (1)H	USCD,C

SIGNAL NAME	PAGE NUMBER(S)
USCC WCS ADRS 02 L	USCC
USCC WCS ADRS 03 (1)H	USCD,C
USCC WCS ADRS 03 L	USCC
USCC WCS ADRS 04 (1)H	USCD,C
USCC WCS ADRS 04 L	USCC
USCC WCS ADRS 05 (1)H	USCD,C
USCC WCS ADRS 05 L	USCC
USCC WCS ADRS 06 (1)H	USCD,C
USCC WCS ADRS 07 (1)H	USCD,C
USCC WCS ADRS 07 L	USCC
USCC WCS ADRS 08 (1)H	USCD,C
USCC WCS ADRS 08 L	USCC
USCC WCS ADRS 09 (1)H	USCD,C
USCC WCS ADRS 09 L	USCC
USCC WCS ADRS 10 (1)H	USCD,C
USCC WCS ADRS 10 L	USCC
USCC WCS ADRS 11 (1)H	USCD,C
USCC WCS ADRS 11 L	USCC
USCC WCS ADRS 12 (1)H	USCD,C
USCC WCS ADRS 12 L	USCC
USCC WCS ADRS 13 (0)H	USCC
USCC WCS ADRS 13 (1)H	USCC,E,D
USCC WCS ADRS 14 (0)H	USCC
USCC WCS ADRS 14 (1)H	USCC,E,D
USCC WCS ADRS COUNT H	USCC
USCC WCS ADRS 06 L	USCC
USCC WCS ADRS WRITE H	USCC
USCC WCS PAR INV (0)H	USCC
USCC WCS PAR INV (1)H	USCD,C
USCD ID DATA 00 H	USCE,D
USCD ID DATA 01 H	USCE,D
USCD ID DATA 02 H	USCE,D
USCD ID DATA 03 H	USCE,D
USCD ID DATA 04 H	USCE,D
USCD ID DATA 05 H	USCE,D
USCD ID DATA 06 H	USCE,D
USCD ID DATA 07 H	USCE,D
USCD ID DATA 08 H	USCE,D
USCD ID DATA 09 H	USCE,D
USCD ID DATA 10 H	USCE,D
USCD ID DATA 11 H	USCE,D
USCD ID DATA 12 H	USCE,D
USCD ID DATA 13 H	USCE,D
USCD ID DATA 14 H	USCE,D
USCD ID DATA 15 H	USCE,D
USCE BUF BUS ID WR H	USCJ,K,E
USCE BUF BUS ID WR L	USCJ,H,E,C
USCE CS WR (31:00) H	USCE,S
USCE CS WR (63:32) H	USCE,S
USCE CS WR (95:64) H	USCE,S

SIGNAL NAME	PAGE NUMBER(S)
USCE ID BUS XCVR EN L	USCE,S
USCE ID SEL 0 H	USCD,E
USCE MICRO STACK H	USCD,K,E
USCE MICRO STACK L	USCE
USCE REC ID D00 H	USCE,C,K,H
USCE REC ID D01 H	USCE,C,K,H
USCE REC ID D02 H	USCE,C,K,H
USCE REC ID D03 H	USCE,C,K,H
USCE REC ID D04 H	USCE,C,H,K
USCE REC ID D05 H	USCE,C,H,K
USCE REC ID D06 H	USCE,C,K,H
USCE REC ID D07 H	USCE,C,K,H
USCE REC ID D08 H	USCE,C,H,K
USCE REC ID D09 H	USCE,C,H,K
USCE REC ID D10 H	USCE,C,H,K
USCE REC ID D11 H	USCE,C,H,K
USCE REC ID D12 H	USCE,C,H,K
USCE REC ID D13 H	USCC,E,K
USCE REC ID D14 H	USCC,E,K
USCE REC ID D15 H	USCE,K,C
USCE UPC BREAK L	USCH,E
USCE USTACK H	USCJ,E
USCE WCS ADDRESS L	USCE,C
USCE WCS MEM AVAIL L	USCS,E
USCE WCS MEM DATA L	USCE
USCE WCS WR CYCLE H	USCS,E
USCE WR WCS H	USCC,E
USCF +3V F H	USCH,F
USCF EN BR (1F:10) 00 L	USCF,R
USCF EN BR (1F:10) 01 L	USCF,R
USCF EN BR (1F:10) 02 L	USCF,R
USCF EN BR (1F:10) 03 L	USCF,R
USCF EN BR (1F:10) 04 L	USCF,R
USCF EN BR (F:0) 00 L	USCF,R
USCF EN BR (F:0) 01 L	USCF,R
USCF EN BR (F:0) 02 L	USCF,R
USCF EN NUA 00 L	USCF,R
USCF EN NUA 01 L	USCF,R
USCF EN NUA 02 L	USCF,R
USCF EN NUA 03 L	USCF,R
USCF EN NUA 04 L	USCF,R
USCF UPCSV 00 (0)H	USCF
USCF UPCSV 00 (1)H	USCK,R,F,S,M
USCF UPCSV 01 (0)H	USCF
USCF UPCSV 01 (1)H	USCK,M,R,F,S
USCF UPCSV 02 (0)H	USCF
USCF UPCSV 02 (1)H	USCK,M,R,F,S
USCF UPCSV 03 (0)H	USCF
USCF UPCSV 03 (1)H	USCK,M,R,F,S
USCF UPCSV 04 (0)H	USCF

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. Toomey DATE 22-SEP-83
CHK'D. DATE
ENG. DATE
BOARD LOCATION: AF23
SHEET 1 OF 1
DSKC:<MISKA>USCW.DRW 21-SEP-83 11:12
NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0
FIRST USED ON OPTION/MODEL: 11/785

TITLE: USC FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCW	A

SIGNAL NAME	PAGE NUMBER(S)
USCF UPCSV 04 (1)H	USCK,M,R,F,S
USCF UPCSV 05 (0)H	USCL,F
USCF UPCSV 05 (1)H	USCK,M,F,S
USCF UPCSV 06 (0)H	USCL,F
USCF UPCSV 06 (1)H	USCK,M,F,S
USCF UPCSV 07 (0)H	USCL,F
USCF UPCSV 07 (1)H	USCK,M,F,S
USCF UPCSV 08 (0)H	USCL,F
USCF UPCSV 08 (1)H	USCK,M,F,S
USCF UPCSV 09 (0)H	USCL,F
USCF UPCSV 09 (1)H	USCK,M,F,S
USCF UPCSV 10 (0)H	USCL,F
USCF UPCSV 10 (1)H	USCK,M,F,S
USCF UPCSV 11 (0)H	USCL,F
USCF UPCSV 11 (1)H	USCK,M,F,S
USCF UPCSV 12 (1)H	USCK,F,M,L,S
USCH BRK MAT L	USCH
USCH BRK REG 00 (1)H	USCD,H
USCH BRK REG 01 (1)H	USCD,H
USCH BRK REG 02 (1)H	USCD,H
USCH BRK REG 03 (1)H	USCD,H
USCH BRK REG 04 (1)H	USCD,H
USCH BRK REG 05 (1)H	USCD,H
USCH BRK REG 06 (1)H	USCD,H
USCH BRK REG 07 (1)H	USCD,H
USCH BRK REG 08 (1)H	USCD,H
USCH BRK REG 09 (1)H	USCD,H
USCH BRK REG 10 (1)H	USCD,H
USCH BRK REG 11 (1)H	USCD,H
USCH BRK REG 12 (1)H	USCD,H
USCH SYNC PULSE H	USCT,H
USCH WR BRK H	USCH
USCJ INIT (0)H	USCJ,P
USCJ INIT (1)H	USCN,J,T
USCJ INIT SEQ (0)H	USCJ,B,A
USCJ INIT SEQ (1)H	USCJ
USCJ MAINT RET (0)H	USCA,J,P
USCJ MAINT RET (1)H	USCP,T,J
USCJ PRIOR 00 L	USCT,J,L
USCJ PRIOR 01 L	USCT,J,L
USCJ PRIOR 02 L	USCT,J,L
USCJ STALL (0)H	USCF,P,J,L,M
USCJ STALL (1)H	USCP,T,J,M
USCJ SYS INIT A L	USCJ,K
USCJ SYS INIT B L	USCC,J
USCJ UMX SEL 0 H	USCJ,L
USCJ UMX SEL 1 H	USCJ,L
USCJ USP00 H	USCJ,K
USCJ USP01 H	USCJ,K
USCJ USP02 H	USCJ,K

SIGNAL NAME	PAGE NUMBER(S)
USCJ USP03 H	USCJ,K
USCJ USTACK DEC L	USCK,J
USCJ USTACK INC L	USCJ
USCJ USTACK LOAD H	USCJ,K
USCJ UTRAP (0)H	USCP,J
USCJ UTRAP (1)H	USCT,J
USCJ UTRAP PUSH H	USCB,J
USCK USTACK D00 (1)H	USCR,D,K
USCK USTACK D01 (1)H	USCR,D,K
USCK USTACK D02 (1)H	USCR,D,K
USCK USTACK D03 (1)H	USCR,D,K
USCK USTACK D04 (1)H	USCR,D,K
USCK USTACK D05 (1)H	USCR,D,K
USCK USTACK D06 (1)H	USCR,D,K
USCK USTACK D07 (1)H	USCR,D,K
USCK USTACK D08 (1)H	USCR,D,K
USCK USTACK D09 (1)H	USCR,D,K
USCK USTACK D10 (1)H	USCR,D,K
USCK USTACK D11 (1)H	USCR,D,K
USCK USTACK D12 (1)H	USCR,D,K
USCK USTACK D13 (1)H	USCD,K
USCK USTACK D14 (1)H	USCD,K
USCK USTACK D15 (1)H	USCD,K
USCL CALL 03 L	USCL
USCM BUF UPC 00 H	USCH,M,F,T
USCM BUF UPC 01 H	USCH,M,F,T
USCM BUF UPC 02 H	USCH,M,F,T
USCM BUF UPC 03 H	USCH,M,F,T
USCM BUF UPC 04 H	USCH,M,T,F
USCM BUF UPC 05 H	USCH,M,T,F
USCM BUF UPC 06 H	USCH,M,T,F
USCM BUF UPC 07 H	USCH,M,T,F
USCM BUF UPC 08 H	USCH,M,T,F
USCM BUF UPC 09 H	USCH,M,T,F
USCM BUF UPC 10 H	USCH,M,T,F
USCM BUF UPC 11 H	USCH,M,T,F
USCM BUF UPC 12 H	USCF,H,M,T
USCM IBUF EN <07:00> L	USCM,S
USCM UPC LOOP (0)H	USCL,M
USCN BRmx <13:10> 00 H	USCN,R
USCN BRmx <13:10> 01 H	USCN,R
USCN BRmx <13:10> 02 H	USCN,R
USCN BRmx <13:10> 03 H	USCN,R
USCN BRmx <7:0> 00 H	USCN,R
USCN BRmx <7:0> 01 H	USCN,R
USCN BRmx <7:0> 02 H	USCN,R
USCP BRBIT <1F:1C> 00 H	USCT,P,R
USCP BRBIT <1F:1C> 01 H	USCT,P,R
USCP BRBIT <1F:1C> 02 H	USCT,P,R
USCP BRBIT <1F:1C> 03 H	USCT,P,R

SIGNAL NAME	PAGE NUMBER(S)
USCP BRBIT <1F:1C> 04 H	USCT,P,R
USCP SEL RETURN UPC H	USCP,R
USCP SEL UPCSV H	USCF,P,R
USCP UBEN EN <1F:10> H	USCF,T,P
USCP UBEN EN <F:0> H	USCP,F,T
USCP UBEN EN <F:0> L	USCP,F
USCP UJUMP 00 L	USCP,F
USCP UJUMP 01 L	USCP,F
USCP UJUMP 02 L	USCP,F
USCP UJUMP 03 L	USCP,F
USCP UJUMP 04 L	USCP,F
USCR BUS NUA 05 L	USCR,L
USCR BUS NUA 06 L	USCR,L
USCR BUS NUA 07 L	USCR,L
USCR BUS NUA 08 L	USCR,L
USCR BUS NUA 09 L	USCR,L
USCR BUS NUA 10 L	USCR,L
USCR BUS NUA 11 L	USCR,L
USCR BUS NUA 12 L	USCR,L
USCR RETURN UPC 00 H	USCF,R
USCR RETURN UPC 01 H	USCF,R
USCR RETURN UPC 02 H	USCF,R
USCR RETURN UPC 03 H	USCF,R
USCR RETURN UPC 04 H	USCR,F
USCS VBUS <47:24> H	USCS
USCT VBUS <71:48> H	USCT,S
USCT VBUS <95:72> H	USCT
USCT VBUS CLK H	USCT,S
USCT VBUS LOAD L	USCT,S
V H	USCS,N

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRW: [illegible] DATE 22-SEP-83
CHK D. [illegible] DATE
ENG: [illegible] DATE
BOARD LOCATION: AF23
SHEET 1 OF 1
DSKC:<MISKA>USCX.DRW 21-SEP-83 11:12
FIRST USED ON OPTION/MODEL: 11/785
NEXT HIGHER ASSEMBLY: B-DD-M7476-0-0

TITLE: USC FORWARD REFERENCE

SIZE	CODE	NUMBER	REV.
K	CS	M7476-0-USCX	A

SIZE	CODE	NUMBER	REV.
B	DD	M7476-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS	
	—	M7476-00	USC PART REVISION	A1	B1
E-UA-M7476-0-0	2		UNIT ASSEMBLY	A	A
K-PL-M7476-0-DBP	2		PART LIST	A	B
K-PC-M7476-0-DBI	—		PC DATA BASE	A1	A1
B-DD-5016103-0-0	1		DRAWING DIRECTORY	A	B
K-CS-M7476-0-DBS	—		SUDS DATA BASE	A	A
K-CS-M7476-0-USCA	1		SCHEMATIC	A	A
K-CS-M7476-0-USCB	1		SCHEMATIC	A	A
K-CS-M7476-0-USCC	1		SCHEMATIC	A	A
K-CS-M7476-0-USCD	1		SCHEMATIC	A	A
K-CS-M7476-0-USCE	1		SCHEMATIC	A	A
K-CS-M7476-0-USCF	1		SCHEMATIC	A	A
K-CS-M7476-0-USCH	1		SCHEMATIC	A	A
K-CS-M7476-0-USCJ	1		SCHEMATIC	A	A
K-CS-M7476-0-USCK	1		SCHEMATIC	A	A
K-CS-M7476-0-USCL	1		SCHEMATIC	A	A
K-CS-M7476-0-USCM	1		SCHEMATIC	A	A
K-CS-M7476-0-USCN	1		SCHEMATIC	A	A
K-CS-M7476-0-USCP	1		SCHEMATIC	A	A
K-CS-M7476-0-USCR	1		SCHEMATIC	A	A
K-CS-M7476-0-USCS	1		SCHEMATIC	A	A
K-CS-M7476-0-USCT	1		SCHEMATIC	A	A
K-CS-M7476-0-USCV	1		SCHEMATIC	A	A
K-CS-M7476-0-USCW	1		SCHEMATIC	A	A
K-CS-M7476-0-USCX	1		SCHEMATIC	A	A
K-CS-M7476-0-USCU			SCHEMATIC	A	A

NOTES:

REVISIONS		
REV.	A	B
CHG NO.	INIT	TW001
DATE	9/83	1/94

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digital

USED ON OPTION/MODEL

DRN.	[signature]	28-SEP-83
CHK'D	[signature]	1-28-83
ENG.	[signature]	10/17/83
PROD	[signature]	10/18/83

TITLE USC

SIZE	CODE	NUMBER	REV.
B	DD	M7476-0-C	B

SHEET 1 OF 1

DRB 126

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

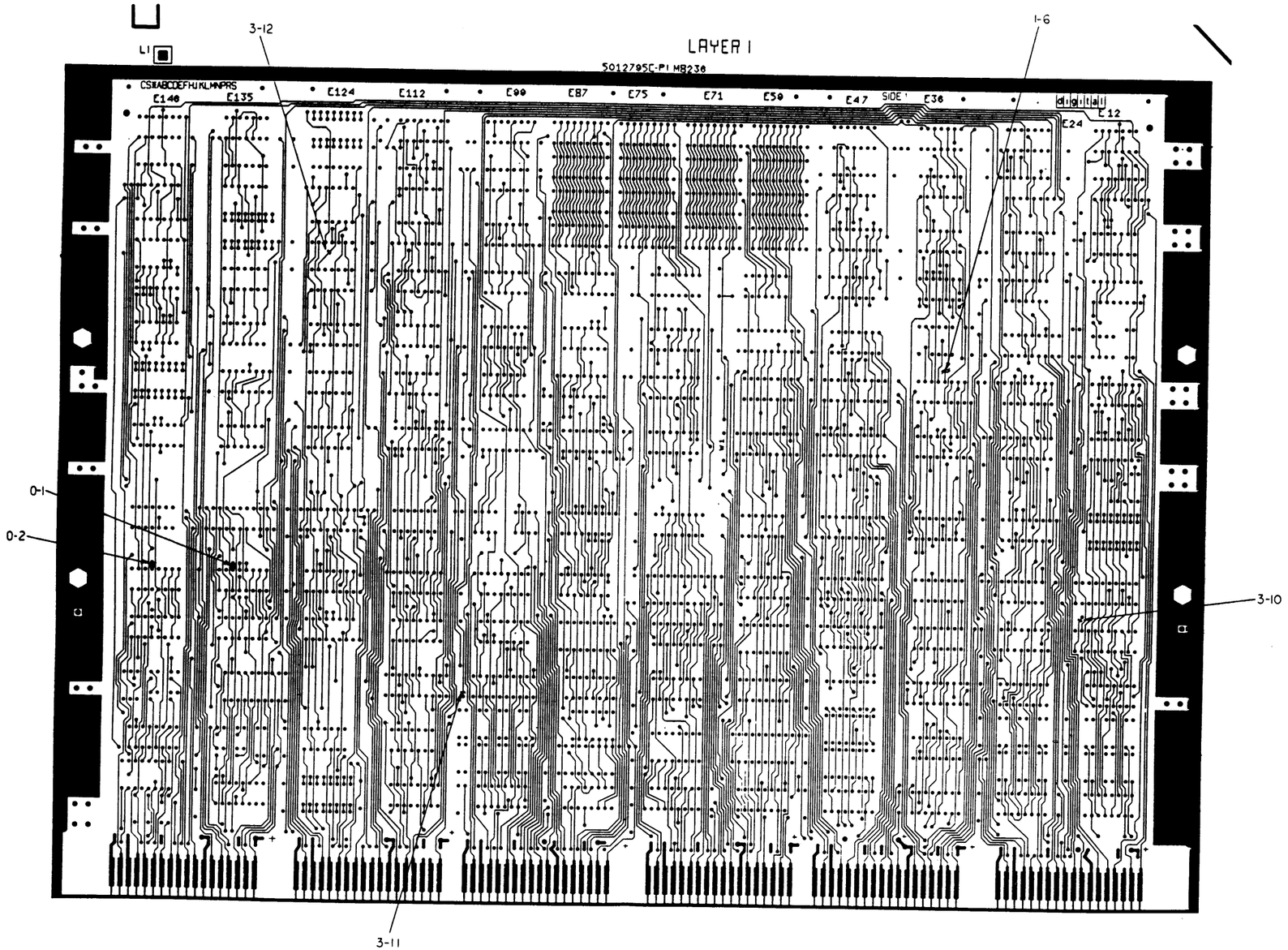
1-1
1-2
1-3
1-4
1-5
3-6
3-7
3-1
3-8
3-5
0-2
0-1
3-15,16
3-4,15,16
3-9
3-2, 15,16
3-3, 15,16
53
54
TH1
TH2

digital

TITLE CONSOLE INTERFACE BOARD(CIB)

