FIELD MAINTENANCE PRINT SET

TABLE OF CONTENTS

B-TC-KA620-0-DBU	KA620 rtVAX CPU MODULE
B-DD-KA620-0-DBU	KA620 rtVAX CPU MODULE (DD ONLY)
K-PL-KA620-0-DBP	KA620 rtVAX CPU MODULE (PL)
B-DD-M7478-0-1	KA620 rtVAX (DD ONLY)
D-UA-M7478-0-0	KA620 rtVAX
K-PL-M7478-0-DBP	KA620 rtVAX (PL)
D-CS-M7478-0-1	CIRCUIT SCHEMATICS DRAWING DIRECTORY
K-DO-M7478-0-0	KA620 CROSS REFERENCE SIGNALS
B-DD-H3263-0-0	KA630 CNF (DD ONLY)
D-UA-H3263-0-0	KA630 CNF
K-PL-H3263-0-DBP	KA630 CNF (PL)
K-CS-H3263-0-1	KA630 CNF

UNIT VARIATIONS COVERED BY THIS PRINT SET
KA620-AA
KA620-BA

NOTE: B-DD-M7478-0-1 DESCRIBES CIRCUIT SCHEMATICS D-CS-M7478-0-2 THRU D-CS-M7478-0-65

K-DO-M7478-0-0 DESCRIBES KA620 CROSS REFERENCE SIGNALS

KA620
FIELD MAINTENANCE PRINT SET

DIGITAL EQUIPMENT CORPORATION

PRINT SET PART NUMBER MP-02422-01 REV A1

FILE NAME: TC-KA620-0-DBUA

REVISION HISTORY		
REV.	ECO NUMBER	DATE
A	INITIAL	

DRN. JEFF CORMIER	DATE 12-JAN-87	TITLE digital KA620 rtVAX CPU MODULE
CHK'D D. HEALY	DATE 25-FEB-87	
DES. ENG. E. WEAVER	DATE 25-FEB-87	
RESP. ENG. S. HARGUS	DATE 25-FEB-87	
FIELD SERVICE W. KATAISTO	DATE 25-FEB-87	
TOP DOC. B-DD-KA620-0-DBU		SIZE B · CODE TC · NUMBER KA620-0-DBU · REV. A · SHEET 1 OF 1

SIZE B · CODE TC · NUMBER KA620-0-DBU · REV. A

MLO1

SIZE	CODE	NUMBER	REV.
B	DD	KA620-0-DBU	A

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		KA620-AA	QUAD,022, rtVAX CPU MODULE	A1
		KA620-BA	KA620-AA,H3263,VAXELN RTL	A1
K-PL-KA620-0-DBP	1		KA620 rtVAX CPU MODULE (PL)	A
B-TC-KA620-0-DBU	1		KA620 rtVAX CPU MODULE (TC)	A
		MP-02422-01	PRINT SET KA620 rtVAX CPU MODULE	REF

NOTES:

FILE NAME: DD-KA620-0-DBUA

REVISION	DATE	CHG NO.	REV.
INITIAL			A

digital

USED ON OPTION/MODEL

DRN.	J. CORMIER	DATE: 12JAN87
CHK'D	D. HEALY	DATE: 25FEB87
ENG.	S. HARGUS	DATE: 25FEB87
PROD.	R. BOHONOWICZ	DATE: 25FEB87

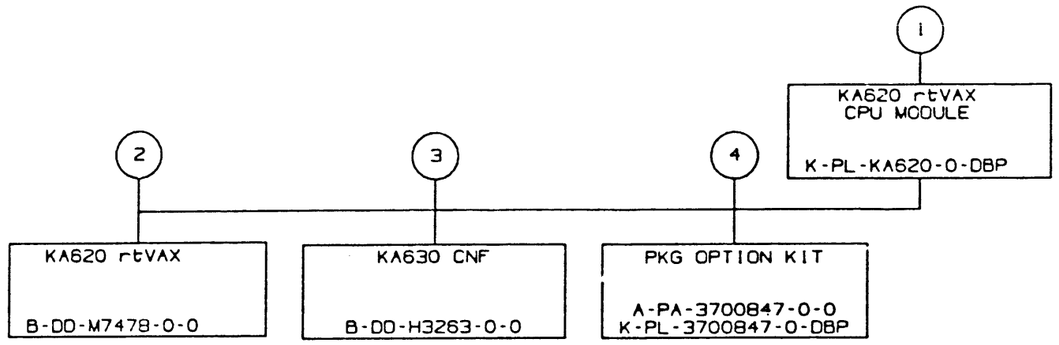
TITLE: KA620 rtVAX CPU MODULE

SIZE	CODE	NUMBER	REV.
B	DD	KA620-0-DBU	A

SHEET 1 OF 3

DRB 126

ML01



TITLE: KA620 rtVAX CPU MODULE	SHEET 2 OF 3	SIZE B	CODE DD	NUMBER KA620-0-DBU	REV. A

ML01

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP-02422-01	KA620 rtVAX CPU MODULE (MP)	-
	B-TC-KA620-0-DBU	KA620 rtVAX CPU MODULE (TC)	-
	K-PL-KA620-0-DBP	KA620 rtVAX CPU MODULE (PL)	E/M
2	B-DD-M7478-0-0	KA620 rtVAX	E/M
3	B-DD-H3263-0-0	KA630 CNF	E/M
4	A-PA-3700847-0-0	PKG OPTION KIT	M
	K-PL-3700847-0-DBP	PKG OPTION KIT (PL)	M

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL

digital

TITLE: KA620 rtVAX CPU MODULE

SHEET	SIZE	CODE	NUMBER	REV.
3 OF 3	B	DD	KA620-0-DBU	A

DRB 108A

ML01

AUTOMATED BY VAXKPL (V1.3)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QUANTITY PER VARIATION/REVISION AA A1	BA A1
1	1	B-DD-M7478-0-0	M7478-AA	B	RTVAX W/1MB,FP,INCL TIMR OF YEAR C	1	1
2	2	B-DD-H3263-0-0	H3263-00		KA630 CONFIGURATION CONNECTOR & BA	-	1
3	3	A-PA-3700847-0-0	37-00847-03	B	PKG DUAL & QUAD MODULE & ACCESSORI	-	1
4	4		EK-KA620-UG		KA620 RT VAX MODULE USER'S GUIDE	-	1
5	5		QZZCF-DZ		VAXELN RT LIC FOR KA620 S/U	-	1

1 GEN: NOTE: USE 37-00847-06 PACKAGING FOR BULK SHIPMENT.

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A

KPL MATRIX FORMAT | SECTION A OF A

SECTION/VARIATION INDEX

[A] AA,BA
[B]
[C]
[D]
[E]
[F]
[H]
[J]

DRN: JEFF CORMIER
DATE: 17-OCT-86

CHK'D: D. HEALY
DATE: 26-FEB-87

DES.ENG: E. WEAVER
DATE: 26-FEB-87

RESP.ENG.: S. HARGUS
DATE: 26-FEB-87

MFG.ENG: R. BOHONOWICZ
DATE: 26-FEB-87

D I G I T A L

TITLE: PARTS LIST
RTVAX CPU MODULE

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	KA620-0-DBP	A

RELEASE DATE: 26-FEB-87
RELEASE STATUS: RELEASED

BASIC PART NUMBER:	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #
KA620		B-DD-KA620-0-DBU	MLA0831A.PLS	17

SIZE	CODE	NUMBER	REV
B	DD	M7478-0-0	B

DRAWING NO.	NO OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																	
		M7478-AA	KA620	A1	B1																
		M7478-AC	KA620	A1	B1																
		M7478-AF	KA620	A1	B1																
		M7478-AH	KA620	A1	B1																
		M7478-AP	KA620	A1	B1																
D-UA-M7478-0-0	1		KA620 UNIT ASSEMBLY	A	B																
K-PL-M7478-0-DBP	6		KA620 PARTS LIST	A	B																
K-PC-M7478-0-DBJ	1		P.C. DESIGN DATA BASE	A	A																
		5017043-01	ETCHED CIRCUIT BOARD	A1	A1																
D-DD-5017043-01	1		DRAWING DIRECTORY	A	A																
D-CS-M7478-0-1	1		M7478 DRAWING DIRECTORY	A	A																
D-CS-M7478-0-2	1		RTVAX SYSTEM	A	A																
D-CS-M7478-0-3	1		KA620-RTVAX ON Q22 BUS	A	A																
D-CS-M7478-0-4	1		RTVAX & FPU	A	A																
D-CS-M7478-0-5	1		RTVAX & FPU PINOUTS	A	A																
D-CS-M7478-0-6	1		ADDRESS LATCH/LOCAL MEMORY DECODE	A	A																
D-CS-M7478-0-7	1		MEMORY SUB SYSTEM	A	A																
D-CS-M7478-0-8	1		Q22 BUS INTERFACE GATE ARRAY	A	A																
D-CS-M7478-0-9	1		Q22 BUS INTERFACE GATE ARRAY?	A	A																

NOTES:

REVISION HISTORY																					
REV.	A	B																			
ECO NO.	INIT	ML001																			
DATE	6/86	1/87																			

digital

DRN. D. DROZD	DATE 6/13/86	TITLE KA620
CHK'D J. CUNNINGHAM	DATE 6/13/86	DOCUMENT NUMBER
DES. ENG. E. WEAVER	DATE 6/13/86	SIZE B CODE DD NUMBER M7478-0-0 REV B
RESP. ENG. S. HARGUS	DATE 6/13/86	
MFG. ENG. K. Ryan	DATE 6/13/86	SHEET 1 OF 5

DRB 128C
EN-01242-16-REVA(396)

SIZE	CODE	NUMBER	REV
B	DD	M7478	B

DRAWING NO.	NO OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
D-CS-M7478-0-14	1		VECTOR HACK	A A
D-CS-M7478-0-15	1		INVERTING MUX LOGIC	A A
D-CS-M7478-0-16	1		4 to 1 MUX	A A
D-CS-M7478-0-17	1		Q-BUS SUPPORT LOGIC	A A
D-CS-M7478-0-18	1		BLK MD CTR LOGIC	A A
D-CS-M7478-0-19	1		TOGGLE FLOP	A A
D-CS-M7478-0-20	1		Q-BUS SUPPORT LOGIC	A A
D-CS-M7478-0-21	1		Q-BUS SUPPORT LOGIC	A A
D-CS-M7478-0-22	1		Q-BUS SUPPORT LOGIC	A A
D-CS-M7478-0-23	1		Q-BUS SUPPORT LOGIC	A A
D-CS-M7478-0-24	1		POWER BUFFER MACRO	A A
D-CS-M7478-0-25	1		BIDIRECT BUFFER	A A
D-CS-M7478-0-26	1		MUX LOGIC	A A
D-CS-M7478-0-27	1		TRANSLATION MAP GROUP	A A
D-CS-M7478-0-28	1		KA620 [illegible]	A A
D-CS-M7478-0-29	1		RTVAX INTERFACE GATE ARRAY	A A
D-CS-M7478-0-30	1		PG379 PAD ASSIGNMENT TOP VIEW LG5320 IN 144 PIN GRIP ARRAY	A A
D-CS-M7478-0-31	1		RTVAX INTERFACE GATE ARRAY DATA PATH	A A
D-CS-M7478-0-32	1		UVDAL I/O BUFFERS, ADDR LATCHERS	A A

NOTES:

REVISION HISTORY				
DATE	ECO NO.	REV.		
6/86	INIT	A		
1/87	ML001	B		

digital

DRN. D. DROZD	DATE 6/16/86	TITLE KA620
CHK'D J. CUNNINGHAM	DATE 6/16/86	DOCUMENT NUMBER
DES. ENG. E. WEAVER	DATE 6/16/86	SIZE B / CODE DD / NUMBER M7478-0-0 / REV B
RESP. ENG. S. HARGUS	DATE 6/16/86	SHEET 2 OF 5
MFG. ENG. K. RYAN	DATE 6/16/86	

DRB 126C
EN-01242-16-REVA(396)

SIZE	CODE	NUMBER	REV
B	DD	M7478-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
D-CS-M7478-0-33	1		ADDRESS DECODER	A A
D-CS-M7478-0-34	1		EXCEPTIONS AND INTERRUPTS	A A
D-CS-M7478-0-35	1		RTVAX INPUTS AND I/O PINS	A A
D-CS-M7478-0-36	1		BOOT/DIAG REG., MEM ERR ADDR REG.	A A
D-CS-M7478-0-37	1		EPR BUS, X DAL BUS	A A
D-CS-M7478-0-38	1		INTERNAL DATA BUSES	A A
D-CS-M7478-0-39	1		MISC. CONTROL STROBES	A A
D-CS-M7478-0-40	1		RESET COUNTER, POWER UP/DOWN CNTRL	A A
D-CS-M7478-0-41	1		MEMORY SYSTEM ERROR REGISTER	A A
D-CS-M7478-0-42	1		TIME OF YEAR (TOY) CLOCK	A A
D-CS-M7478-0-43	1		CONSOLE SERIAL LINE INTERFACE	A A
D-CS-M7478-0-44	1		LEDS AND CONFIGURATION CONNECTOR	A A
D-CS-M7478-0-45	1		DECOUPLING CAPACITATORS	A A
D-CS-M7478-0-46	1		KA620 STATE MACHINES	A A
D-CS-M7478-0-47	1		RTVAX CYCCLE CONTROLLER	A A
D-CS-M7478-0-48	1		MEMORY SEQUENCER	A A
D-CS-M7478-0-49	1		MEMORY SEQUENCER SUPPORT	A A
D-CS-M7478-0-50	1		Q22 BUS STATE MACHINES	A A
D-CS-M7478-0-51	1		KA620 MEMORY ARBITAER LISTING	A A

NOTES:

REVISION HISTORY	REV.	ECO NO.	DATE
	A	INIT	6/86
	B	ML001	1/87

digital

DRN. D. DROZD	DATE 6/13/86	TITLE KA620
CHK'D J. CUNNINHAM	DATE 6/16/86	DOCUMENT NUMBER
DES. ENG. E. WEAVER	DATE 6/13/86	SIZE B / CODE DD / NUMBER M7478-0-0 / REV B
RESP. ENG. S. HARGUS	DATE 6/13/86	SHEET 3 OF 5
MFG. ENG. K. RYAN	DATE 6/13/86	

DRB 126C
EN-01242-16-REVA(396)

SIZE	CODE	NUMBER	REV
B	DD	M7478-0-0	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																	
D-CS-M7478-0-52	1		KA620 MEMORY SYSTEM ARBITER STATE FLOW DIAGRAMS	A	A																
D-CS-M7478-0-53	1		KA620 MEMORY SYSTEM ARBITER STATE FLOW DIAGRAMS	A	A																
D-CS-M7478-0-54	1		KA620 LOCAL I/O CONTROL MACHINE	A	A																
			UL TESTING																		
D-CS-M7478-0-55	1		KA620 LOCAL I/O BUS CONTROL	A	A																
D-CS-M7478-0-56	1		KA620 Q-BUS ARBITRATION CONTROLLER MACHINE LISTING	A	A																
D-CS-M7478-0-57	1		Q-BUS ARBITRATION CONTROLLER DETAILED CONTROL FLOW DIAGRAM	A	A																
D-CS-M7478-0-58	1		Q22 BUS MASTER CONTROL MACHINE LISTING	A	A																
D-CS-M7478-0-59	1		Q22 BUS MASTER CONTROL MACHINE FLOW DIAGRAM	A	A																
D-CS-M7478-0-60	1		Q22 BUS SLAVE CONTROL MACHINE LISTING	A	A																
D-CS-M7478-0-61	1		Q22 BUS SLAVE CONTROL MACHINE FLOW DIAGRAM	A	A																
D-CS-M7478-0-62	1		Q22 BUS SLAVE CONTROL MACHINE FLOW DIAGRAM	A	A																
D-CS-M7478-0-63	1		1Kx4 RAS DECODE PROM (E79) LISTING	A	A																
D-CS-M7478-0-64	1		PALASM LISTING FOR PAL16L8A DEVICES	A	A																
D-CS-M7478-0-65	2		MNEMONIC DICTORY	A	A																
K-DO-M7478-0-0	24		KA620 CROSS REFERENCE SIGNALS	A	A																

NOTES:

REVISION HISTORY			
REV.	A	B	
ECO NO.	INIT	NL001	
DATE	6/86	1/87	

digital

DRN. D. DROZD.	DATE 6/16/86	TITLE KA620	
CHK'D J. CUNNINGHAM	DATE 6/16/86	DOCUMENT NUMBER	
DES. ENG. E. WEAVER	DATE 6/16/86	SIZE B / CODE DD / NUMBER M7478-0-0	REV B
RESP. ENG. S. HARGUS	DATE 6/16/86		
MFG. ENG. K. RYAN	DATE 6/16/86	SHEET 4 OF 5	

DRB 126C
EN-01242-16-REVA(396)

SIZE	CODE	NUMBER	REV
B	DD	M7478 -0-0	B

DRAWING NO.	NO OF SHTS	PART NO.	DESCRIPTION	REVISIONS
D-CS-M7478-0-10	1		DC380 PAD ASSIGNMENT TOP VIEW LL320 in 144 PIN grid ARRAY	A A
D-CS-M7478-0-11	1		REFRESH LOGIC/COUNTER	A A
D-CS-M7478-0-12	1		DIVIDE BY 12	A A
D-CS-M7478-0-13	1		SYNCHRONOUS 3 BIT COUNTER	A A

NOTES:

REVISION HISTORY		
DATE	ECO NO.	REV.
6/86	INIT	A
1/87	ML001	B

digital

DRN. D.DROZD	DATE 6/13/86	TITLE KA620
CHK'D J. CUNNINGHAM	DATE 6/13/86	
DES. ENG. B. Weaver	DATE 6/13/86	DOCUMENT NUMBER
RESP. ENG. S. HARGUS	DATE 6/13/86	SIZE B / CODE DD / NUMBER M7478-0-0 / REV B
MFG. ENG. K. RYAN	DATE 6/13/86	SHEET 5 OF 5

DRB 126C
EN-01242-16-REVA(396)

REWORK INSTRUCTION

PARTS DELETED AS SHOWN (SIDE 1)

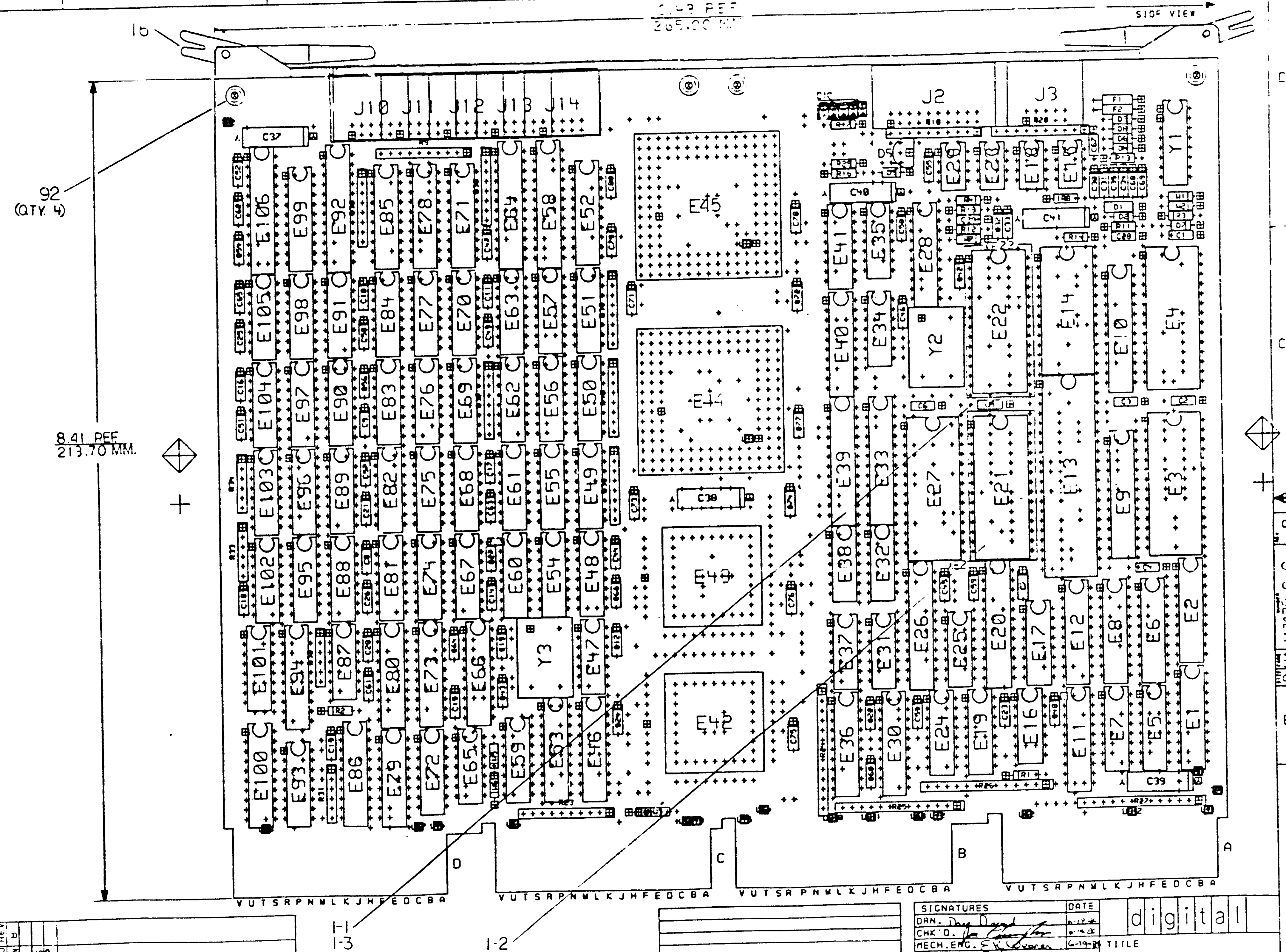
1-1 REMOVE 23-147E6-00 REF E22

1-2 REMOVE 23-148E6-00 REF E21

PARTS ADDED AS SHOWN (SIDE 1)

1-3 INSTALL 23-230E6-00 REF E22

1-4 INSTALL 23-231E6-00 REF E21



NOTES:

1. W1, W3, W6 NOT INSTALLED

SIGNATURES		DATE
DRN.		6-19-86
CHK'D.		6-19-86
MECH.ENG.		6-19-86
PROJ.ENG.		6-19-86
PROD.		8-26-86
SCALE 2:1		
SHT. 1 OF 1		

digital

TITLE KA620-A

SIZE	CODE	NUMBER	REV
D	UA	M7478-0-0	B

NEXT HIGHER ASSY. B-CL-M7478 -0-0

ETCH REV. A1

1 MS# 27691

AUTOMATED BY VAXKPL (1.3)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AA B1	AC B1	AF B1	AH B1	REFERENCE DESIGNATORS
1	1	D-MD-5017043-0-0	50-17043-01		CIRCUIT DRILL AND ETCH	1	1	1	1	
2	2		10-10279-01		0.47 MFD 25V +/-20% Z5U C	6	6	6	6	C30-C35
3	3		10-12784-00		0.047MFD 50V +80/-20% Z5U C	7	7	7	7	C1-C6,C28
4	4		10-13466-05		56 PFD 50V +/- 5% NP0 C	1	1	1	1	C67
5	5		10-13466-07		220 PFD 50V +/- 5% NP0 C	1	1	1	1	C29
6	6		10-14265-02		0.33 MFD 50V +80/-20% Z5U C	58	58	58	58	C7-C27,C42-C66,C68,C69,C71-C80
7	7		10-17472-00		10 MFD 35V +75/-10% ALU	3	3	3	3	C39-C41
8	8		10-20446-05		22 MFD 16V +50/-20% ALU	2	2	2	2	C37,C38
9	9		11-00114-00		PIV= 25 IO=135 MA	1	1	1	1	D9
10	10		11-05275-00		PIV= 60 IO=300 MA -15NS	3	3	3	3	D2-D4
11	11		11-09977-00		VZ= 4.3 5% 1N749A	1	1	1	1	D1
12	12		11-14117-00		PIV= 40 IO= 75 A -4NS 1N4152	3	3	3	3	D6-D8
13	13		11-14136-02		LED 6.7MA 5V .2MCD GREEN	1	1	1	1	D14
14	14		11-20964-01		LED ASSY 4 RED 5V 8MA	1	1	1	1	D10
15	15		12-10929-02		FUSE PICO 1.0 A 125V AXIAL LEA	2	2	2	2	F1,F2
16	16		12-13113-03		HANDLE,MODULE	1	1	1	1	
17	17		12-13506-04		PCB HEADER 09PIN(2X05).100CC 90D	1	1	1	1	J3
18	18		12-13506-10		PCB HEADER 20PIN(2X10).100CC 90D	1	1	1	1	J2
19	19		12-13506-13		PCB HEADER 50PIN(2X25).100CC 90D	1	1	1	1	J1
20	20		12-15006-07		SKT,IC 28PIN DIP TIN SOLD	2	2	2	2	XE21,XE22
21	21		13-00202-00		47.0 .25 W 5.0 % CF	3	3	3	3	R1,R2,R29
22	22		13-00365-00		1.0 K .25 W 5.0 % CF	1	1	1	1	R3
23	23		13-00447-00		4.70 K .25 W 5.0 % CF	1	1	1	1	R8
24	24		13-00479-00		10.0 K .25 W 5.0 % CF	2	2	2	2	R11,R12
25	25		13-01808-00		22.0 K .25 W 5.0 % CF	1	1	1	1	R4
26	26		13-02388-00		2.0 K .25 W 5.0 % CF	1	1	1	1	R14
27	27		13-02466-00		100.0 K .25 W 5.0 % CF	1	1	1	1	R16
28	28		13-04837-00		24.0 K .25 W 5.0 % CF	1	1	1	1	R7
29	29		13-14637-00		R. NET 22.0 - 3 5.0	4	4	4	4	R31-R34
30	30		13-16334-02		R. NET 10.0K- 9 2.0	2	2	2	2	R20,R23
31	31		13-17404-00		249.0 .25 W 1.0 % RN55D-F10	1	1	1	1	R13
32	32		13-17558-01		R. NET 27.0 - 4 5.0	2	2	2	2	R39,R40

REVISION HISTORY

ENG	ECO NUMBER	REV
---	INITIAL	A
SH	M7478-ML001	B

KPL MODULE FORMAT

SECTION A OF B

SECTION/VARIATION INDEX

[A]	AA,AC,AF,AH	[M]
[B]	AP	[N]
[C]		[P]
[D]		[Q]
[E]		[R]
[F]		[S]
[H]		[T]
[J]		[V]
[K]		[W]
[L]		[Y]

DRN: JIM CUNNINGHAM
DATE: 25-JUN-86

CHK'D: DAVE DROZD
DATE: 25-JUN-86

DES.ENG: E. WEAVER
DATE: 25-JUN-86

RESP.ENG.: S. HARGUS
DATE: 25-JUN-86

MFG.ENG: K. RYAN
DATE: 25-JUN-86

D I G I T A L

TITLE PARTS LIST
KA620
REAL TIME VAX

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M7478-0-DBP	B

RELEASE DATE: 21-JAN-87
RELEASE STATUS: RELEASED

BASIC PART NUMBER: M7478

ASSEMBLY NUMBER: D-UA-M7478-0-0

TOP DOCUMENT NUMBER: B-DD-M7478-0-0

FILE NAME: GH988B.PLS

EDIT #: 2

AUTOMATED BY VAXKPL (V1.3)