SIZE E | DWG NO M7477-0-0 | REV C

M7477-0-0 C



TITLE	CONSOLE INTERFACE BOARD (CIB)			
SCALE 2/1	SHEET 2 OF 4	DRAWING NUMBER E LIA M7477 -0-0	REV C	
DIST				

M7477-0-0

TITLE: CIB

DOCUMENT NUMBER: M7477-0-0

SIZE: E | CODE: JA | REV: C

SCALE: 2/1

REWORK INSTRUCTIONS:
ETCH CUTS SIDE 1
0-1 CUT ETCH AT E127-14
0-2 CUT ETCH AT E138-13

WIRE ADDS SIDE1:
0-1 ADD A WIRE FROM F127-14 TO FINGER EB1
0-2 ADD A WIRE FROM F138-13 TO EC1

REWORK INSTRUCTIONS ECO #2

WIRE ADDS SIDE 1:
1-1 ADD 30 A.W.G. WIRE FROM E145.10 TO E98.9
1-2 ADD 30 A.W.G. WIRE FROM E145.13 TO E98.10
1-3 ADD 30 A.W.G. WIRE FROM PTH ABOVE AND TO THE LEFT OF E144.14 TO E98.11
1-4 ADD 30 A.W.G. WIRE FROM E98.11 TO E32.12
1-5 ADD 30 A.W.G. WIRE FROM E38.8 TO E123.1

ETCH CUTS SIDE 1:
1-6 CUT ETCH AT E32.12

ETCH CUTS SIDE 2:
1-7 CUT ETCH AT E123.1
1-8 CUT ETCH AT PTH ABOVE E123.1
1-9 CUT ETCH AT PTH ABOVE AND TO THE RIGHT OF E144.14

REWORK INSTRUCTIONS PER ECO #3

COMPONENT DELETES
3-15 DELETE (P/N 1912863-00) FROM IC LOCATIONS E3, E27, E89 AND E102

COMPONENT ADDS
3-1 ADD A DELAY LINE (P/N 1616653-00) AT IC LOCATION E133 (LEFT JUSTIFIED)
3-16 ADD (P/N 1920442-01) AT IC LOCATIONS E3, E27, E89 AND E102

WIRE ADDS SIDE 1
3-2 ADD 30 A.W.G. WIRE FROM E3-10 TO E3-1
3-3 ADD 30 A.W.G. WIRE FROM E27-10 TO E27-1
3-4 ADD 30 A.W.G. WIRE FROM E89-10 TO E89-1
3-5 ADD 30 A.W.G. WIRE FROM E121-13 TO E133-1
3-6 ADD 30 A.W.G. WIRE FROM E121-13 TO PTH TO THE LEFT OF E110-14
3-7 ADD 30 A.W.G. WIRE FROM E133-3 TO E122-10
3-8 ADD 30 A.W.G. WIRE FROM SPARE IC LOCATION E133-7 TO SPARE IC LOCATION E133-8
3-9 ADD 30 A.W.G. WIRE FROM E65-15 TO THE PTH ABOVE AND BETWEEN DS1 AND DR1

ETCH CUTS SIDE 1
3-10 CUT ETCH AT PTH ABOVE E3-19
3-11 CUT ETCH AT PTH TO THE LEFT OF E89-1
3-12 CUT ETCH AT E121-13

ETCH CUTS SIDE 2
3-13 CUT ETCH AT E122-10
3-14 CUT ETCH AT PTH BELOW E27-20

REVISION HISTORY
DATE | ECO NUMBER | REV

TITLE: C1B
DOCUMENT NUMBER: E UA M7477-0-0 C
SCALE 2/1 SHEET 4 OF 4

AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	Qty PER VARIATION 00 / D1	REFERENCE DESIGNATOR
					VARIATION REVISION LEVEL:		
1	1	D-MD-5012795-0-0	5012795-00		CONSOLE INTERFACE BOARD	1	
2	2		1000016-00		100.0 MMF 100V 5%200PPM MICA	3	C70,C73,C74
3	3		1012084-01		8 MFD 25V +75-10% AL EL	7	C63-C69
4	4		1012784-00		.047 MFD 50V +80-20% CER	64	C1-C26,C28-C62,C71,C72,C75
5	5		1300247-00		120.0 .25 W 5.0 % CF	12	R37-R40,R119,R120,R123-R126,
							CONT R129,R130
6	6		1313469-00		240.0 .25 W 5.0 % CF	64	R1-R32,R139-R170
7	7		1300250-00		150.0 .25 W 5.0 % CF	8	R117,R118,R121,R122,R127,R128,
							CONT R131,R132
8	8		1301322-00		180.0 .25 W 5.0 % CF	5	R101,R108,R133,R135,R137
9	9		1301972-00		270.0 .25 W 5.0 % CF	32	R43-R74
10	10		1300309-00		390.0 .25 W 5.0 % CF	7	R41,R99,R102,R109,R134,R136,R138
11	11		1301424-00		680.0 .25 W 5.0 % CF	3	R36,R42,R100
12	12		1300365-00		1.0 K .25 W 5.0 % CF	34	R34,R75-R88,R91-R98,R103-R107,
							CONT R110-R115
13	13		1312930-00		5.10 K .25 W 5.0 % CF	2	R33,R116
14	14		1300479-00		10.0 K .25 W 5.0 % CF	1	R171
15	15		1302391-00		20.0 K .25 W 5.0 % CF	3	R35,R89,R90
16	16		1311003-01		R NETWORK 14-180 14-390 16PIN	3	E29,E43,E53
17	17		1300005-01		R NETWORK 13-1K 5.0 % 14PIN	1	E51
18	18		1511686-00		DEC5433 FET N 350MW 10 25 1A	8	Q1-Q8
19	19		1921305-01		74F00 NAND GATE,QUAD,2-IN	5	E24,E46,E119,E121,E123
20	20		1921306-01		74F02 NOR GATE,QUAD,2-IN	5	E12,E35,E95,E118,E134
21	21		1921307-01		74F04 HEX INVERTER	10	E16,E44,E47,E101,E105,E107,E111,
							CONT E114,E139,E146
22	22		1921308-01		74F08 AND GATE,QUAD,2-IN	2	E97,E129
23	23		1921309-01		74F10 NAND GATE,TRIPLE,3-I	1	E99
24	24		1921310-01		74F11 AND GATE,TRIPLE,3-IN	2	E55,E98
25	25		1921311-01		74F20 NAND GATE,DUAL,4-IN	2	E36,E132
26	26		1912813-00		LS27 NOR GATE-TRIPLE 3IN	1	E108

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A
JS	M7477-TW001	B
JS	M7477-TW003	C

BASIC PART NO: M7477

SECTION A OF A

SECTION.VARIATION INDEX

[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: D.FOURNIER	DATE: 21-MAR-84	D I G I T A L
CHK'D: T.MCCULLOUGH	DATE: 21-MAR-84	TITLE PARTS LIST CONSOLE INTERFACE BOARD (CIB)
DES.ENG: J.STICKNEY	DATE: 21-MAR-84	DOCUMENT NUMBER
RESP.ENG.: J.STICKNEY	DATE: 21-MAR-84	SIZE: K / CODE: PL / NUMBER: M7477-0-DBP / REV: C
MFG.ENG.: MIKE KRYZAK	DATE: 21-MAR-84	RELEASE DATE: 30-AUG-84
ASSEMBLY NUMBER: E-UA-M7477-0-0	TOP DOCUMENT NUMBER: B-DD-M7477-0-00	FILE NAME: Z3941C.PLS / EDIT #: 7

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LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION / VARIATION REVISION LEVEL:	QTY PER VARIATION 00 D1	REFERENCE DESIGNATOR
27	27		1921312-01		74F32 OR GATE,QUAD,2-IN	6	E10,E21-E23,E82,E131
28	28		1912746-01		74S37-1BUFFER-GATE	1	E66
29	29		1911712-00		74S51 AND-OR GATE-INVERT D	1	E122
30	30		1912820-00		LS51 A-O-I GATE 2-WIDE 2I	2	E110,E144
31	31		1921313-01		74F64 AND OR INVERT GATE,4-	3	E33,E142,E143
32	32		1921314-01		74F74 FF-D,DUAL,POS.,EDGE	7	E34,E81,E94,E109,E135,E145,E96
33	33		1912834-00		LS112 FF-JK,DUAL,EDGE TRIG	1	E130
34	34		1910436-00	DEC	74123 ONE SHOT-DUAL,RETRIG	1	E93
35	35		1912837-00		LS123 ONE SHOT-DUAL,RETRIG	2	E80,E112
36	36		1921316-01		74F138 DECODER/DEMUX,1-OF-8	1	E120
37	37		1921317-01		74F139 DECODER,DUAL,1-OF-4	3	E9,E11,E67
38	38		1921319-01		74F153 MUX,DUAL,4-IN	1	E78
39	39		1921320-01		74F157 MUX,QUAD,2-IN	8	E2,E15,E50,E63,E90,E91,E125,E136
40	40		1911330-00		74173 FF-D QUAD,TRISTATE	1	E106
41	41		1921323-01		74F174 FF-D,HEX	3	E17,E45,E83
42	42		1921324-01		74F175 FF-D,QUAD	2	E30,E140
43	43		1921328-01		74F251 MUX,8-IN	16	E6,E7,E18,E19,E31,E32,E64,E65,
							CONT E103,E104,E115,E116,E126,E127,
							CONT E137,E138
44	44		1921330-01		74F257 MUX,QUAD,2-IN	5	E14,E25,E61,E79,E100
45	45		1912863-00		LS273 FF-D OCTAL W/CLEAR	5	E38-E40,E117,E128
46	46		1910406-00		75451 DRIVER,PERIPH,DUAL,	3	E8,AE92,BE92
47	47		1913788-00		26S10 TRANSCEIVER,BUS,QUA	9	E1,E13,E26,E37,E48,E49,E62,E77,
							CONT E88
48	48		1911579-00		8641 TRANSCEIVER,BUS,QUA	1	E28
49	49		1921720-01		10H125 TRANSLATOR ECL TO TTL	2	E60,E76
50	50		1912730-00	DC	003 INTERRUPT,2 CIRCUIT	1	E20
51	51		1912729-00	DC	004 PROTOCOL,REG. SELECT	1	E4
52	52		1913040-00	DC	005 TRANSCEIVER 4BIT	4	E41,E42,E52,E54
53	53		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	
54	54		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	
55	55		1215006-03		SKT,IC 18PIN DIP TIN SOLD	16	XE56-XE59,XE68-XE75,XE84-XE87
56	56		23144F1-00		F1-01	1	E56
57	57		23145F1-00		F1-01	1	E68
58	58		23146F1-00		F1-01	1	E84
59	59		23147F1-00		F1-01	1	E72
60	60		23148F1-00		F1-01	1	E58
61	61		23149F1-00		F1-01	1	E70
62	62		23150F1-00		F1-01	1	E86
63	63		23151F1-00		F1-01	1	E74
64	64		23236F1-00		F1-01	1	E57
65	65		23237F1-00		F1-01	1	E69
66	66		23238F1-00		F1-01	1	E85
67	67		23239F1-00		F1-01	1	E73
68	68		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	
69	69		9009185-00		JUMPER, WIRE, INSULATED, BLACK B	1	W1
70	70		1616653-00		DELAY= 50NS,10TAPS WITH TTLBU	1	E133
71	71		1920442-01		74F374 FF-D,OCTAL,TRI-STATE	4	E3,E27,E89,E102

DIGITAL	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
	CONSOLE INTERFACE BOARD (CIB)	A OF A	K	PL	M7477-0-DBP	C

AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

SHEET A3 OF A3

LINE ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 00	QTY PER VARIATION D1	REFERENCE DESIGNATOR
				VARIATION REVISION LEVEL:			

72 NOTE: SPARE I.C. LOCATIONS ARE E5,E113,E124,E141

D I G I T A L	TITLE CONSOLE INTERFACE BOARD (CIB)	SECTION A OF A	SIZE K	CODE PL	DOCUMENT NUMBER M7477-0-DBP	REV C

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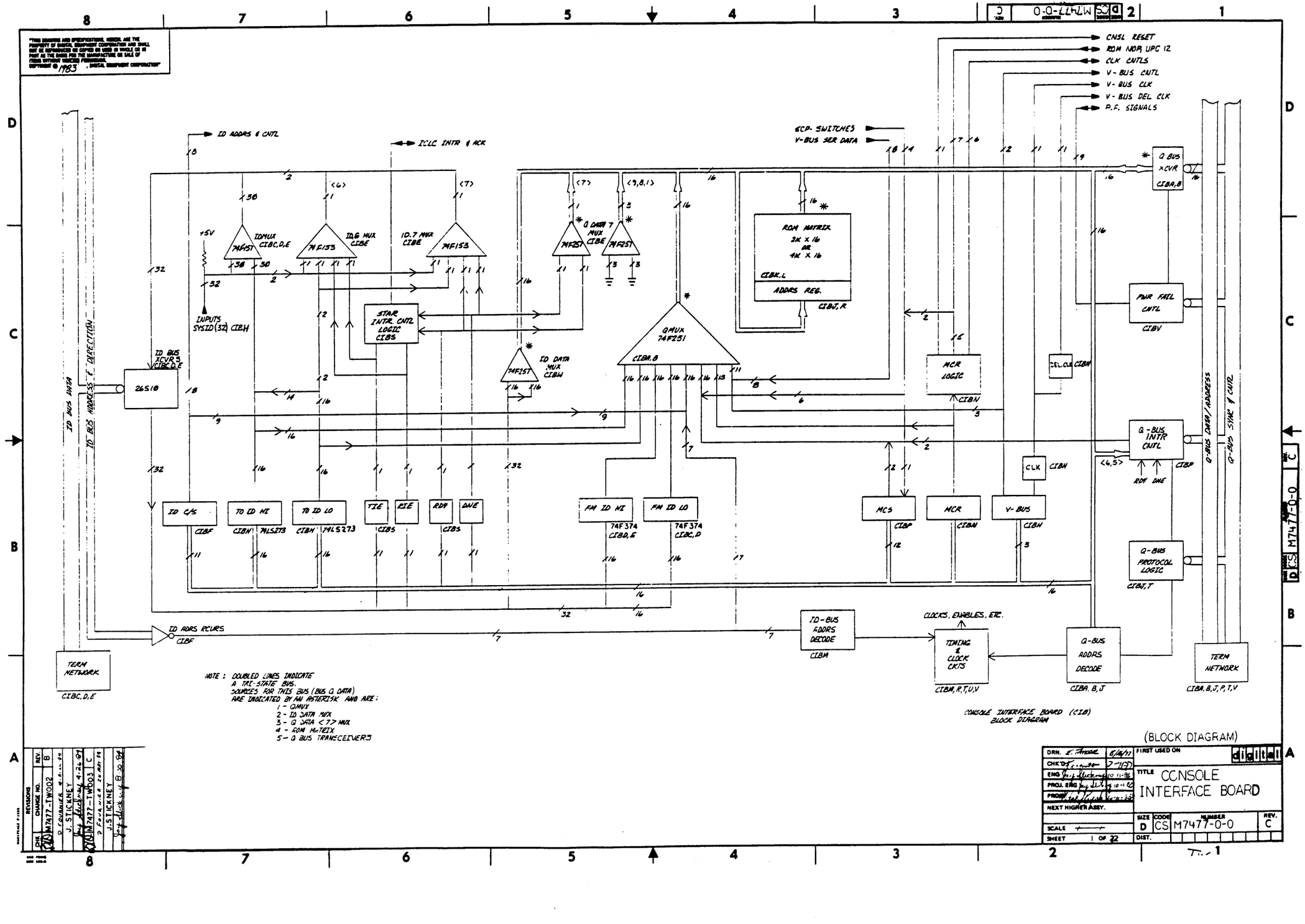

NOTE : DOUBLED LINES INDICATE A TRI-STATE BUS. SOURCES FOR THIS BUS (BUS Q DATA) ARE INDICATED BY AN ASTERISK AND ARE:
1 - QMUX
2 - ID DATA MUX
3 - Q DATA <7> MUX
4 - ROM MATRIX
5 - Q BUS TRANSCEIVERS

CONSOLE INTERFACE BOARD (CIB) BLOCK DIAGRAM

(BLOCK DIAGRAM)

REVISIONS		
CHK	CHANGE NO.	REV.
	M7477-TW002	B
Q. SCHREIBER 4-24-81		
J. STICKNEY		
	M7477-TW003	C
J. STICKNEY		

DRN. E. Arnaz	6/24/77	FIRST USED ON
CHK'D		digital
ENG		TITLE CONSOLE INTERFACE BOARD
PROJ. ENG		
PROJ.		
NEXT HIGHER ASSY.		
SCALE		SIZE D CODE CS NUMBER M7477-0-0 REV. C
SHEET 1 OF 22		DIST.

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CIBR QMUX STROBE L

CEMS SDMS CHNL 1 H
CIBN ATTN H
CIBN UPC 12 (1) H
CIBF ID ADRS 1 L
CIBE FM IDHI 09 H
CIBD FM IDLO 09 H
CIBH TO IDHI 09 H
CIBH TO IDLO 09 H

USCS SDMS CHNL D H
CIBN RUN (1) H
CIBN STAR INITR DIAG-B H
CIBF ID ADRS B L
CIBE FM IDHI 0B H
CIBD FM IDLO 0B H
CIBH TO IDHI 0B H
CIBH TO IDLO 0B H

CIBV CPT 2 H
CIBP CMSL ACK H
CIBN RCM NOP H
CIBF ID MAINT (1) H
CIBD FM IDHI 07 H
CISC FM IDLO 07 H
CIBH TO IDHI 07 H
CIBH TO IDLO 07 H

CIBN SDMS LOAD (1) H
SCPA REMOTE H
CIBN SBC H
CIBF XMT ADRS 1 H
CIBD FM IDHI 01 H
CIBC FM IDLO 01 H
CIBH TO IDHI 01 H
CIBH TO IDLO 01 H

74F251 E104 · 74F251 E103 · 74F251 E65 · 74F251 E7

CIBR QMUX SEL 2 H
CIBR QMUX SEL 1 H
CIBR QMUX SEL 0 H

FUNCTION TABLE 74F251

INPUTS				OUTPUTS	
SELECT			STROBE		
C	B	A	S	Y	W
X	X	X	H	Z	Z
L	L	L	L	D0	D0
L	L	H	L	D1	D1
L	H	L	L	D2	D2
L	H	H	L	D3	D3
H	L	L	L	D4	D4
H	L	H	L	D5	D5
H	H	L	L	D6	D6
H	H	H	L	D7	D7

H = HIGH LEVEL, L = LOW LEVEL
X = IRRELEVANT, Z = HIGH IMPEDENCE (OFF)
D0, D1 .... D7 = THE LEVEL OF THE RESPECTIVE D INPUT

CIBP VECTOR H
CIBT XMT RPLY H
CIBT INWD L
CIEA MATCH H

DC005 E91

BUS QDATA 09 H
BUS QDATA 08 H
BUS QDATA 07 H
BUS QDATA 01 H

+5V

BMI · BMI · BMI · BMI
BDAL 09 L
BDAL 08 L
BDAL 07 L
BDAL 01 L

E43

CIBR QMUX STROBE L

CIBV CPT 33 H
CIBP RDY INTR ENAB H
CIBV SUMM H
CIBF XMT WRITE H
CIBD FM IDHI 06 H
CIBC FM IDLO 06 H
CIBH TO IDHI 06 H
CIBH TO IDLO 06 H

CIBV CPT 66 H
CIBP DME INTR ENAB H
CLKN STOPPED H
CIBF XMT ADRS 5 H
CIBD FM IDHI 05 H
CIBC FM IDLO 05 H
CIBH TO IDHI 05 H
CIBH TO IDLO 05 H

CIBH SDMS SUFFIX (1) H
SCPA AUTO-RESTART H
CIBN SIS H
CIBF XMT ADRS 2 H
CIBD FM IDHI 02 H
CIBC FM IDLO 02 H
CIBH TO IDHI 02 H
CIBH TO IDLO 02 H

SCPA LOCK H
CIBF XMT ADRS 0 H
CIBD FM IDHI 00 H
CIBC FM IDLO 00 H
CIBH TO IDHI 00 H
CIBH TO IDLO 00 H

74F251 E64 · 74F251 E32 · 74F251 E18 · 74F251 E6

DC005 CONTROL

RECEIVE	TRANSMIT	MODE
L	L	DISABLE: BUS, DATA HI-Z
L	H	XMT: BUS ← DATA
H	L	RCV: DATA ← BUS
H	H	RCV: DATA ← BUS

NOTE: ALL UNMARKED RESISTORS ARE DIP LSI-11 BUS TERMINATORS PART NO. 15-11003-01 (VALUES ARE 180Ω TO +5V AND 390Ω TO GND

CIBP VECTOR H
CIBP VECTOR B H
CIBR QBUS XMT H
CIBT INWD L
CIBA MATCH H

DC005 E92

BUS QDATA 06 H
BUS QDATA 05 H
BUS QDATA 02 H
BUS QDATA 00 H

+5V

BDAL 06 L
BDAL 05 L
BDAL 02 L
BDAL 00 L

E29 · E23

BBS7 L

(QMUX<9:5>, 2,1,0 QBUS TRANSCEIVERS (SLOT 29))

REVISIONS

CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBA)	D	CS	M7477-0-0	C
SCALE —	SHEET 2 OF 22	DIST.		

M7477-0-0 REV C DIST CODE DS

TM 1

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CIBR QMUX STROBE L

SDMS CHNL 7 H
CLKW CLK PHASE ERR L
CIBV HALT REQ H
CIBF ID CYCLE (1) H
CIBE FM IDWI 15 H
CIBD FM IDLO 15 H
CIBH TO IDWI 15 H
CIBH TO IDLO 15 H
DMI
ECI
DI7 DI6 DI5 DI4 DI3 DI2 DI1 DI0
74F251 E138
STB
F0 F1
S2 S1 S0

(SLOT 28) ACC SDMS CHNL 6 H
CIBF RCV WRITE H
CIBE FM IDWI 14 H
CIBD FM IDLO 14 H
CIBH TO IDWI 14 H
CIBH TO IDLO 14 H
DB2
74F251 E137

CIBV FRQ H
CIBF XMT ADRS 3 H
CIBE FM IDWI 03 H
CIBC FM IDLO 03 H
CIBH TO IDWI 03 H
CIBH TO IDLO 03 H
74F251 E119

SBCV SDMS CHNL 5 H
CLKJ SBI T2 H
CIBF ID ADRS 5 L
CIBE FM IDWI 13 H
CIBD FM IDLO 13 H
CIBH TO IDWI 13 H
CIBH TO IDLO 13 H
DB2
EBI
74F251 E127

CIBR QMUX SEL 2 H
CIBR QMUX SEL 1 H
CIBR QMUX SEL 0 H

CIBR QBUS XMT H
CIBJ INWD L
DC005 E54
JA3 JA2 JA1 JV3 JV2 JV1 XMT RCV MENB
D3 D2 D1 D0 B3 B2 B1 B0

BUS Q DATA 15 H
BUS Q DATA 14 H
BUS Q DATA 3 H
BUS Q DATA 13 H
+5V
E45
BV2 BV1 BV0
BDAL 15 L
BDAL 14 L
BDAL 03 L
BDAL 13 L

CIBR QMVA STROBE L

CAMN SDMS CHNL 4 H
CIBP FLOPPY SW (1) H
CIBN CUSL RESET H
CIBF ID ADRS 4 L
CIBE FM IDWI 12 H
CIBD FM IDLO 12 H
CIBH TO IDWI 12 H
CIBH TO IDLO 12 H
DB2
74F251 E126

TBMV SDMS CHNL 3 H
CIBP BOOT (1) H
CIBF ID ADRS 3 L
CIBE FM IDWI 11 H
CIBD FM IDLO 11 H
CIBH TO IDWI 11 H
CIBH TO IDLO 11 H
74F251 E116

DAPR GDMS CHNL 2 H
CIBU MAINT RTN EN (1) H
CIBF ID ADRS 2 L
CIBE FM IDWI 10 H
CIBH TO IDWI 10 H
CIBH TO IDLO 10 H
74F251 E115

CIBV CPT 99 H
CIBU FR1 H
CIBF XMT ADRS 4 H
CIBD FM IDWI 04 H
CIBC FM IDLO 04 H
CIBH TO IDWI 04 H
CIBH TO IDLO 04 H
74F251 E31

W1 19 JA3 2 JA2 1 JA1 16 JV3 15 JV2 14 JV1
CIBR QBUS XMT H
CIBJ INWD L
DC005 E52
5 XMT 4 RCV 13 MENB
D3 D2 D1 D0 B3 B2 B1 B0 M
CIBA MATCH H

BUS Q DATA 12 H
BUS Q DATA 11 H
BUS Q DATA 10 H
BUS Q DATA 04 H
+5V
E53
BV3 BV2 BV1 BV0
BDAL 12 L
BDAL 11 L
BDAL 10 L
BDAL 04 L

W1 INSTALLED : ADRS = 1730 XX
W1 REMOVED : ADRS = 1630 XX
VECTOR ADRS = 300, 304

QMUX <15:10>, 43 QBUS TRANSCEIVERS (SLOT 29))

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE CONSOLE INTERFACE BOARD (CIBB)	SIZE D	CODE CS	NUMBER M7477-0-0 REV. C
SCALE	SHEET 3 OF 22	DIST.	

M7477-0-0 REV. C

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CIBH SYSID SW 13 H
CIBH TO IDLO 13 H
CIBH SYSID SW 12 H
CIBH TO IDLO 12 H
74F157 E91
CIBC ID 13 MUX H (CIBD)
CIBC ID 12 MUX H (CIBD)

CIBH SYSID SW 11 H
CIBH TO IDLO 11 H
CIBH SYSID SW 10 H
CIBH TO IDLO 10 H
74F157 E90

CIBH SYSID SW 09 H
CIBH TO IDLO 09 H
CIBH SYSID SW 08 H
CIBH TO IDLO 08 H
CIBH SYSID SW 05 H
CIBH TO IDLO 05 H
CIBH SYSID SW 04 H
CIBH TO IDLO 04 H
74F157 E63

CIBH SYSID SW 03 H
CIBH TO IDLO 03 H
CIBH SYSID SW 02 H
CIBH TO IDLO 02 H
CIBH SYSID SW 01 H
CIBH TO IDLO 01 H
CIBH SYSID SW 00 H
CIBH TO IDLO 00 H
74F157 E50
IIBM ID MUX SEL L

STB S2
STB S3
STB S4
STB S5

26S10 E62
CIBC RCV ID D11 H (CIBD.W)
CIBC RCV ID D10 H (CIBD.W)
CIBC RCV ID D09 H (CIBD.W)
CIBC RCV ID D08 H (CIBD.W)
5V
R139 240Ω R140 240Ω R141 240Ω R142 240Ω R1 240Ω R2 240Ω R3 240Ω R4 240Ω
CM2 BUS ID D11 L
CM2 BUS ID D10 L
CM1 BUS ID D09 L
CM2 BUS ID D08 L
R43 270Ω R44 270Ω R45 270Ω R46 270Ω

26S10 E49
CIBC RCV ID D05 H (CIBW)
CIBC RCV ID D04 H (CIBW)
5V
R143 240Ω R144 240Ω R5 240Ω R6 240Ω
CM2 BUS ID D05 L
CM1 BUS ID D04 L
R47 270Ω R48 270Ω

26S10 E48
CIBC RCV ID D03 H (CIBW)
CIBC RCV ID D02 H (CIBW)
CIBC RCV ID D01 H (CIBW)
CIBC RCV ID D00 H (CIBW)
5V
R145 240Ω R146 240Ω R147 240Ω R148 240Ω R7 240Ω R8 240Ω R9 240Ω R10 240Ω
CE2 BUS ID D03 L
CE1 BUS ID D02 L
CM2 BUS ID D01 L
CA1 BUS ID D00 L
R49 270Ω R50 270Ω R51 270Ω R52 270Ω
IIBM ID ENDAT ALL L

CIBE RCV ID D07 H
CIBE RCV ID D06 H
74F374 E27
CIBC FM IDLO 07 H (CIBA)
CIBC FM IDLO 06 H (CIBA)
CIBC FM IDLO 05 H (CIBA)
CIBC FM IDLO 04 H (CIBB)
CIBC FM IDLO 03 H (CIBB)
CIBC FM IDLO 02 H (CIBA)
CIBC FM IDLO 01 H (CIBA)
CIBC FM IDLO 00 H (CIBA)
IIBU CLK FM ID H

-26S10-

EN	D	B	R
L	L	H	L
L	H	L	H
H	X	Y	Y

X = DON'T CARE
Y = BUS STATE WHILE CONTROLLED BY ANOTHER 26S10

REVISIONS

CHK	CHANGE NO.	REV.

ID MUX<13:00>, ID BUS<11:08>, <05:00> FROM ID LO <07:00> (SLOT 29))

TITLE CONSOLE INTERFACE BOARD (CIBC)
SIZE D CODE CS NUMBER M7477-0-0 REV. C
SCALE — SHEET 4 OF 22 DIST.

SIZE CODE DCS NUMBER M7477-0-0 REV. C

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CIBH SYSID SW 25 H
CIBH TO IDHI 09 H
CIBH SYSID SW 24 H
CIBH TO IDHI 08 H
74F157 E136
CIBD ID 25 MUX H (CIBE)
CIBD ID 24 MUX H (CIBE)
STB S0

CIBH SYSID SW 23 H
CIBH TO IDHI 07 H
CIBH SYSID SW 22 H
CIBH TO IDHI 06 H
74F157 E15
STB S0

CIBH SYSID SW 21 H
CIBH TO IDHI 05 H
CIBH SYSID SW 20 H
CIBH TO IDHI 04 H
74F157 E15
STB S0

CIBH SYSID SW 19 H
CIBH TO IDHI 03 H
CIBH SYSID SW 18 H
CIBH TO IDHI 02 H
74F157 E2
STB S0

CIBH SYSID SW 17 H
CIBH TO IDHI 01 H
CIBH SYSID SW 16 H
CIBH TO IDHI 00 H
74F157 E2
STB S0

CIBH SYSID SW 15 H
CIBH TO IDLO 15 H
CIBH SYSID SW 14 H
CIBH TO IDLO 14 H
74F157 E90
STB S0

CIBH ID MUX SEL L

CIBD RCV ID D23 H (CIBW)
CIBD RCV ID D22 H (CIBW)
CIBD RCV ID D21 H (CIBW)
CIBD RCV ID D20 H (CIBW)
26S10 E13
5V
R149 240Ω R150 240Ω R151 240Ω R152 240Ω R11 240Ω R12 240Ω R13 240Ω R14 240Ω
BUS ID D23 L
BUS ID D22 L
BUS ID D21 L
BUS ID D20 L
R53 270Ω R54 270Ω R55 270Ω R56 270Ω

CIBD RCV ID D19 H (CIBW)
CIBD RCV ID D18 H (CIBW)
CIBD RCV ID D17 H (CIBW)
CIBD RCV ID D16 H (CIBW)
26S10 E1
5V
R153 240Ω R154 240Ω R155 240Ω R156 240Ω R15 240Ω R16 240Ω R17 240Ω R18 240Ω
BUS ID D19 L
BUS ID D18 L
BUS ID D17 L
BUS ID D16 L
R57 270Ω R58 270Ω R59 270Ω R60 270Ω

CIBD RCV ID D15 H (CIBW)
CIBD RCV ID D14 H (CIBW)
CIBD RCV ID D13 H (CIBW)
CIBD RCV ID D12 H (CIBW)
26S10 E88
5V
R157 240Ω R158 240Ω R159 240Ω R160 240Ω R19 240Ω R20 240Ω R21 240Ω R22 240Ω
BUS ID D15 L
BUS ID D14 L
BUS ID D13 L
BUS ID D12 L
R61 270Ω R62 270Ω R63 270Ω R64 270Ω

CIBC ID 13 MUX H
CIBC ID 12 MUX H
CIBM ID ENDAT ALL L

74F374 E3
CIBD FM IDHI 07 H (CIBA)
CIBD FM IDHI 06 H (CIBA)
CIBD FM IDHI 05 H (CIBA)
CIBD FM IDHI 04 H (CIBB)
CIBD FM IDHI 03 H (CIBB)
CIBD FM IDHI 02 H (CIBA)
CIBD FM IDHI 01 H (CIBA)
CIBD FM IDHI 00 H (CIBA)
CI2U CLK FM ID H

74F374 E89
CIBD FM IDLO 15 H (CIBA)
CIBD FM IDLO 14 H (CIBB)
CIBD FM IDLO 13 H (CIBB)
CIBD FM IDLO 12 H (CIBB)
CIBD FM IDLO 11 H (CIBB)
CIBD FM IDLO 10 H (CIBB)
CIBD FM IDLO 09 H (CIBA)
CIBD FM IDLO 08 H (CIBA)
CIBC RCV ID D11 H
CIBC RCV ID D10 H
CIBC RCV ID D09 H
CIBC RCV ID D08 H
CI3U CLK FM ID H

(ID MUX<25:14>ID BUS<23:12>,FRCM ID HI<07:00>,FRCM ID LO<15:08>) (SLOT 29)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBD)	D	CS	M7477-0-0	C
SCALE	SHEET 5 OF 22	DIST.		

M7477-0-0 REV C

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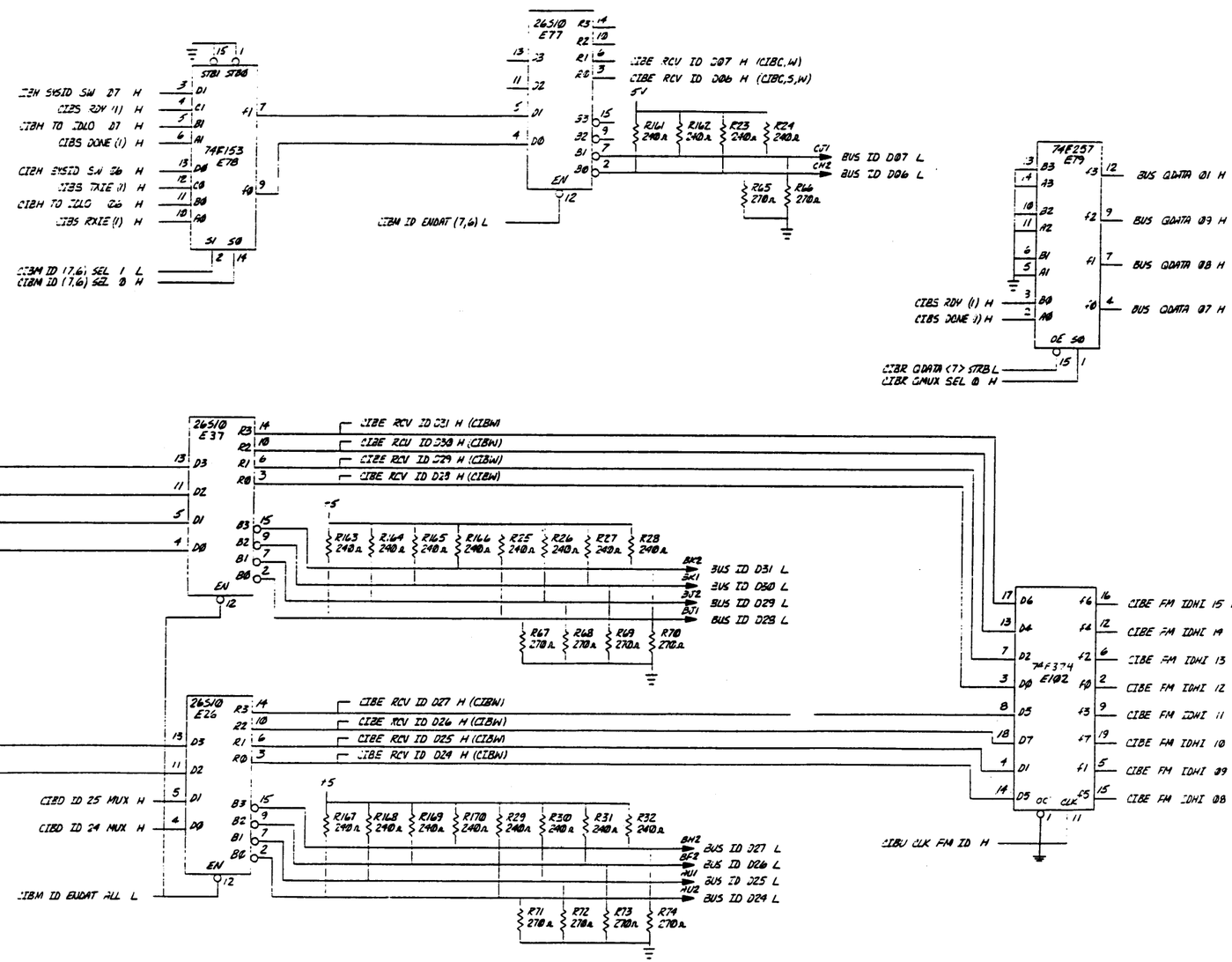
-74F153-
FUNTION TABLE

SELECT INPUT		DATA INPUTS				STROBE	OUTPUT
B	A	C0	C1	C2	C3	G	Y
X	X	X	X	X	X	H	L
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
L	H	X	L	X	X	L	L
L	H	X	H	X	X	L	H
H	L	X	X	L	X	L	L
H	L	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

SELECT INPUTS A AND B ARE COMMON TO BOTH SECTIONS.
H = HIGH LEVEL L = LOW LEVEL
X = IRRELEVANT



(ID <7:6> MUX, ID MUX <31:26>, ID BUS <31:24>, 7, 6 FROM ID HI <15:08>, QDATA <7> MUX (SLOT 29))

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBE)	D	CS	M7477-0-0	C
SCALE —	SHEET 6 OF 22	DIST.		