PARTS LIST

LINE ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AA B1	AC B1	AF B1	AH B1	REFERENCE DESIGNATORS
33	33	13-18110-00		R. NET 330.0 -11 680.0 -11 5.0	4	4	4	4	R24-R27
34	34	13-19610-01		750.0 K .25 W 0.1 % RN55E-B 2	1	1	1	1	R17
35	35	13-19645-01		487.0 K .25 W 0.1 % RN55E-B 2	1	1	1	1	R18
36	36	13-21144-01		R. NET 220.0 - 5 2.0	1	1	1	1	R28
37	37	13-21218-01		R. NET 39.0 - 4 +/-1	4	4	4	4	R35-R38
38	38	13-21380-01		R. NET 470.0 - 9 2.0	1	1	1	1	R9
39	39	18-11660-62		OSCILLATOR,XTAL 614.4 KHZ	1	1	1	1	Y2
40	40	18-14057-00		OSCILLATOR, XTAL 40.000 MHZ	1	1	1	1	Y3
41	41	18-18800-00		OSCILLATOR,XTAL 32.768KHZ	1	1	1	1	Y1
42	42	19-11469-B0		8640 BURNED-IN RECEIVER,B	1	1	1	1	E16
43	43	19-12803-B0		LS04 BURNED-IN INVERTER G	1	1	1	1	E25
44	44	19-13471-B0		LS367 BURNED-IN DRIVER,BUS	1	1	1	1	E41
45	45	19-14140-01	LM	211P COMPARATOR,VOLTAGE	1	1	1	1	E29
46	46	19-14987-00		8641-2 TRANSCEIVER,UNIBUS,	4	4	4	4	E5,E7,E19,E24
47	47	19-15193-B0		LS244 BURNED-IN DRIVER,LIN	1	1	1	1	E28
48	48	19-15219-B0		LS373 BURNED-IN FF-O OCTAL	1	1	1	1	E1
49	49	19-15415-B0		9636 BURNED-IN DRIVER,DUA	1	1	1	1	E23
50	50	19-16028-B1		9643 BURNED-IN DRIVER,TTL	1	1	1	1	E15
51	51	19-18868-B0		LS26 NAND GATE,2-IN,HIGH	1	1	1	1	E35
52	52	19-19015-00	DC	021 BUS TRANSCEIVER,20PI	3	3	3	3	E11,E30,E36
53	53	19-19542-B1		9639 RECEIVER,LINE,DUAL,P	1	1	1	1	E18
54	54	19-19684-01	LM	385B2 PREC VOLT REF. 1.23	1	1	1	1	D5
55	55	19-20441-B1		74F245 TRANSCEIVER,BI-DIREC	4	4	4	4	E52,E71,E85,E99
56	56	19-20442-B1		74F374 FF-D,OCTAL,TRI-STATE	2	2	2	2	E8,E12
57	57	19-20853-B1		LS646 BUS TRANSCEIVER/REGI	2	2	2	2	E9,E10
58	58	19-21008-B1		74F240 BUFFER/LINE DRIVER,O	2	2	2	2	E80,E94
59	59	19-21010-B1		74F373 OCTAL TRANSPARENT LA	5	5	5	5	E2,E6,E46,E53,E73
60	60	19-21305-B1		74F00 NAND GATE,QUAD,2-IN,	1	1	1	1	E47
61	61	19-21306-B1		74F02 NOR GATE,QUAD,2-IN,B	1	1	1	1	E38
62	62	19-21307-B1		74F04 HEX INVERTER,BURNED	2	2	2	2	E32,E87
63	63	19-21312-B1		74F32 OR GATE,QUAD,2-IN,BU	2	2	2	2	E37,E65
64	64	19-21314-B1		74F74 FF-D,DUAL,BURNED-IN	2	2	2	2	E31,E34
65	65	19-21321-B1		74F158 MUX,QUAD,2-IN,BURNED	3	3	3	3	E72,E93,E101
66	66	19-21323-B1		74F174 FF-D,HEX,BURNED-IN	2	2	2	2	E17,E59
67	67	19-21417-B1		74F521 COMPARATOR,IDENTITY,	1	1	1	1	E66
68	68	19-22871-01		29853 TRANSCEIVER,PARITY B	4	4	4	4	E58,E64,E92,E106
69	69	19-23679-B1		74F537 DECODER/DEMUX,1-OF-1	1	1	1	1	E100
70	70	21-17312-00		UART DL-11 SOFTWARE	1	1	1	1	E13
71	71	21-18795-00		146818 CLOCK/CALENDAR/RAM	1	1	1	1	E14
72	72	21-21384-02		RAM 8KX8,STATIC 150	2	2	2	2	E3,E4
73	73	21-21413-02		41256 RAM 256KX1,DYNAMIC M	-	-	-	36	E48-E51,E54-E57,E60-E63, CONT E67-E70,E74-E77,E81-E84, CONT E88-E91,E95-E98,E102-E105
74	74	21-21414-02		50256 RAM 256KX1 DYNAMIC M	-	-	36	-	E48-E51,E54-E57,E60-E63, CONT E67-E70,E74-E77,E81-E84, CONT E88-E91,E95-E98,E102-E105
75	75	21-21415-02		81256-15 RAM 256KX1,DYNAMIC 1	-	36	-	-	E48-E51,E54-E57,E60-E63, CONT E67-E70,E74-E77,E81-E84, CONT E88-E91,E95-E98,E102-E105
76	76	21-22422-02		256KX1 MOS RAM 150NS 1	-	-	-	-	

DIGITAL	TITLE	SECTION A OF B	SIZE	CODE	DOCUMENT NUMBER	REV
	KA620 REAL TIME VAX		K	PL	M7478-0-DBP	B

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AA B1	AC B1	AF B1	AH B1	REFERENCE DESIGNATORS
77	77		21-22797-01		DC 337 MICROVAX FLOATING PO	1	1	1	1	E42
78	78		21-23389-01		DC380A GATE ARRAY,3200 GATE	1	1	1	1	E45
79	79		21-23413-01		DC379 CMOS GATE ARRAY,144PGA,320	1	1	1	1	E44
80	80		21-26400-01		DC 532 REAL TIME MICROVAX 3	1	1	1	1	E43
81	81		23-10L3 -00		L3-01	1	1	1	1	E33
82	82		23-147E6-00		*** THIS ITEM IS NOT USED ***	-	-	-	-	
83	83		23-148E6-00		*** THIS ITEM IS NOT USED ***	-	-	-	-	
84	84		23-14L3 -00		L3-01	1	1	1	1	E39
85	85		23-169J5-00		J5-03 PAL,LOGIC	1	1	1	1	E40
86	86		23-170J5-00		J5-03 PAL,LOGIC	1	1	1	1	E78
87	87		23-227J5-00		J5-03 PAL,OCTAL AND-	1	1	1	1	E86
88	88		23-31L3 -00		L3-01	1	1	1	1	E26
89	89		23-53L1 -00		L1-01	1	1	1	1	E27
90	90		23-8L3 -00		L3-01 FPLS	1	1	1	1	E20
91	91		23-E42F1-00		F1-05	1	1	1	1	E79
92	92		90-00024-01		EYELET,ROLLED 0.1210DX0.192	4	4	4	4	
93	93		90-09185-00		JUMPER, WIRE, INSULATED, BLACK B	3	3	3	3	W2,W4,W5
94	94		99-07004-06		CARTON,DIE CUT,B,200PSI W/ARTWOR	1	1	1	1	
95	95		99-07025-06		BAG,ANTISTATIC BUBBLE	1	1	1	1	
96	96		99-07092-04		BAG,TRANSLUCENT,ESD PROTECTIVE	1	1	1	1	
97	97		23-230E6-00		E6-01,E6-02 E6-03 ROM	1	1	1	1	E22
98	98		23-231E6-00		E6-01,E6-02 E6-03 ROM	1	1	1	1	E21

1 GEN: 1A:M7478-AA IS THE PRI. GENERIC VAR OF THE KA620 CPU W/EITHER OF THE FOLLOWING APPROVED RAM VENDORS.
3 GEN: 2B:MOD'S MUST BE STAMPED LABELED ACCORDINGLY,DEPENDING ON RAM MANUFACTURE.
4 GEN: M7478-AC IS THE MODULE USING FUJITSU 256K RAMS.
5 GEN: M7478-AF IS THE MODULE USING HITACHI 256K RAMS.
6 GEN: M7478-AH IS THE MODULE USING NEC 256K RAMS.
11 GEN: M7478-AP IS THE MODULE USING MITSUBISHI 256K RAMS.

AUTOMATED BY VAXKPL (V1.3)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AP B1	REFERENCE DESIGNATORS
1	1	D-MD-5017043-0-0	50-17043-01		CIRCUIT DRILL AND ETCH	1	
2	2		10-10279-01		0.47 MFD 25V +/-20% Z5U C	6	C30-C35
3	3		10-12784-00		0.047MFD 50V +80/-20% Z5U C	7	C1-C6,C28
4	4		10-13466-05		56 PFD 50V +/- 5% NP0 C	1	C67
5	5		10-13466-07		220 PFD 50V +/- 5% NP0 C	1	C29
6	6		10-14265-02		0.33 MFD 50V +80/-20% Z5U C	58	C7-C27,C42-C66,C68,C69,C71-C80
7	7		10-17472-00		10 MFD 35V +75/-10% ALU	3	C39-C41
8	8		10-20446-05		22 MFD 16V +50/-20% ALU	2	C37,C38
9	9		11-00114-00		PIV= 25 IO=135 MA	1	D9
10	10		11-05275-00		PIV= 60 IO=300 MA -15NS	3	D2-D4
11	11		11-09977-00		VZ= 4.3 5% 1N749A	1	D1
12	12		11-14117-00		PIV= 40 IO= 75 A -4NS 1N4152	3	D6-D8
13	13		11-14136-02		LED 6.7MA 5V .2MCD GREEN	1	D14
14	14		11-20964-01		LED ASSY 4 RED 5V 8MA	1	D10
15	15		12-10929-02		FUSE PICO 1.0 A 125V AXIAL LEA	2	F1,F2
16	16		12-13113-03		HANDLE,MODULE	1	
17	17		12-13506-04		PCB HEADER 09PIN(2X05),100CC 90D	1	J3
18	18		12-13506-10		PCB HEADER 20PIN(2X10),100CC 90D	1	J2
19	19		12-13506-13		PCB HEADER 50PIN(2X25),100CC 90D	1	J1
20	20		12-15006-07		SKT,IC 28PIN DIP TIN SOLD	2	XE21,XE22
21	21		13-00202-00		47.0 .25 W 5.0 % CF	3	R1,R2,R29
22	22		13-00365-00		1.0 K .25 W 5.0 % CF	1	R3
23	23		13-00447-00		4.70 K .25 W 5.0 % CF	1	R8
24	24		13-00479-00		10.0 K .25 W 5.0 % CF	2	R11,R12
25	25		13-01808-00		22.0 K .25 W 5.0 % CF	1	R4
26	26		13-02388-00		2.0 K .25 W 5.0 % CF	1	R14
27	27		13-02466-00		100.0 K .25 W 5.0 % CF	1	R16
28	28		13-04837-00		24.0 K .25 W 5.0 % CF	1	R7
29	29		13-14637-00	R. NET	22.0 - 3 5.0	4	R31-R34
30	30		13-16334-02	R. NET	10.0K- 9 2.0	2	R10,R23
31	31		13-17404-00	249.0	.25 W 1.0 % RN55D-F10	1	R13
32	32		13-17558-01	R. NET	27.0 - 4 5.0	2	R39,R40

REVISION HISTORY		
ENG	ECO NUMBER	REV
---	INITIAL	A
SH	M7478-ML001	B

KPL MODULE FORMAT: SECTION B OF B

SECTION/VARIATION INDEX

[A]	AA,AC,AF,AH	[M]
[B]	AP	[N]
[C]		[P]
[D]		[Q]
[E]		[R]
[F]		[S]
[H]		[T]
[J]		[V]
[K]		[W]
[L]		[Y]

BASIC PART NUMBER: M7478

ASSEMBLY NUMBER: D-UA-M7478-0-0

TOP DOCUMENT NUMBER: B-DD-M7478-0-0

DRN: JIM CUNNINGHAM
DATE: 25-JUN-86

CHK'D: DAVE DROZD
DATE: 25-JUN-86

DES.ENG: E. WEAVER
DATE: 25-JUN-86

RESP.ENG.: S. HARGUS
DATE: 25-JUN-86

MFG.ENG: K. RYAN
DATE: 25-JUN-86

D I G I T A L

TITLE: PARTS LIST
KA620
REAL TIME VAX

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M7478-0-DBP	B

RELEASE DATE: 21-JAN-87
RELEASE STATUS: RELEASED

FILE NAME: GH988B.PLS

EDIT #: 2

AUTOMATED BY VAXKPL (V1.3)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AP B1	REFERENCE DESIGNATORS
33	33		13-18110-00		R, NET 330.0 -11 680.0 -11 5.0	4	R24-R27
34	34		13-19610-01		750.0 K .25 W 0.1 % RN55E-B 2	1	R17
35	35		13-19645-01		487.0 K .25 W 0.1 % RN55E-B 2	1	R18
36	36		13-21144-01		R, NET 220.0 - 5 2.0	1	R28
37	37		13-21218-01		R, NET 39.0 - 4 +/-1	4	R35-R38
38	38		13-21380-01		R, NET 470.0 - 9 2.0	1	R9
39	39		18-11660-62		OSCILLATOR,XTAL 614.4 KHZ	1	Y2
40	40		18-14057-00		OSCILLATOR, XTAL 40.000 MHZ	1	Y3
41	41		18-18800-00		OSCILLATOR,XTAL 32.768KHZ	1	Y1
42	42		19-11469-B0		8640 BURNED-IN RECEIVER,B	1	E16
43	43		19-12803-B0		LS04 BURNED-IN INVERTER G	1	E25
44	44		19-13471-B0		LS367 BURNED-IN DRIVER,BUS	1	E41
45	45		19-14140-01	LM	211P COMPARATOR,VOLTAGE	1	E29
46	46		19-14987-00		8641-2 TRANSCEIVER,UNIBUS,	4	E5,E7,E19,E24
47	47		19-15193-B0		LS244 BURNED-IN DRIVER,LIN	1	E28
48	48		19-15219-B0		LS373 BURNED-IN FF-D OCTAL	1	E1
49	49		19-15415-B0		9636 BURNED-IN DRIVER,DUA	1	E23
50	50		19-16028-B1		9643 BURNED-IN DRIVER,TTL	1	E15
51	51		19-18868-B0		LS26 NAND GATE,2-IN,H.H	1	E35
52	52		19-19015-00	DC	021 BUS TRANSCEIVER,20PI	3	E11,E30,E36
53	53		19-19542-B1		9639 RECEIVER,LINE,DUAL,P	1	E18
54	54		19-19684-01	LM	385B2 PREC VOLT REF, 1.23	1	D5
55	55		19-20441-B1		74F245 TRANSCEIVER,BI-DIREC	4	E52,E71,E85,E99
56	56		19-20442-B1		74F374 FF-D,OCTAL,TRI-STATE	2	E8,E12
57	57		19-20853-B1		LS646 BUS TRANSCEIVER/REGI	2	E9,E10
58	58		19-21008-B1		74F240 BUFFER/LINE DRIVER,O	2	E80,E94
59	59		19-21010-B1		74F373 OCTAL TRANSPARENT LA	5	E2,E6,E46,E53,E73
60	60		19-21305-B1		74F00 NAND GATE,QUAD,2-IN,	1	E47
61	61		19-21306-B1		74F02 NOR GATE,QUAD,2-IN,B	1	E38
62	62		19-21307-B1		74F04 HEX INVERTER,BURNED	2	E32,E87
63	63		19-21312-B1		74F32 OR GATE,QUAD,2-IN,BU	2	E37,E65
64	64		19-21314-B1		74F74 FF-D,DUAL,BURNED-IN	2	E31,E34
65	65		19-21321-B1		74F158 MUX,QUAD,2-IN,BURNED	3	E72,E93,E101
66	66		19-21323-B1		74F174 FF-D,HEX,BURNED-IN	2	E17,E59
67	67		19-21417-B1		74F521 COMPARATOR,IDENTITY,	1	E66
68	68		19-22871-01		29853 TRANSCEIVER,PARITY B	4	E58,E64,E92,E106
69	69		19-23679-B1		74F537 DECODER/DEMUX,1-OF-1	1	E100
70	70		21-17312-00		UART DL-11 SOFTWARE	1	E13
71	71		21-18795-00		146818 CLOCK/CALENDAR/RAM	1	E14
72	72		21-21384-02		RAM 8KX8,STATIC 150	2	E3,E4
73	73		21-21413-02		41256 RAM 256KX1,DYNAMIC M	-	
74	74		21-21414-02		50256 RAM 256KX1 DYNAMIC M	-	
75	75		21-21415-02		81256-15 RAM 256KX1,DYNAMIC 1	-	
76	76		21-22422-02		256KX1 MOS RAM 150NS 1	36	E48-E51,E54-E57,E60-E63, CONT E67-E70,E74-E77,E81-E84, CONT E88-E91,E95-E98,E102-E105
77	77		21-22797-01	DC	337 MICROVAX FLOATING PO	1	E42
78	78		21-23389-01		DC380A GATE ARRAY,3200 GATE	1	E45
79	79		21-23413-01		DC379 CMOS GATE ARRAY,144PGA,320	1	E44
80	80		21-26400-01	DC	532 REAL TIME MICROVAX 3	1	E43

DIGITAL	TITLE	SIZE	CODE	DOCUMENT NUMBER	REV
	KA620 REAL TIME VAX SECTION B OF B	K	PL	M7478-0-DBP	B

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AP B1	REFERENCE DESIGNATORS
81	81		23-10L3 -00		L3-01	1	E33
82	82		23-147E6-00		*** THIS ITEM IS NOT USED ***	-	
83	83		23-148E6-00		*** THIS ITEM IS NOT USED ***	-	
84	84		23-14L3 -00		L3-01	1	E39
85	85		23-169J5-00		J5-03 PAL,LOGIC	1	E40
86	86		23-170J5-00		J5-03 PAL,LOGIC	1	E78
87	87		23-227J5-00		J5-03 PAL,OCTAL AND-	1	E86
88	88		23-31L3 -00		L3-01	1	E26
89	89		23-53L1 -00		L1-01	1	E27
90	90		23-8L3 -00		L3-01 FPLS	1	E20
91	91		23-E42F1-00		F1-05	1	E79
92	92		90-00024-01		EYELET,ROLLED 0.121ODX0.192	4	
93	93		90-09185-00		JUMPER, WIRE, INSULATED, BLACK B	3	W2,W4,W5
94	94		99-07C04-06		CARTON,DIE CUT,B,200PSI W/ARTWOR	1	
95	95		99-07025-06		BAG,ANTISTATIC BUBBLE	1	
96	96		99-07092-04		BAG,TRANSLUCENT,ESD PROTECTIVE	1	
97	97		23-230E6-00		E6-01,E6-02 E6-03 ROM	1	E22
98	98		23-231E6-00		E6-01,E6-02 E6-03 ROM	1	E21

1 GEN: 1A:M7478-AA IS THE PRI. GENERIC VAR OF THE KA620 CPU W/EITHER OF THE FOLLOWING APPROVED RAM VENDORS.
3 GEN: 2B:MOD'S MUST BE STAMPED LABELED ACCORDINGLY,DEPENDING ON RAM MANUFACTURE.
4 GEN: M7478-AC IS THE MODULE USING FUJITSU 256K RAMS.
5 GEN: M7478-AF IS THE MODULE USING HITACHI 256K RAMS.
6 GEN: M7478-AH IS THE MODULE USING NEC 256K RAMS.
11 GEN: M7478-AP IS THE MODULE USING MITSUBISHI 256K RAMS.

KA620-AA M7478 DRAWING DIRECTORY

DATA PATH

0 r+VAX

1 KA620 -RTVAX on Q22 Bus

1.1 r+VAX & FPU

1.1.1 r+VAX & FPU PINOUTS

1.2 ADDRESS LATCH/LOCAL MEMORY DECODE

1.3 Memory Subsystem

1.4 Q22 Bus Interface Gate Array

1.4.1-1.4.2, 1.4.1.1-1.4.1.9

1.5 Translation Map Group

1.6 KA620 QBUS INTERFACE

1.7 r+VAX Interface Gate Array

1.7.1-1.7.2, 1.7.2.1-1.7.2.10

1.8 TOY CLOCK

1.9 Console Serial Line Interface

1.10 LEDS and Configuration Connector

1.11 Decoupling Capacitors

CONTROL

2 KA620 State Machines

2.1 r+VAX Cycle Controller

2.1.1 MEMORY SEQUENCER

2.1.2 MEMORY SEQUENCER SUPPORT

2.2 Q22 BUS STATE MACHINES

MISC.

3 KA620 MEMORY ARBITER LISTING

3.1-3.2 KA620 MEMORY ARBITER FLOW DIAGRAM

4 KA620 LOCAL I/O CONTROL MACHINE LISTING

4.1 KA620 LOCAL I/O CONTROL MACHINE FLOW DIAGRAM

5 Q22 BUS ARBITRATION CONTROL MACHINE LISTING

5.1 Q22 BUS ARBITRATION CONTROL MACHINE FLOW DIAGRAM

6 Q22 BUS MASTER CONTROL MACHINE LISTING

6.1 Q22 BUS MASTER CONTROL MACHINE FLOW DIAGRAM

7 Q22 BUS SLAVE CONTROL MACHINE LISTING

7.1-7.2 Q22 BUS SLAVE CONTROL MACHINE FLOW DIAGRAM

8 1KX4 RAS DECODE PROM (E79) LISTING

9 PALASM LISTINGS FOR PAL16L8A DEVICES

10 MNEMONIC DICTIONARY

DRAWING
TITLE=DIRECTORY
ABBREV=DIRECT
CIRCUIT+TYPE=DOCUMENTATION
LAST+MODIFIED=Sun Dec 9 16:50:34 1984

DEFINE
X+FIRST=0
X+STEP=SIZE

REVISION		
CHK	CHANGE NO	REV

digital

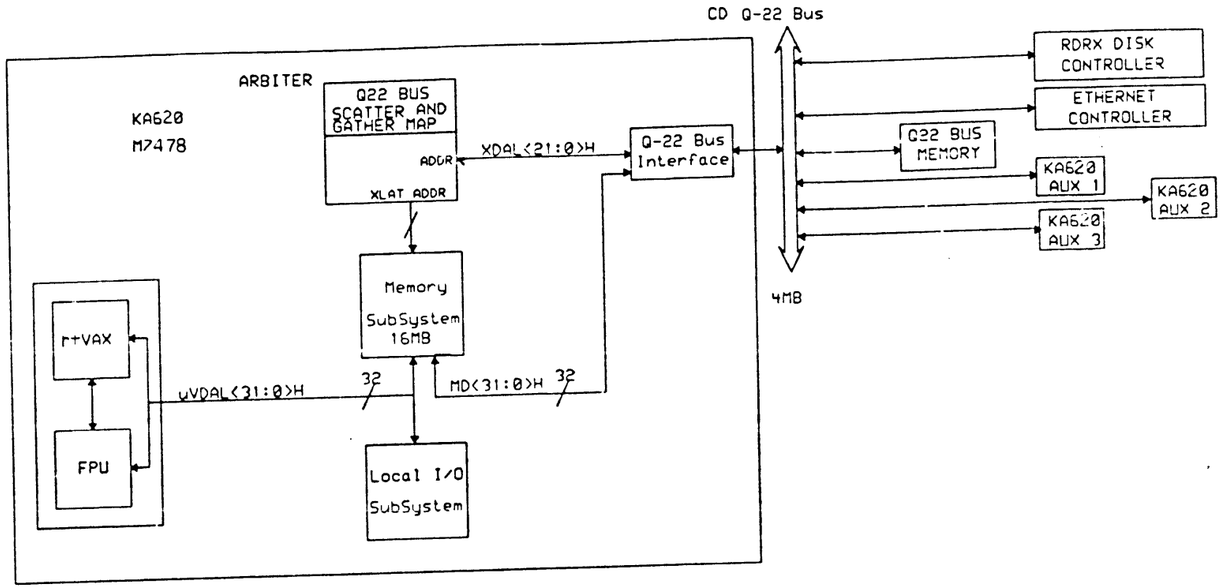
DRN. DATE 2-19-84 ENG. DATE 2-19-84 CHK'D DATE 2-19-84

USED: FIRST USED ON OPTION/MOD:

BOARD LOCATION: TOP DOCUMENT NUMBER:

TITLE: M7478 DRAWING DIRECTORY

SIZE D | CODE CS | NUMBER M7478-0-1 | REV. A



REVISION HISTORY

REV	ECO NUMBER	DATE

DRAWING

TITLE=KASYSTEM
ABBREV=kasystem
CIRCUIT←TYPE=kdq32←processor
LAST←MODIFIED=

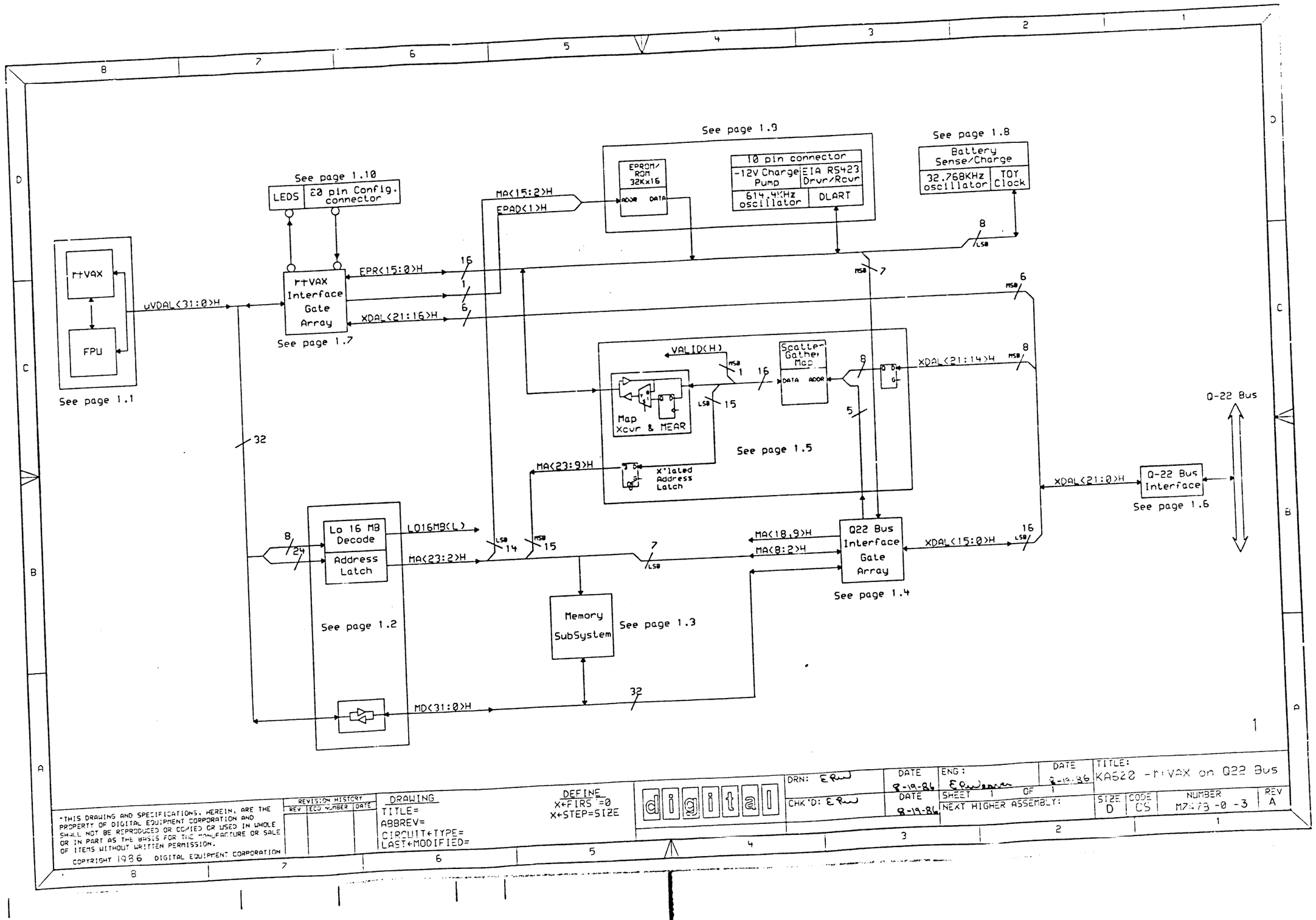
DEFINE

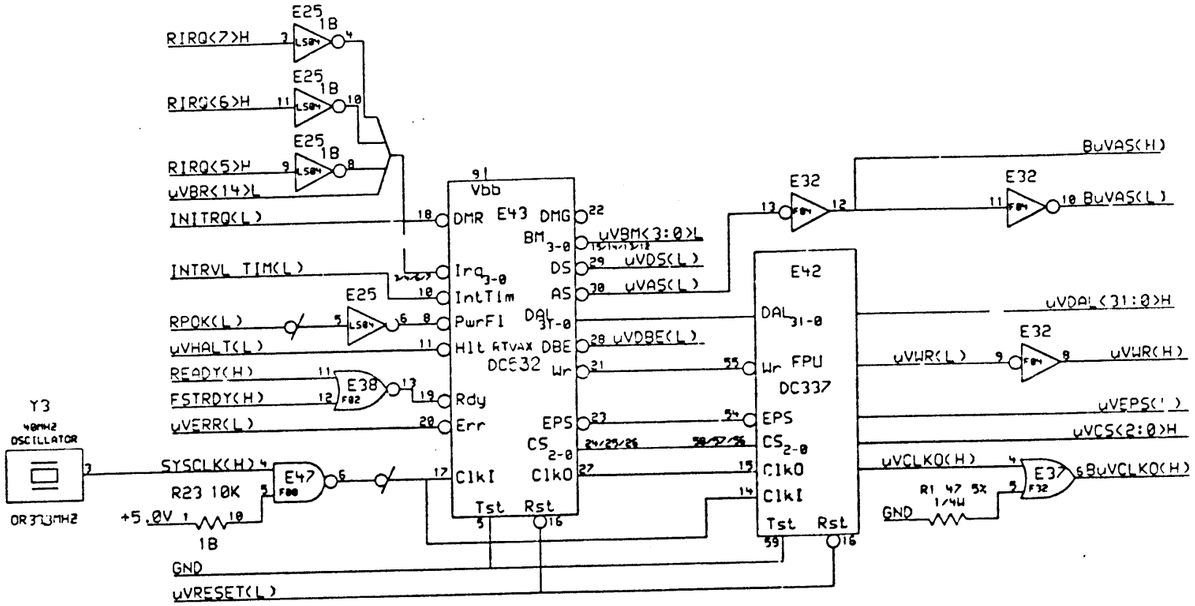
X←FIRST=0
X←STEP=SIZE

digital

DRN: ER	DATE 8-19-86	ENG: ER	DATE 8-19-86	TITLE: RTVAX SYSTEM	
CHK'D: ER	DATE 8-19-86	SHEET 1 OF 1		NEXT HIGHER ASSEMBLY:	SIZE D / CODE CS / NUMBER M7473-0-2 / REV A