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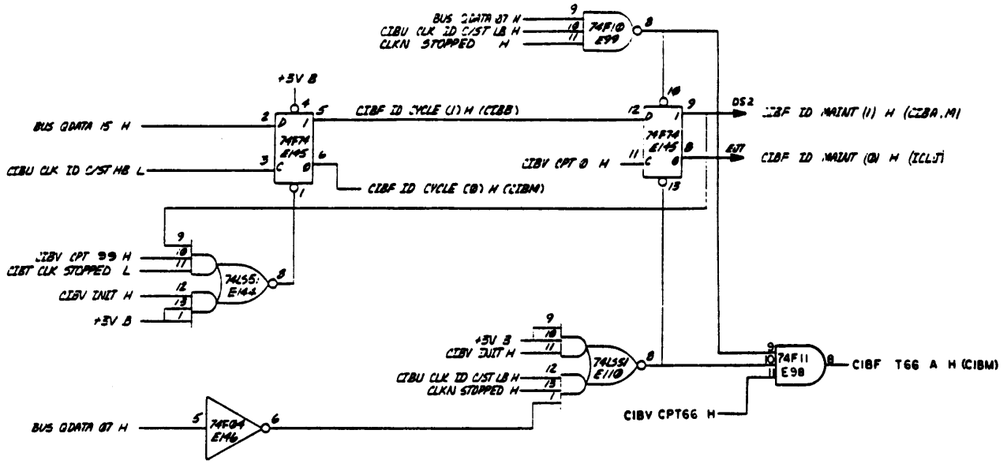

REVISIONS		
CHK	CHANGE NO.	REV.

(SLOT 29)
(ID CONTROL/STATUS REG ID ADRS/CONTROL RECEIVERS)

TITLE	SIZE	CODE	NUMBER	REV.
CONSCLE (CIBF) INTERFACE BOARD	D	CS	M7477-0-0	C
SCALE	SHEET 7 OF 22	DIST.		

M7477-0-0 REV C

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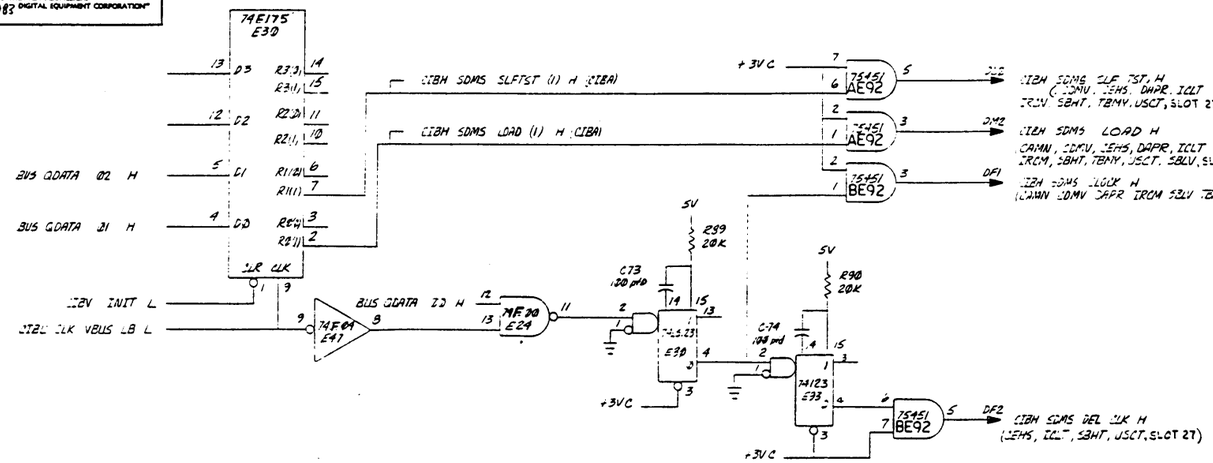

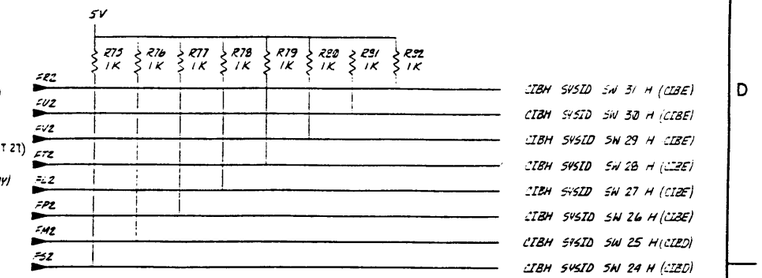

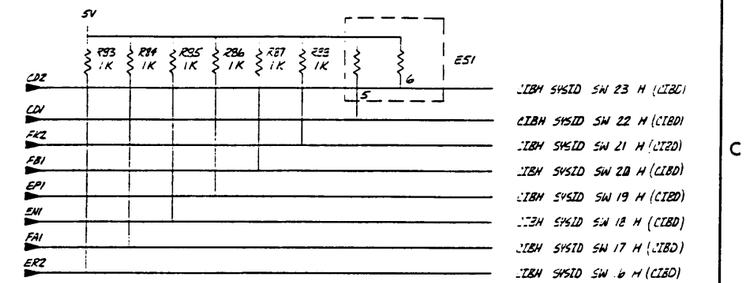

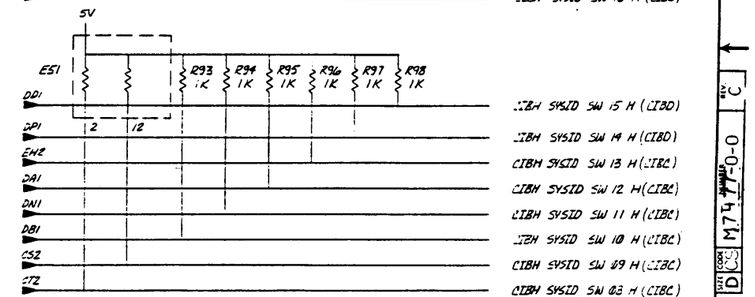

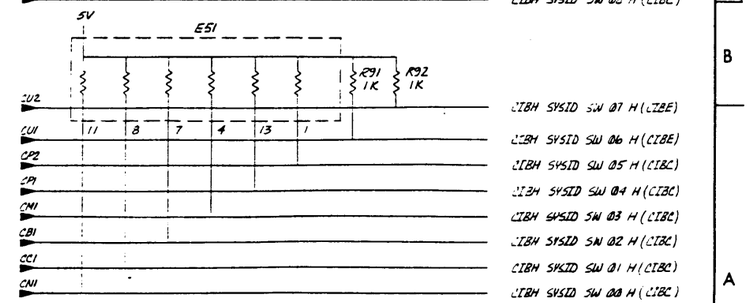

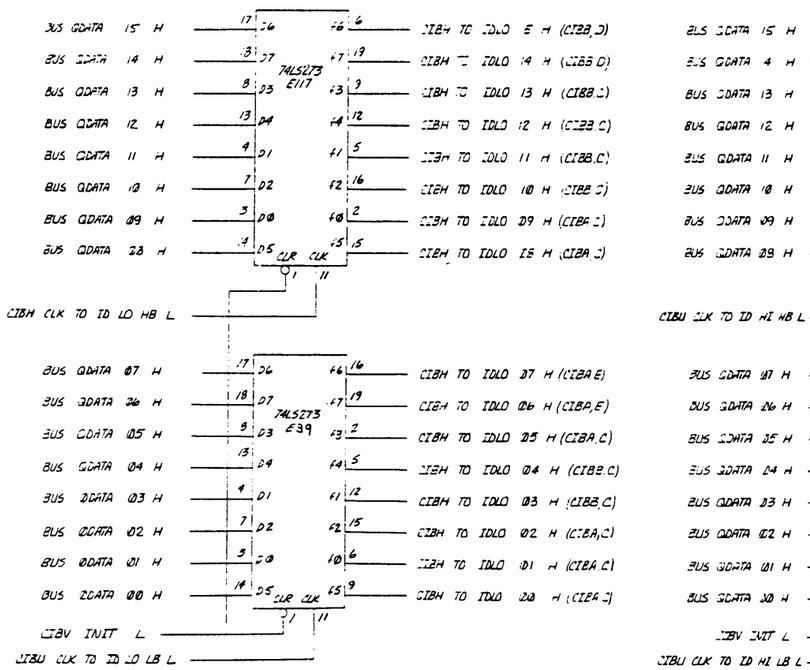

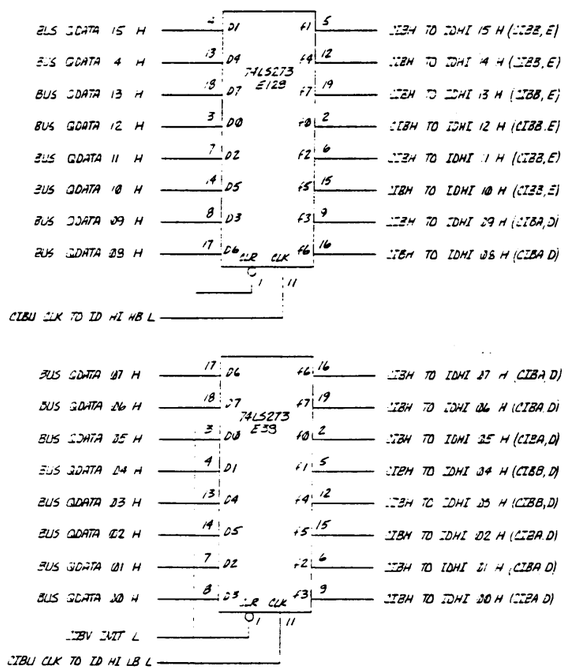

(TO ID LO, HI REGS. SYSTEM ID REG. VBUS CONTROL (SLOT 29))

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBH)	D	CS	M7477-0-0	C
SCALE	SHEET 2 OF 22		DIST.	

M7477-0-0 REV C
STATE CODE D CS

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74F174 E83

BUS QDATA 12 H
BUS QDATA 11 H
BUS QDATA 10 H
BUS QDATA 09 H
BUS QDATA 08 H
BUS QDATA 07 H
CIBV INIT L

D2 R2(1) → CIBJ LADRS 12 H (CIBR)
D3 R3(1) → CIBJ LADRS 11 H (CIBR)
D4 R4(1) → CIBJ LADRS 10 H (CIBR)
D5 R5(1) → CIBJ LADRS 09 H (CIBR)
D0 E8(1) → CIBJ LADRS 08 H (CIBK,L)
D1 R1(1) → CIBJ LADRS 07 H (CIBK,L)
CLR CLK

74F174 E45

BUS QDATA 06 H
BUS QDATA 05 H
BUS QDATA 04 H
BUS QDATA 03 H
BUS QDATA 02 H
BUS QDATA 01 H

D2 R2(1) → CIBJ LADRS 06 H (CIBK,L)
D1 R1(1) → CIBJ LADRS 05 H (CIBK,L)
D0 R0(1) → CIBJ LADRS 04 H (CIBK,L,R)
D5 R5(1) → CIBJ LADRS 03 H (CIBK,L,R)
D4 R4(1) → CIBJ LADRS 02 H (CIBJ,K,L,R)
D3 R3(1) → CIBJ LADRS 01 H (CIBJK,L,R)
CLR CLK

BUS QDATA 13 H → 74F04 E111
BUS QDATA 14 H, BUS QDATA 15 H → 74F11 E98

+3V B → 74F74 E96 (D, C)
CIBV INIT L, CIBJ INWID L → 74F02 E12
74F04 E16 (BUS QDATA 04 H, 03 H, 00 H)

S1, E29, 3691 E28, BSYNC L A12

BW7BT L A12
BDOUT L A02
BDIN L A02

CIBA MATCH H
+5V: R107 1K, R33 5K, C70 100 pf

DC004 E4
ENA SYNC, BACK REPLY, DA2 DA1 DA0, SEL6 SEL4 SEL2 SEL0, W7BT, DOUT, DIN, VEC

CIBJ TRPLY L (CIBK,T)

NOTE: SEE PAGE CIBN FOR DC004 TRUTH TABLE

OUTH, OUTL, INWID →
CIBJ OUTHB L (CIBJ)
CIBJ OUTLB L (CIBJ)
CIBJ INWID L (CIBA,B,R,T)

-74F139-
EACH DECODER / DEMULTIPLEXER
FUNCTION TABLE

INPUTS			OUTPUTS			
ENABLE	SELECT					
G	B	A	Y0	Y1	Y2	Y3
H	X	X	H	H	H	H
L	L	L	L	H	H	H
L	L	H	H	L	H	H
L	H	L	H	H	L	H
L	H	H	H	H	H	L

H = HIGH LEVEL L = LOW LEVEL
X = IRRELEVANT

74F139 E11

FA0 FA1 FA2 FA3 FB0 FB1 FB2 FB3
A1 B1 A2 B2 ENB1 ENB2

CIBJ GATE ROM H (CIBR,T)
CIBJ GATE ROM L (CIBR)
CIBJ SEL ROM 0 L (CIBR)
CIBJ SEL ROM 1 L (CIBR)
CIBJ SEL ID DATA LO L (CIBR,N)
CIBJ SEL ID DATA HI L (CIBR)
CIBJ SEL DONE L (CIBR,U)
CIBJ SEL RDY L (CIBR,U)
CIBJ SPARE H (CIBT)

74F139 E9

CIBJ SEL TO IDLO L (CIBH,U)
CIBJ SEL TO IDHI L (CIBH,U)
CIBJ SEL ID CAST L (CIBU)
CIBJ SEL MCR L (CIBU)
CIBJ SEL MCS L (CIBU)
CIBJ SEL VBUS L (CIBU)

(SLOT 29)
(RCIM ADRS DECODE LATCH ADRS BITS <12:01> (BUS REG SELECTS)

REVISIONS
CHK | CHANGE NO. | REV.

TITLE CONSOLE INTERFACE BOARD (CIBJ)
SIZE D CODE CS NUMBER M7477-0-0 REV C
SCALE — SHEET 9 OF 22 DIST.

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BUS IDATA 15 H
BUS IDATA 14 H
BUS IDATA 13 H
BUS IDATA 12 H
BUS IDATA 11 H
BUS IDATA 10 H
BUS IDATA 09 H
BUS IDATA 08 H
BUS GDATA 07 H
BUS GDATA 06 H
BUS GDATA 05 H
BUS GDATA 04 H
BUS GDATA 03 H
BUS GDATA 02 H
BUS GDATA 01 H
BUS GDATA 00 H

IIBR ROMAD 10 H
IIBR ROMAD 09 H
IIBJ LADRS 08 H
IIBJ LADRS 07 H
IIBJ LADRS 06 H
IIBJ LADRS 05 H
IIBJ LADRS 04 H
IIBJ LADRS 03 H
IIBJ LADRS 02 H
IIBJ LADRS 01 H

23-151 F1 E74
23-150 F1 E56
23-149 F1 E70
23-148 F1 E58
23-159 F1 E75
23-158 F1 E97
23-157 F1 E71
23-156 F1 E59

IIBR ROM ENB L
IIBR BNK 1 ENB L
IIBR BNK 3 ENB L

RCM MATRIX (SLOT 29))

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBK)	D	CS	M7477-0-0	C
SCALE	SHEET 10 OF 22	DIST.		

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BUS QDATA 15 H
BUS QDATA 14 H
BUS QDATA 13 H
BUS QDATA 12 H
BUS QDATA 11 H
BUS QDATA 10 H
BUS QDATA 09 H
BUS QDATA 08 H
BUS QDATA 07 H
BUS QDATA 06 H
BUS QDATA 05 H
BUS QDATA 04 H
BUS QDATA 03 H
BUS QDATA 02 H
BUS QDATA 01 H
BUS QDATA 00 H

CIBR ROMAD 10 H
CIBR ROMAD 09 H
CIBJ LADRS 08 H
CIBJ LADRS 07 H
CIBJ LADRS 06 H
CIBJ LADRS 05 H
CIBJ LADRS 04 H
CIBJ LADRS 03 H
CIBJ LADRS 02 H
CIBJ LADRS 01 H

23-147F1 E72
23-146F1 E84
23-145F1 E68
23-144F1 E56
23-238F1 E73
23-238F1 E85
23-237F1 E69
23-236F1 E57

CIBR ROM ENB L
CIBR BNK 0 ENB L
CIBR BNK 2 ENB L

ROM MATRIX (SLOT 29))

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBL)	D	CS	M7477-0-0	C
SCALE	SHEET 11 OF 22	DIST.		

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-74F138-
FUNCTION TABLE

INPUTS					OUTPUTS							
ENABLE		SELECT										
G1	G2	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
X	H	X	X	X	H	H	H	H	H	H	H	H
L	X	X	X	X	H	H	H	H	H	H	H	H
-	L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	H	H	L	H	H	H	H	H	H
H	L	L	H	L	H	H	L	H	H	H	H	H
H	L	L	H	H	H	H	H	L	H	H	H	H
H	L	H	L	L	H	H	H	H	L	H	H	H
H	L	H	L	H	H	H	H	H	H	L	H	H
H	L	H	H	L	H	H	H	H	H	H	L	H
H	L	H	H	H	H	H	H	H	H	H	H	L

*G2 = G2A + G2B
H = HIGH LEVEL
L = LOW LEVEL
X = IRRELEVANT

CIBF ID ADRS 2 L
CIBF ID ADRS 1 L
CIBF ID ADRS 0 L
CIBF ID ADRS 4 L
CIBF ID ADRS 3 L
CIBF ID ADRS 5 L
74F138 E120
74F20 E121
CIBM SYSID DECODE _ (CIBM)
CIBM RXCS DECODE L (CIBM)
CIBM TO ID DECODE L (CIBM)
CIBM TXCS DECODE _ (CIBM)
CIBM FM ID DECODE L (CIBM)
74F20 E132
74F64 E149
CIBM ID EN CAT(7,6) L (CIBE)
74F30 E121
CIBF RCV WRITE H
74F04 E111
CIBM ID WRITE L (CIBS,U)
CIBV CPT 0 L
74F00 E121
CIBV CPT T66 L
CIBF XMT WRITE H
CIBF ID MAINT (1) H
+3VB
74F64 E142
CIBM ID EVDAT ALL L (CIBC,D,E)

CIBF T66 A H
CIBF RCV WRITE H
74F08 E123
CIBM TXCS DECODE L
74F32 E82
CIBM CLK TXIE L (CIBS)
CIBM RXCS DECODE L
74F32 E82
CIBM CLK RXIE L (CIBS)
CIBM SYSID DECODE L
74F02 E118
CIBM ID MUX SEL L (CIBC,D,E)
CIBF ID ADRS 2 L
74F00 E123
CIBM ID (7,6) SEL 0 H (CIBE)
CIBF ID ADRS 1 L
74F02 E118
CIBM ID (7,6) SEL 1 L (CIBE)
74F04 E111
+3VB
CIBF XMT WRITE L
CIBF ID MAINT (0) H
CIBF ID CYCLE (0) H
74LS51 E144

ADRS 0	NAME	ID (7,6) SEL 1 L	ID (7,6) SEL 0 H	ID MUX SEL L
03	SYSID	H	H	H
04	RXCS	L	L	L
05	TO ID	L	H	L
06	TXCS	H	L	L
07	FM ID	X	X	L

(SLOT 29)
(ID BUS DATA ENABLES, ID REG ADRS DECODE, ID MUX SELECT, CLOCKS)

REVISIONS

CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBM)	D	CS	M7477-0-0	C
SCALE	SHEET 12 OF 22	DIST.		

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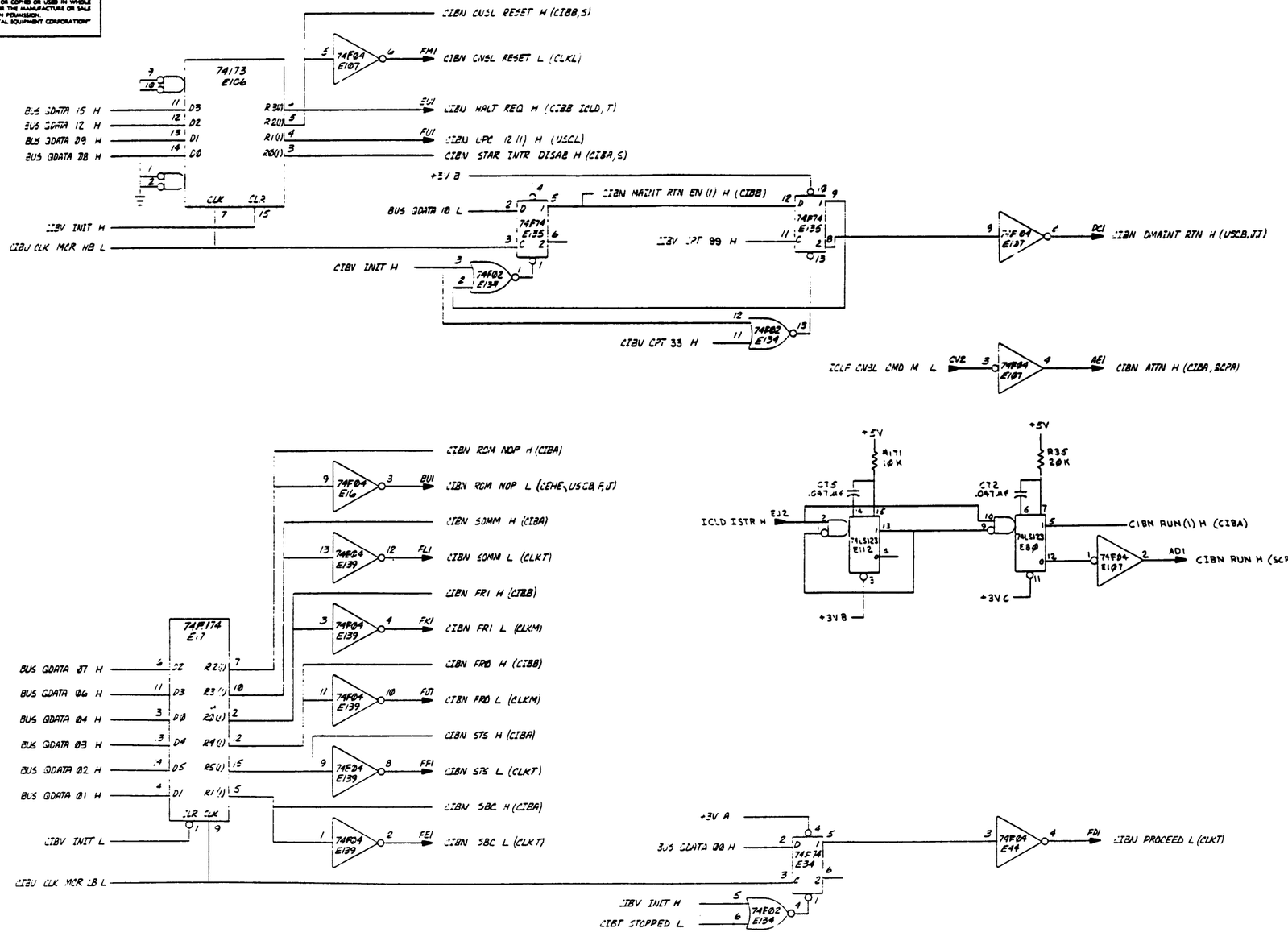

REVISIONS		
CHK	CHANGE NO.	REV.

(MACHINE CONTROL REG; RUN AND ATTENTION INDICATORS (SLOT 29))

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIEJ)	D	CS	M7477-0-0	C
SCALE	SHEET 13 OF 22	DIST.		

M7477-0-0 REV C
SIZE D CODE CS NUMBER M7477-0-0

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ICLF CNSL ACK L — EF1 — 13 — 74F04 E107 — 12 — CIBP CNSL ACK H (CIBA)

74F175 E140
BUS QDATA 12 H — 1 — 74F04 E146 — 2 — 4 — D0
CIBV INIT L — CLR
CIBU CLK MCS HB L — CLK
D3 — 13 — R3(1) 15, R3(0) 14
D2 — 12 — R2(1) 10, R2(0) 11
D1 — 5 — R1(1) 7, R1(0) 6
D0 — R0(1) 2, R0(0) 3

R0(1) — CIBP FLOPPY ON (1) H (CIBB)
+3V A — 2 — 75451 E8 — 3 — AB1 — CIBP FLOPPY ON H
+5V — R37 120Ω, R38 120Ω — R39 120Ω, R40 120Ω — +5V

+3V B — 2 — 74F74 E96 — 5 — CIBP BOOT (1) H (CIBB)
SCPA BOOT SW H — AA1 — R36 680Ω — C71 .047 µf
+3V B — 13 — 74F28 E97 — 11 — 3 — C
74F74 E96 — Q — 6 — 1
+3V B — 5
CIBV INIT H — 4
CIPU CLK MCS HB H — 3 — 74S51 E122 — 6
BUS QDATA 11 H — 2

+5V — R99 330Ω — AM2 — BIAKI L
BIINT L — BS1 — E43 — R100 680Ω

CIBS RDY (8) H — 17 — RQST A
BUS QDATA 06 H — 15 — ENA D
CIBU CLK MCS LB L — 14 — ENA C
7 — IAK
5 — INIT
3 — DIN
13 — ENB C
12 — ENB D
10 — RQST B
DC003 E20
ENA ST — 16 — CIBP RDY INTR ENAB H (CIBA)
IRQ — 8 — AL2 — BIRQ L
IAKO — 6 — AR2 — BIAKO L
INIT — 4 — CIBP RCV INIT L (CIBV)
VEC — 1 — CIBP VECTOR H (CIBA,T)
VEC RQST B — 2 — CIBP VECTOR B H (CIBA)
ENB ST — 11 — CIBP DNE INTR ENAB H (CIBA)
BDIN L
BUS QDATA 05 H
CIBS DONE (8) H

+5V — R41 390Ω — E43 — 5
R42 620Ω

+5V — AP1 — 9 — E29 — BREF L
+5V — E29 — BB2 — 11 — BDMR L
+5V — BR1 — 3 — E29 — BEVNT L
+5V — AS1 — 10 — E29 — BHALT L
+5V — BN1 — 2 — E29 — BSACK L

REVISIONS		
CHK	CHANGE NO.	REV.

(MACHINE CONTROL/STATUS,CONSOLE ACKNOWLEDGE (SLOT 29))

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBP)	D	CS	M7477-0-0	C
SCALE —	SHEET 14 OF 22		DIST.	

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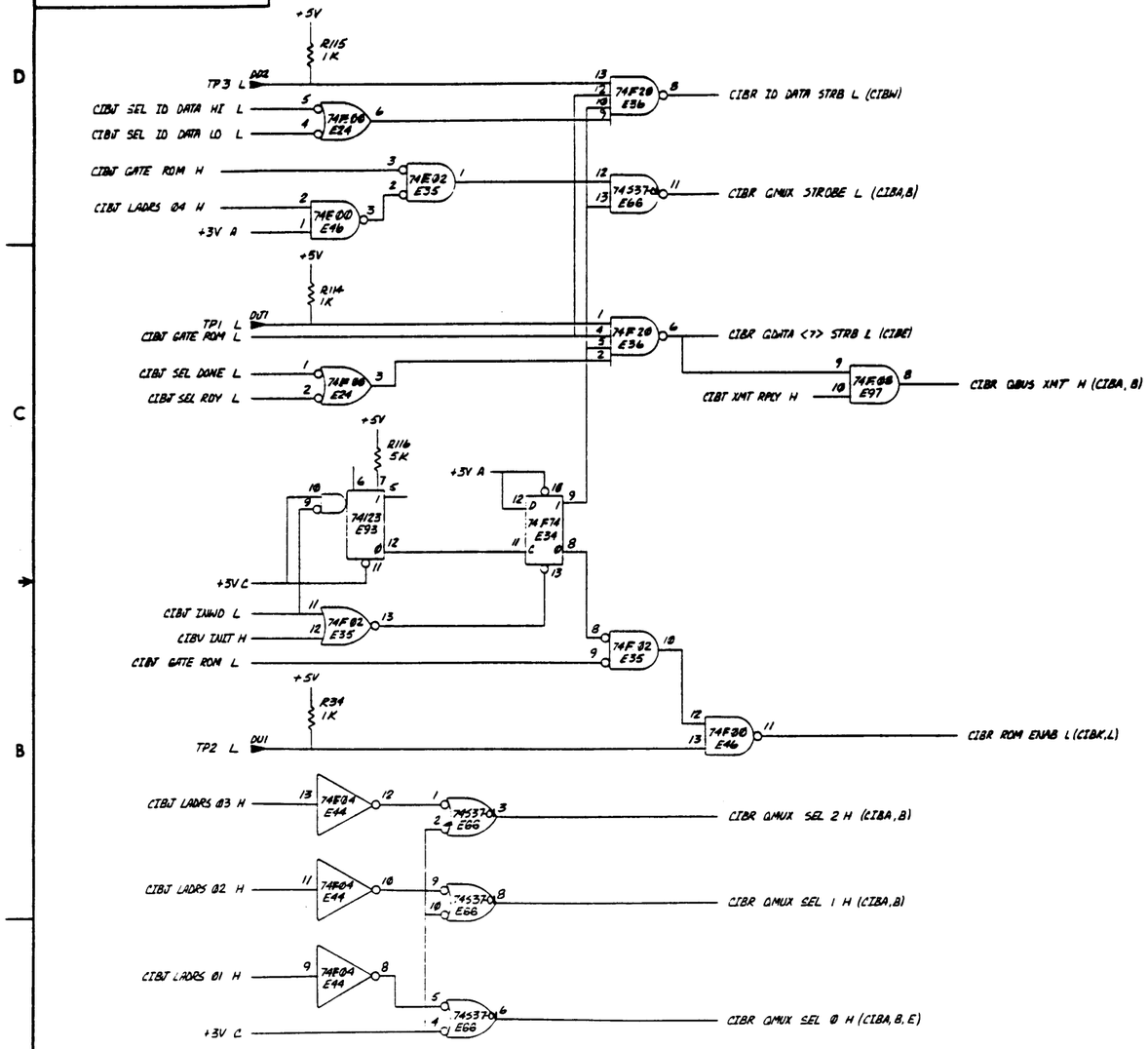

REVISIONS		
CHK	CHANGE NO.	REV.

'QMUX SELECTS ROM BANK DECODE. ENABLE ID DATA, QMUX STROBES QBUS XMT (SLOT 29))

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBR)	D	CS	M7477-0-0	C
SCALE	SHEET 15 OF 22	DIST.		

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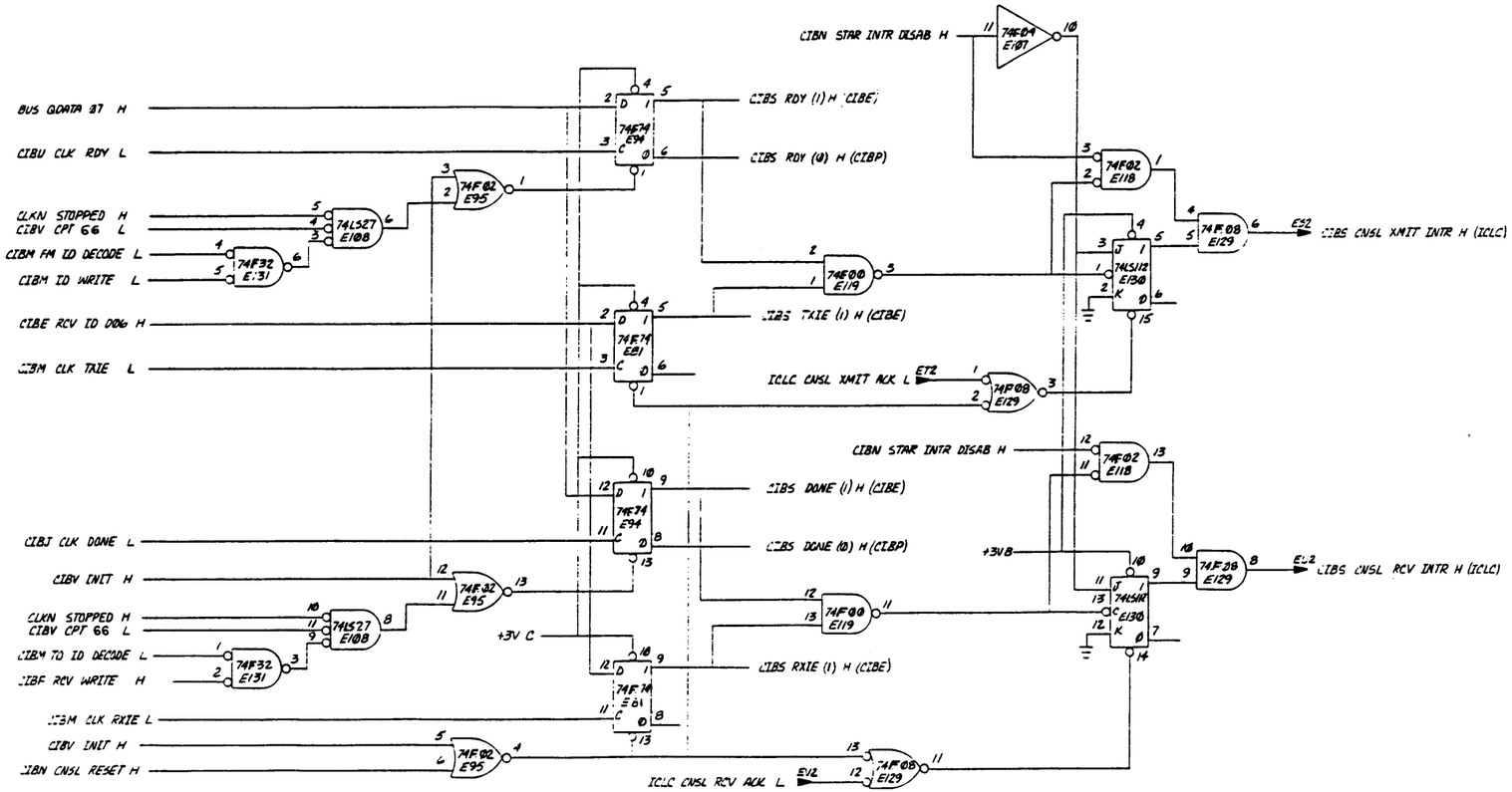

(READY, DONE, TRANSMIT AND RECEIVE INTERRUPT ENABLES (SLOT 29))

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE (CIBS) INTERFACE BOARD	D	CS	M7477-0-0	C
SCALE —	SHEET 15 OF 22	DIST.		

M7477-0-0 REV C SIZE D CODE CS

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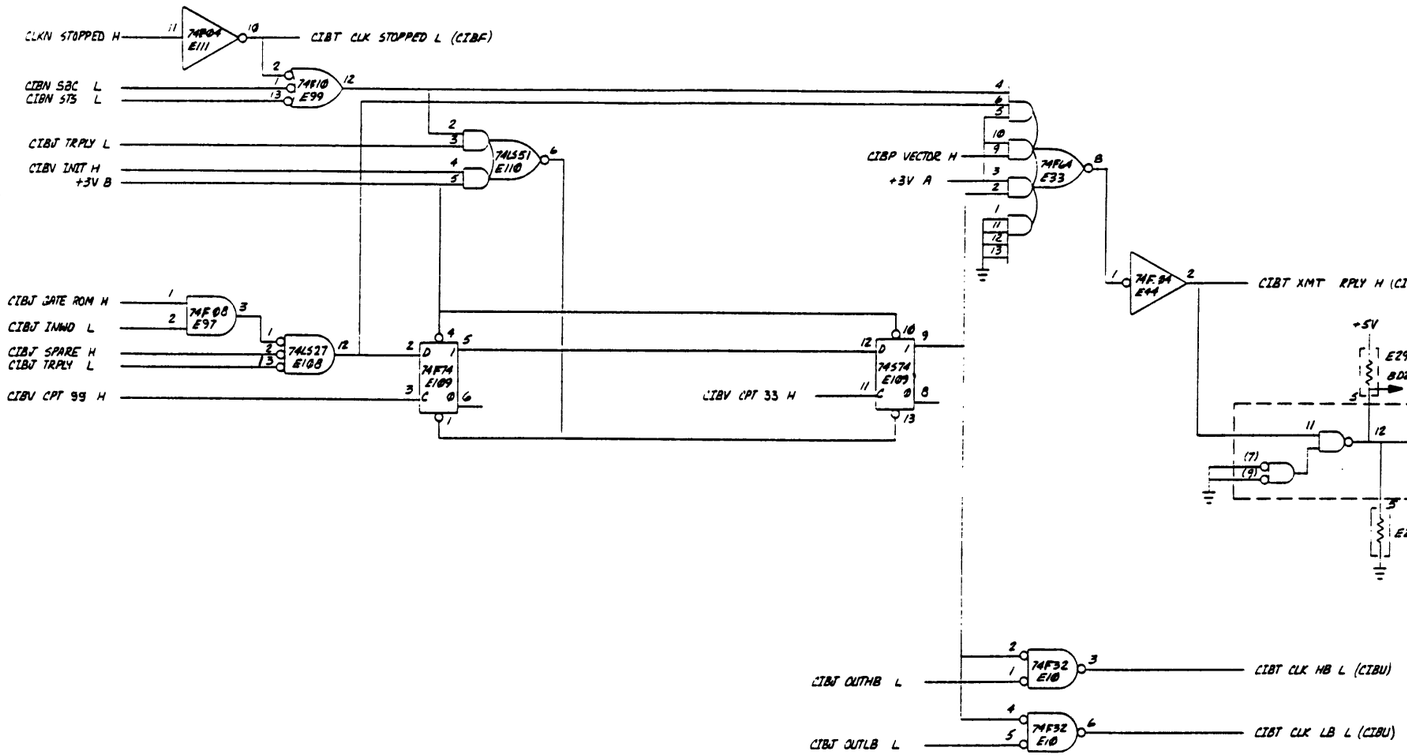

REVISIONS		
CHK	CHANGE NO.	REV.