0


See page 1.9
See page 1.8
See page 1.10
LEDS
28 pin Config. connector
EPROM/ ROM 32Kx16
ADDR
DATA
10 pin connector
-12V Charge Pump
EIA RS423 Drvr/Rcvr
614.4KHz oscillator
DLART
Battery Sense/Charge
32.768KHz oscillator
TOY Clock
MA<15:2>H
EPAD<1>H
r+VAX
FPU
See page 1.1
uVDAL<31:0>H
r+VAX Interface Gate Array
See page 1.7
EPR<15:0>H
XDAL<21:16>H
VALID(H)
Scatter-Gather Map
XDAL<21:14>H
Map Xcvr & MEAR
See page 1.5
MA<23:9>H
X'lated Address Latch
Q-22 Bus
Q-22 Bus Interface
See page 1.6
XDAL<21:0>H
Lo 16 MB Decode
Address Latch
LO16MB(L)
MA<23:2>H
See page 1.2
Memory SubSystem
See page 1.3
MA<18:9>H
MA<8:2>H
Q22 Bus Interface Gate Array
See page 1.4
XDAL<15:0>H
MD<31:0>H
1
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT 1986 DIGITAL EQUIPMENT CORPORATION
REVISION HISTORY
REV | ECO NUMBER | DATE
DRAWING
TITLE=
ABBREV=
CIRCUIT=TYPE=
LAST=MODIFIED=
DEFINE
X=FIRS =0
X=STEP=SIZE
digital
DRN: EPW
DATE 8-19-86
ENG: EPW
DATE 8-19-86
CHK'D: EPW
DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:
TITLE: KA620 -r+VAX on Q22 Bus
SIZE D | CODE CS | NUMBER M7373-0-3 | REV A



uVAS(L) CYCLES

uVCS<2:0>H uVWR(L)

L	H	H interrupt acknowledge (IAK)
H	L	H read (I/O - stream)
H	L	H read (lock)
H	x	H read (IO - stream)
H	H	L write (unlock)
H	H	L write (IO - stream)

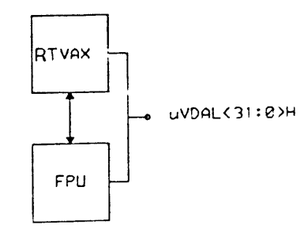
x => don't care

uVEPS(L) CYCLES

uVCS<2:0>H uVWR(L)

H	L	H read data
H	H	H read response (uVCS<2> pulled low by responder)
H	L	L write command (FPU)
H	H	L write data
H	L	L write command (non-FPU)

1.1



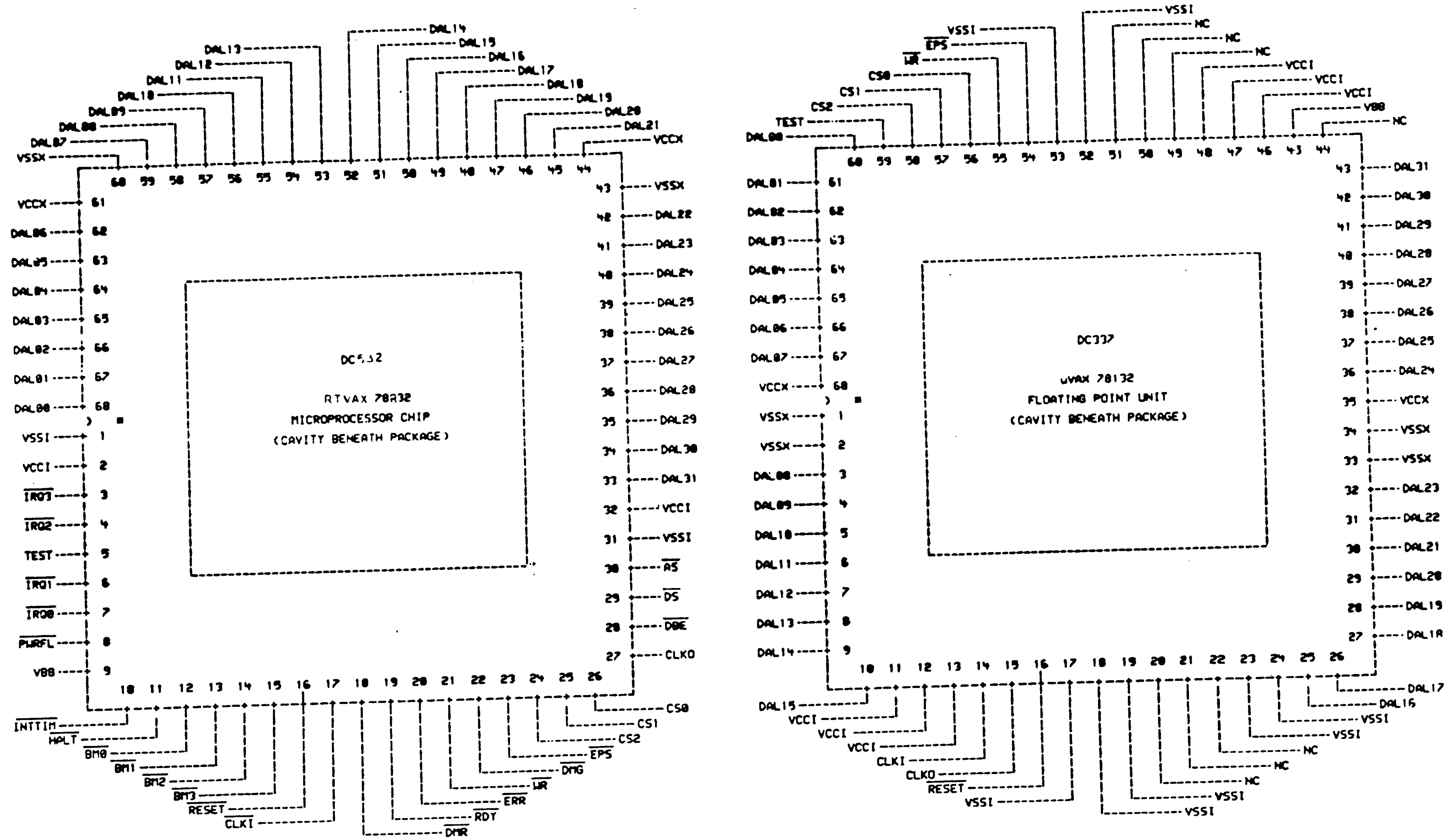
REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=RTVAX
ABBREV=RTVAX
CIRCUIT TYPE=RTVAX/FPU
LAST MODIFIED=

DEFINE
X=FIRST=0
X=STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: rtVAX & FPU	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	NEXT HIGHER ASSEMBLY:	SIZE D	CODE CS
				NUMBER M7673-0-1	REV A



1.1.1

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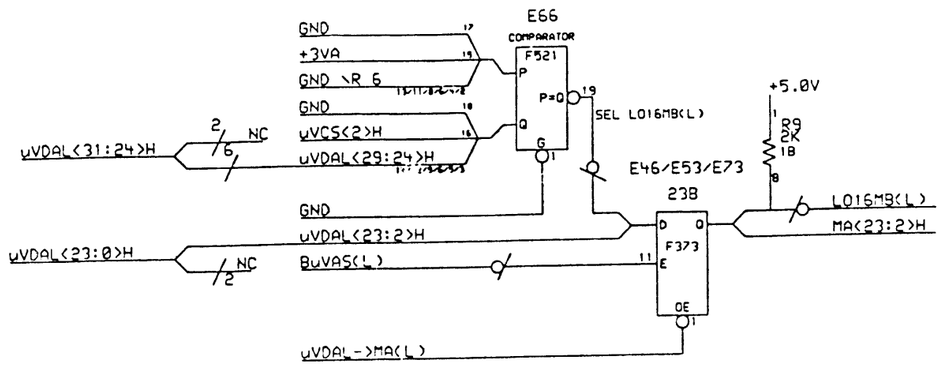
REVISIONS		
CHK	CHANGE NO.	REV

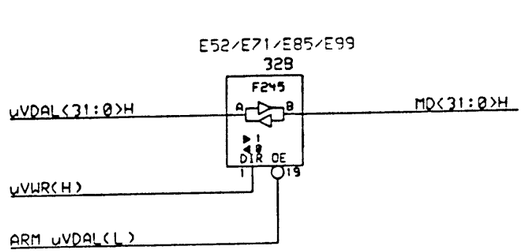
digital

DRN	DATE	ENG	DATE
CHK'D	DATE	BOARD LOCATION:	
SLOCOM:		SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL:		NEXT HIGHER ASSEMBLY:	

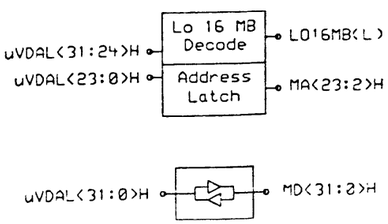
TITLE: RTVAX & FPU PINOUTS

SIZE	CODE	NUMBER	REV.
D	CS	M7478-0-5	A





1.2



REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=ADDR LATCH
ABBREV=ADLATCH
CIRCUIT-TYPE=ADDR-LATCH
LAST-MODIFIED=

DEFINE
X-FIRST=0
X-STEP=SIZE

digital

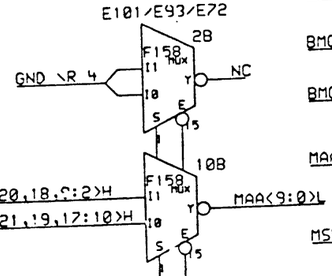
DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	

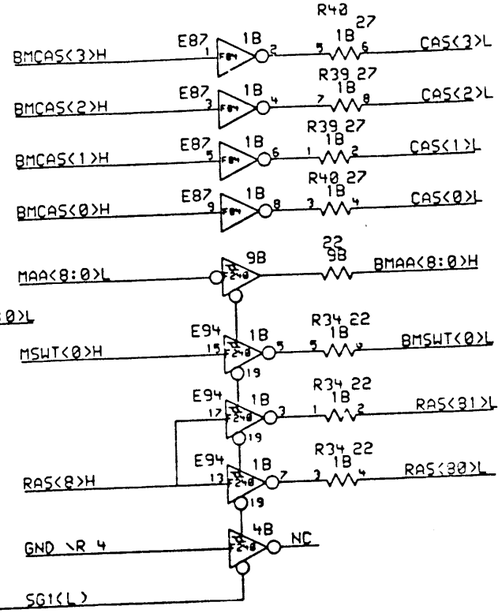
TITLE: ADDRESS LATCH/ LOCAL MEMORY DECODE

NEXT HIGHER ASSEMBLY:

SIZE	CODE	NUMBER	REV
D	CS	M7477-0-5	A

E101/E93/E72

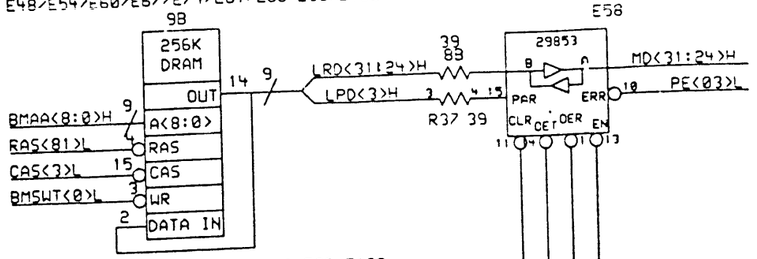




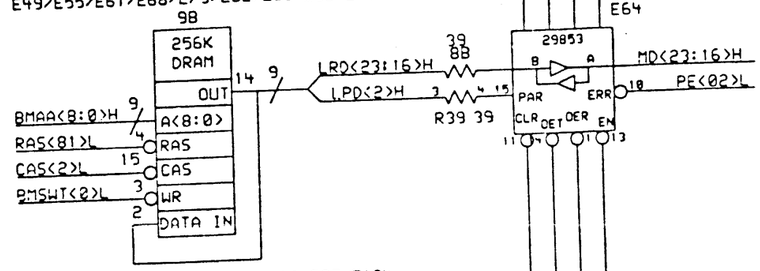
MODULE CD CONNECTORS

GND 1	CT1	GND 1	DT1
RAS<0>H 1	CU1	RAS<6>H 1	DU1
MSID<4>L 1	CT2		
MAA<8>L 1	CS2		
MAA<0>L 1	CR2	BMCAS<3>H	DR2
MAA<2>L 1	CP2	BMCAS<2>H	DP2
MAA<1>L 1	CN2	RAS<2>H 1	DN2
MSID<1>L 1	CM2	MSID<3>L 1	DM2
RAS<4>H 1	CL2	RAS<7>H 1	DL2
MSWT<1>H 1	CK2	RAS<3>H 1	DK2
MSID<0>L 1	CJ2	MSID<2>L 1	DJ2
BMCAS<1>H 1	CH2	MAA<6>L 1	DH2
RAS<1>H 1	CF2	MAA<3>L 1	DF2
BMCAS<0>H	CE2	MAA<4>L 1	DE2
RAS<5>H 1	CD2	MAA<5>L 1	DD2
GND 1	CC2	GND 1	DC2
MAA<9>L 1	CB2	MAA<7>L 1	DB2
+5.0V 1	CA2	+5.0V 1	DA2

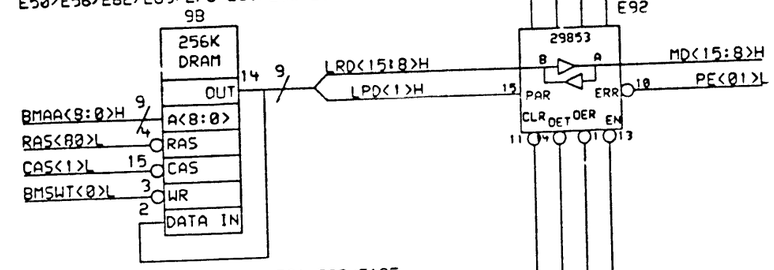
E48/E54/E60/E67/E74/E81/E88/E95/E102



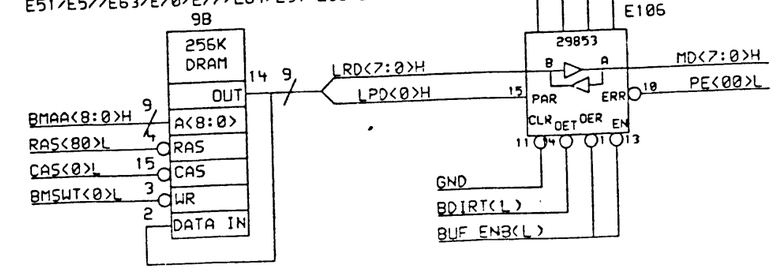
E49/E55/E61/E68/E75/E82/E89/E96/E103



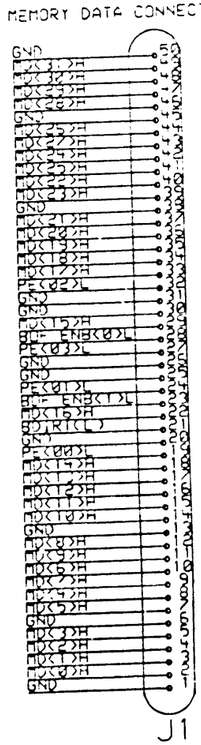
E50/E56/E62/E69/E76/E83/E90/E97/E104



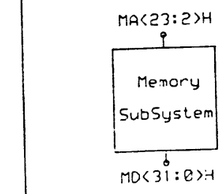
E51/E57/E63/E70/E77/E84/E91/E98/E105



52 PIN MEMORY DATA CONNECTOR



1.3



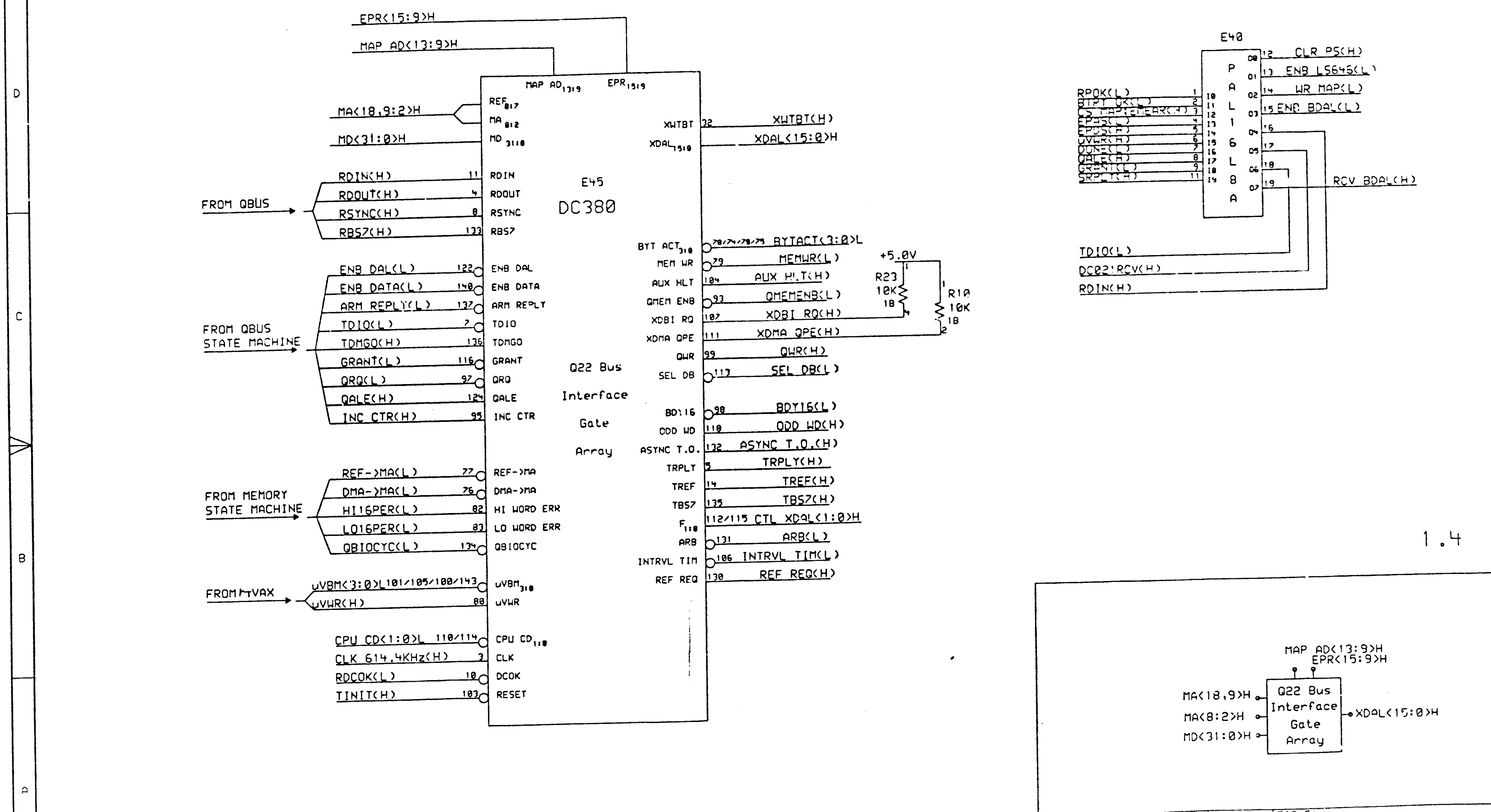
REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=MEM
ABBREV=MEM
CIRCUIT+TYPE=MEMEORY
LAST+MODIFIED=

DEFINE
X+FIRST=0
X+STEP=SIZE

digital

DRN: ER	DATE 8-19-86	ENG: ER	DATE 8-19-86	TITLE: Memory SubSystem
CHK'D: ER	DATE 8-19-86	SHEET 1 OF 1	NEXT HIGHER ASSEMBLY:	SIZE D / CODE CS / NUMBER 17773-0-7 / REV A


EPR<15:9>H
MAP AD<13:9>H
MA<18,9:2>H
MD<31:0>H
FROM QBUS
RDIN(H)
RDOUT(H)
RSYNC(H)
RBS7(H)
ENB DAL(L)
ENB DATA(L)
ARM REPLY(L)
TDIO(L)
TDMGO(H)
GRANT(L)
QRQ(L)
QALE(H)
INC CTR(H)
FROM QBUS
STATE MACHINE
REF->MA(L)
DMA->MA(L)
HI16PER(L)
LO16PER(L)
QBIOCYC(L)
FROM MEMORY
STATE MACHINE
uVBM<3:0>L
uVWR(H)
CPU CD<1:0>L
CLK 614.4KHz(H)
RDCOK(L)
TINIT(H)
E45
DC380
Q22 Bus
Interface
Gate
Array
XWTBT(H)
XDAL<15:0>H
BYTACT<3:0>L
MEMWR(L)
AUX HLT(H)
QMEMENB(L)
XDBI RQ(H)
XDMA QPE(H)
QWR(H)
SEL DB(L)
BDY16(L)
ODD WD(H)
ASYNC T.O.(H)
TRPLY(H)
TREF(H)
TBS7(H)
CTL XDAL<1:0>H
ARB(L)
INTRVL TIM(L)
REF REQ(H)
+5.0V
R23
10K
R10
10K
E40
PAL16L8A
CLR PS(H)
ENB LS645(L)
WR MAP(L)
ENB BDAL(L)
RCV BDAL(H)
TDIO(L)
DC021RCV(H)
RDIN(H)
1.4
MAP AD<13:9>H
EPR<15:9>H
MA<18,9>H
MA<8:2>H
MD<31:0>H
Q22 Bus
Interface
Gate
Array
XDAL<15:0>H

REVISION HISTORY: REV | ECO NUMBER | DATE

DRAWING
TITLE=GATOR2
ABBREV=GA2
CIRCUIT+TYPE=GATE+ARRAY
LAST+MODIFIED=

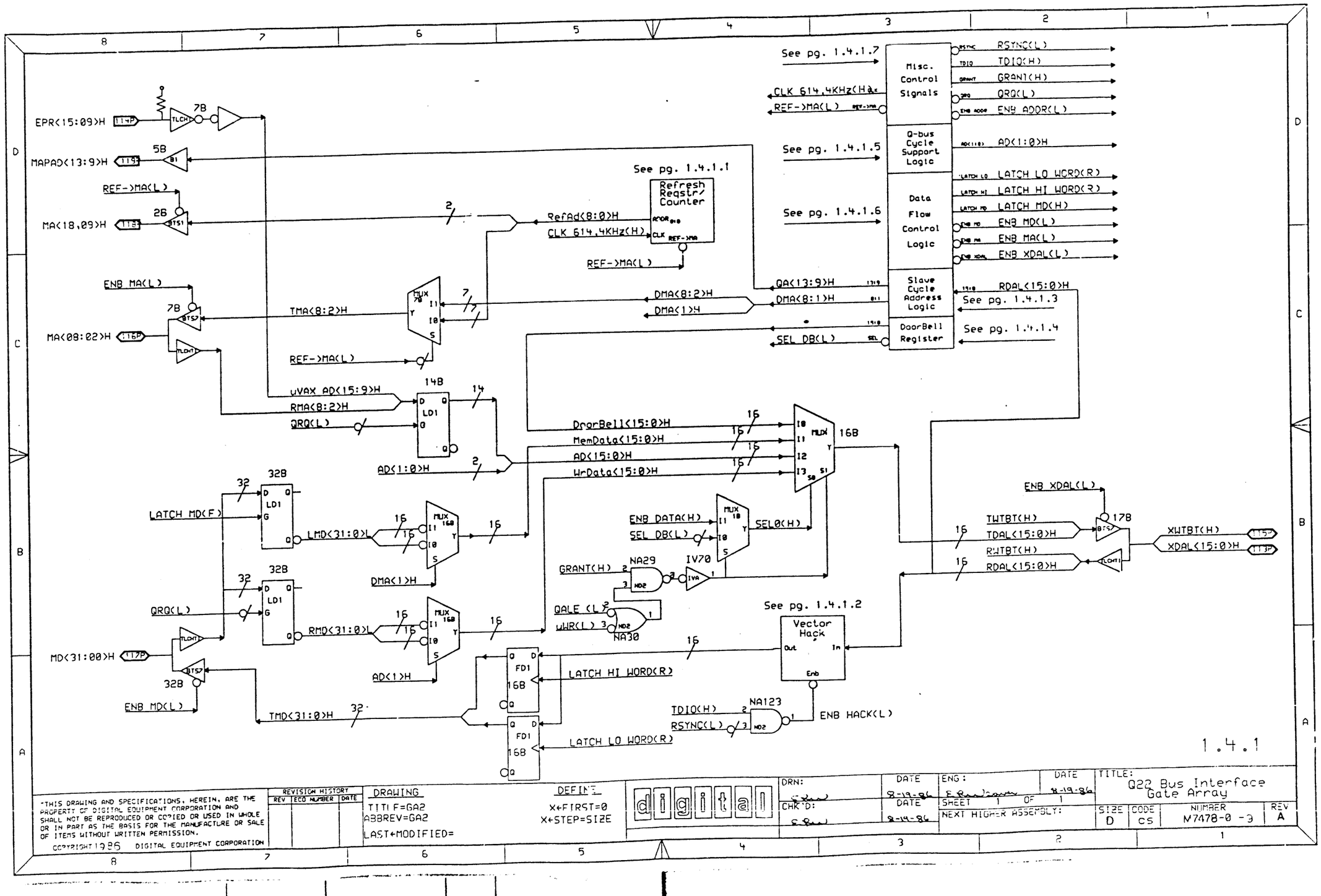
DEFINE
X+FIRST=0
X+STEP=SIZE

digital

DRN: E.R.
CHK'D: E.R.
DATE 8-19-86
DATE 8-19-86
ENG:
DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:

TITLE: Q22 Bus Interface Gate Array

SIZE D | CODE CS | NUMBER M7473-0-8 | REV A



REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=GA2
ABBREV=GA2
LAST MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN:	DATE 8-19-86	ENG:	DATE 8-19-86
CHK'D:	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

TITLE: Q22 Bus Interface Gate Array

SIZE	CODE	NUMBER	REV
D	CS	M7478-0 -3	A

	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Q	72 VSS	68 MD25	64 MD21	63 MD15	61 MD11	57 MD5	56 MD1	53 MD29	51 MD26	50 MD22	47 MD16	44 MD12	42 MD6	39 MD0	36 VSS	Q
P	75 BYT ACT0	71 MD27	67 MD23	65 MD17	62 MD13	59 MD7	58 MD3	52 MD31	48 MD28	46 MD24	43 MD18	40 MD14	38 MD8	35 MD2	32 XWTBT	P
N	78 BYT ACT1	74 BYT ACT2	70 BYT ACT3	69 MD19	66 VSS	60 MD9	55 VSS	54 VDD	49 MD30	45 VSS	41 MD20	37 VDD	34 MD10	31 MD4	28 XDAL15	N
M	80 UVWR	76 DMA->MA	73 VDD										33 XDAL12	29 XDAL13	27 XDAL14	M
L	83 LO WORD ERR	79 MEM WR	77 REF->IA		stand off					stand off			30 VSS	26 XDAL10	25 XDAL11	L
K	86 REF8	82 HI WORD ERR	81 VSS										24 XDAL7	23 XDAL8	21 XDAL9	K
J	87 MA7	84 MA8	85 REF7										17 VSS	22 XDAL5	20 XDAL6	J
H	89 MA5	88 MA6	90 VDD										18 VDD	16 XDAL3	17 XDAL4	H
G	92 MA3	94 MA4	91 VSS		stand off								13 XDAL0	12 XDAL1	15 XDAL2	G
F	93 QMEM ENB	95 INC CTR	96 MA2								stand off		9 VSS	10 DCOK	14 TREF	F
E	97 QRQ	98 BDT16	102 VSS										5 DOREPLY	7 TDIO	11 RDIN	E
D	99 QWR	101 UVBM3	105 UVBM2								extra pin		1 VDD	4 RDOUT	8 RSYNC	D
C	100 UVBM1	103 RESET	106 INTRVL TIM	109 VDD	113 SEL D8	117 VSS	121 EPR13	126 VDD	127 VSS	132 ASNYC T.O	138 VSS	141 MAP AD10	142 MAP AD13	2 MAP AD12	6 MAP AD11	C
B	104 AUX HLT	107 XDBI RQ	110 CPU CD1	112 F1	115 F0	118 ODD WD	120 EPR9	124 QALE	130 REF REQ	131 ARB	134 QBIOCYC	137 TRPLT	139 MAP AD9	143 UVBM0	3 CLK 614.4KH2	B
A	108 VSS	111 XDMA QPE	114 CPU CD0	116 GRANT	119 EPR10	122 ENB ADDR	123 EPR11	125 EPR12	128 EPR14	129 EPR15	133 RBS7	135 TBS7	136 TDMGO	140 ENB DATA	144 VSS	A
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

Footprint
Side 1 View
LSI5320
144 pin grid

DC380

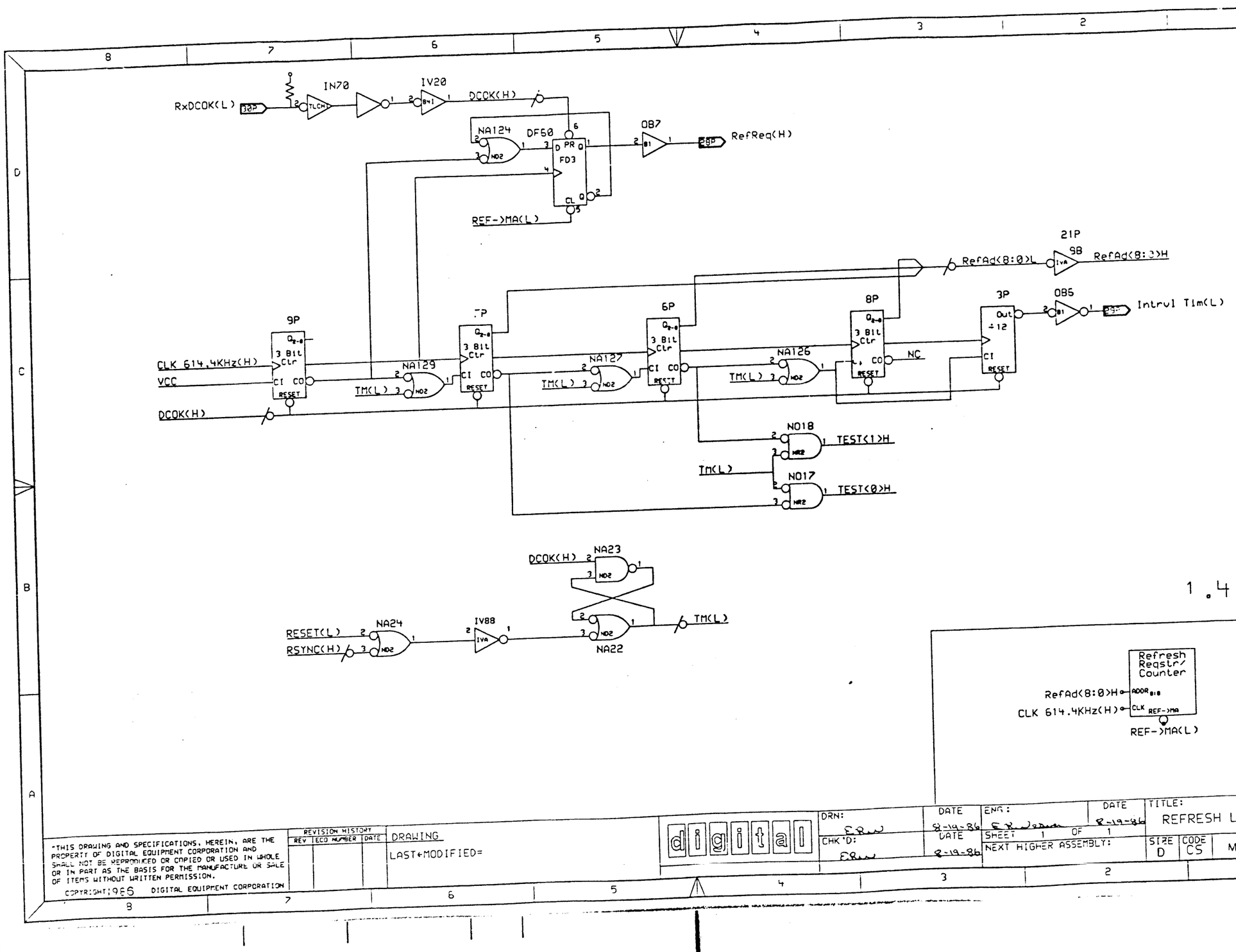
Q22 BUS
Interface
Gate Array

1.4.2

REVISION HISTORY		
REV	ECO NUMBER	DATE

digital

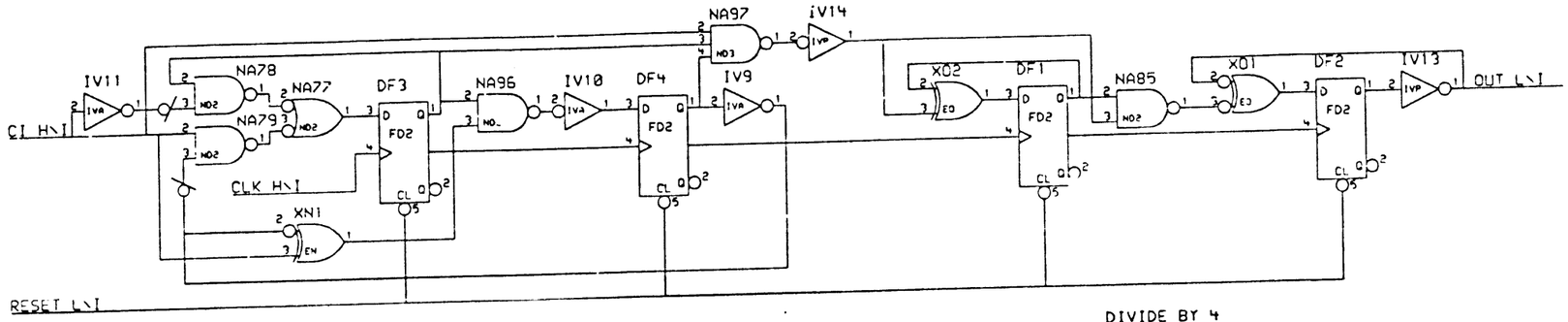
DRN: E Swanson	DATE 8-19-86	ENG: E Swanson	DATE 8-19-86	TITLE: DC380 PAD ASSIGNMENT TOP VIEW LL5320 IN 144 PIN GRID ARRAY	
CHK'D: E Swanson	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7473-0-10 / REV A	



REVISION HISTORY			
REV	ECO NUMBER	DATE	DRAWING
			LAST MODIFIED=

digital

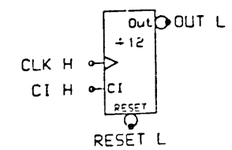
DRN: ERW	DATE 8-19-86	ENG: E R Warren	DATE 8-19-86	TITLE: REFRESH LOGIC/COUNTER	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		SIZE D	CODE CS
		NEXT HIGHER ASSEMBLY:		NUMBER M7478-0 -11	REV A



DIVIDE BY 3

DIVIDE BY 4

1.4.1.1.1



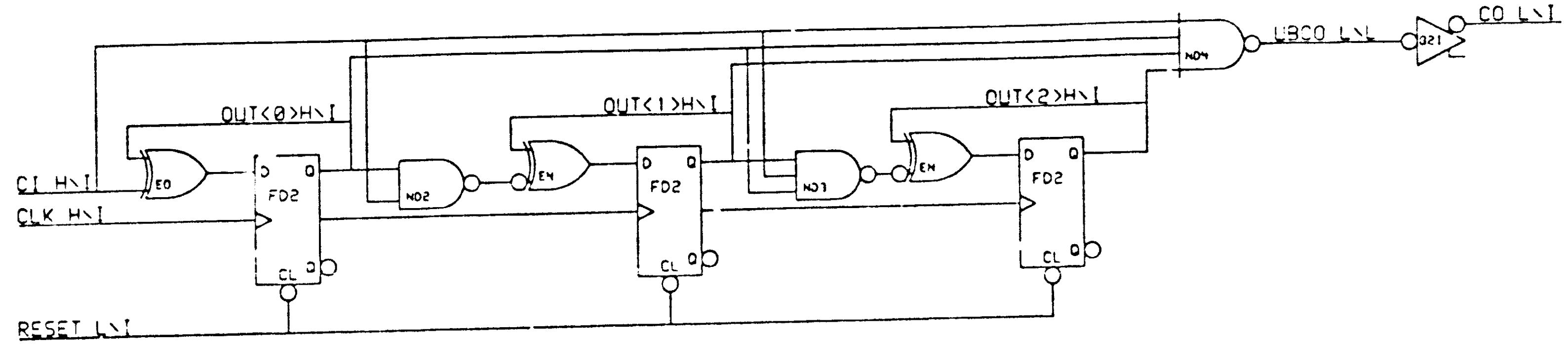
REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=DIV BY 12
ABBREV=DIV12
LAST-MODIFIED=NOT WRITTEN

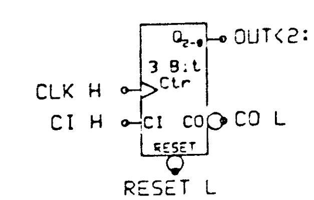
DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: E Swanson	DATE 8-19-86	ENG: E Swanson	DATE 8-19-86	TITLE: Divide by 12	
CHK'D: E Swanson	DATE 8-19-86	SHEET 1 OF 1		SIZE D	CODE CS
		NEXT HIGHER ASSEMBLY:		NUMBER M7478-0-12	REV A



1.4.1.1.2



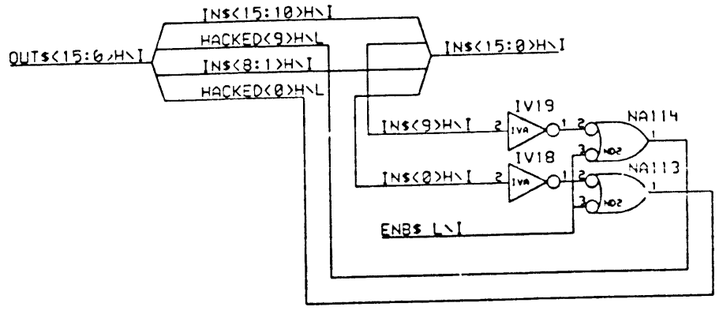
REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=3 BIT CTR
ABBREV=3BCTR
CIRCUIT←TYPE=3BITCTR
LAST←MODIFIED=

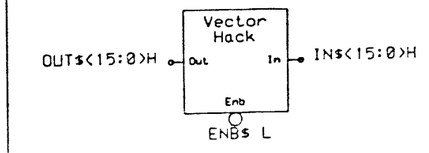
DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN:	DATE 8-19-86	ENG:	DATE 8-19-86	TITLE: Synchronous 3 Bit Counter
CHK'D:	DATE 8-19-86	SHEET 1 OF 1 / NEXT HIGHER ASSEMBLY:		SIZE D · CODE CS · NUMBER 74/3-3 -3 · REV A



1.4.1.2



REVISION HISTORY

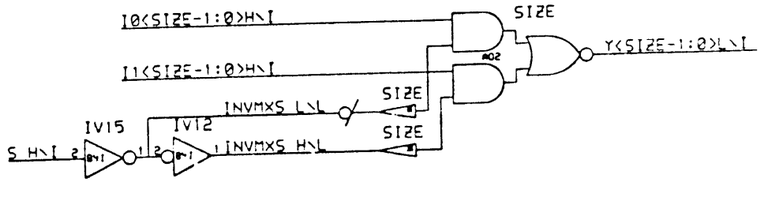
REV	ECO NUMBER	DATE

DRAWING
TITLE=VECTOR HACK
ABBREV=VCTRHCK
LAST←MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: E.R.W	DATE 8-19-86	ENG: E.R.W	DATE 8-19-86	TITLE: Vector Hack	
CHK'D: E.R.W	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7473-0 -14	REV A



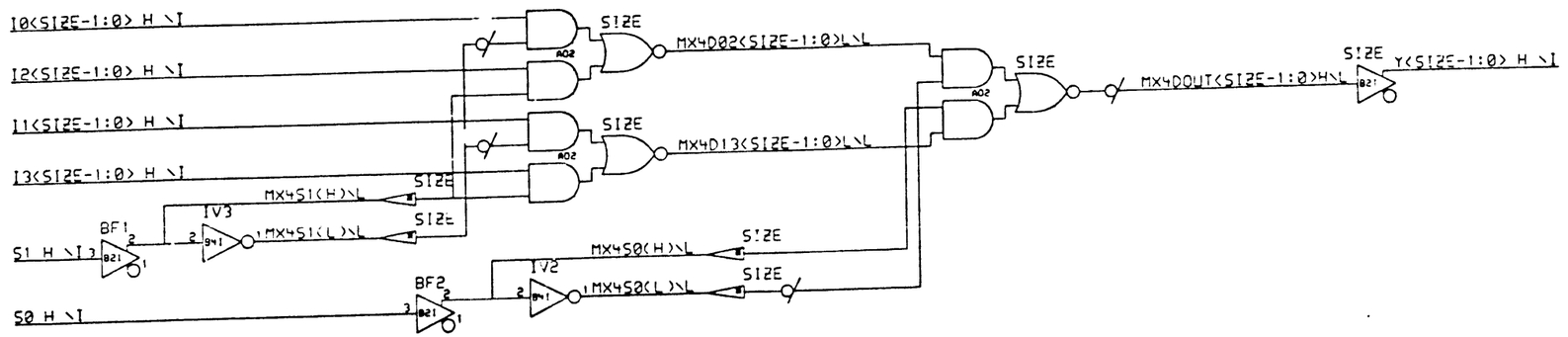
1.4.1.2A

REVISION HISTORY		
REV	ECO NUMBER	DATE

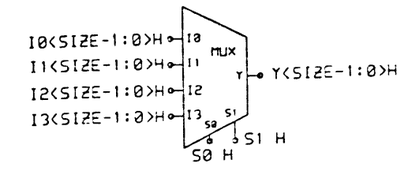
DRAWING
TITLE=INV MUX
ABBREV=INVMX
LAST←MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

DRN: ER C	DATE 8-19-86	ENG: Erwearn	DATE 8-19-86	TITLE: Inverting MUX Logic	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	NEXT HIGHER ASSEMBLY:	SIZE C	CODE CS	NUMBER M7478-2-15	REV A



1.4.1.2B



REVISION HISTORY
REV | ECO NUMBER | DATE

DRAWING
TITLE=4MUX
A88REV=4MX
LAST-MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: ERW DATE 8-19-86
CHK'D: ERW DATE 8-19-86
ENG: ERW DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:

TITLE: 4 to 1 MUX
SIZE D | CODE CS | NUMBER M7478-0 -'6 | REV A

QA<13:9>H

226P 4B — LD1 — QAD<8:5>H, QALE(H)

178P 4B — IVA — DMA<8:5>L

14P — BLK MD ADDR CTR — LD_{3-0} D_{3-0} — QAD<4:1>H, QAD<0>H

DMA<8:5>H
DMA<4:2>H
DMA<1>H
ODD WD(H)
BDY16(L)

INC CTR(H) — IN77 — RxINC CTR(H)

QALE(L)

See pg. 1.4.1.3.1

QREGSEL(H)
QWR(H)
QAD<13:0>H

181P 16B — IVA

QREGSEL(L)
QWR(L)
QAD<13:0>L

227P 16B — LD1 — RBS7(H), RWTBT(H), RDAL<13:0>H, RSYNC(L)

IN83 — RxRBS7(H)

QAD<0>L — NA138 — HI BYTE(H)
QAD<0>H — NA139 — LO BYTE(H)
RWTBT(H)

111P 2B — FD2 — LATCH HI WORD(R)

LATCH LO WORD(R) — NO12 — QALE(H) — 10P 2B

FD2 — QALE(L)

RDOUT(H), ENB REPLY(H) — NA144 — SLAVE WR(L)

NA147 — DMA WR(H)

QALE(L) — NA14 — BF39 — DMA WR(L)

4B — 160P 4B — QBM<3:0>L

QBM<3:0>H

RxCPU CD<1:0>L — 87P 2B — CPU CD<1:0>L

NA133 — ARB(L)

OB12 — TxARB(L)

177P 2B — EQ — QAD<2:1>H, QREGSEL(H)

NA179 — QAD<7,5,4,3>L

NA183 — QAD<9,8,6>H, QAD<12,11,10>H

NO3

NA171 — BF40

HI BYTE(H) — NA130 — IV33 — HI DB STROBE(H)

LO BYTE(H) — NA125 — IV32 — LO DB STROBE(H)

SLAVE WR(L) — NO4

SEL DB(L)

GRANT(L) — NO2 — LclCPU LoStrb(H)

DoorBell Address Decode

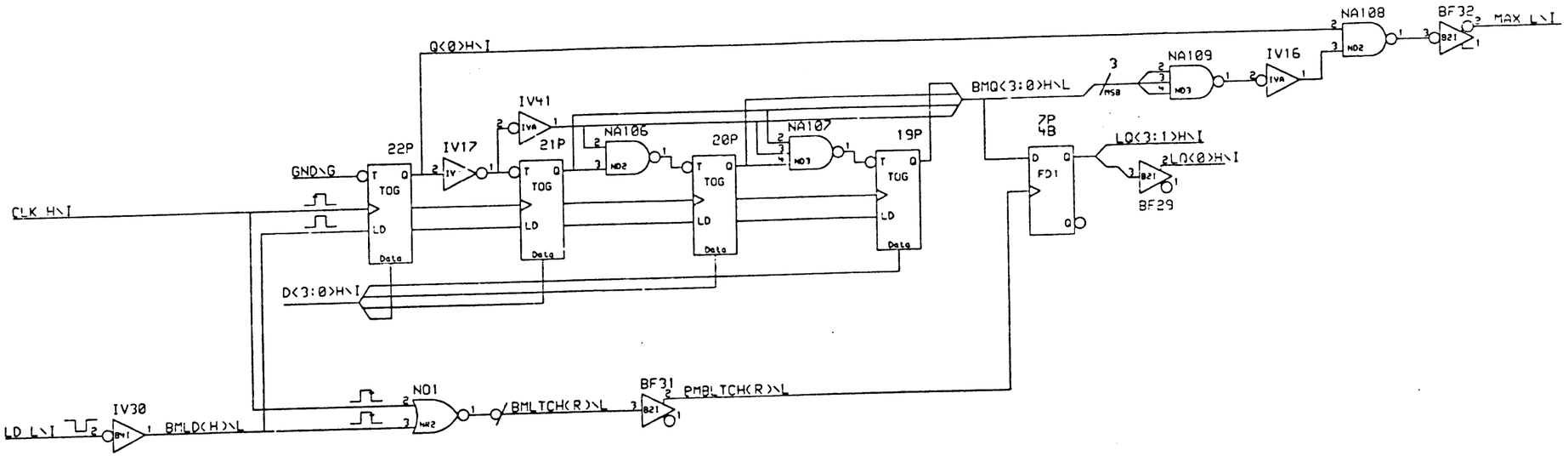
1.4 1.3

QAD<13:9>H, DMA<8:1>H — Slave Cycle Address Logic — RDAL<15:8>H

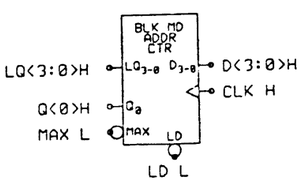
REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
LAST MODIFIED=

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: Q-bus Support Logic	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	NEXT HIGHER ASSEMBLY:	SIZE D	CODE CS
				NUMBER M7478-2 -1/	REV A



1.4.1.3.1

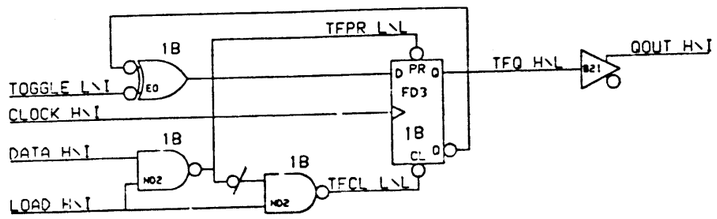


REVISION HISTORY		
REV	ECO NUMBER	DATE

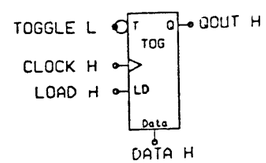
DRAWING
TITLE=BLK MD CTR
ABBREV=BMCTR
CIRCUIT-TYPE-BLKMDCTR
LAST-MODIFIED= -

DEFINE
X-FIRST=0
X-STEP=SIZE

DRN: E.G.	DATE 8-19-86	ENG: E.R.	DATE 8-19-86	TITLE: BLK MD CTR LOGIC	
CHK'D: E.R.	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER 47473-0-18 / REV A	



1.4.1.3.1.1



REVISION HISTORY		
REVISED	NUMBER	DATE

DRAWING
TITLE=TOG
ABBREV=TOG
LAST MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: ERJ	DATE 8-19-86	ENG: ERJ	DATE 2-17-87	TITLE: TOGGLE FLOP	
CHK'D: ERJ	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE 05 / NUMBER M7478-2 -19	REV A

QRQ(L)
ENB DATA(H)
GRANT(L)
ENB DAL(H)
ENB REPLY(H)
RDIN(H)
ENB DATA(H)
WR(H)
HI16PER(L)
LO16PER(L)
LATCH MD(F)
DMA(1)H
DMA(1)L
QREGSEL(H)
SET DMA OPE(L)
RESET(L)
DMA OPE(H)
XDMA OPE(H)
LO DB STROBE(H)
RDAL(0)H
DBI IE(H)
RSYNC(L)
RDIN(L)
DBI RQ(H)
SYNCHRONIZER
GND
XDBI RQ(H)
RDAL(6:5)H
LclCPU LoStrb(H)
LM EAE(H)
QREGSEL(L)
QMEMENB(L)
RDAL(8)H
HI DB STROBE(H)
AUX HLT(H)
TxAUX HLT(H)
RESET(L)

F1	F0	FUNCTION
0	0	(21:16) tri-state off
0	1	drive addresses (21:16)
1	0	drive (21:16) -> 0
1	1	drive (21:16) -> 0, (17:16) -> 1

DMA OPE(H)
AUX HLT(H)
DBI IE(H)
LM EAE(H)
DBI RQ(H)
DoorBell(15,8,6,5,0)H
DoorBell(14:9,7,4,3)H — PAPER GATE — GND \R 9
DoorBell(2,1)H — PAPER GATE — TEST(1:0)H

1.4.1.4

DoorBell(15:0)H
SEL DB(L)
DoorBell Register

REVISION HISTORY

REV	ECO NUMBER	DATE

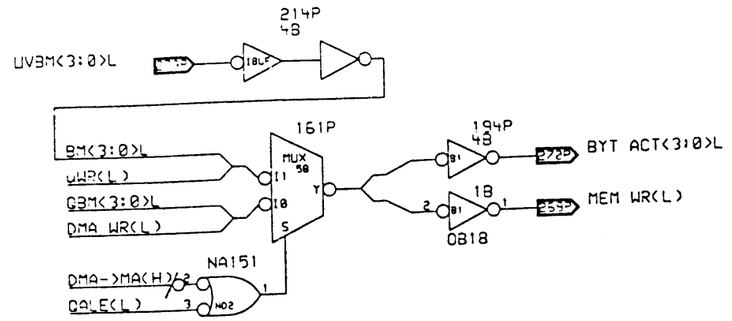
DRAWING

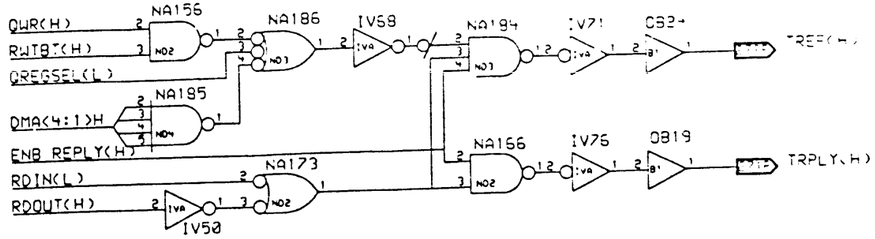
digital

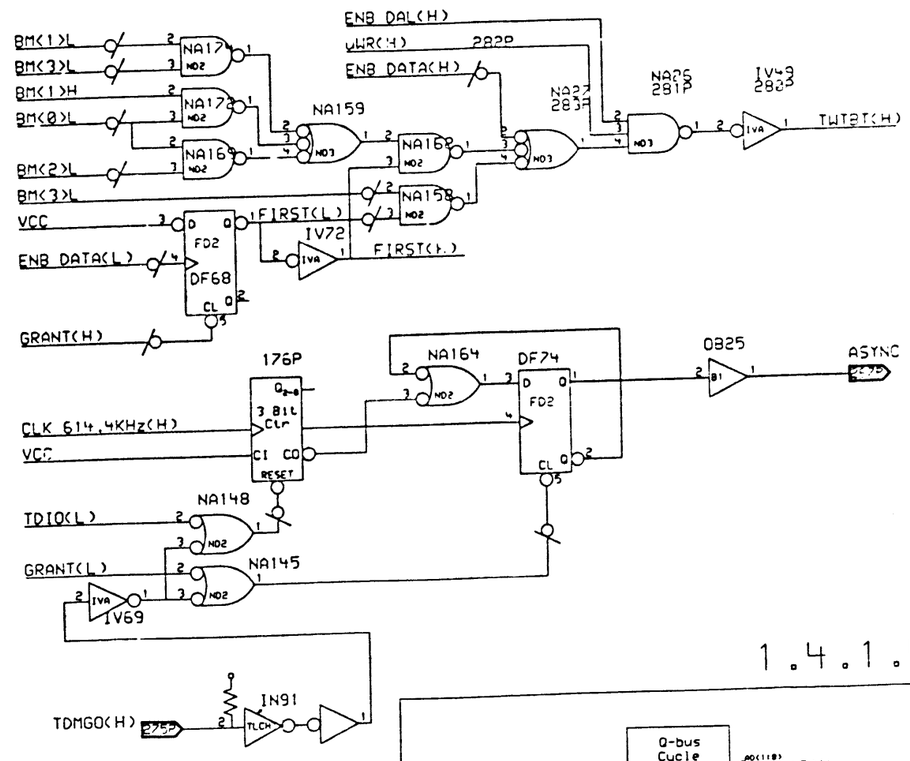
DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE:	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF			
		NEXT HIGHER ASSEMBLY:		SIZE D	CODE 18 085

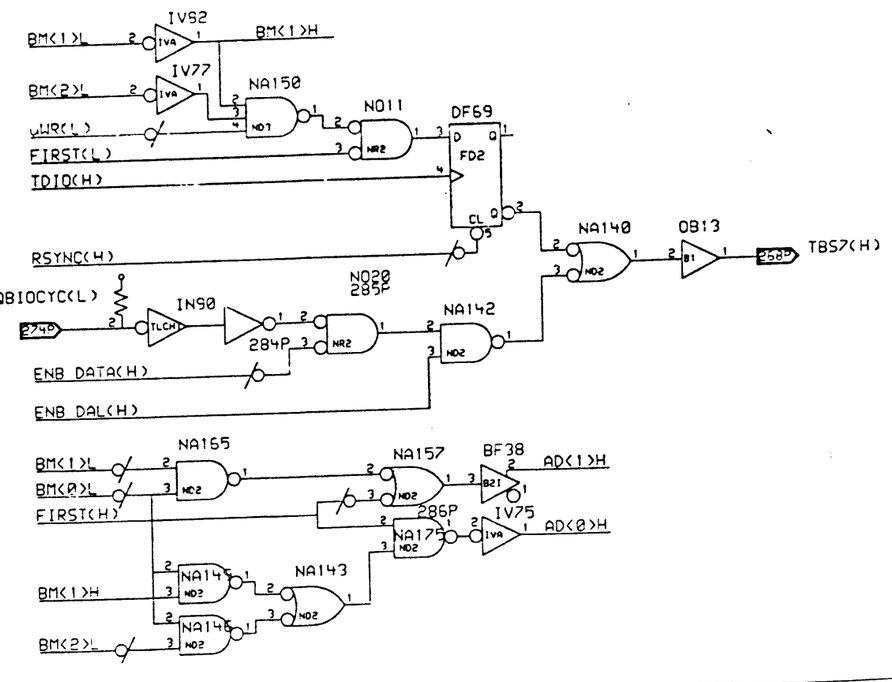
I-Bus Support Logic

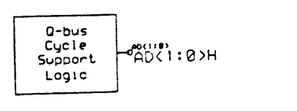
NUMBER M7478-0-20 REV A











1.4.1.5

REVISION HISTORY		
REV	ECO NUMBER	DATE

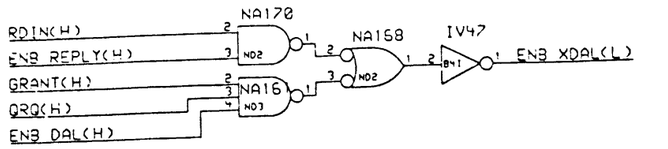
DRAWING
LAST MODIFIED=

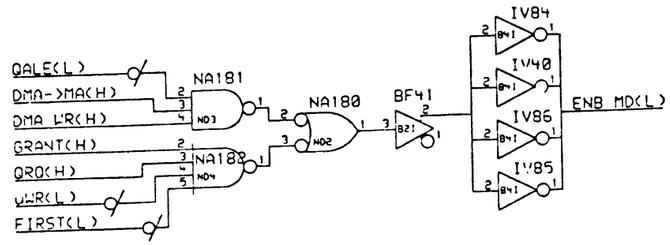
DRN: ERW — DATE 8-19-86 — ENG: E R Weaver — DATE 8-19-86
CHK'D: ERW — DATE 8-19-86