(QBUS REPLY SYNCHRONIZER (SLOT 29))

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE (CIBT) INTERFACE BOARD	D	CS	M7477-0-0	C
SCALE —	SHEET 17 OF 22	DIST.		

M7477-0-0 REV C

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CIBT CLK LB L
CIBJ SEL TO IDLO L
74F32 E21 (4,5 → 6)
CIBU CLK TO IDLO LB L (CIBH)

CIBT CLK HB L
74F32 E23 (5,4 → 6)
CIBU CLK TO IDLO HB L (CIBH)

CIBJ SEL TO IDHI L
74F32 E21 (2,1 → 3)
CIBU CLK TO IDHI LB L (CIBH)

74F32 E23 (1,2 → 3)
CIBU CLK TO IDHI HB L (CIBH)

CIBJ SEL DONE L
74F32 E23 (10,9 → 8)
CIBU CLK DONE L (CIBS)

CIBJ SEL RDY L
74F32 E23 (12,13 → 11)
CIBU CLK RDY L (CIBS)

CIBJ SEL MCR L
74F32 E21 (10,9 → 8)
CIBU CLK MCR LB L (CIBN)

74F32 E22 (9,10 → 8)
CIBU CLK MCR HB L (CIBN)

74F02 E12 (5,6 → 4)
CIBU CLK MCS HB H (CIBP)

CIBJ SEL MCS L
74F32 E22 (1,2 → 3)
CIBU CLK MCS LB L (CIBP)

74F32 E22 (13,12 → 11)
CIBU CLK MCS HB L (CIBP)

CIBJ SEL ID C/ST L
74F32 E21 (13,12 → 11)
CIBU CLK ID C/ST LB L (CIBF)

CIBJ SEL VBUS L
74F32 E22 (5,4 → 6)
CIBU CLK VBUS LB L (CIBH)

74F32 E10 (10,9 → 8)
CIBU CLK ID C/ST HB L (CIBF)

74F02 E12 (3,2 → 1)
CIBU CLK ID C/ST LB H (CIBF)

CIBM FM ID DECODE L
CIBM ID WRITE L
74F32 E131 (10,9 → 8)

CIBF ID MAINT (0) H
CIBF XMT WRITE H
74F32 E32 (10,9 → 8)

+3V B
74S51 E122 (1,13,9,10 → 8)
74F04 E111 (13 → 12)
CIBU CLK FM ID H (CIBD,E)

+5V
CIBV CPT 66 L
1G16653-00 E133 (1 → 3, 14, 7; 10 MS)

(ID REG CLOCKS (SLOT 29))

TITLE CONSOLE (CIBU) INTERFACE BOARD
SIZE D | CODE CS | NUMBER M7477-0-0 | REV. C
SCALE | SHEET 18 OF 22 | DIST.

SIZE D | CODE CS | NUMBER M7477-0-0 | REV. C

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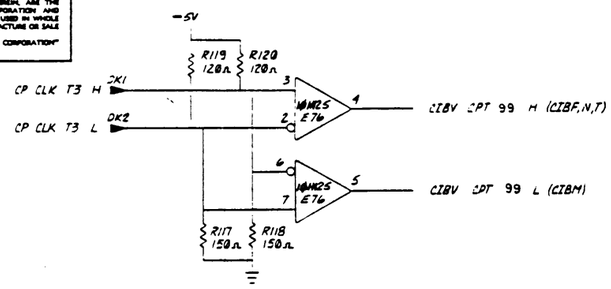

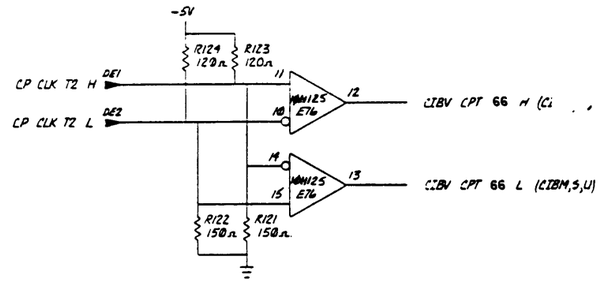

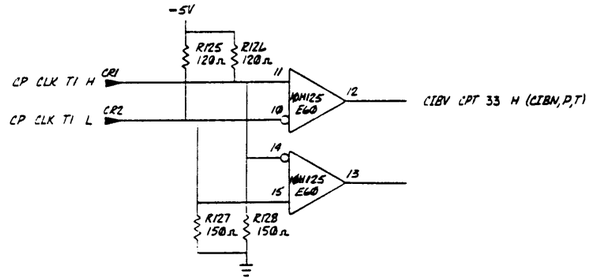

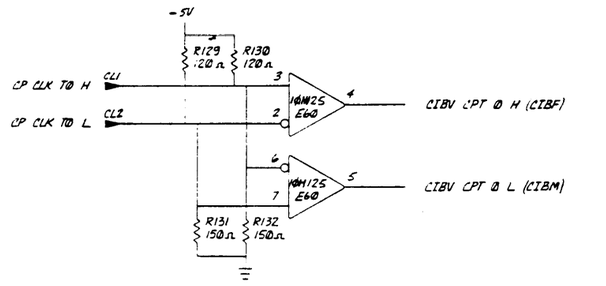

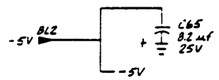

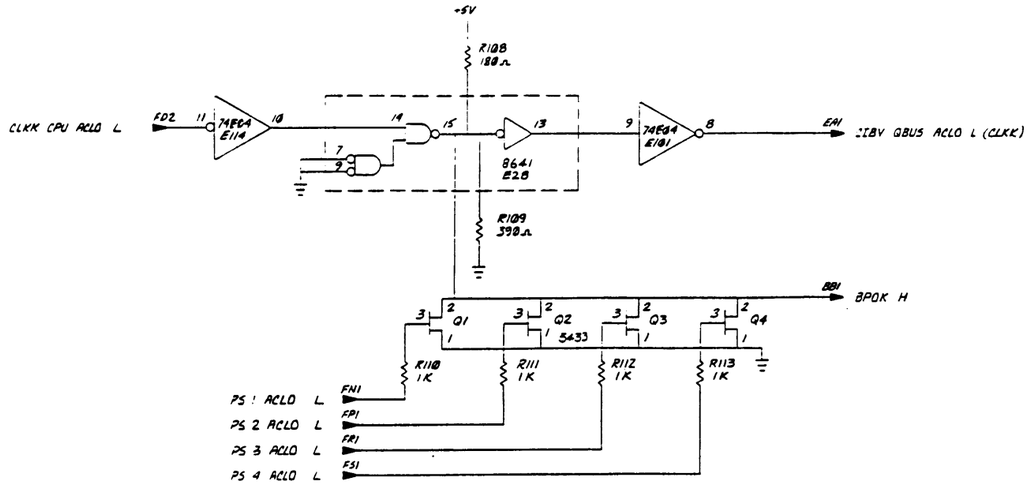

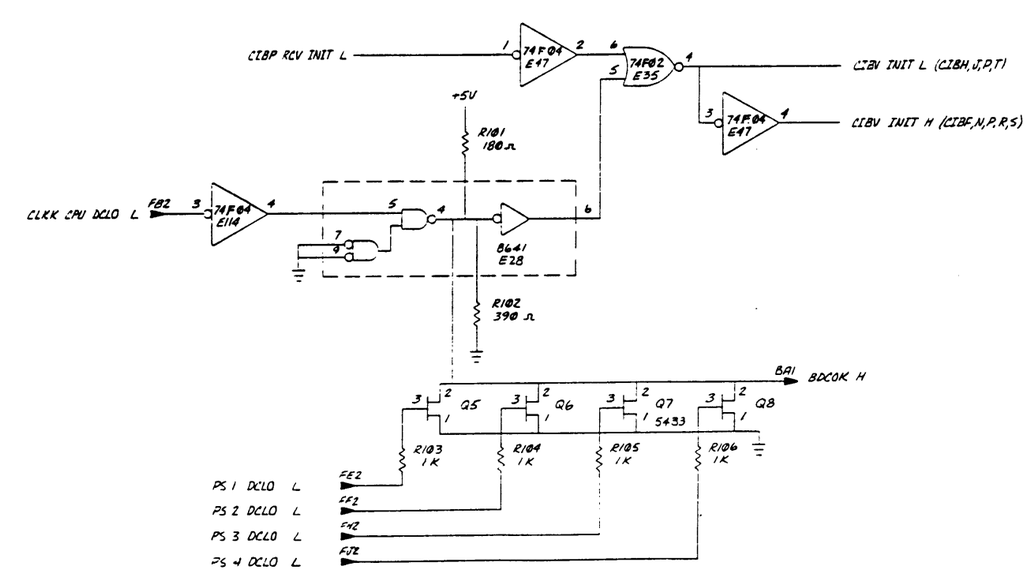

REVISIONS		
CHK	CHANGE NO.	REV.

(ECL CLOCK RECEIVERS, DCLO AND ACLO (SLOT 29))

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE (CIBV) INTERFACE BOARD	D	CS	M7477-0-0	C
SCALE — SHEET 19 OF 22	DIST.			

M7477-0-0 REV C
SIZE CODE D CS M7477-0-0 REV C

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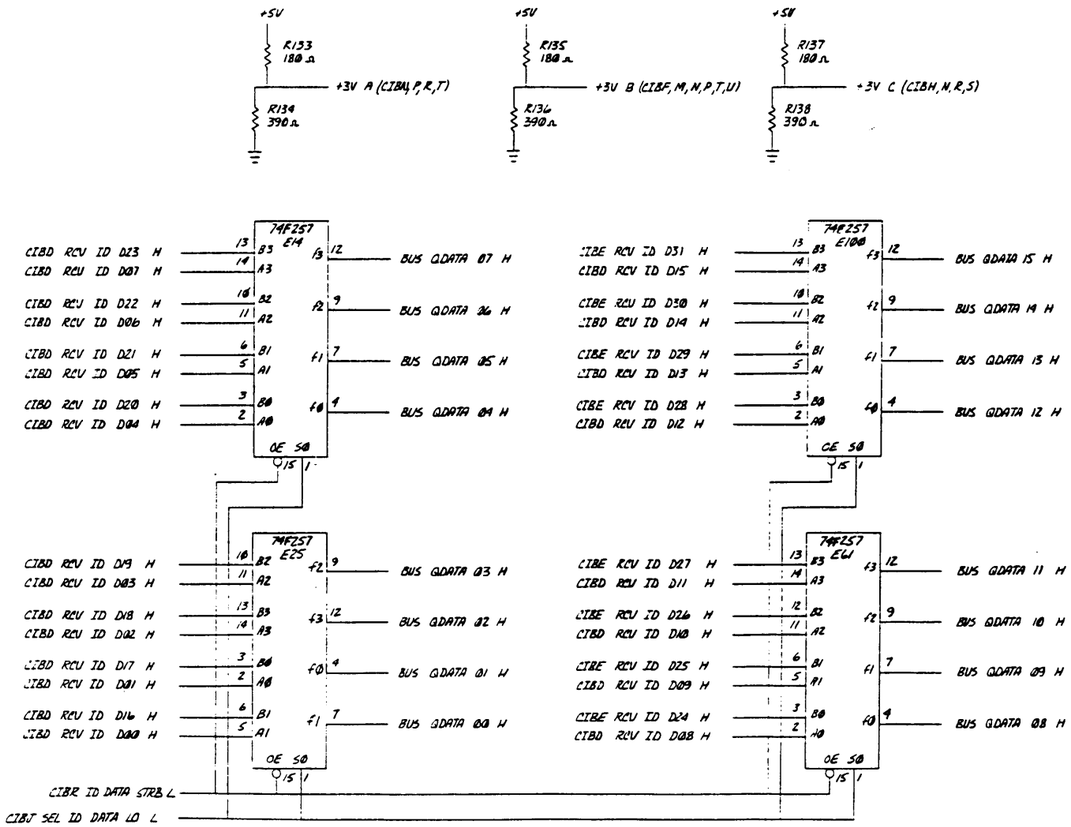

NOTE: SEE CIBB

-2C004-

TRUTH TABLE							
INPUTS				OUTPUTS			
BSYNC	ENB	BDAL 2	BDAL 1	SEL 6	SEL 4	SEL 2	SEL 0
H	X	X	X	H	H	H	H
L	L*	X	X	H	H	H	H
L	H*	L*	L*	L	H	H	H
L	H*	L*	H*	H	L	H	H
L	H*	H*	L*	H	H	L	H
L	H*	H*	H*	H	H	H	L

INPUTS					OUTPUTS				
BSYNC	ENB	BDOUT	BWTBT	BDALØ	OUTLB	OUTHB	BRPLY	RXCX
H	X	X	X	X	H	H	H	L
L	X	H	X	X	H	H	H	L
L	L*	L	H	X	L	L	H	L
L	L*	L	L	H*	L	H	H	L
L	L*	L	L	L*	H	L	H	L
L	H*	L	H	X	L	L	L	H
L	H*	L	L	H*	L	H	L	H
L	H*	L	L	L*	H	L	L	H

INPUTS		OUTPUTS				INPUT	OUTPUTS	
BSYNC	ENB	BDIN	INWD	BRPLY	RXCX	VECTOR	BRPLY	RXCX
H	X	X	H	H	L	H	L	H
L	X	H	H	H	L	L	H	L
L	L*	L	L	H	L			
L	H*	L	L	L	H			

NOTES:
1.) H'S AND L'S MARKED WITH * INDICATES THE STATE OF THE INPUT LINE AT THE FALLING EDGE OF BSYNC, ASSUMING THE PROPER SET-UP AND HOLD TIMES, OUTSIDE OF THIS INTERVAL, THE INPUT LEVEL ON THESE LINES IS X.
2.) "X" IMPLIES A DON'T CARE CONDITION.
3.) NOTE THAT "BRPLY" IS PRODUCED BY THREE MEANS. THE ACTUAL OUTPUT IS L IF ANY OF THE THREE TRUTH TABLES INDICATE L. THE OUTPUTS ARE H ONLY IF ALL THREE TRUTH TABLES INDICATE H. RXCX IS THE LOGICAL INVERSION OF BRPLY.

REVISIONS		
CHK	CHANGE NO.	REV.

(ID DATA MUX (SLOT 29))

TITLE	SIZE	CODE	NUMBER	REV.
CONSOLE INTERFACE BOARD (CIBW)	D	CS	M7477-0-0	C
SCALE	SHEET 20 OF 22	DIST.		

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(163/173)* ϕϕϕ ROM ϕ — ROM ϕ DATA <15:ϕ> — R/O

(163/173) ϕϕ2 ROM 1 — ROM 1 DATA <15:ϕ> — R/O

(163/173) ϕϕ4 SPARE — SPARE — TIME OUT

(163/173) ϕϕ6 ID DATA LO — ID DATA <15:ϕ> — R/O

(163/173) ϕ1ϕ ID DATA HI — ID DATA <31:16> — R/O

(163/173) ϕ12 SPARE — SPARE — TIME OUT

(ϕ4) (163/173) ϕ14 RX DONE — ϕ | RX DONE | ϕ — R/W

(ϕ6) (163/173) ϕ16 TX READY — ϕ | TX RDY | ϕ — R/W

(ϕ5) (163/173) ϕ2ϕ TO ID LO — TO ID <15:ϕ> — R/W

(ϕ5) (163/173) ϕ22 TO ID HI — TO ID <31:16> — R/W

(ϕ7) (163/173) ϕ24 FM ID LO — FM ID <15:ϕ> — R/O

(ϕ7) (163/173) ϕ26 FM ID HI — FM ID <31:16> — R/O

(163/173) ϕ3ϕ ID C/S — ID CYCLE | R:V WRITE | REC ID ADDRS <5:ϕ> (INVERTED) | ID MAINT | ID WRITE | ID ADDRS <5:ϕ> — R/W

(163/173) ϕ32 MCR — HLT REQ | / | SBI T2 | CPU RESET | / | MAINT RET ENAB | UPC 12 | STAR INTR DISAB | ROM NOP | SOMM | CLK STPD | FREQ <1> | FREQ <ϕ> | STS | SEC | PROCEED — R/W

(163/173) ϕ34 MCS — CPE | / | / | FLPY ON | BOOT | / | CNSL CMND MODE | RUN | HALT STATE | RDY IE | ONE IE | / | / | AUTO RST | REMOTE | LOCK — R/W

(163/173) ϕ36 V-BUS — VBUS SER CHNL <7:ϕ> | CPT ϕ | CPT 1 | CPT 2 | CPT 3 | ϕ | V SLFTST | V LOAD | V CLK — R/W

ϕ3 SYSID — CONTENTS SELECTED BY BACK PANEL JUMPERS. JUMPER INDICATES A 1. — R

* START ADRS DETERMINED BY JUMPER W1 ON M7677. SEE PAGE C12B OF M7677 PRINTS FOR JUMPER DEFINITION.

(CIB REGISTER DEFINITION (SLOT 29))

DRN. R.D.L.	8-15-77	FIRST USED ON
CHK'D	10-5-77	digital
ENG.	10-5-77	TITLE
PROJ. ENG'R	10-5-77	CONSOLE (CIBX) INTERFACE BOARD
MOD.	12/16/77	
NEXT HIGHER ASSY.		
SCALE		SIZE D | CODE CS | NUMBER M7477-0-0 | REV. C
SHEET 21 OF 22		DIST.

REVISIONS	CHANGE NO.	CHK	REV.

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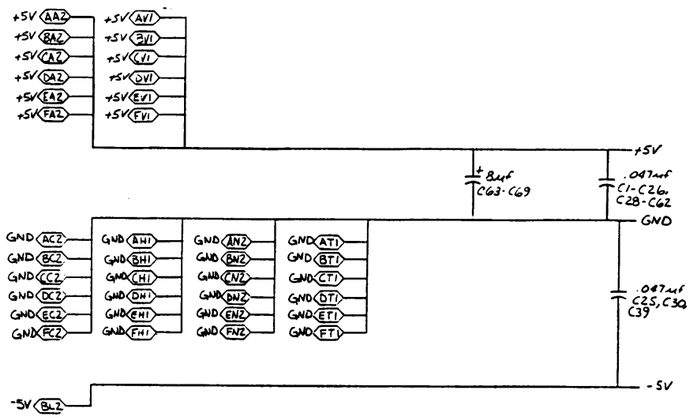

REVISION HISTORY

DATE	ECO NUMBER	REV.