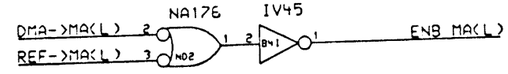
TITLE: Q-bus Support Logic

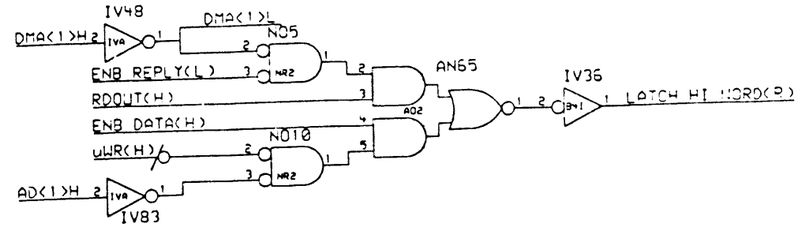
SHEET 1 OF
NEXT HIGHER ASSEMBLY:

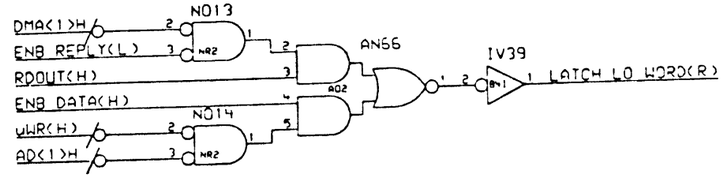
SIZE D — CODE 05 — NUMBER M7478-3 -21 — REV A



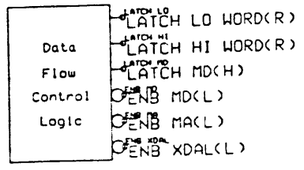








1.4.1.6

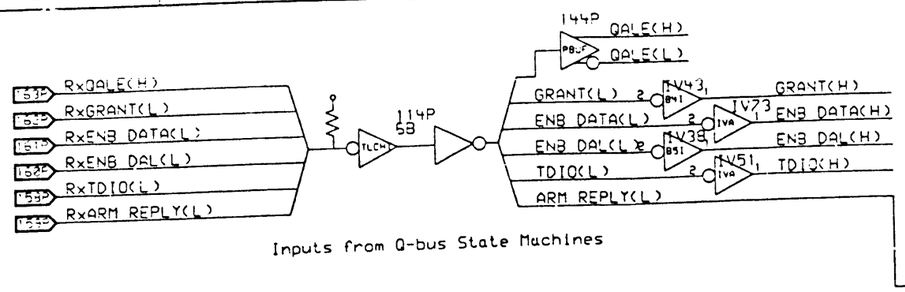


REVISION HISTORY
DEV ECO NUMBER DATE

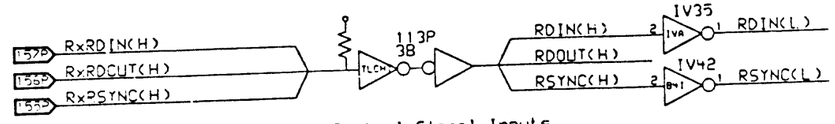
DRAWING
LAST MODIFIED=

DRN: ERW DATE 8-19-86
CHK'D: ERW DATE 8-19-86
ENG: ERW DATE 8-19-86
SHEET 1 OF
NEXT HIGHER ASSEMBLY:

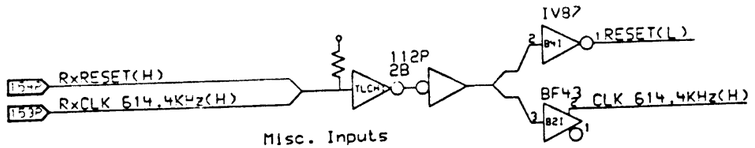
TITLE: Q-bus Support Logic
SIZE D CODE DS NUMBER M7478-2 -22 REV A



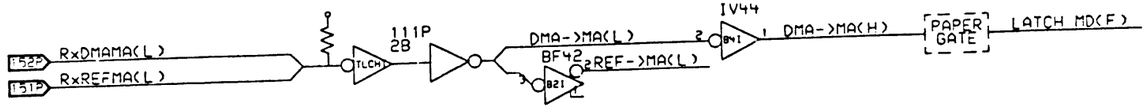
Inputs from Q-bus State Machines



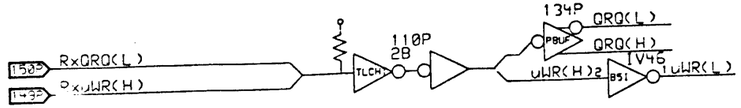
Q-bus Control Signal Inputs



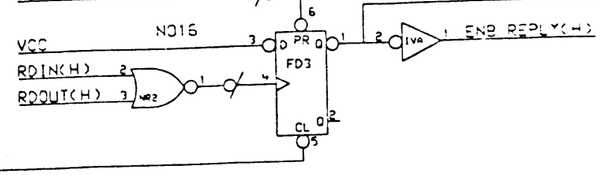
Misc. Inputs

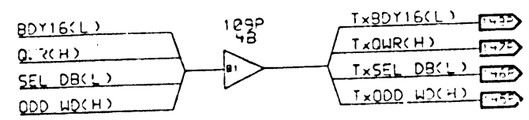


Inputs from Main Memory Controller



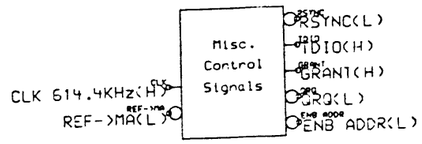
Inputs fromHtVAX cycle machine





Outputs to Q-bus State Machines

1.4.1.7

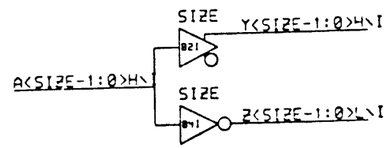


REVISION HISTORY
REV | ECO NUMBER | DATE

DRAWING
LAST+MODIFIED=

DRN: ERW | DATE 8-19-86
CHK'D: ERW | DATE 8-19-86
ENG: ERWeaver | DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:

TITLE: Q-bus Support Logic
SIZE D | CODE 05 | M7478-8 -23 | REV A



1.4.1.7.1

REVISION HISTORY

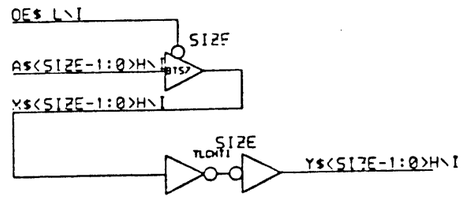
REV	ECO NUMBER	DATE

DRAWING
TITLE=PBUF
ABBREV=PBUF
LAST←MODIFIED=

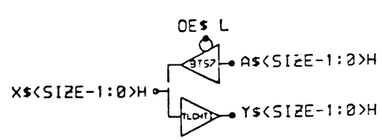
DEFINE
X←FIRST 0
X←STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERWeaver	DATE 8-19-86	TITLE: Power Buffer Macro	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0 -24	REV A



1.4.1.8



REVISION HISTORY

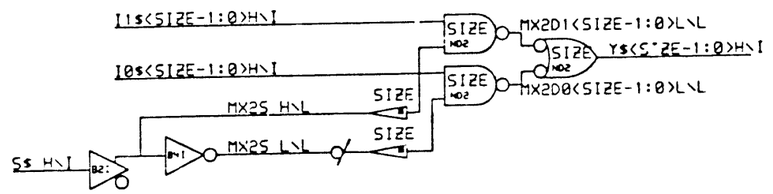
REV	ECO NUMBER	DATE

DRAWING
TITLE=BIDIRECT
ABBREV=BI
LAST←MODIFIED='

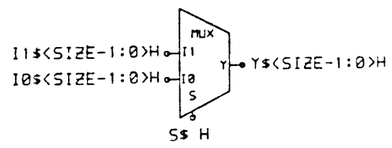
DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: ER	DATE 8-19-86	ENG: ER	DATE 8-19-86	TITLE: BIDIRECT BUFFER	
CHK'D: ER	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0 -25	REV A



1.4.1.9

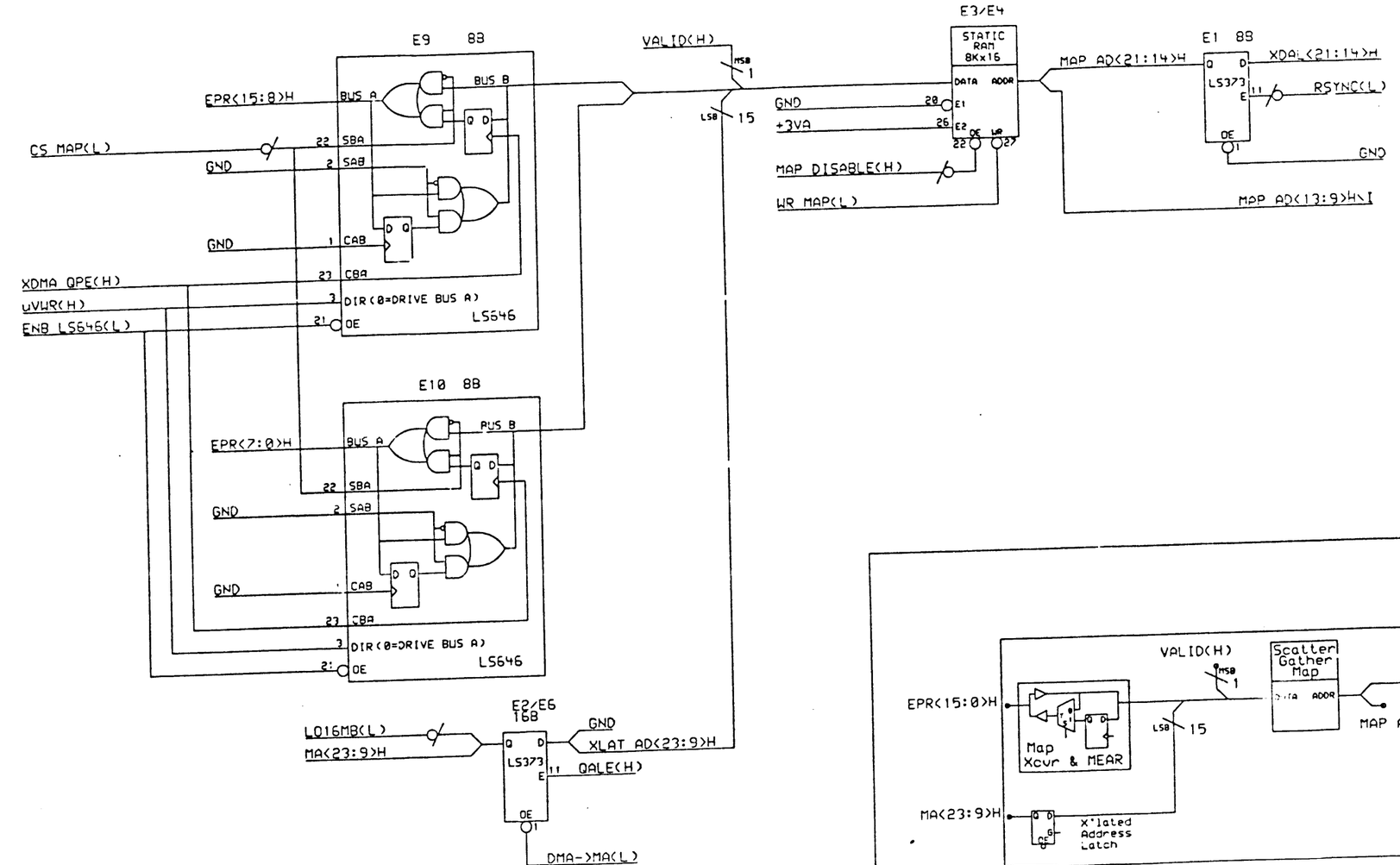


REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=MUX16
ABSREV=MX16
LAST←MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

DRN: ERW — DATE 8-19-86
CHK'D: ERW — DATE 8-19-86
ENG: ERWesson — DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:
TITLE: MUX LOGIC
SIZE CODE: D
CODE: CS
NUMBER: M7478-0-26
REV: A



1.5

REVISION HISTORY

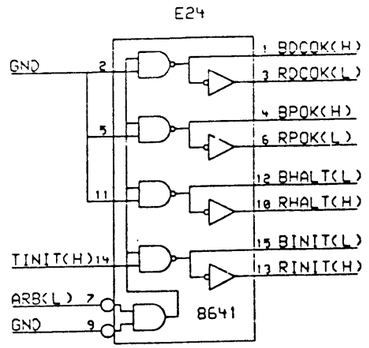
REV	ECO NUMBER	DATE

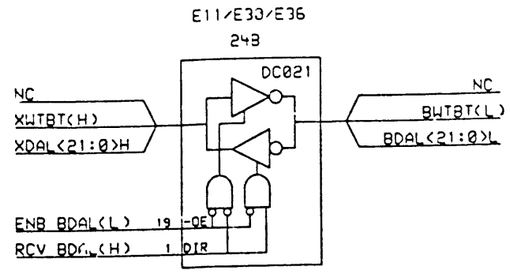
DRAWING
TITLE=MAP GROUP
ABBREV=MAP
CIRCUIT←TYPE=TRANS←MAP
LAST←MODIFIED=,

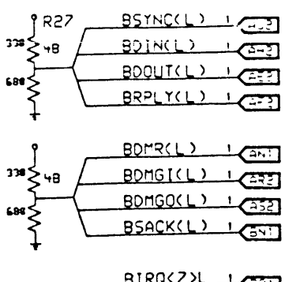
DEFINE
X←FIRST=0
X←STEP=SIZE

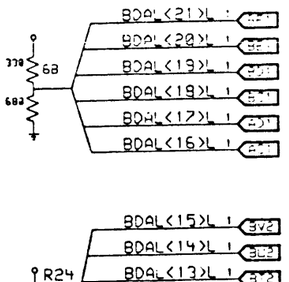
digital

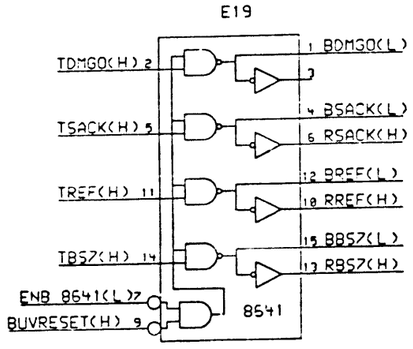
DRN:	DATE	ENG:	DATE	TITLE:
ERW	8-19-86	ERW	8-19-86	Translation Map Group
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		
		NEXT HIGHER ASSEMBLY:		SIZE D | CODE CS | NUMBER M7478-0-27 | REV A

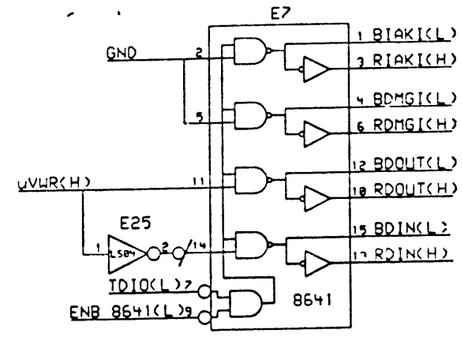


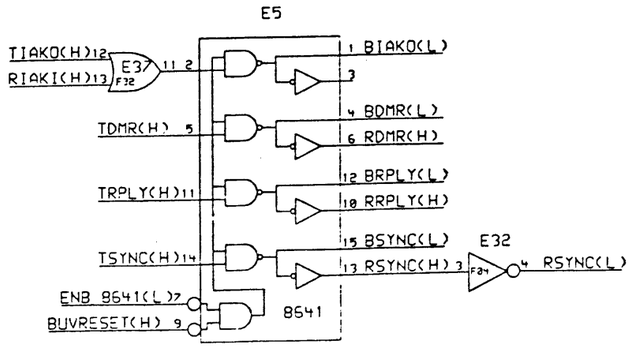


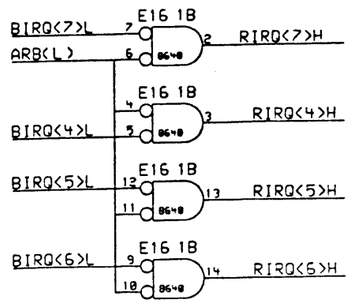




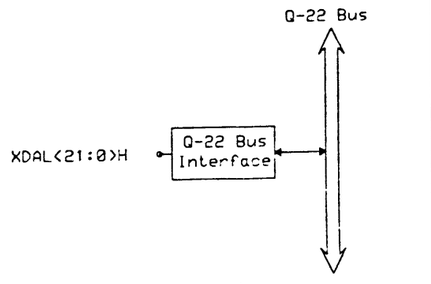








1.6



REVISION HISTORY		
REV	TECO NUMBER	DATE

DRAWING
TITLE=QBUS
ABBREV=QBUS
CIRCUIT+TYPE=QBUS+INTERFACE
LAST+MODIFIED

DEFINE
X+FIRST=0
X+STEP=SIZE

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: KA620 QBUS INTERFACE	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0 -28	REV A

FROM rtVAX

BuVCLKO(H) 12
uVCS(2:0)H 11/10/8
uVEPS(L) 5
uVWR(L) 4
uVAS(L) 3
uVDBE(L) 6
uVDS(L) 7
uVBM(0)L 16
EPREADY(L) 15
RIRQ(4)H 89
DLRRQ(H) 88
DLXRQ(H) 87
XDBI RQ(H) 86
BREAK(H) 85
RHALT(H) 92
XDMA QPE(H) 79
AUX HLT(H) 84
CTL XDAL(1:0)H 70/69
ENB DATA(L) 25
TINIT(H) 100
DRDCOK(H) 99
INTRVL TIM(L) 101
RINIT(H) 98
RPOK(L) 97
HIROMDLATCH(L) 43
EPAD ENB(L) 35
HLT ENB(L) 83
CPU CD(1:0)L 82/80
BDG CD(1:0)L 78/77
T.O.(H) 21
LOCAL NXM(H) 20
LPERR(L) 17
MEM CD(1:0)H 104/103

uVCLKO
uVCS(2:0)
uVEPS
uVWR
uVAS
uVDBE
uVDS
uVBM0
ARMRDYERR
RIRQ4
DLRRQ
DLXRQ
XDBI RQ
BREAK
RHALT
XDMA QPE
TX AUX HLT
F(1:0)
DATA ENB
TINIT
RDCOK
INTRVL TIM
RINIT
RPOK
HIROMDLATCH
EPAD ENB
HLT ENB
CPU CD(1:0)
BDG CD(1:0)
T.O.
LOCAL NXM
LPERR
MEM CD(1:0)

E44
DC379
rtVAX Interface Gate Array

DAL(31:0)
READY
uVERR
uVBR14
uVHLT
uVRESET
INITRQ
RUN
XDAL(21:16)
QBIOCYC
uVCYCCD(2:0)
EPR(15:0)
BDR(3:0)
CS MAP;MEAR
CS MAP
CS TOY
CS PROM
EPAD
DLAD(1:0)
CS DL
DLRD
DLWR
MSER(1:0)

uVDAL(31:0)H
READY(H) 13
uVERR(L) 14
uVBR(14)L 93
uVHALT(L) 94
uVRESET(L) 95
INITRQ(L) 96
RUN(L) 26
XDAL(21:16)H
QBIOCYC(L) 24
24/23/22 uVCYCCD(2:0)L
EPR(15:0)H
75/73/72/71 BDR(3:0)L
49 CS MAP;EMEAR(H)
48 CS MAP(L)
47 CS TOY(H)
46 CS PROM(L)
44 EPAD(1)H
42/41 DLAD(1:0)H
40 CS DL(L)
38 DLRD(L)
39 DLWR(L)
106/105 MSER(1:0)L

E32 F04 E25 LS04
BuVRESET(H)
BuVRESET(L) 12

CTL XDAL(0)
00 HI-Z
01 ADDRESS->XDAL(21:16)
10 0->XDAL(21:18),1->XDAL(17:16)
11 0->XDAL(21:16)

uVCYCCD(2:0)L
LLL q22 bus cycle
LLH csmap + csmser
LHH IDLE
LHL q22 bus interrupt acknowledge (IAK)
HLL q22 bus cycle (lock)
HLH csmap + csmser (lock)
HHL csprom
HHH lo16mb (lock)

HL CSMAP
HH CSMEAR
LH IDLE
LL ILLEGAL

+5.0V
R16 100K 1/4W 5%
D9 D664
220 1B
R28
E35 LS26
C40 10uf 50V
GND
RDCOK(L)

CONF(4:0)L

1.7

LEDS(4:0)L
CONF(5:0)L
uVDAL(31:0)H
rtVAX Interface Gate Array
EPR(15:0)H
EPAD(1)H
XDAL(21:15)H

REVISION HISTORY
REV | ECO NUMBER | DATE

DRAWING
TITLE=GATOR1
ABBREV=GATOR1
CIRCUIT=TYPE=GATE=ARRAY
LAST=MODIFIED=

DEFINE
X=FIRST=0
X=STEP=SIZE

digital

DRN: ERW DATE 8-19-86
CHK'D: ERW DATE 8-19-86
ENG: ERW DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:

TITLE: RTVAX Interface Gate Array
SIZE D | CODE CS | NUMBER M7478-0-29 | REV A

	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Q	72 vss	68 EPR0	64 EPR3	63 EPR4	61 EPR6	57 EPR10	56 EPR11	53 EPR12	51 EPR14	50 EPR15	47 CSTOY	44 EPAD1	42 DLAD1	39 DLWR	35 vss	Q
P	75 BDR2	71 BDR0	67 EPR1	65 EPR2	62 EPR5	59 EPR8	58 EPR9	52 EPR13	48 CSMAP	46 CSPROM	43 HIROMDLATCH	40 CSDL	38 DLRD	35 EPADENB	32 XD20	P
N	78 BDGCD1	74 BDR1	70 CTL XDW. 1	69 CTL XDAL 0	66 NC	60 EPR7	55 vss	54 vdd	49 CSMAP;EMEAR	45 vss	41 DLAD0	37 vdd	34 QBIOCYC	31 XD19	28 XD17	N
M	80 CPUCD0	76 BDR3	73 vdd										33 XD21	29 XD18	27 XD16	M
L	83 HLTENB	79 XDMA QPE	77 BDGCD0		stand off						stand off		30 vss	26 RUN	25 ENBDATA	L
K	86 XDBIRQ	82 CPUCD1	81 vss										24 uVCYCD2	23 uVCYCCD1	21 T.O.	K
J	87 DLXRQ	84 TXAUXHLT	85 BREAK										19 vss	22 uVCYCCD0	20 LOCALNXM	J
H	89 RIRQ4	88 DLRRQ	90 vdd										18 vdd	16 uVBM0	17 LPERR	H
G	92 RHALT	94 uVHALT	91 vss										13 READY	12 BuVCLKO	15 ARMRDYERR	G
F	93 uVBR14	95 uVRESET	96 INITRQ		stand off								9 vss	10 uVCS1	14 uVERR	F
E	97 RPOK	98 RINIT	102 vss								stand off		5 uVEPS	7 uVDS	11 uVCS2	E
D	99 DCOK	101	105 MSER0									extra pin	1 vdd	4 uVWR	8 uVCS0	D
C	100 TINIT	103 MEMCD0	106 MSER1	109 vdd	113 uVDAL4	117 vss	121 uVDAL1	126 vdd	127 vss	132 uVDAL20	138 vss	141 uVDAL28	142 uVDAL29	2 uVDAL31	6 uVDBE	C
B	104 MEMCD1	107 uVDAL0	110 uVDAL	112 uVDAL3	115 uVDAL5	118 uVDAL8	120 uVDAL10	124 uVDAL14	130 uVDAL18	131 uVDAL19	134 uVDAL22	137 uVDAL25	139 uVDAL26	143 uVDAL30	3 uVAS	B
A	109 vss	111 uVDAL2	114 uVDAL5	116 uVDAL7	119 uVDAL9	122 uVDAL12	123 uVDAL13	125 uVDAL15	128 uVDAL16	129 uVDAL17	133 uVDAL21	135 uVDAL23	136 uVDAL24	140 uVDAL27	144 vss	A
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

Footprint

Side 1/top view

LSI5320

144 pin grid

DC379

rtVAX Interface

Gate array

INTRVL TIM

1.7.1

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=galpads
LAST=MODIFIED

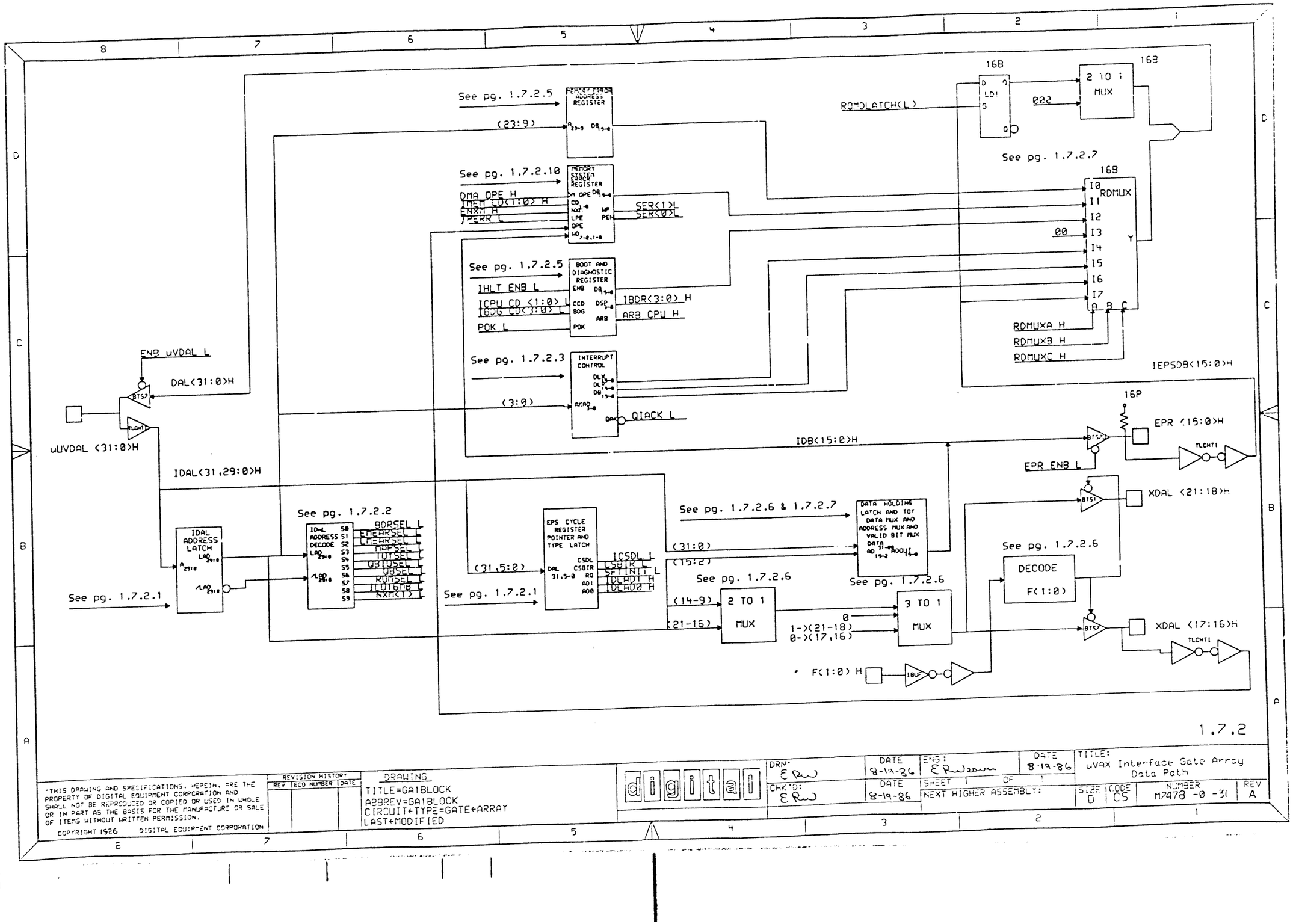
DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

TITLE: DC379 PAD ASSIGNMENT TOP VIEW
LL5320 IN 144 PIN GRID ARRAY

SIZE	CODE	NUMBER	REV
D	CS	M7178-0 -30	A



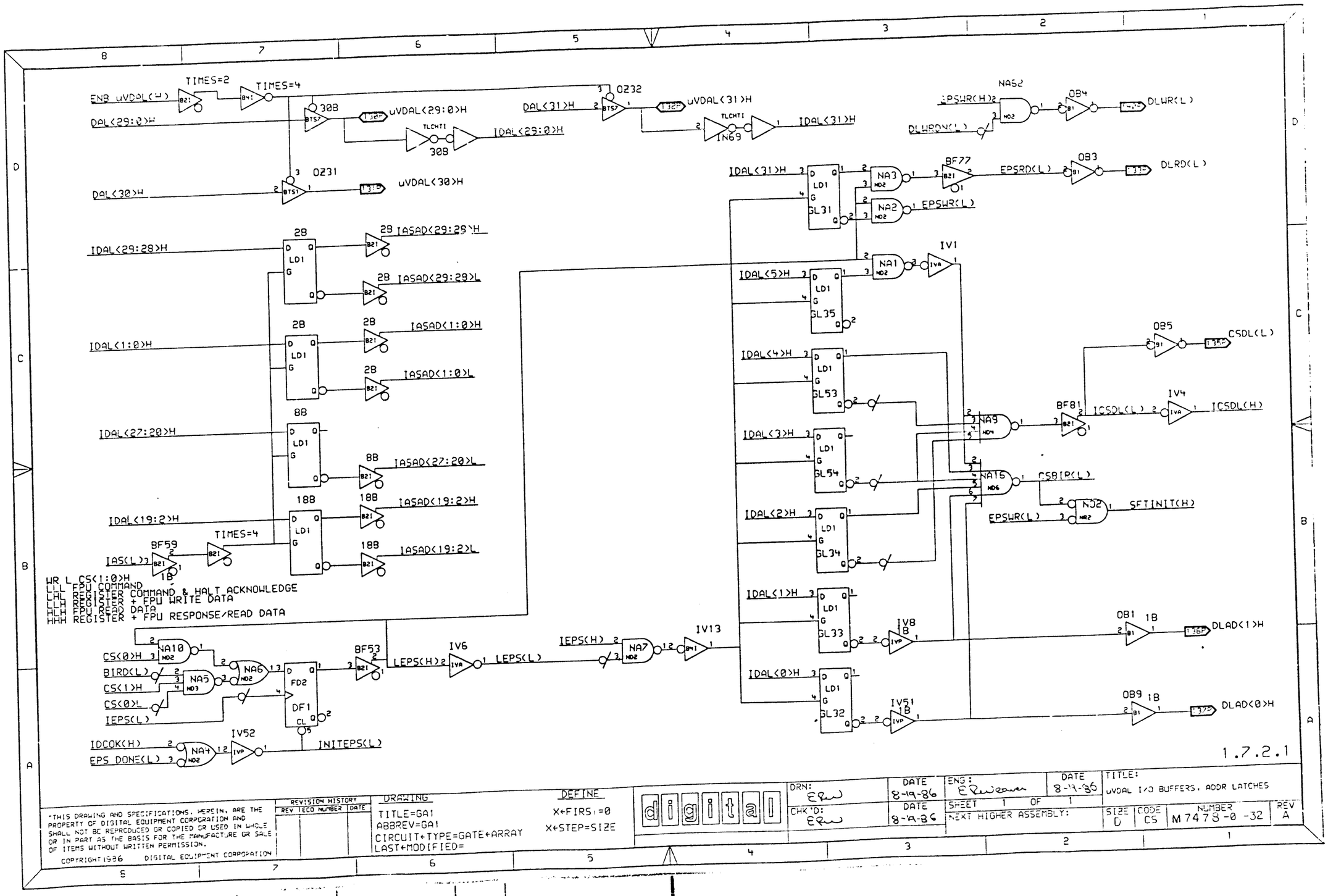
REVISION HISTORY

REV	TECO NUMBER	DATE

DRAWING

TITLE=GA1BLOCK
ABBREV=GA1BLOCK
CIRCUIT-TYPE=GATE-ARRAY
LAST-MODIFIED

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: uVAX Interface Gate Array Data Path	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	NEXT HIGHER ASSEMBLY:	SIZE D	CODE CS
				NUMBER M7478 -0 -31	REV A


TIMES=2
TIMES=4
ENB uVDAL(H)
DAL<29:0>H
308
uVDAL<29:0>H
TLCHTI
308
IDAL<29:0>H
DAL<31>H
0Z32
uVDAL<31>H
TLCHTI
IN69
IDAL<31>H
DAL<30>H
0Z31
uVDAL<30>H
NA52
EPSWR(H)
DLWRDY(L)
OB4
DLWR(L)
IDAL<31>H
BF77
EPSRD(L)
OB3
DLRD(L)
NA3
NA2
EPSWR(L)
IV1
IDAL<29:28>H
2B
IASAD<29:28>H
IASAD<29:28>L
IDAL<5>H
GL35
IDAL<1:0>H
IASAD<1:0>H
IASAD<1:0>L
IDAL<4>H
GL53
OB5
CSDL(L)
IV4
BF81
ICSDL(L)
ICSDL(H)
IDAL<27:20>H
8B
IASAD<27:20>L
IDAL<3>H
GL54
NA9
NA15
CSBIP(L)
IDAL<19:2>H
18B
IASAD<19:2>H
IASAD<19:2>L
TIMES=4
BF59
IAS(L)
1B
IDAL<2>H
GL34
NJ2
SETINIT(H)
EPSWR(L)
WR L CS<1:0>H
LHL FPU COMMAND
LHH REGISTER COMMAND & HALT ACKNOWLEDGE
HLL REGISTER + FPU WRITE DATA
HLH FPU READ DATA
HHH REGISTER + FPU RESPONSE/READ DATA
IDAL<1>H
GL33
IV8
OB1
DLAD<1>H
IDAL<0>H
GL32
IV51
OB9
DLAD<0>H
NA10
CS(0)H
BIRD(L)
NA5
CS(1)H
CS(0)L
IEPS(L)
NA6
FD2
DF1
BF53
LEPS(H)
IV6
LEPS(L)
IEPS(H)
NA7
IV13
IV52
IDCOK(H)
EPS DONE(L)
NA4
INITEPS(L)
1.7.2.1
DRN: ERW
DATE 8-19-86
ENG: ERW
DATE 8-19-86
TITLE: uVDAL I/O BUFFERS, ADDR LATCHES
CHK'D: ERW
DATE 8-19-86
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:
SIZE D
CODE CS
NUMBER M7478-0 -32
REV A
REVISION HISTORY
REV TECO NUMBER DATE
DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT←TYPE=GATE←ARRAY
LAST←MODIFIED=
DEFINE
X←FIRST=0
X←STEP=SIZE
digital
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uVCYCCD<2:0>L
LLL Q22 BUS CYCLE
LLH CSMAP + CSMSER
LHH IDLE
LHL Q22 BUS IAK
HLL Q22 BUS CYCLE LOCK
HLH CSMAP + CSMSER LOCK
HHL CSPROM
HHH LO16MB LOCK

NA92 ND6 ILO16MB(L)
IASAD<29>L IASAD<28>L IASAD<27>L IASAD<26>L IASAD<25>L IASAD<24>L

NA100 ND8 QBRAMSEL(L)
IASAD<29>H IASAD<28>H IASAD<27>L IASAD<26>L IASAD<25>L IASAD<24>L IASAD<23>L IASAD<22>L

NA142 ND6 IV50 BH1
IASAD<29>H IASAD<28>H IASAD<27>L IASAD<26>L IASAD<25>L IASAD<24>L

NA122 ND4 IV49 BS1
IASAD<23>L IASAD<22>L IASAD<21>L IASAD<20>L

NA189 ND6 IV106 BH1
IASAD<18>L IASAD<17>L IASAD<16>L IASAD<15>L IASAD<14>L IASAD<13>L

NA134 ND4 IV103 IVA
IASAD<18>L IASAD<17>L IASAD<16>L IASAD<15>H

NA183 ND6 IV85 IVA
IASAD<18>L IASAD<17>H IASAD<16>H IASAD<15>H IASAD<14>L IASAD<13>L

NA135 ND6 IV108 BH1
IASAD<12>L IASAD<11>L IASAD<10>L IASAD<9>L IASAD<8>L IASAD<7>L

NA129 ND6 IV101 IVA
IASAD<2>L IASAD<19>H IASAD<6>L IASAD<5>L IASAD<4>L IASAD<3>L

NA124 ND6 IV100 IVA
IASAD<6>L IASAD<5>L IASAD<4>L IASAD<3>H IASAD<19>H BIWR(L)

NA191 ND6 IV98 IVA
IASAD<19>H IASAD<6>L IASAD<5>L IASAD<4>L IASAD<2>H

NA128 ND4 IV102 IVA
IASAD<19>L IASAD<18>H IASAD<17>L BIWR(L)

NA48 ND6 BF165 BDRSEL(L)
ENBPATH(H)

NO9 NR2 IV37 RMSERSEL(L)
ENBPATH(L)

NA29 ND6
BIWR(L)

NA121 ND2 MSERSEL(H)

NA207 ND6 BF99 WMSERSEL(L)
BIRD(L)

NA186 ND6 NA120 ND2 LMEARSEL(L) MEARSEL(H)
IASAD<2>L

NA25 ND6 EMEARSEL(L)
IASAD<2>H

NA22 ND4 BF159 MAPSEL(L) BF175 MAPSEL(H)
IASAD<19>H

NA193 ND6 BF160 TQYSEL(L) IV114 TQYSEL(H)
IASAD<19>H VDD

NA184 ND4 QBIOSEL(L)
IASAD<19>L

NA11 ND3 BF182 ROMSEL(L) NA80 ND2 HLTROMSEL(L)
IASAD<16>L

0000 0000 - 00FF FFFF ILO16MB
2000 0000 - 2000 1FFF QBIOSEL
2004 0000 - 2004 FFFF HLTROMSEL
2004 0000 - 2005 FFFF ROMSEL
2008 0000 - 2008 0003 BDRSEL
2008 0004 - 2008 0007 MSERSEL
2008 0008 - 2008 000B LMEARSEL
2008 000C - 2008 000F EMEARSEL
2008 0000 - 2008 FFFF MAPSEL
2000 0000 - 2000 807F TQYSEL
3000 0000 - 303F FFFF QBRAMSEL

NA182 ND4 IV20 BI QB26 uVCYCCD<2>L
QBRAMSEL(L) LOCK(L)

NA183 ND4 IV19 BI QB27 uVCYCCD<1>L
QBRAMSEL(L)

BIWR(L) CS<0>H CS<2>H CS<1>L NA147 ND4 NA187 ND2 LOCK(L) QB25 uVCYCCD<2>L

BF164 BI QB15 IAMAP QBIOCYC(L)

NA28 ND2 IV36 IVA QBSEL(H) QBSEL(L)
QBRAMSEL(L)

ILO16MB(L) ROMSEL(L) TQYSEL(L) BDRSEL(L) MEARSEL(L) MSERSEL(L) MAPSEL(L) QBSEL(L)
NA208 ND8 BIDS(L) ENBPATH(L) NO54 NR3 NXM<1>H

IV94 IVA MEARSEL(H)
IV95 IVA MSERSEL(H)

IEPRDY(L) NO35 NR2 NXM<0>H

NA141 ND2 ILO16MB(L) QBSEL(L)
ENXM(H) ENBPATH(H) TMEMSP(H) NA75 ND3
NA87 ND2 IV28 IVA EXTNXM(L)
NA99 ND2
QBTO(H) QIACK(L) NA137 ND2 QBSEL(L)

1.7.2.2

REVISION HISTORY		
REV	ECO NUMBER	DATE

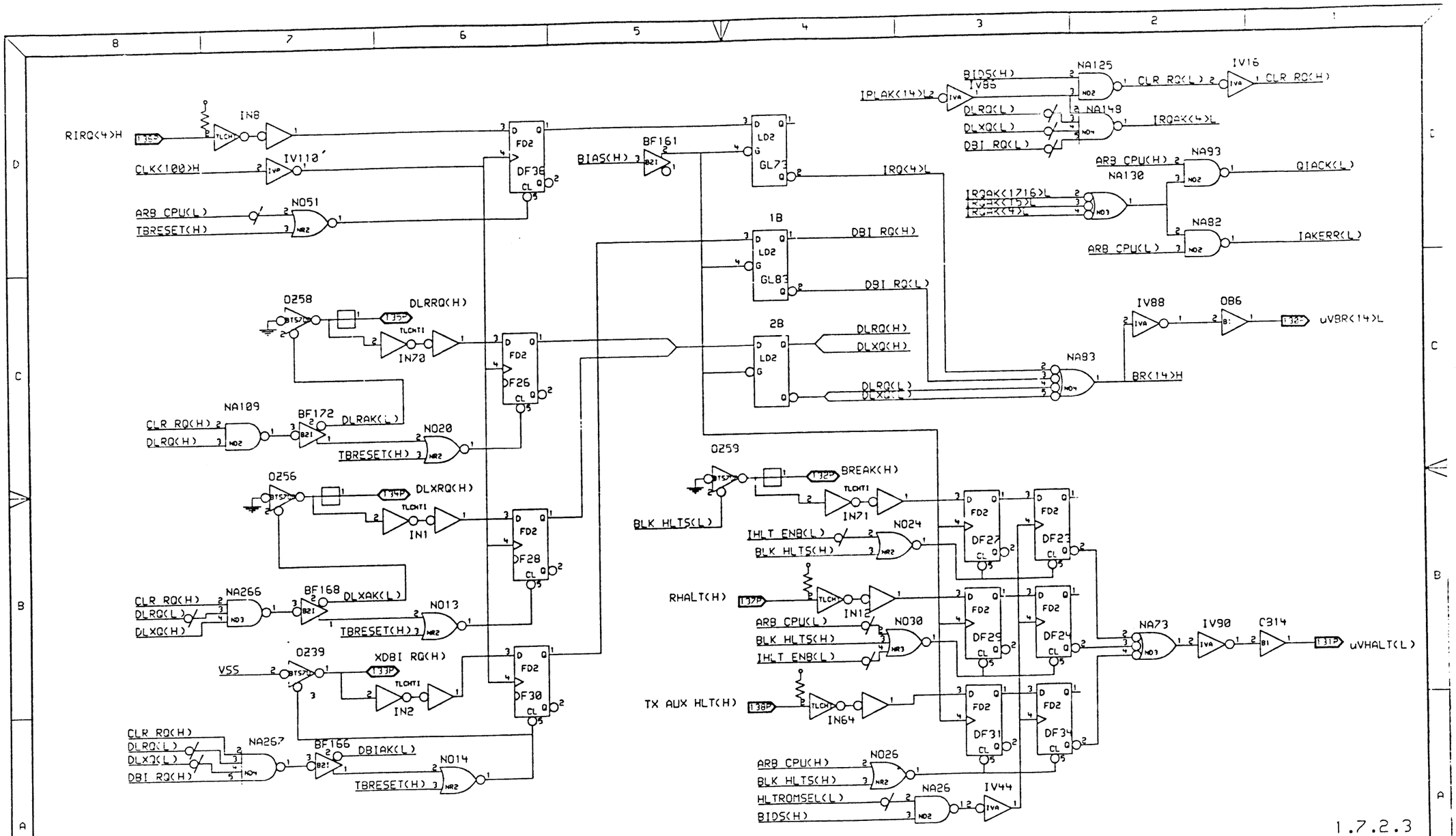
DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT+TYPE=GATE+ARRAY
LAST+MODIFIED=

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

TITLE: ADDRESS DECODER

SIZE	CODE	NUMBER	REV
D	CS	M7478-0 -73	A



1.7.2.3

REVISION HISTORY		
REV	ECO NUMBER	DATE

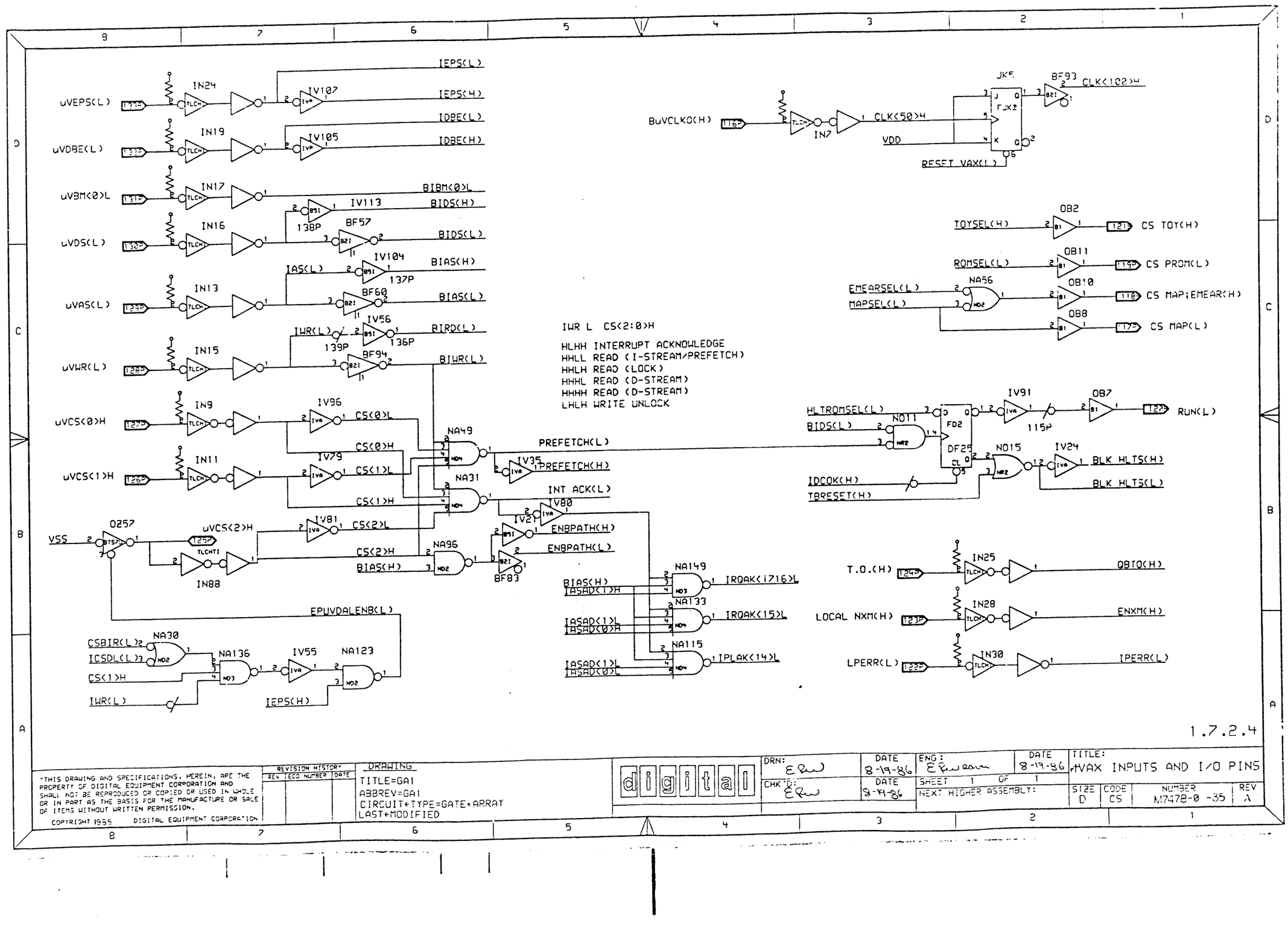
DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT TYPE=GATE ARRAY
LAST MODIFIED=

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

TITLE: EXCEPTIONS AND INTERRUPTS

SIZE	CODE	NUMBER	REV
D	CS	M7478-0 -34	A



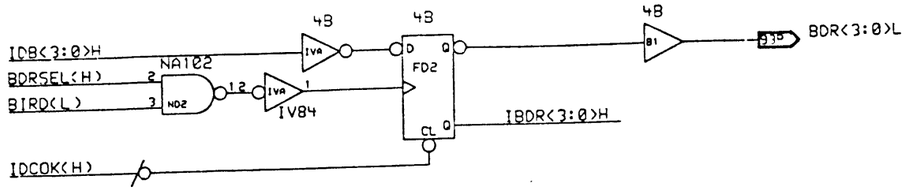
REVISION HISTORY

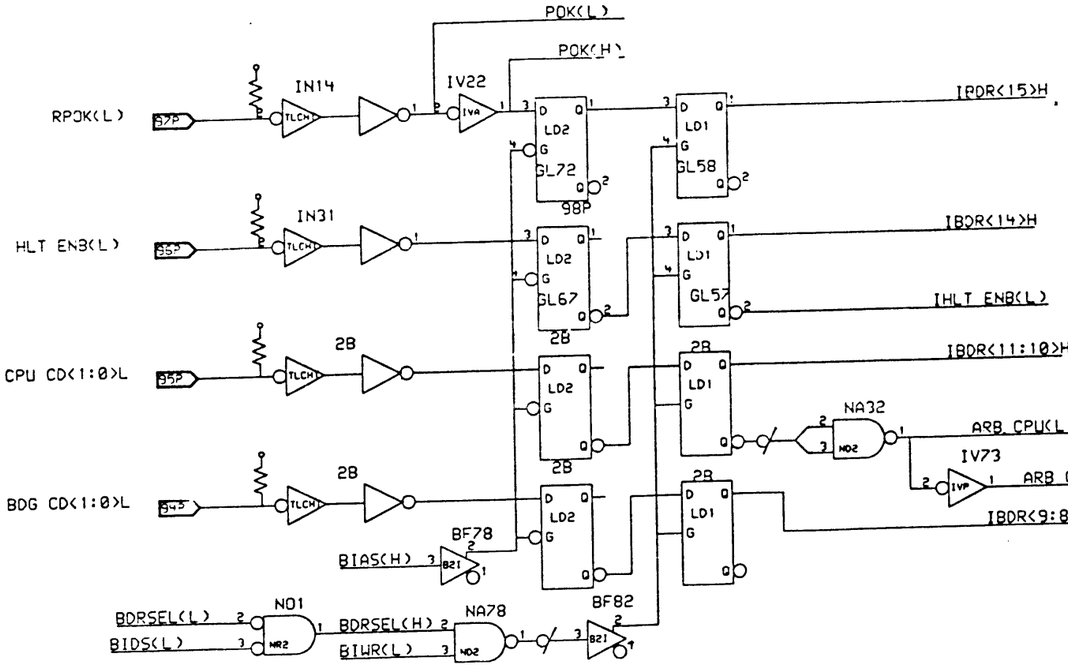
REV	ECO NUMBER	DATE

DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT*TYPE=GATE*ARRAY
LAST*MODIFIED

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: *VAX INPUTS AND I/O PINS	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0 -35	REV A

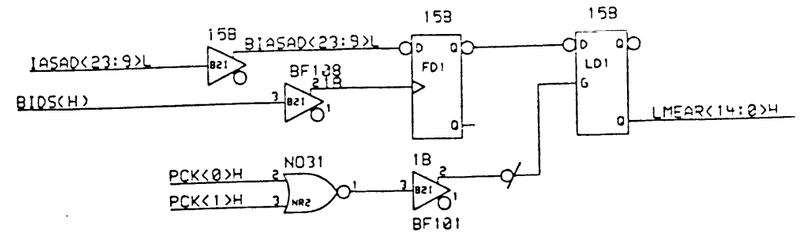
BOOT AND DIAGNOSTIC REGISTER





00 ARBITOR
01 AUX CPU 1
10 AUX CPU 2
11 AUX CPU 3

MEMORY ERROR ADDRESS REGISTER



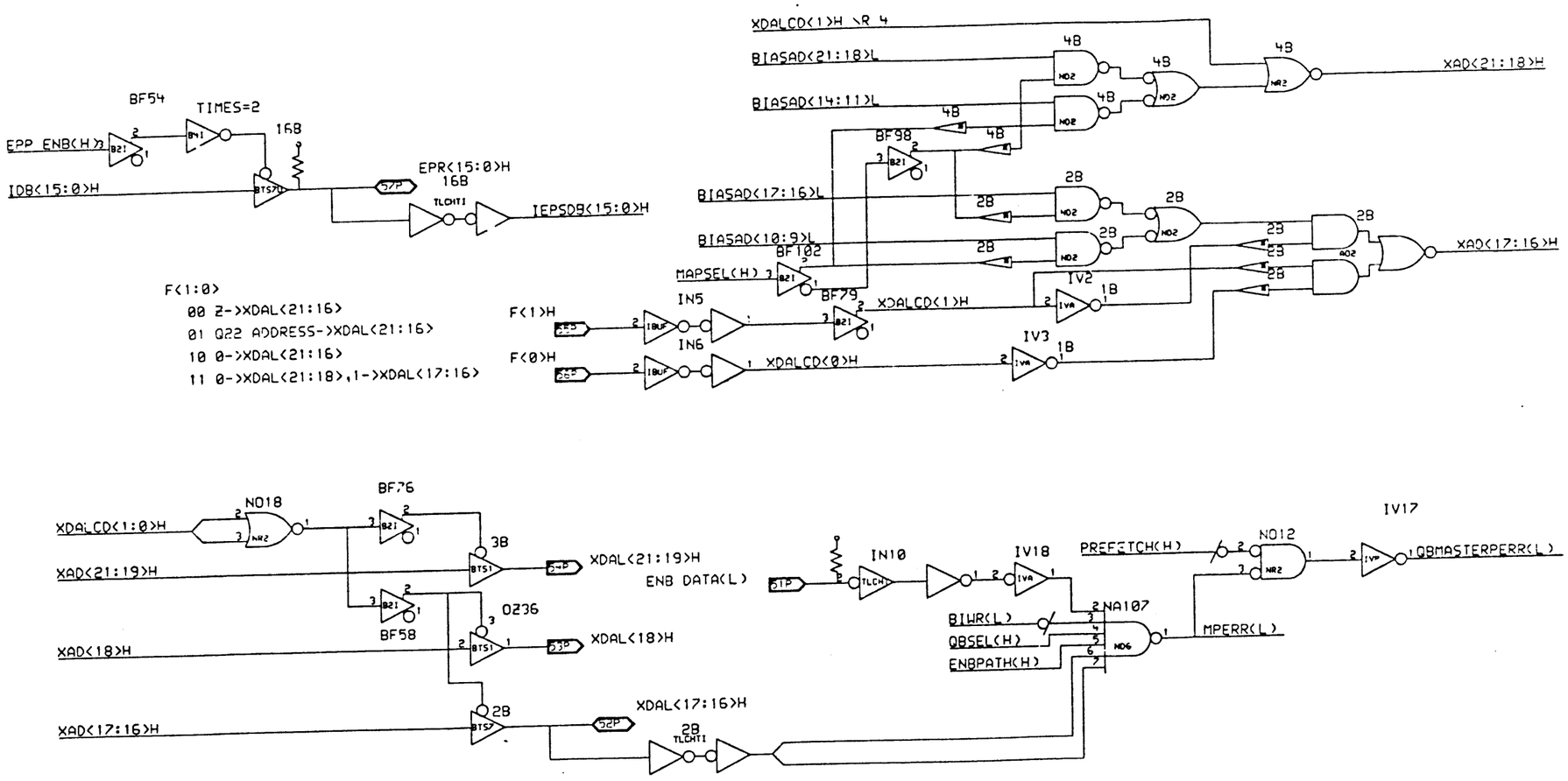
1.7.2.5

REVISION HISTORY

REV	ECO NUMBER	DATE

DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT+TYPE=GATE+ARRAY
LAST+MODIFIED=

DRN: ERW	DATE 8-19-86	ENG: E R Wooten	DATE 8-19-86	TITLE: BOOT/DIAG REG., MEM ERR ADDR REG.	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		SIZE D	CODE CS
		NEXT HIGHER ASSEMBLY:		NUMBER M7478-0-36	REV A



1.7.2.6

REVISION HISTORY

REV	ECO NUMBER	DATE

DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT+TYPE=GATE+ARRAY
LAST+MODIFIED=NOT WRITTEN

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: EPR BUS, XDAL BUS	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		SIZE D	CODE CS
		NEXT HIGHER ASSEMBLY:		NUMBER M7478-0 -37	REV A