DRD 137A

TITLE: CONSOLE INTERFACE BOARD

DOCUMENT NUMBER			
SIZE	CODE	NUMBER	REV.
D	CS	M7477-0-0	C

SCALE 1/1 SHEET 22 OF 22

M7477-0-0 REV C DCS

SIZE B | CODE DD | NUMBER M7477-0-0 | REV. E

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	A1	B1	C1	D1	D2
	–	M7477-00	CIB	A1	B1	C1	D1	D2
E-UA-M7477-0-0	4		UNIT ASSEMBLY	A	A	B	C	–
D-CS-M7477-0-0	22		SCHEMATIC	A	A	B	C	–
K-PL-M7477-0-DBP	3		PARTS LIST	A	B	B	C	–
K-PC-M7477-0-DBG	–		P.C. DATA BASE	C	C	C	C	–
		5012795-00	ETCHED BOARD	C	C	C	C	–
E-MD-5012795-0-0	5		ETCHED CIRCUIT BOARD	B	B	B	B	–
		5017513-01	ETCHED BOARD	–	–	–	–	A1
E-UA-M7477-0-1	1		UNIT ASSEMBLY	–	–	–	–	A
K-PL-M7477-0-DBP1	3		PARTS LIST	–	–	–	–	A
K-PC-M7477-0-DBG1	–		P.C. DATA BASE	–	–	–	–	A
B-DD-5017513-0-0	1		DRAWING DIRECTORY	–	–	–	–	A
D-CS-M7477-0-CIBA	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBB	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBC	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBD	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBE	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBF	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBH	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBJ	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBK	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBL	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBM	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBN	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBP	1		CIB	–	–	–	–	A
D-CS-M7477-0-CIBR	1		CIB	–	–	–	–	A

NOTES:

REVISIONS

REV.	CHG NO.	DATE
A	INIT	7/83
B	TWC01	12/83
C	TW002	4/84
D	TW003	5/84
E	TW004	1/85

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digital

USED ON OPTION/MODEL

DRN.	S. MANSER	7-15-83
CHK'D	[signature]	9-13-83
ENG.	Jay Stickney	10-11-83
PROD.	[signature]	10-11-83

TITLE CIB

SIZE B | CODE DD | NUMBER M7477-0-0 | REV. E

SHEET 1 OF 2

DRB 126

TW

SIZE	CODE	NUMBER	REV
B	DD	M7477-0-0	E

DRAWING NO.	NO OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
D-CS-M7477-0-CIBS	1		CIB	- - - - A
D-CS-M7477-0-CIBT	1		CIB	- - - - A
D-CS-M7477-0-CIBU	1		CIB	- - - - A
D-CS-M7477-0-CIBV	1		CIB	- - - - A
D-CS-M7477-0-CIBW	1		CIB	- - - - A
D-CS-M7477-0-CIBX	1		CIB	- - - - A
D-CS-M7477-0-CIBY	1		CIB	- - - - A
D-BD-M7477-0-0	1		CIB	- - - - A

NOTES:

REVISION HISTORY			
REV.			E
ECO NO.			TW004
DATE			1-85

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	DATE
DRN.	
CHK'D	
DES. ENG.	
RESP. ENG.	
MFG. ENG.	

TITLE: CIB

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV.
B	DD	M7477-0-0	E

SHEET 2 OF 2

DRB 126C

TW

COMPONENT SIDE VIEW

15.69 REF

11.91 REF

TH2

E23 E19 E22 E18 E21 E17 E20 E16 E15 E14 E13 E12 E11 E10 E9 E7 E6 E4 E2 E8 E5 E3 E1

Q10 Q9 Q8 Q7 Q12 Q6 Q11 Q5 Q4 Q3 Q2 Q1

C49 C48 C47 C46 C45 C44 C43 C42

V U T S R P N M L K J H F E D C B A

F E D C B A

1 21 20

0-1 0-2 0-4 0-8

H

digital

SIGNATURES
DRWN
CHKD
MECH. ENG.
PROJ. ENG.
PROD.
SCALE
SHT
NEXT HIGHER ASSY

TITLE

SIZE A3 NUMBER M7459-0-0 REV

OF 2

CHANGE NO REV

NOTES:
1. V.U. RATING IS LOW
2. SPARE LOCATIONS ARE X11,21,17

STEP 1 = Y PINS STEP 2 = TIMES
REPEAT 1 X PINS STEP 2 = TIMES

E U M7459-0-0 B

REWORK INSTRUCTIONS:
WIRE ADDS SIDE 1

0-1 ADD A WIRE FROM E8-13 TO E17-19
0-2 ADD A WIRE FROM E20-11 TO E17-3
0-3 ADD A WIRE FROM PTH ABOVE ES1 TO E17-11
0-4 ADD A WIRE FROM E16-1 TO E8-4

REWORK INSTRUCTIONS: ECO# 1
WIRE ADDS SIDE 1
1-1 ADD A WIRE FROM E18-13 TO E16-11

REVISION HISTORY
DATE | ECO NUMBER | REV

TITLE TRS

DOCUMENT NUMBER
SIZE | CODE | DWG NO | REV
E | UA | M7459-0-0 | B
SCALE | SHEET 2 OF 2

TW

AUTOMATED BY PRTLST.4Q(50)

P A R T S L I S T

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5016067-0-0	5016067-01	TERMINATOR SILO (TRS)	1	
2	2		1012784-00	.047 MFD 50V +80-20% CER	59	C1-C42,C50-C66
3	3		1012084-01	8 MFD 25V +75-10% AL EL	7	C43-C49
4	4		1103041-00	PIV= 8 IO= 50 MA	1	D1
5	5		1311422-00	178.0 .25 W 1.0 % RN55D-F10	84	R83-R166
6	6		1300365-00	1.0 K .25 W 5.0 % CF	4	R169-R172
7	7		1300295-00	330.0 .25 W 5.0 % CF	1	R173
8	8		1301424-00	680.0 .25 W 5.0 % CF	1	R174
9	9		1302957-00	121.0 .25 W 1.0 % RN55D-F10	106	R1-R82,R168,R167,R175-R178,
					CONT	R183-R186,R216,R191-R194,
					CONT	R199-R202,R207,R208,R211,R212,
					CONT	R215
10	10		1301972-00	270.0 .25 W 5.0 % CF	16	R179-R182,R187-R190,R195-R198,
					CONT	R203-R206
11	11		1300250-00	150.0 .25 W 5.0 % CF	6	R209,R210,R213,R214,R217,R218
12	12		1511686-00	DEC5433 FET N 350MW 10 25 1A	4	Q1-Q4
13	13		1921322-01	74F161 BINARY COUNTER,PRESE	1	E15
14	14		1912731-00	DEC 8646A TRANSCEIVER,4BIT BUS	4	E16,E17,E20,E21
15	15		1912586-00	DM 85S68N REGISTER,64BIT EDGE	4	E18,E19,E22,E23
16	16		1913788-00	26S10 TRANSCEIVER,BUS,QUA	4	E3-E6
17	17		1921318-01	74F151 MUX,8-IN	1	E13
18	18		1921311-01	74F20 NAND GATE,DUAL,4-IN	1	E14
19	19		1921719-01	10H105 OR/NOR GATE TRIPLE 2-3-2	2	E11,E12
20	20		1216988-02	HANDLE,MODULE,HEX TWO EJECTORS	1	
21	21		9000024-01	EYELET,ROLLED 0.1210DX0.192	12	
22	22		1510959-00	2N 3725 NPN 3.5WC SI 50 60 P	8	Q5-Q12
23	23		1921720-01	10H125 TRANSLATOR ECL TO TTL QUA	1	E8
24	24		1913220-00	10216 RECEIVER,TRIPLE LINE	1	E10
25	25		1301322-00	180.0 .25 W 5.0 % CF	14	R221,R222,R225,R226,R229,R230,
					CONT	R232,R234,R236,R238,R240,R242,

REVISION HISTORY

ENG	ECO NUMBER	REV
	INITIAL	A

BASIC PART NO: M7459

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: THOMAS F WALSH DATE: 04-AUG-83

CHK'D: E.T. GERRY DATE: 04-AUG-83

DES.ENG: D CIRKA DATE: 04-AUG-83

RESP.ENG.: D CIRKA DATE: 04-AUG-83

MFG.ENG.: M. J. KRYSAK DATE:

ASSEMBLY NUMBER: E-UA-M7459-0-0

TOP DOCUMENT NUMBER: B-DD-M7459-0-0

D I G I T A L

TITLE PARTS LIST

TRS

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M7459-0-DBP	A

FILE NAME: Z3937A.PLS

EDIT #: 8

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FSC 6827168

AUTOMATED BY PRTLST.4Q(50)

P A R T S L I S T

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION			QTY PER VARIATION 00	REFERENCE DESIGNATOR
								CONT R244,R246
26	26		1300247-00	120.0	.25 W 5.0 %	CF	14	R219,R220,R223,R224,R227,R228,
								CONT R231,R233,R235,R237,R239,R241,
								CONT R243,R245
27	27		9105740-55	WIRE(WRAP)	30AWG KYNAR	UL14	A/R	

D	I	G	I	T	A	L	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
							TRS	A OF A	K	PL	M7459-0-DBP	A

PSC 82-2108

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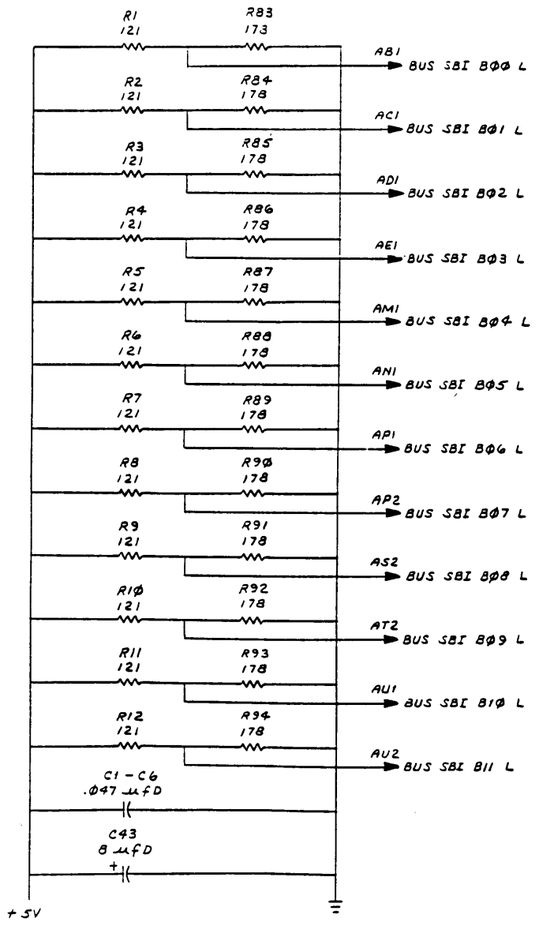

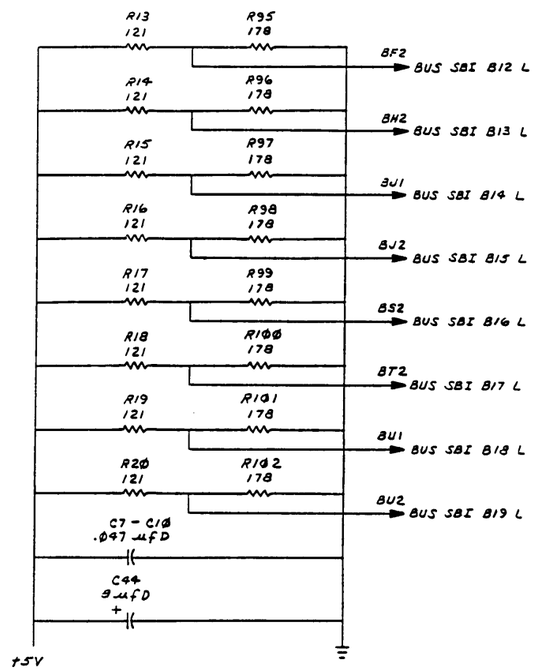

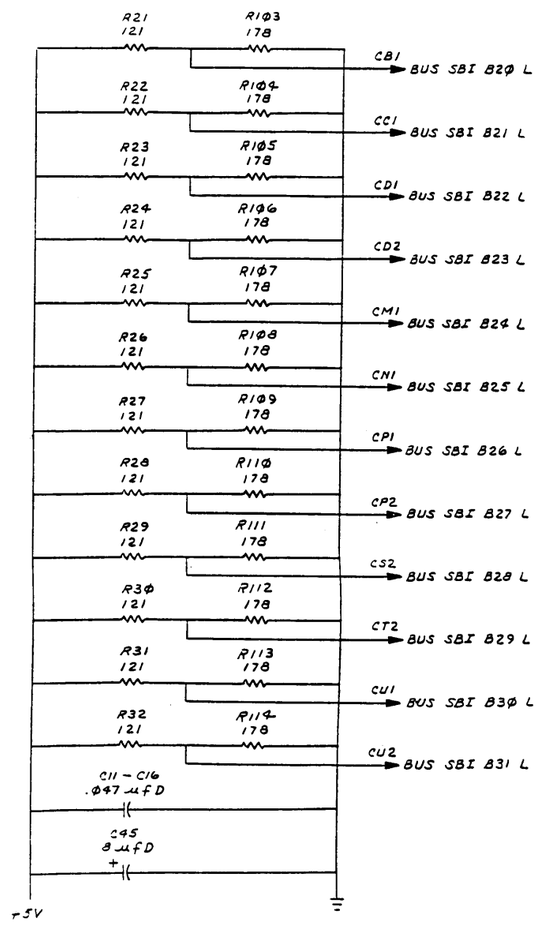

NOTE: UNLESS OTHERWISE SPECIFIED
ALL RESISTORS ARE 1/4 W ±1%.

(SLOT 1)
(SBI TERMINATORS)

REVISIONS			
CHK	CHANGE NO.	REV.	
—	M7459-TWQ01	B	
	D.GARDNER 12-1-83		
	D.CHIKA		

DRN.	3-29-83	FIRST USED ON
CHK'D		digital
ENG.		TITLE
PROJ. ENG'D		TERMINATOR AND SILO (TRSA)
PROD'N		
NEXT HIGHER ASSY.		
SCALE		SIZE D / CODE CS / NUMBER M7459-0-0 / REV. B
SHEET 1 OF 8		DIST.

SIZE D CODE CS M7459-0-1 REV. B

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R33 121 — R113 178 — DB1 — BUS SBI M0 L
R34 121 — R116 178 — DC1 — BUS SBI M1 L
R35 121 — R117 178 — DD1 — BUS SBI M2 L
R36 121 — R118 178 — DD2 — BUS SBI M3 L
R37 121 — R119 178 — DF2 — BUS SBI P0 L
R38 121 — R120 178 — DH2 — BUS SBI P1 L
R39 121 — R121 178 — DM1 — BUS SBI TAG0 L
R40 121 — R122 178 — DN1 — BUS SBI TAG1 L
R41 121 — R123 178 — DP1 — BUS SBI TAG2 L
R42 121 — R124 178 — DP2 — BUS SBI ID0 L
R43 121 — R125 178 — DS2 — BUS SBI ID1 L
R44 121 — R126 178 — DT2 — BUS SBI ID2 L
R45 121 — R127 178 — DU1 — BUS SBI ID3 L
R46 121 — R128 178 — DU2 — BUS SBI ID4 L
R47 121 — R129 178 — DJ1 — BUS SBI SPARE 0
R48 121 — R130 178 — DJ2 — BUS SBI SPARE 1

C17-C24 .047MF
C46 8MF
+5V

R66 121 — R168 178 — FA1 — BUS SBI INTLK L
R67 121 — R169 178 — FB1 — BUS SBI TA00 L
R68 121 — R150 178 — FC1 — BUS SBI TA01 L
R69 121 — R151 178 — FD1 — BUS SBI TA02 L
R70 121 — R152 178 — FE1 — BUS SBI TA03 L
R71 121 — R153 178 — FF2 — BUS SBI TA04 L
R72 121 — R154 178 — FH2 — BUS SBI TA05 L
R73 121 — R155 178 — FJ1 — BUS SBI TA06 L
R74 121 — R156 178 — FJ2 — BUS SBI TA07 L
R75 121 — R157 178 — FM1 — BUS SBI TA08 L
R76 121 — R158 178 — FN1 — BUS SBI TA09 L
R77 121 — R159 178 — FP1 — BUS SBI TA10 L
R78 121 — R160 178 — FP2 — BUS SBI TA11 L
R79 121 — R161 178 — FS2 — BUS SBI TA12 L
R80 121 — R162 178 — FT2 — BUS SBI TA13 L
R81 121 — R163 178 — FU1 — BUS SBI TA14 L
R82 121 — R164 178 — FU2 — BUS SBI TA15 L

C31-C39 .047MF
C49 8MF
+5V

R49 121 — R131 178 — EB1 — BUS SBI REQ4 L
R50 121 — R132 178 — EC1 — BUS SBI REQ5 L
R51 121 — R133 178 — ED1 — BUS SBI REQ6 L
R52 121 — R134 178 — ED2 — BUS SBI REQ7 L
R53 121 — R135 178 — EM1 — BUS SBI MP1 L
R54 121 — R136 178 — EN1 — BUS SBI MP2 L
R55 121 — R137 178 — EP1 — BUS SBI UNJAM L
R56 121 — R138 178 — EP2 — BUS SBI ALERT L
R57 121 — R139 178 — ES2 — BUS SBI CONF0 L
R58 121 — R140 178 — ET2 — BUS SBI CONF1 L
R59 121 — R141 178 — EU1 — BUS SBI FAULT L

C25-C30, C53-C62 .047MF
C47 8MF
+5V

(SLOT 1)
(SBI TERMINATORS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
TERMINATOR AND SILO (TRSB)	D	CS	M7459-0-1	B
SCALE	SHEET 2 OF 9	DIST.		

DEC FORM NO. DRD 138

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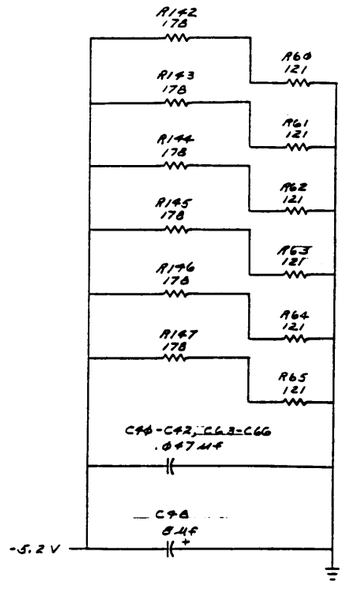
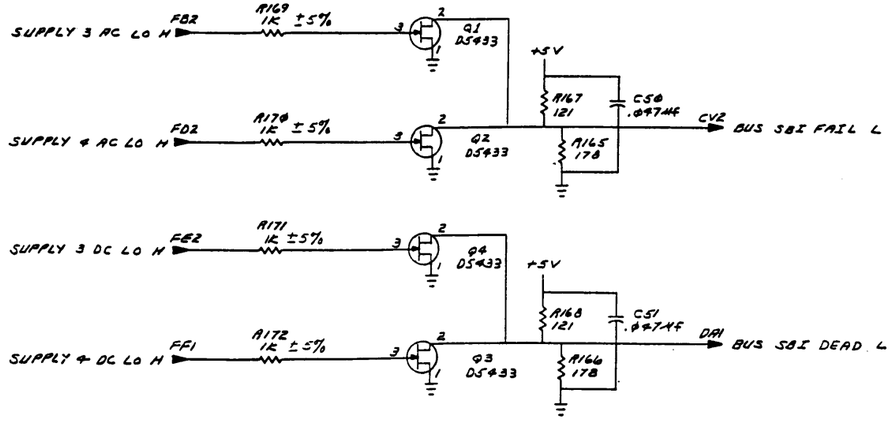
NOTE: R142 - R147, R60 - R65
ARE SPARE TERMINATOR NETWORKS.



AA2, AV1, BA2, BV1, CA2, CV1, DA2, DV1, EA2, EV1, FA2, FV1 → +5V

AC2, AN1, AN2, AT1, BC2, BN1, BN2, BT1, CC2, CN1, CN2, CT1, DC2, DN1, DN2, DT1, EC2, EN1, EN2, ET1, FC2, FN1, FN2, FT1 → ⏚

EX1 → -5.2V



(SLOT 1)
(SBI CLOCK TERMINATORS AND POWER FAIL SENSORS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
TERMINATOR AND SILO (TRSC)	D	CS	M7459-0-1	B
SCALE	SHEET 3 OF 8	DIST.		

DEC FORM NO. ORD 138

TW 1

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+5V
A173 330Ω ±5%
TRSD +3V H (TRSE)
A174 680Ω ±5%
C52 .047μF

TRSH SBI TØ A H
SBHK WRITE SILO L
TRSD +3V H
BA1

BUS XCVR 8646 E16
BUS
BUS SBI TR Ø7 L
BUS SBI TR Ø6 L
BUS SBI TR Ø5 L
BUS SBI TR Ø4 L
TRANS
REC
REC PAR
EN TRANS PAR
RCLK TCLK
TRSD +3V H
TRSH SBI T2 A H

OE LE WE CLK
8536B E19
TRSD SILO DATA Ø7 H (TRSF)
TRSD SILO DATA Ø6 H (TRSF)
TRSD SILO DATA Ø5 H (TRSF)
TRSD SILO DATA Ø4 H (TRSF)
A0 A2 A3 A1

BUS XCVR 8646 E17
BUS
BUS SBI TR Ø3 L
BUS SBI TR Ø2 L
BUS SBI TR Ø1 L
BUS SBI TR ØØ L
TRANS
REC
REC PAR
EN TRANS PAR
RCLK TCLK
TRSD +3V H
(ESI) CLKW CLK
PHASE ERR L
TRSH SBI T2 A H
TRSH SBI TØ A H

OE LE WE CLK
8536B E18
TRSD SILO DATA Ø3 H (TRSF)
TRSD SILO DATA Ø2 H (TRSF)
TRSD SILO DATA Ø1 H (TRSF)
TRSD SILO DATA ØØ H (TRSF)
A0 A2 A3 A1

COUT
03 02 01 00
F3 F2 F1 F0
74F161 E15
CLRL SYS INIT B L
TRSD +3V H
SBHK CLK ADD COUNTER H
CLR LD CLK CEP CET

TRSD SILO ADRS 3 H (TRSE)
TRSD SILO ADRS 2 H (TRSE)
TRSD SILO ADRS 1 H (TRSE)
TRSD SILO ADRS Ø H (TRSE)

(SLOT 1)
(TR SILO BITS 7-0)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
TERMINATOR AND SILO (TRSD)	D	CS	M7459-0-0	B
SCALE	SHEET 4 OF 8	DIST.		

DEC FORM NO. DRD 138

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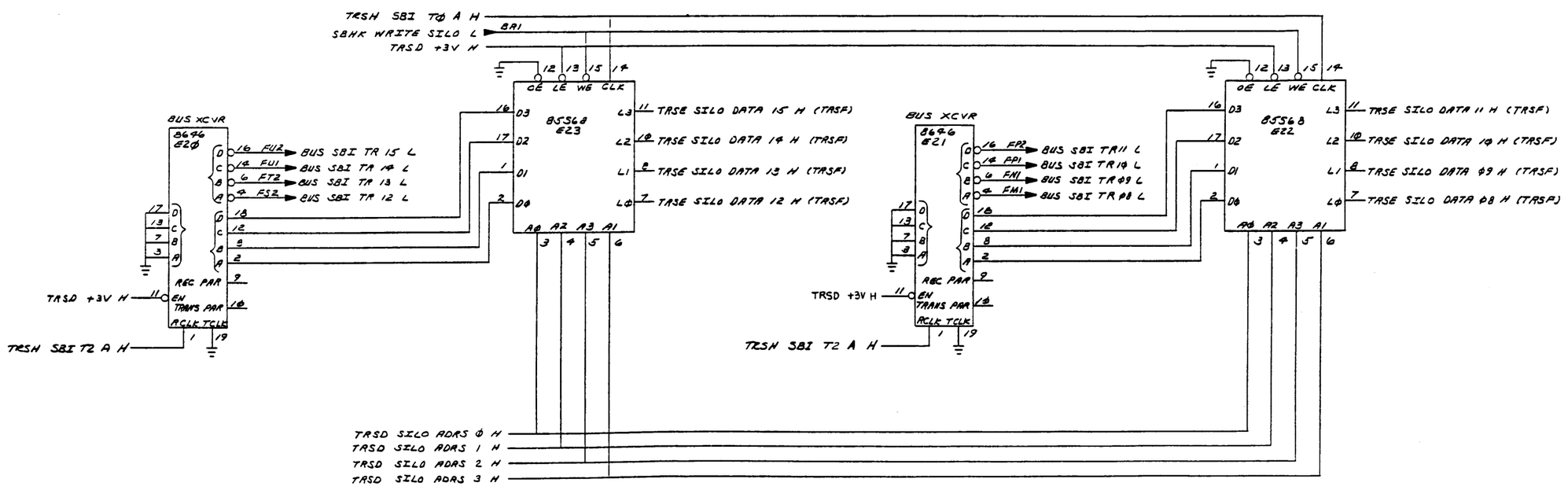

(SLOT 1)

(TR SILO BITS 15-8)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
TERMINATOR AND SILO (TRSE)	D	CS	M7459-0-1	B
SCALE	SHEET 5 OF 8	DIST.		

DEC FORM NO. ORD 138

DCS M7459-0-1 REV B

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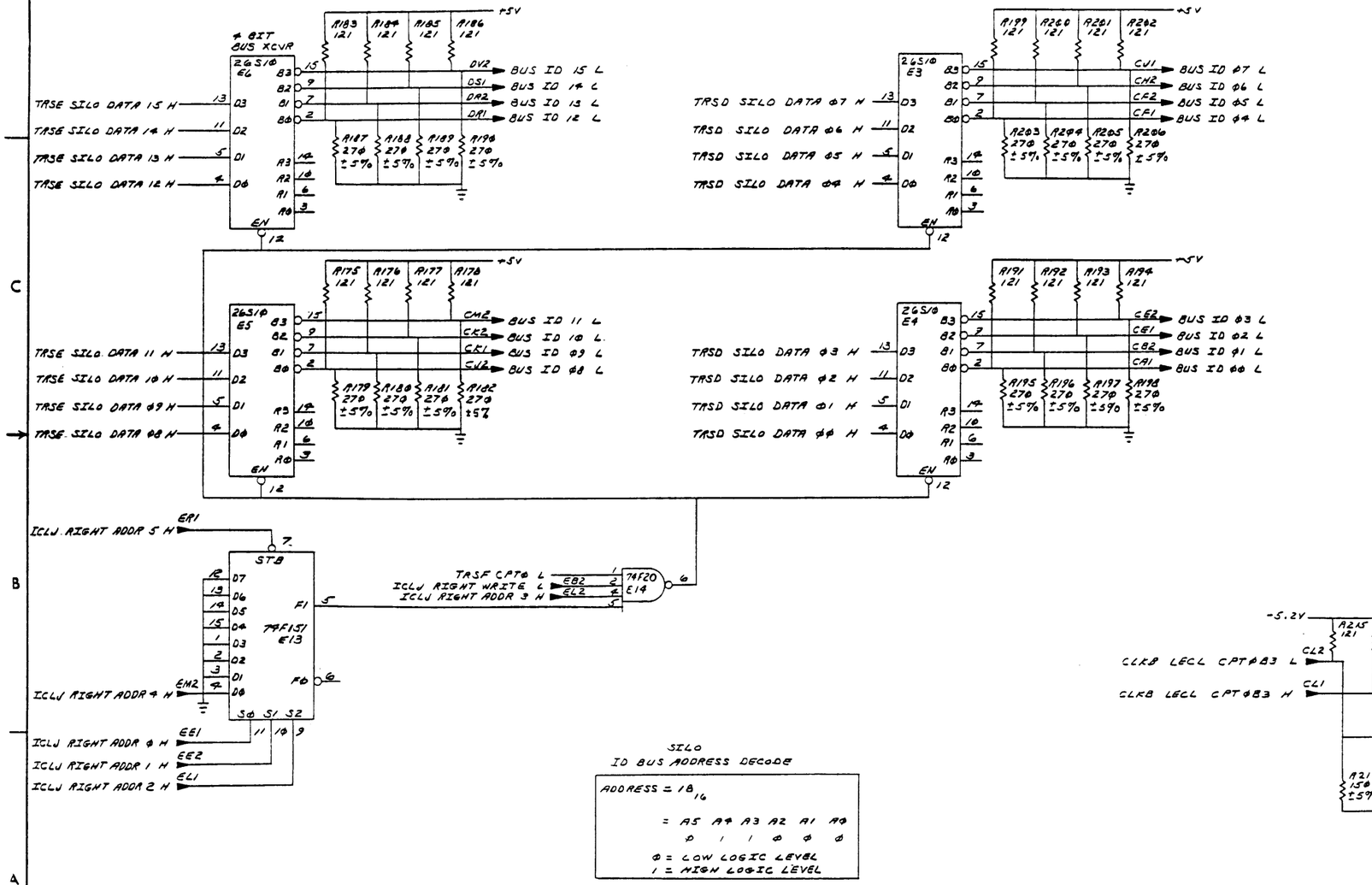

SILO
ID BUS ADDRESS DECODE

ADDRESS = 18_{16}

= A5 A4 A3 A2 A1 A0
0 1 1 0 0 0

0 = LOW LOGIC LEVEL
1 = HIGH LOGIC LEVEL

(SLOT 1)

(ID BUS INTERFACE)

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
TERMINATOR AND SILO (TRSF)	D	CS	M7459-0-	B
SCALE	SHEET 6 OF 8	DIST.		

DEC FORM NO. DRD 138

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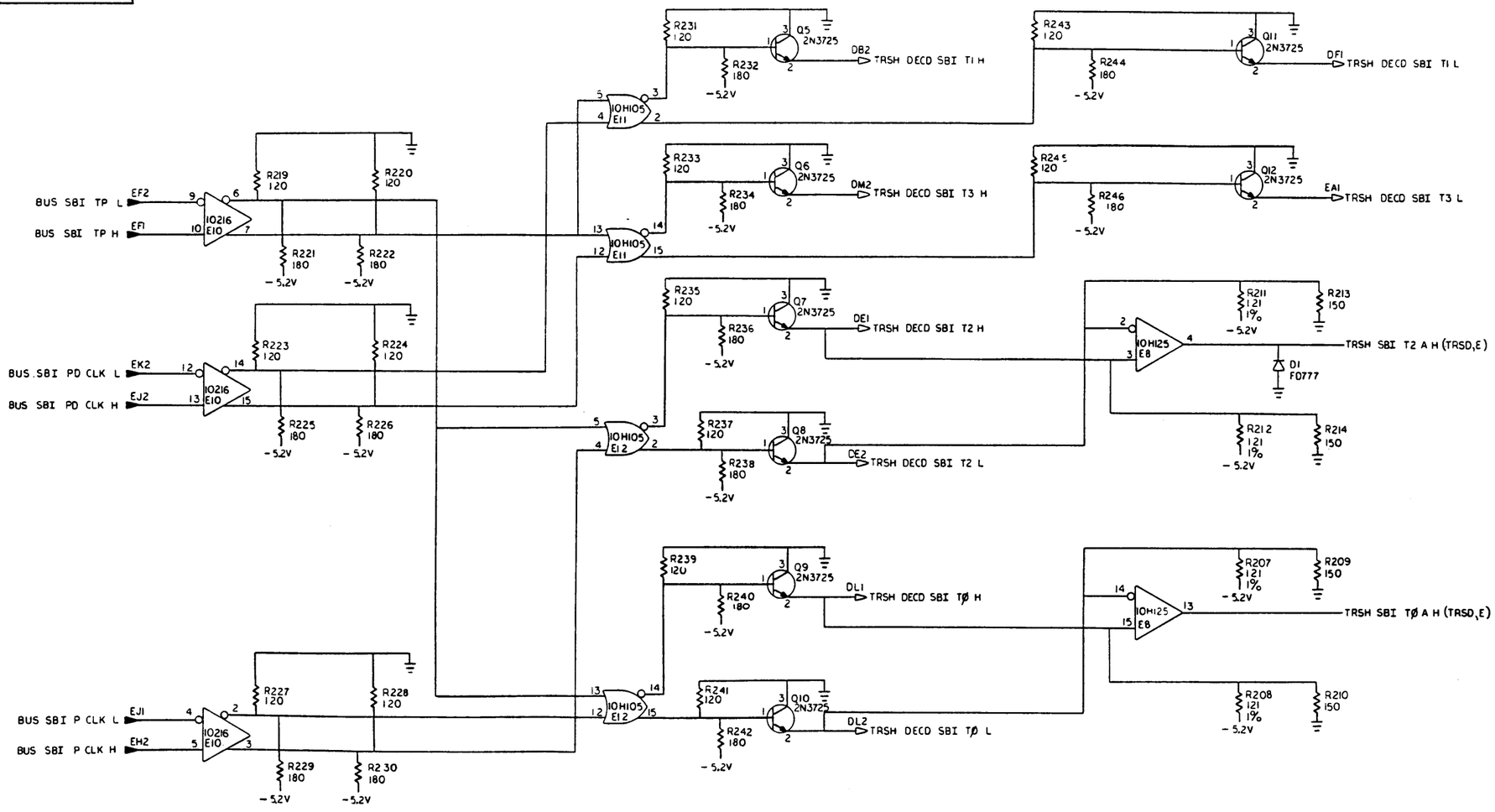

(SLOT 1)

REVISION HISTORY		
DATE	ECO NUMBER	REV.

DRD 137A

TITLE TERMINATOR AND SILO (TRSH)

DOCUMENT NUMBER			
SIZE	CODE	NUMBER	REV
D	CS	M7459-0-0	B
SCALE		SHEET 7 OF 8	

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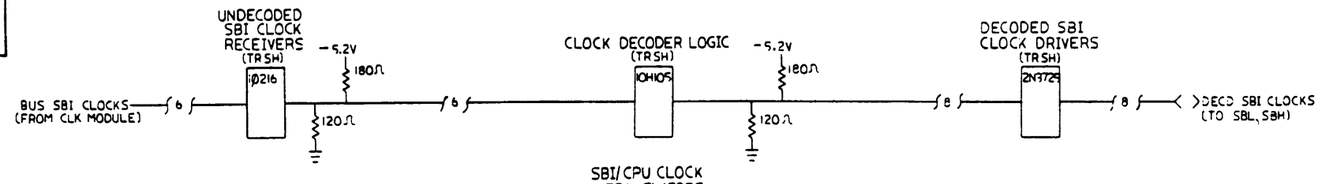
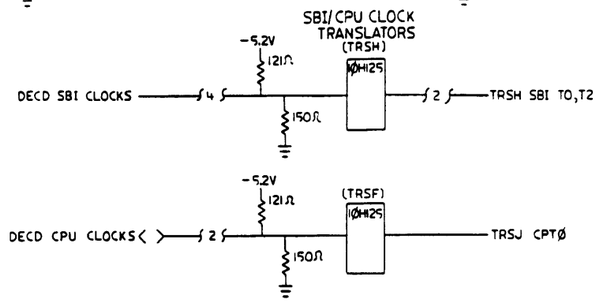
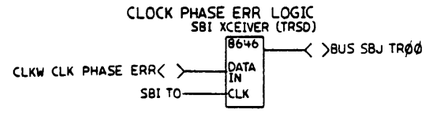
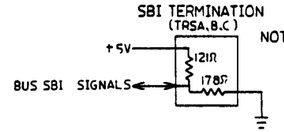
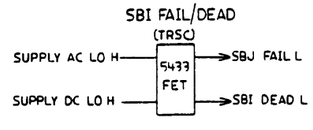




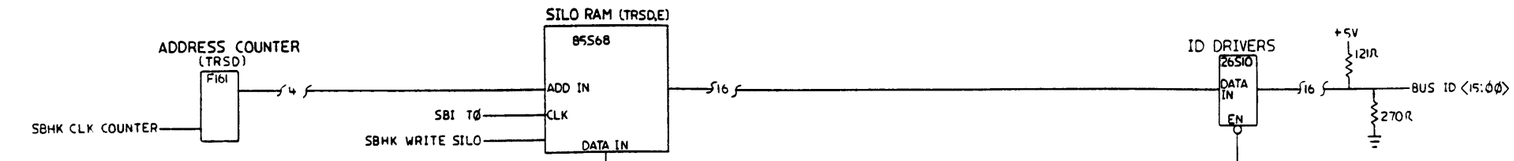


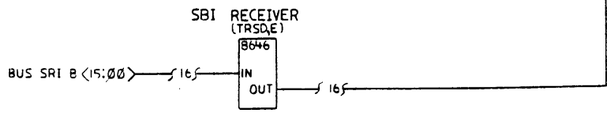


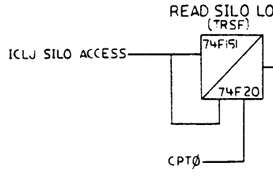
NOTE: SBI/CPU CLOCKS ARE NOT TERMINATED ON TRS MODULE



SILO LOGIC (Ø-15)







(SLOT 1)

REVISION HISTORY		
REV	ECO NUMBER	DATE

TITLE: TERMINATOR AND SILO (TRSJ)

DOCUMENT NUMBER: SIZE D | CODE CS | NUMBER M7459-0-0 | REV B

SCALE — | SHEET 9 OF 8

SIZE	CODE	NUMBER	REV.
B	DD	M7459-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		M7459-00	TRS PART REVISION	A B
E-UA-M7459-0-0			UNIT ASSEMBLY	A B
D-CS-M7459-0-0			CIRCUIT SCHEMATIC	A B
K-PL-M7459-0-DBP			PARTSLIST	A A
K-PC-M7459-0-DBC			PC DATABASE	A A
		5016067-00	ETCHED BOARD	A A
B-DD-5016067-0			DRAWING DIRECTORY	A B

NOTES:

REVISIONS		
REV.		B
CHG NO.		TW001
DATE		12/83

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USED ON OPTION/MODEL			

DRN.	Thomas F. Udvari	7-19-83
CHK'D	Thomas F. Udvari	8-4-83
ENG.	[illegible]	8-04-83
PROD	[illegible]	8-04-83

TITLE: TRS

SIZE	CODE	NUMBER	REV.
B	DD	M7459-0	B

SHEET 1 OF 1

DRB 126