IEPSDB<15>H
ROMSEL(L)
ENBPATH(L)
NO29 1B
NA85
ICSDL(L)
IV39
IBDR<15>H
BDRSEL(H)
NA255 1B
NA245 1B
NA264 1B
DAL<15>H
ROMSEL(L)
IOYSEL(L)
IEPSDB<14:0>H
NA242
BF176 1B
15B
DAL<30:16>H
ROMDLATCH(L)
IV75 1B
LD2
MAPSEL(L)
ROMSEL(L)
IEPSDB<15>H
NA34
NA33 1B
IV72 1B
DAL<31>H
GL101
ENBPATH(H)
BF84
IDAL<15>H
IASAD<15>H
IDAL<31>H
IASAD<8>H
AN125 1B
AN126 1B
AN64 1B
BF163 1B
IDB<15>H
IV99
AD ENB(H)
ENBPATH(H)
MAPSEL(H)
NA265
IV97
IEPSDB<14:0>H
IBDR<14>H
VSS \R 2
IBDR<11:8>H
VSS \R 4
IBDR<3:0>H
VSS \R 5
IMSER<9:3>H
VSS
IMSER<1:0>H
LMEAR<14:0>H
VSS \R 15
VSS \R 7
VDD \R 5
VSS \R 3
FB DLRAK VECTOR
VSS \R 7
VDD \R 6
VSS \R 2
VSS \R 5
VDD
VSS \R 6
VDD
VSS \R 2
FC DLXAK VECTOR
20H DBIAK VECTOR
DAL<14:0>H
IDAL<14:8>H
IASAD<14:8>H
IASAD<7:2>H
MAPSEL(L)
AD ENB(L)
NO16
BF128 1B
BF119 1B
BF95 1B
BF80 1B
IDB<14:8>H
AD ENB(H)
IDAL<7:0>H
LD1
8B
IDAL<23:16>H
IASAD<8:2>H
BIBM<0>L
IDB<7:0>H
EMEARSEL(L)
IV112
NA210
IMSER<4>H
MEARSEL(H)
ENBPATH(H)
NA246
TIMES=6
BDRSEL(L)
DLRAK(L)
DBIAK(L)
NA98
TIMES=6
TIMES=3
RMSERSEL(L)
DLXAK(L)
DBIAK(L)
NA77
CSBIR(L)
DLRAK(L)
DLXAK(L)
DBIAK(L)
NA111
BF170 1B
BF106
ICSDL(H)
IEPS(L)
EPSWR(L)
IV48
EPSWR(H)
NA12
TIMES=2
NA256
TOYSEL(H)
ENBPATH(H)
BIBM<0>L
AD ENB(L)
NA67
BF115 1B
BF120 1B
BF92 1B
BF129 1B
1.7.2.7

REVISION HISTORY		
REV	ECO NUMBER	DATE

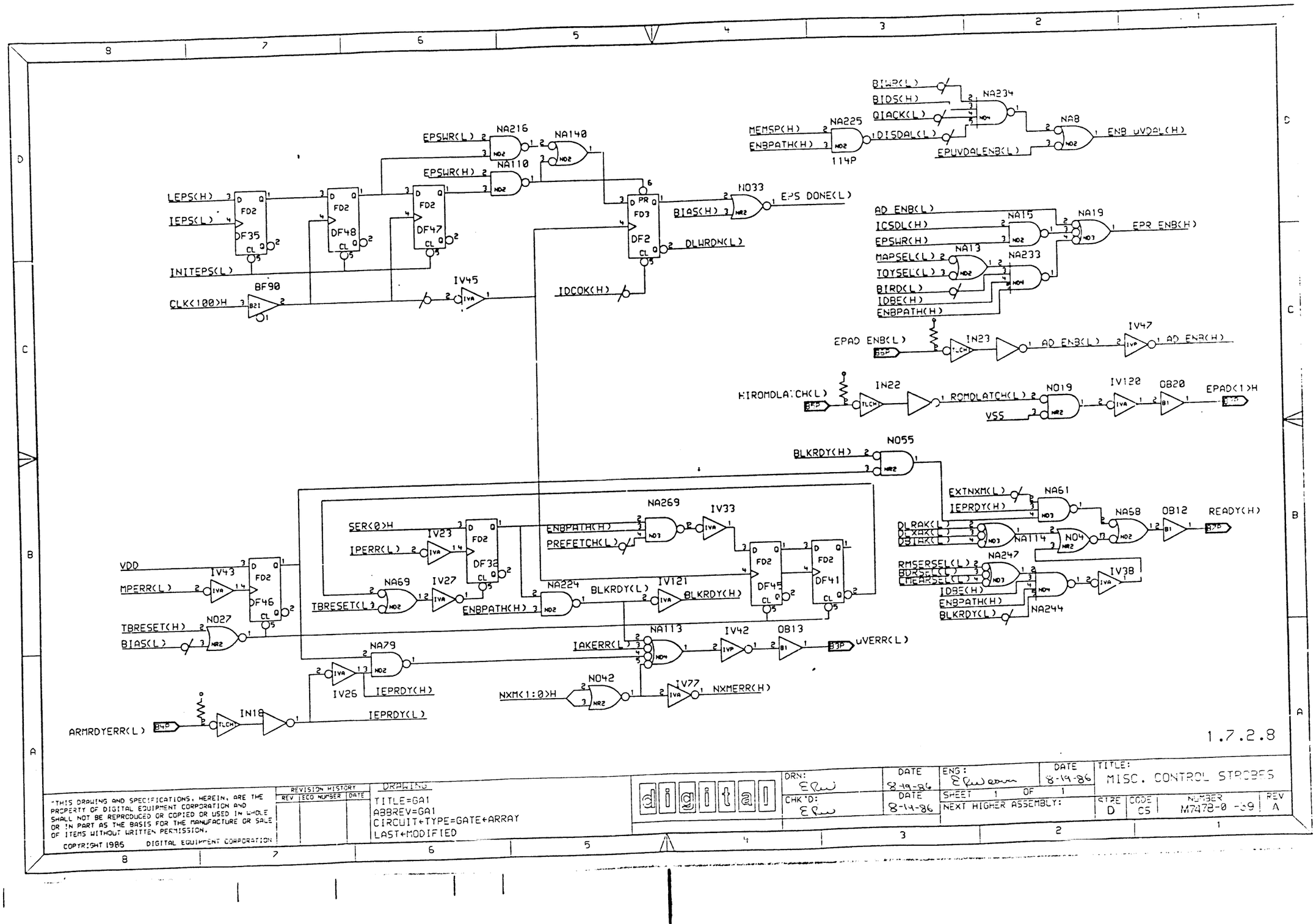
DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT-TYPE=GATE-ARRAY
LAST-MODIFIED=

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

TITLE: INTERNAL DATA BUSES

SIZE	CODE	NUMBER	REV
D	CS	MZ478-0-38	A



REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT+TYPE=GATE+ARRAY
LAST+MODIFIED

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: MISC. CONTROL STROBES	
CHK'D: ERW	DATE 8-14-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0 -09 / REV A	

RINIT(H)
IN29
AR3 CPU(L)
NA89
SLVINIT(L)
INTRVL TIM(L)
IN33
[INTRVL TIM(L)
SLVINIT(L)
NA17
POK(L)
NA27
NA20
IV5
FD2
DF4
DF3
SCHMDT1
DDCOK(H)
DCOK(H)
NA18
IV7
NA14
TENUS(L)
INITACK(H)
TBRESET(L)
COVER(L)
VDD
IV34
DF62
CLK<100>H
DF44
COVER(L)
TBRESET(L)
BF140
RESET VAX(L)
TINIT(H)
IN32
INITACK(H)
DF43
COUNT(H)
IV54
DF63
OB22
INITRQ(L)
SETINIT(H)
IEPS(H)
NA185
IV119
DF42
NA106
BF116
TBRESET(H)
TBRESET(L)
BF127
IDCOK(H)
NA104
IV46
BF130
DF50
DF49
OB21
RESET VAX(L)
NA92
NA105
NA81
TENUS(L)
NA112
NO28
NA97
FJK1
JK6
NO17
IV53
NO34
NA103
JK7
NA91
NO39
NA55
JK8
NA72
NO21
NA70
JK1
NA54
NO25
NA88
JK2
NO22
NA71
JK3
BF131
BF141
BF107
1B
JK4
VDD

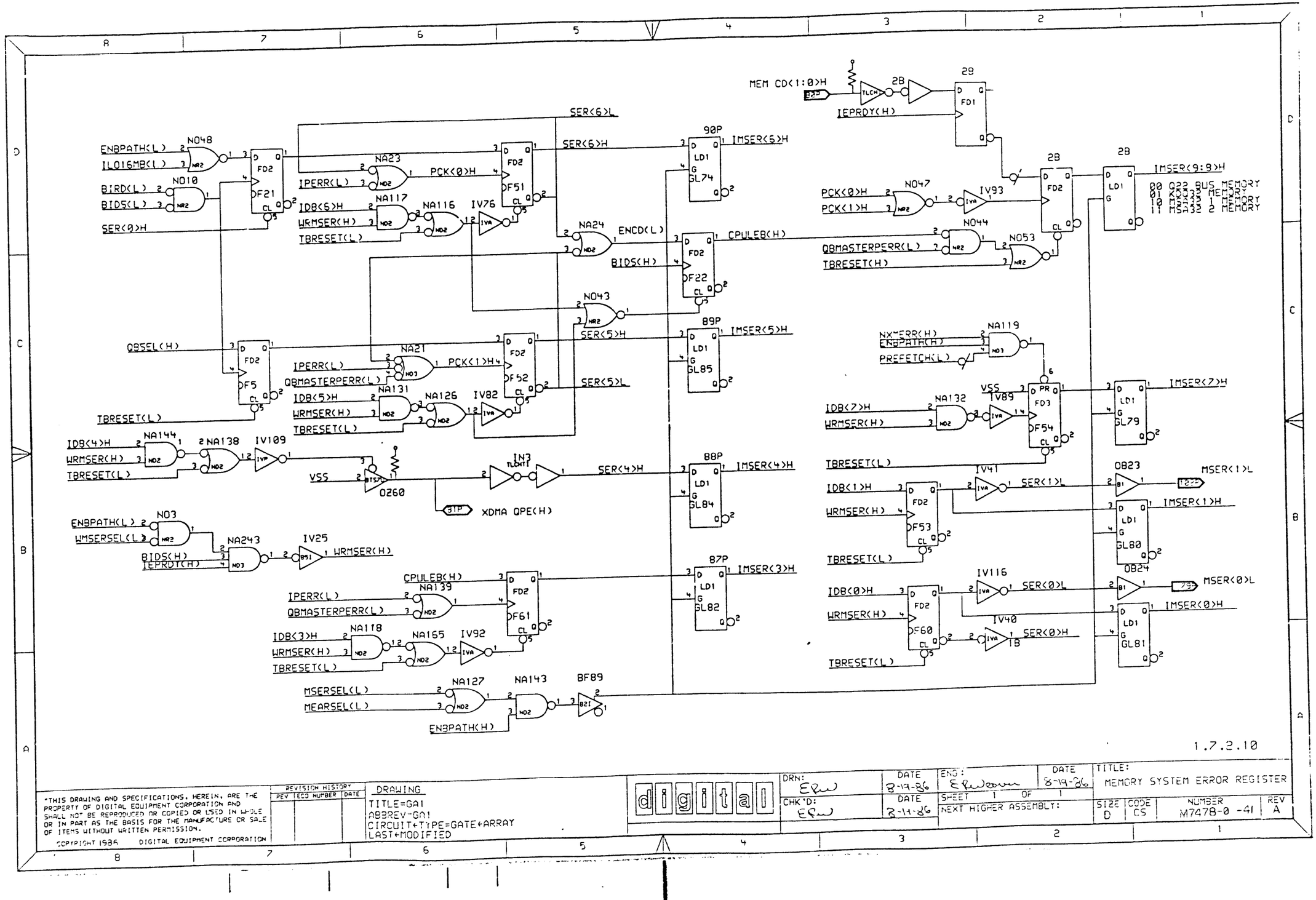
1.7.2.9

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=GA1
ABBREV=GA1
CIRCUIT-TYPE=GATE-ARRAY
LAST-MODIFIED=

digital

DRN: EPW	DATE 8-19-86	ENG: EPW	DATE 8-19-86	TITLE: RESET COUNTER, POWER UP/DOWN CNTRL	
CHK'D: EPW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:	SIZE D	CODE CS	NUMBER M7478-0 -40 REV A



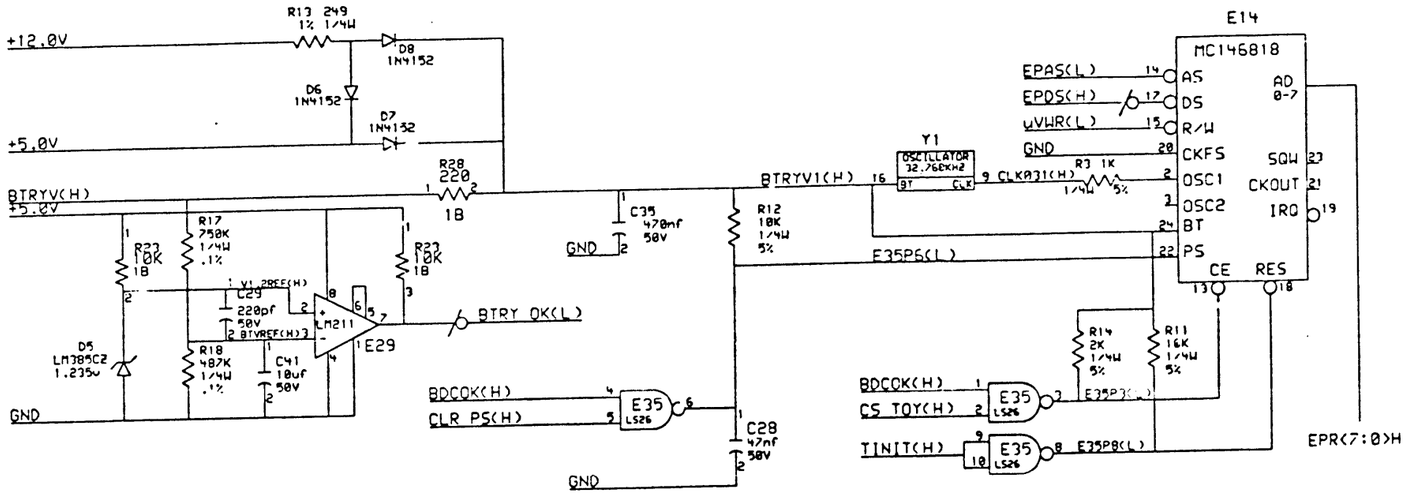
1.7.2.10

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=GA1
ABBREV-GA1
CIRCUIT-TYPE=GATE-ARRAY
LAST-MODIFIED

digital

DRN: EW	DATE 8-19-86	ENG: E.W.	DATE 8-19-86	TITLE: MEMORY SYSTEM ERROR REGISTER	
CHK'D: EW	DATE 8-19-86	SHEET 1 OF 1		SIZE D	CODE CS
		NEXT HIGHER ASSEMBLY:		NUMBER M7478-0 -41	REV A



1.8

Battery Sense/Charge	
32.768KHz oscillator	TOY Clock

EPR(7:0)H

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=TOY
ABBREV=TOY
CIRCUIT=TYPE=TOY/CLOCK
LAST=MODIFIED=

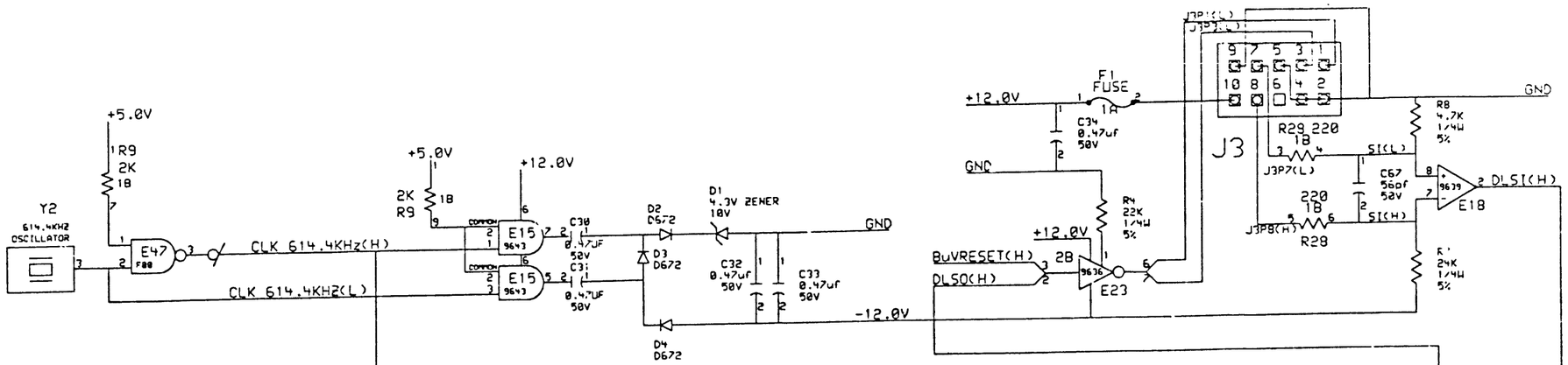
DEFINE
X=FIRST=0
X=STEP=SIZE

digital

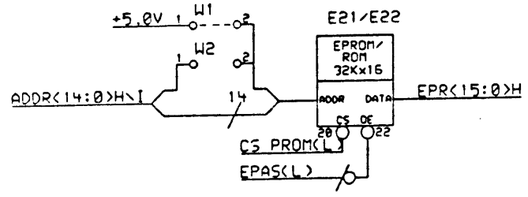
DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

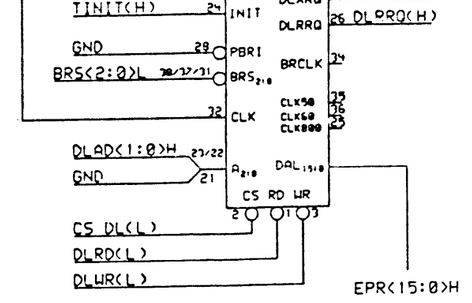
TITLE: TIME OF YEAR (TOY) Clock

SIZE	CODE	NUMBER	REV
D	CS	M7478-0-42	A

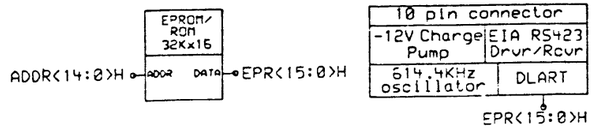


NOTE:
W1 is normally installed (for 2764 & 27128 EPROM's)
W2 is to be installed for 27256 EPROM's.





1.9



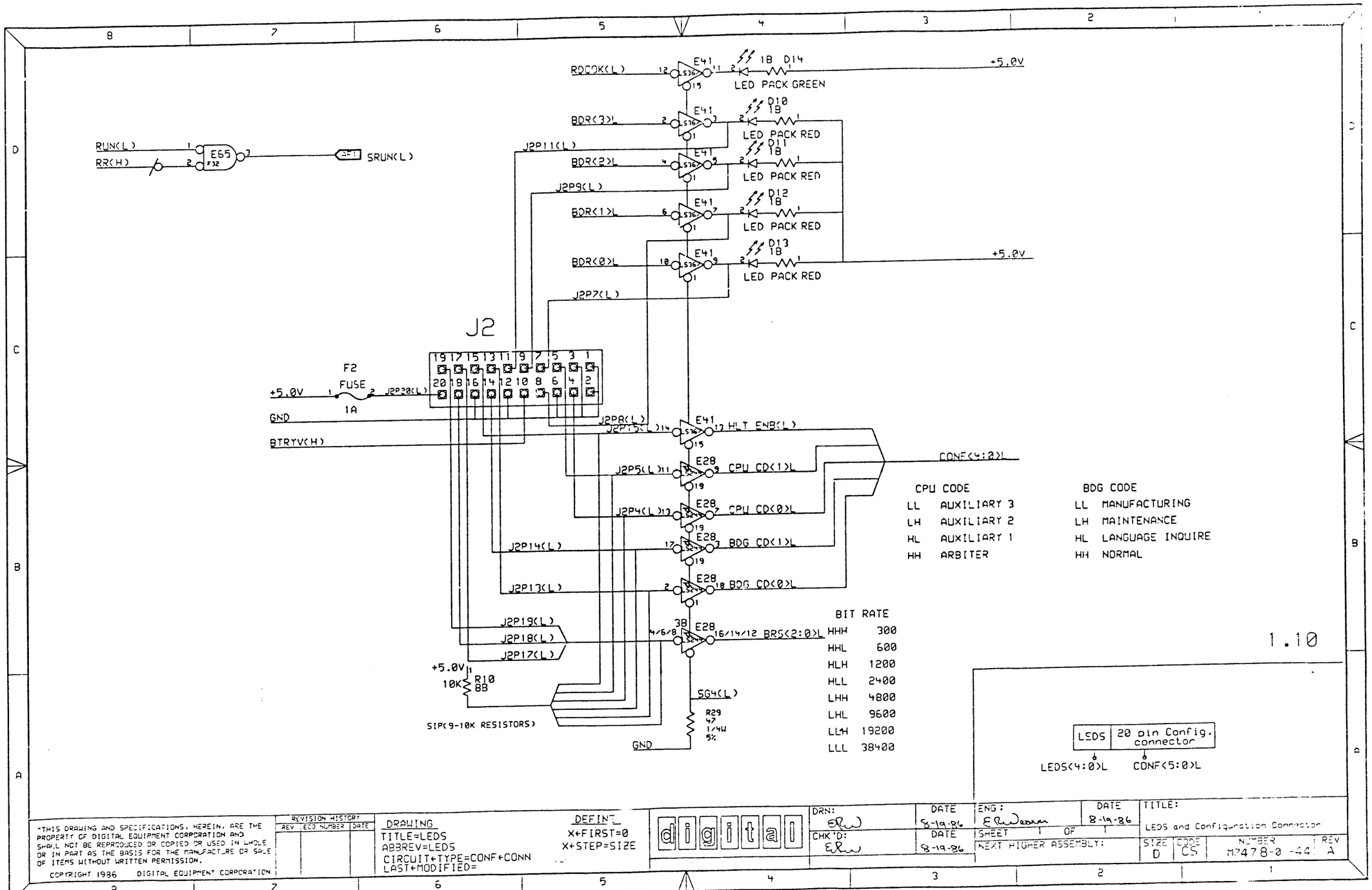
REVISION HISTORY			
REV	ECO NUMBER	DATE	

DRAWING
TITLE=COMM
ABBREV=COMM
CIRCUIT=TYPE=SERIAL I/O
LAST MODIFIED=

DEFINE
X=FIRST=0
X=STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: Console Serial Line Interface
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		
		NEXT HIGHER ASSEMBLY:	SIZE D / CODE CS / NUMBER M7478-0 -43 / REV A	



REVISION HISTORY

REV	ECO NUMBER	DATE

DRAWING
TITLE=LEDS
ABBREV=LEDS
CIRCUIT=TYPE=CONF=CONN
LAST=MODIFIED=

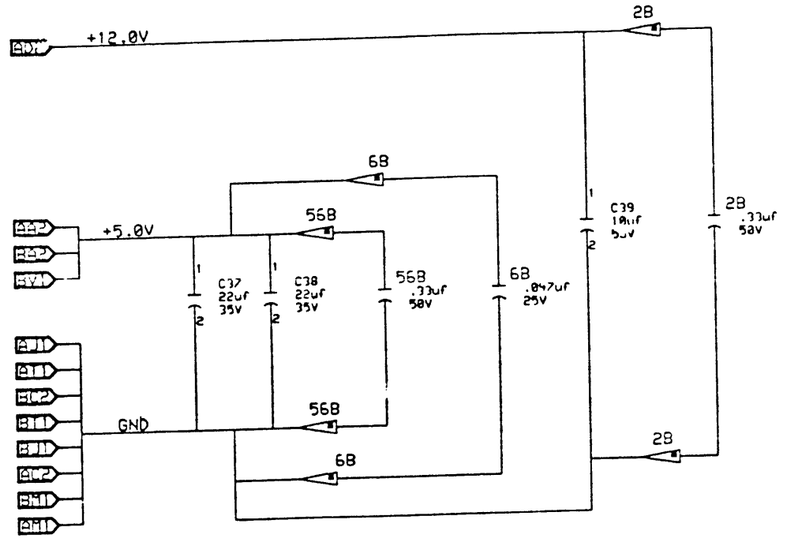
DEFINE
X=FIRST=0
X=STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1	
		NEXT HIGHER ASSEMBLY:	

TITLE: LEDS and Configuration Connector

SIZE	CODE	NUMBER	REV
D	CS	M7478-0-44	A



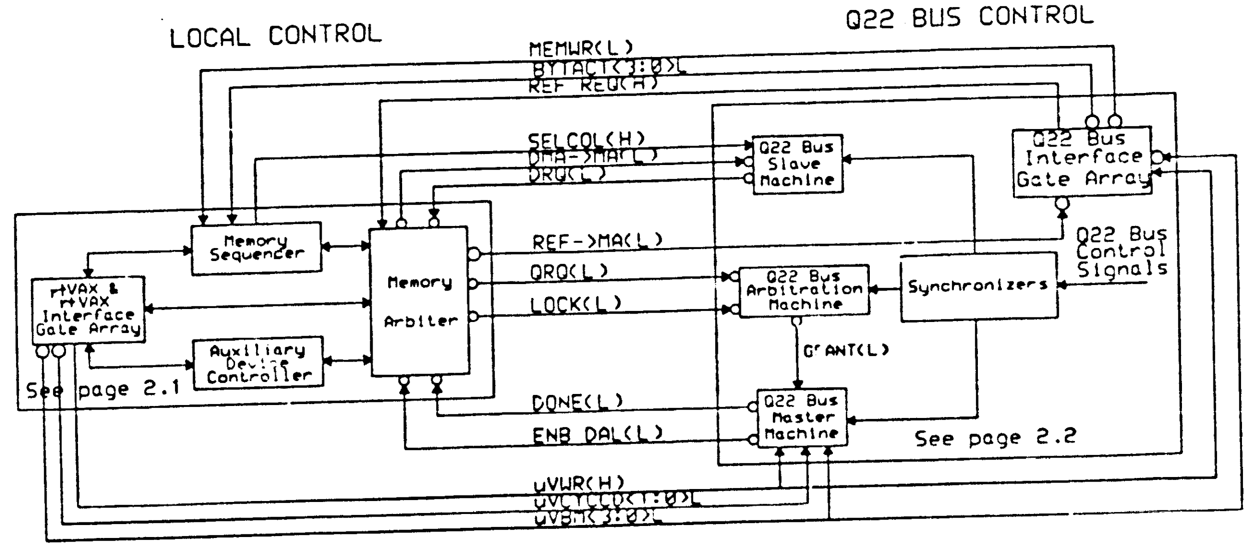
1.11

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=
LAST-MODIFIED=

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: Decoupling Capacitors	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:	SIZE D	CODE CS	NUMBER M7478-0 -45 REV A



2

DRN: Efw	DATE 8-19-86	ENG: E Ru Weaver	DATE 8-19-86	TITLE: KA620 State Machines
CHK'D: Efw	DATE 8-19-86	SHEET 1 OF 1		
		NEXT HIGHER ASSEMBLY:		SIZE D · CODE CS · NUMBER M7478-0 -46 · REV A

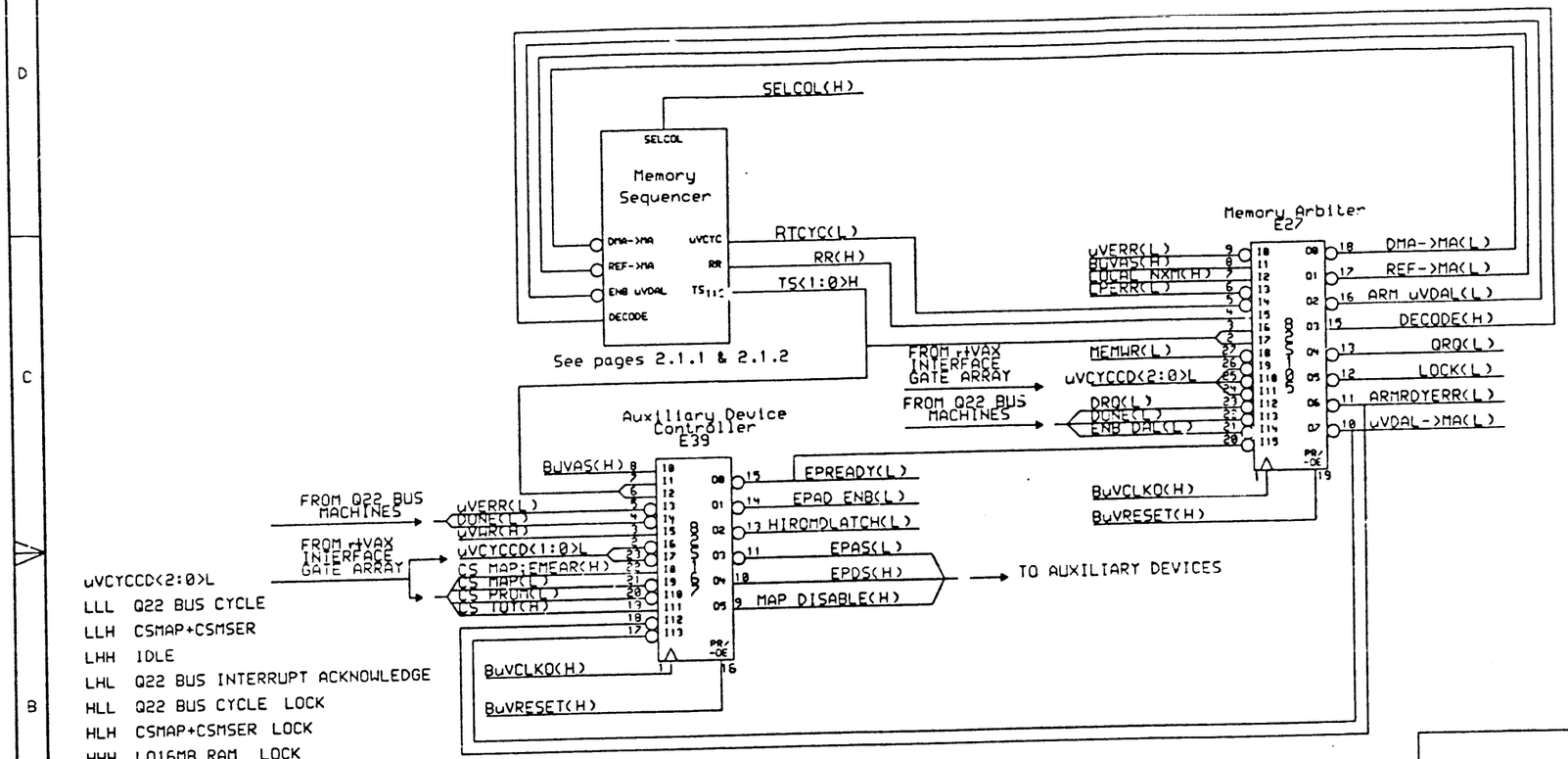
REVISION HISTORY

REV	ECO NUMBER	DATE

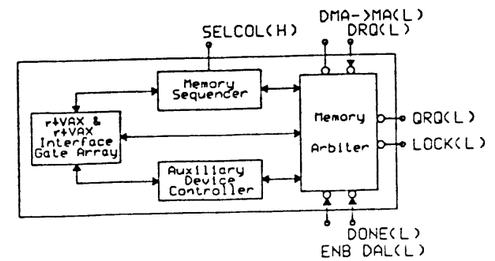
DRAWING

TITLE=CTLBLOCK
ABBREV=ctl
CIRCUIT+TYPE=CONTROL
LAST+MODIFIED=

digital



2.1



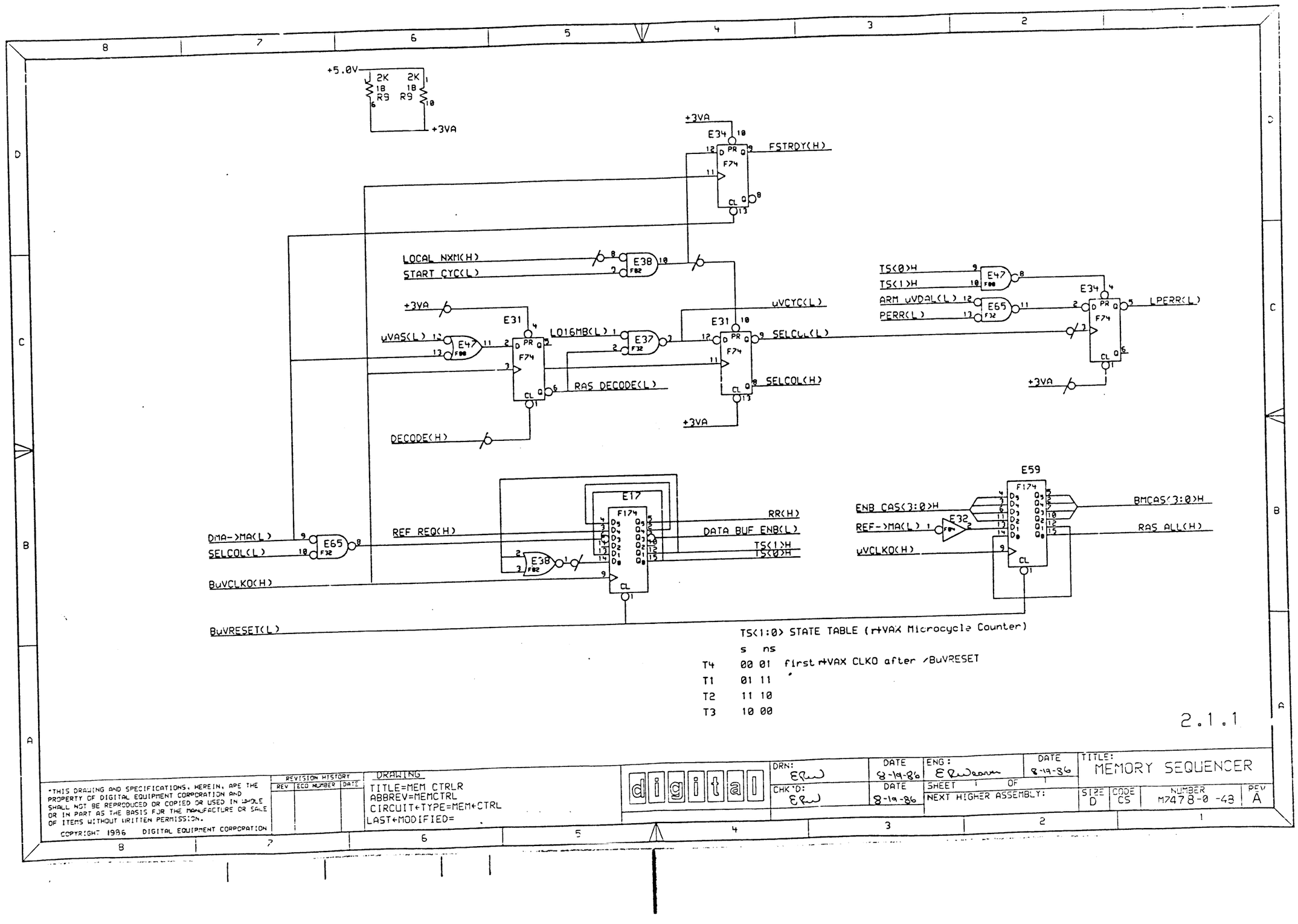
REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=r+VAX MACHINE
ABBREV=r+VAX
CIRCUIT+TYPE=control
LAST+MODIFIED=

DEFINE
X+FIRST=0
X+STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW approved	DATE 9-19-86	TITLE: r+VAX Cycle Controller
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		
		NEXT HIGHER ASSEMBLY:	SIZE D / CODE CS	NUMBER M7478-0 -47 / REV A



TS(1:0) STATE TABLE (r+VAX Microcycle Counter)

	s	ns	
T4	00	01	first r+VAX CLKO after /BuVRESET
T1	01	11	
T2	11	10	
T3	10	00	

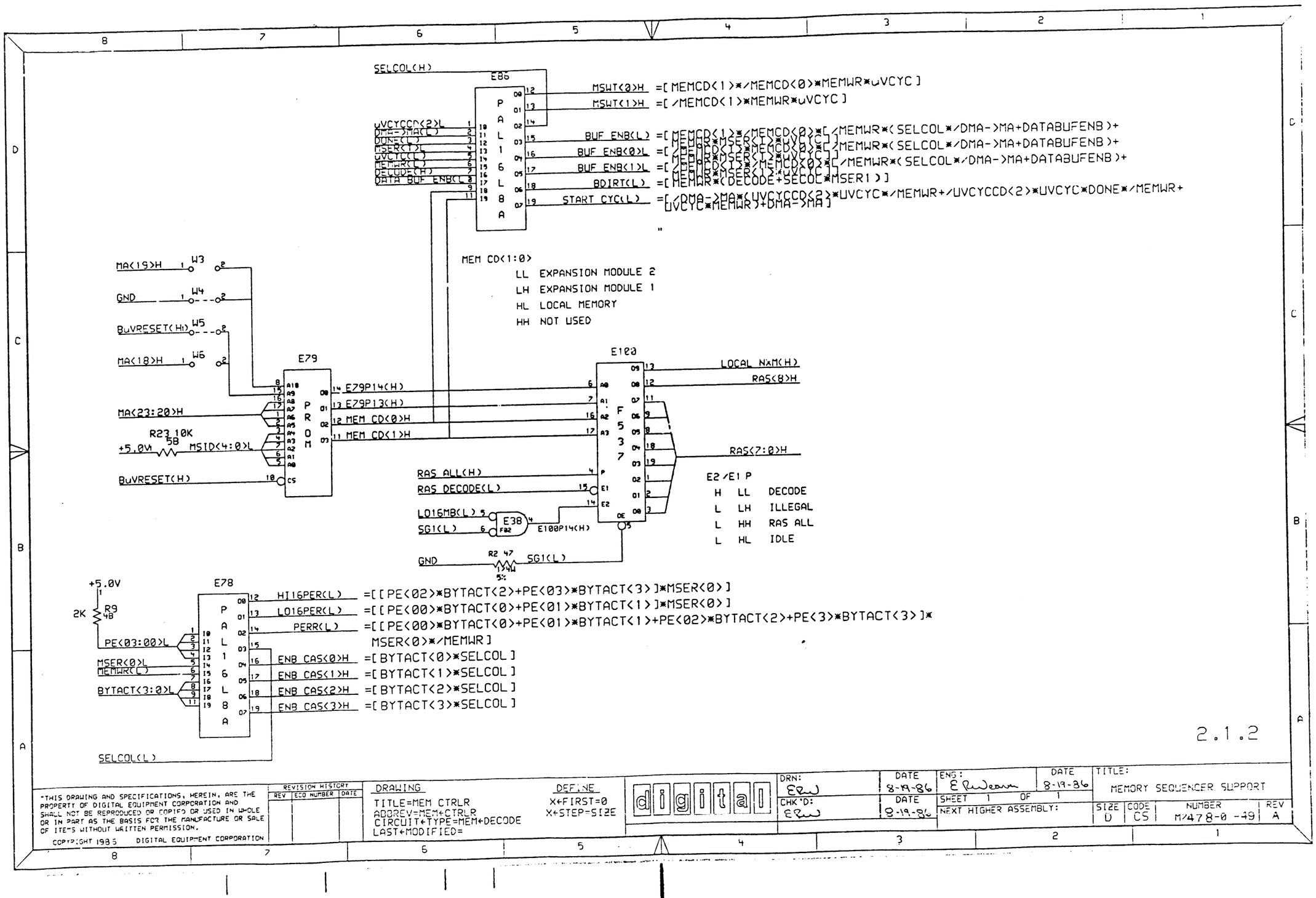
2.1.1

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=MEM CTRLR
ABBREV=MEMCTRL
CIRCUIT+TYPE=MEM+CTRL
LAST+MODIFIED=

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: MEMORY SEQUENCER	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		SIZE D / CODE CS / NUMBER M7478-0-43 / REV A	
		NEXT HIGHER ASSEMBLY:			



REVISION HISTORY		
REV	ECO NUMBER	DATE

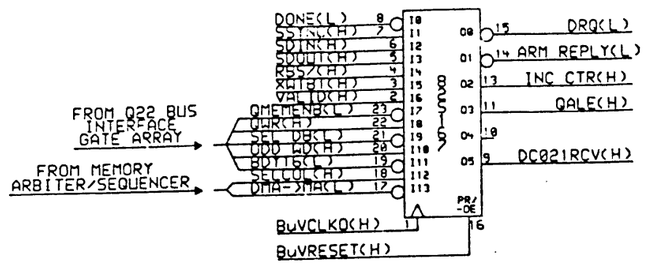
DRAWING
TITLE=MEM CTRLR
ABBREV=MEM CTRLR
CIRCUIT TYPE=MEM DECODE
LAST MODIFIED=

DEFINE
X FIRST=0
X STEP=SIZE

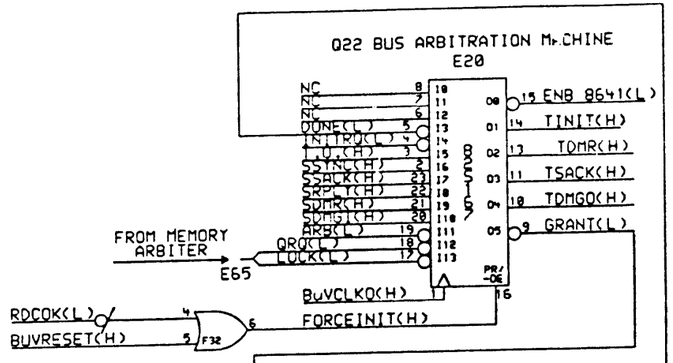
digital

DRN: ERW	DATE 8-19-86	ENG: E R Weaver	DATE 8-19-86	TITLE: MEMORY SEQUENCER SUPPORT	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0-49	REV A

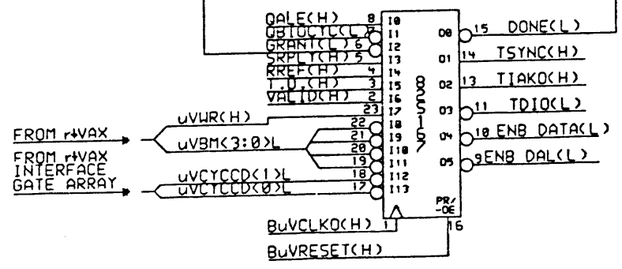
Q22 BUS SLAVE MACHINE
E33

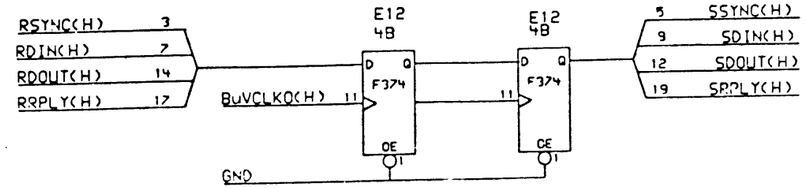


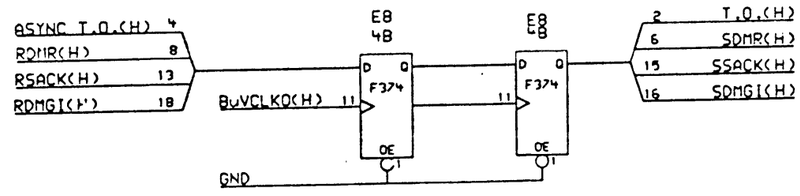
Q22 BUS ARBITRATION MACHINE
E20



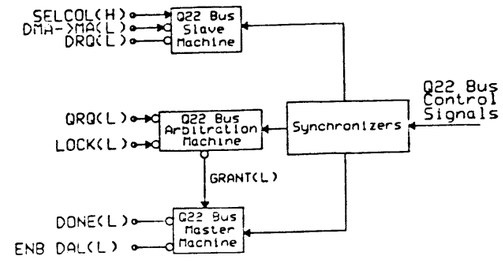
Q22 BUS MASTER MACHINE
E26







2.2



REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=QBUS MACHINE
ABBREV=QCTRL
CIRCUIT+TYPE=QBUS+CNTRL
LAST+MODIFIED=

DEFINE
X+FIRST=0
X+STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: Q22 BUS STATE MACHINES
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		
		NEXT HIGHER ASSEMBLY:	SIZE D	CODE 05
			NUMBER M/4/8-0 -50	REV A

```
NAME 23_053L1_00__E27 ;MEMORY ARBITER MACHINE
OPTION PRESET
INPUT -EPRDY, -ENBADR, -DONE, -DRQ, -CYCD0, -CYCD1, -CYCD2,
INPUT -MEMWR, S0, S1, RR, -VCYC, -LPERR, LOCALNXM, BVAS, -VERR
OUTPUT -DALMA, -RDYERR, -LOCK, -QRQ, DECODE, -ARMDAL, -REFMA, -DMAMA

LOCAL FLAG ;LOCK FLAG PREVENTS VAX FROM CHANGING MEMORY UNTIL Q22 BUS
           ;MASTERSHIP, Q22 BUS AND REFRESH CYCLES ARE ALLOWED.
MACHINE 23_053L1_00__E27

STATE POWERUP ;LET REFRESH OP Q22 SLAVE THROUGH UNTIL Q22 BUS OWNED.
IF [ -DONE * S1 * -S0 * RR ] THEN FINISHUP [ -DMAMA, -DALMA, -DECODE,&
-ARMDAL, -FLAG ]
IF [ -DONE * DRQ ] THEN FINISHUP [ -DMAMA, -DALMA, -DECODE,&
-ARMDAL, -FLAG ]
IF [ DONE * -ENBADR * CYCD0 ] THEN VXT12 [ RDYERR, ARMDAL ] ;LOCAL MISS.
IF [ DONE * ENBADR * CYCD0 ] THEN Q22MT3 [ -DALMA ] ;LOCAL MISS AND GLOBAL HIT
IF [ DONE * CYCD1 * -CYCD0 ] THEN VXT12 [ RDYERR ] ;FINISH UP THE MAP CYCLE.

STATE SYNCUP, NUMBER -LLLLH
GOTO FINISHUP [ -DMAMA, -DALMA, -DECODE, -ARMDAL ]

STATE FINISHUP, NUMBER -HLLLH ;Q22 SLAVE CYCLES HAVE TOP PRIORITY, REFRESH
IF [ -LPERR * DRQ ] THEN Q22SLAVE [ DMAMA ]
IF [ -LPERR * RR * -DRQ ] THEN REFRESH [ REFMA ] ;LPERR IS FOR OPTIMIZATION.
IF [ FLAG * -RR * -DRQ ] THEN VXT10 ;IF FLAGWAIT FOR DONE.
IF [ -S1 * -S0 * -EPRDY * -FLAG * -RR * -DRQ ] THEN VXSLAVE [ DALMA ]

STATE REFRESH, NUMBER -HHHLH
GOTO RT2

STATE RT2, NUMBER -LLLLL
GOTO RT3

STATE RT3  ;WHEN REFRESH, RAS<8:0>H AND LOCALNXM(H) ASSERT.
GOTO RT4

STATE RT4
GOTO RT5        [ -RDYERR ]

STATE RT5
GOTO RT6        [ -REFMA ]

STATE RT6
GOTO SYNCUP     [ -DECODE, -RDYERR ]

STATE Q22SLAVE, NUMBER -HLLLL  ;LOCAL MEMORY IS SLAVE TO Q22 BUS MASTER.
GOTO RT2 [ DECODE ]

STATE VXSLAVE, NUMBER -HHLLL  ;LOCAL MEMORY IS SLAVE TO VAX.
GOTO VXT3 [ DECODE ]

STATE VXT3, NUMBER -LHLLL
IF [ S1 * -S0 * VCYC * BVAS * CYCD2 * -DONE ] THEN READY [ ARMDAL, RDYERR ]
IF [ S1 * -S0 * VCYC * BVAS * -CYCD2 * -CYCD1 * -CYCD0 * DONE ] THEN READY &
[ ARMDAL, RDYERR ]
IF [ S1 * -S0 * VCYC * CYCD1 * CYCD0 * DONE * EPRDY ] THEN READY [ ARMDAL,&
RDYERR ]
IF [ S1 * -S0 * -BVAS * -VCYC ] THEN FINISHUP [ -DMAMA, -DALMA,&
-DECODE, -ARMDAL ]  ;IF NOTHING TO DO GO LOOK FOR REFRESH OR Q22 SLAVE.
IF [ S1 * -S0 * VCYC * BVAS * -CYCD2 * -DONE ] THEN RT4 [ QRQ, LOCK, FLAG ]
IF [ S1 * -S0 * -VCYC * BVAS ] THEN VXT41 [ -DECODE ]  ;WHAT CYCLE TO DO?

STATE VXT41 ;FIND OUT WHAT KIND OF CYCLE TO RUN?
IF [ -VCYC * CYCD2 * -CYCD1 * CYCD0 ] THEN Q22CYC [ QRQ, -DALMA, ARMDAL ]
IF [ -VCYC * -CYCD2 * -CYCD1 * CYCD0 ] THEN PROMCYC [ RDYERR ]
IF [ -VCYC * -CYCD1 * -CYCD0 ] THEN RT4
IF [ -VCYC * CYCD2 * CYCD1 * -CYCD0 ] THEN Q22CYC
IF [ -VCYC * -CYCD2 * CYCD1 * -CYCD0 ] THEN Q22CYC [ LOCK ]
IF [ -VCYC * CYCD2 * CYCD1 * CYCD0 ] THEN Q22CYC [ ARMDAL ]
IF [ -VCYC * -CYCD2 * CYCD1 * CYCD0 ] THEN Q22CYC [ LOCK, ARMDAL ]

STATE READY ;CYCLE IS RUNNING AND EPR MACHINE ASSERTS EPRDY
IF [ -S1 * S0 ] THEN VXT6 ;TO STROBE MEMCD<1:0> OR MSER WRITE DATA.

STATE VXT6 ;IF VAX ERROR PIN IS ASSERTED, EXTRA uCYCLE OCCURS.
IF [ VERR ] THEN VXT9 [ -LOCK, -QRQ ] ;FREE Q22 BUS ON ERRORS OR MEMORY WRITES.
IF [ -VERR * -MEMWR ] THEN VXT7 [ -QRQ, -DECODE, -RDYERR, -FLAG ]
IF [ -VERR * MEMWR ] THEN VXT7 [ -LOCK, -DECODE, -RDYERR, -FLAG, -QRQ ]

STATE VXT7, NUMBER -LLLHH
GOTO VXT8  [ -DMAMA, -DECODE, -DALMA, -ARMDAL ]

STATE VXT8, NUMBER -HLLHH ;IF LOCAL PARITY ERROR THEN PROTECT MEMORY AND WAIT
IF [ LPERR ] THEN VXTHOLD [ -LOCK ]
IF [ -LPERR * -RR * -DRQ ] THEN VXSLAVE [ DALMA ]  ;ALLOW Q22 IAKS.
IF [ -LPERR * RR * -DRQ ] THEN REFRESH [ REFMA ]  ;ALLOW REFRESH.
IF [ -LPERR * DRQ ] THEN Q22SLAVE [ DMAMA ]  ;ALLOW Q22 SLAVE.

STATE VXTHOLD ;FORCE VAX MACHINE CHECK, THEN ALLOW MEMORY CYCLES
IF [ BVAS * S1 * -S0 * -VERR ] THEN VXT9

STATE VXT9  ;STALL ONE MICROCYCLE IF VAX SAW AN ERROR.
IF [ S1 * S0 * -LOCALNXM ] THEN VXT7 [ -DECODE, -RDYERR ;
IF [ S1 * S0 * LOCALNXM ] THEN RT3 [ -DECODE, -QRQ, -RDYERR, -ARMDAL ]

STATE VXT10 ;STALL UNTIL Q22 BUS MASTERSHIP THEN RUN READ LOCK CYCLE.
IF [ S1 * -S0 * DONE * BVAS * -CYCD2 * -CYCD1 * -CYCD0 ] THEN FINISHUP&
[-FLAG ]
IF [ S1 * -S0 * -DONE * BVAS * -CYCD2 * -CYCD1 * -CYCD0 ] THEN FINISHUP
IF [ S1 * -S0 * -DONE * -BVAS ] THEN VXT8 [  -FLAG, -DMAMA, -QRQ, -DALMA,&
-ARMDAL ]

STATE PROMCYC  ;EPR MACHINE RUNS A PROM CYCLE WHEN RDYERR IS ASSERTED.
IF [ EPRDY ] THEN RT4  ;EPR MACHINE ASSERTS EPRDY WHEN PROM CYCLE IS DONE.

STATE VXT12  ;EPR MACHINE IS DOING THE SYNCING.
IF [ EPRDY ] THEN READY [ RDYERR ]  ;EPR MACHINE IS DONE AND VAX
                                    ;IS FINISHING.

STATE Q22CYC ;Q22 BUS DATA CYCLE OR IAK.
IF [ S1 * S0 ] THEN POWERUP [ QRQ ]

STATE Q22MT3  ;GET IN STEP AND GO RUN THE MISS-HIT CYCLE, TELL EPR MACHINE.
IF [ S1 * -S0 ] THEN Q22MT4 [ DMAMA, RDYERR ]

STATE Q22MT4, NUMBER -HHLLH
GOTO VXSLAVE

END
```

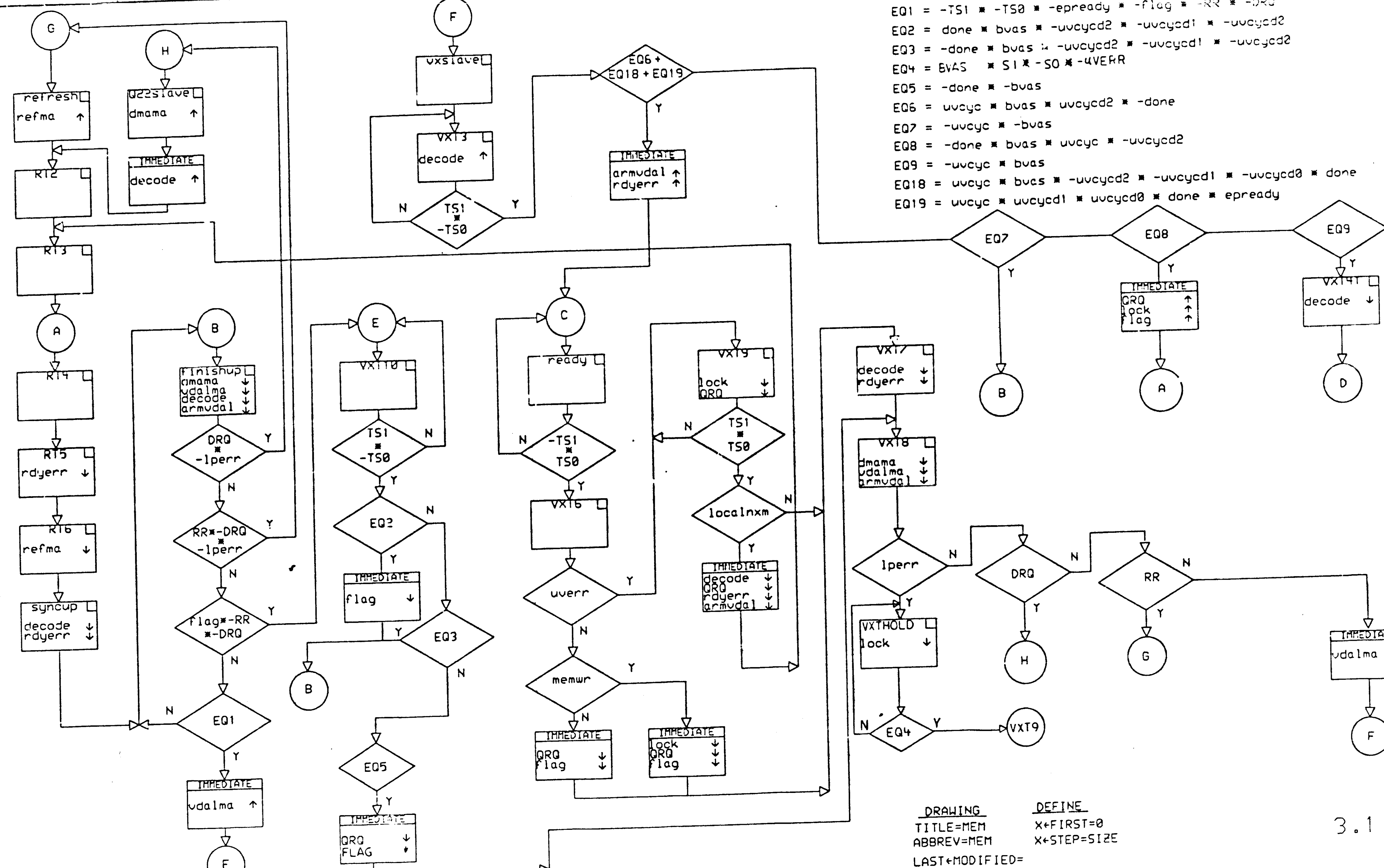

REVISIONS			
CHK	CHANGE NO.	REV

digital

DRN. E R	DATE 8-19-82	ENG. E R	DATE 8-19-82
CHK'D E R	DATE 8-19-82	BOARD LOCATION: SHEET 1 OF 1	
VSK15.TEP1		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL:			

TITLE: MEMORY ARBITER LISTING

SIZE	CODE	NUMBER	REV.
D	CS	M7478-0-51	A



EQUATIONS

EQ1 = -TS1 * -TS0 * -epready * -flag * -RR * -DRQ
EQ2 = done * bvas * -uvcycd2 * -uvcycd1 * -uvcycd2
EQ3 = -done * bvas * -uvcycd2 * -uvcycd1 * -uvcycd2
EQ4 = BVAS * S1 * -S0 * -UVERR
EQ5 = -done * -bvas
EQ6 = uvcyc * bvas * uvcycd2 * -done
EQ7 = -uvcyc * -bvas
EQ8 = -done * bvas * uvcyc * -uvcycd2
EQ9 = -uvcyc * bvas
EQ18 = uvcyc * bvas * -uvcycd2 * -uvcycd1 * -uvcycd0 * done
EQ19 = uvcyc * uvcycd1 * uvcycd0 * done * epready

DRAWING
TITLE=MEM
ABBREV=MEM
LAST←MODIFIED=

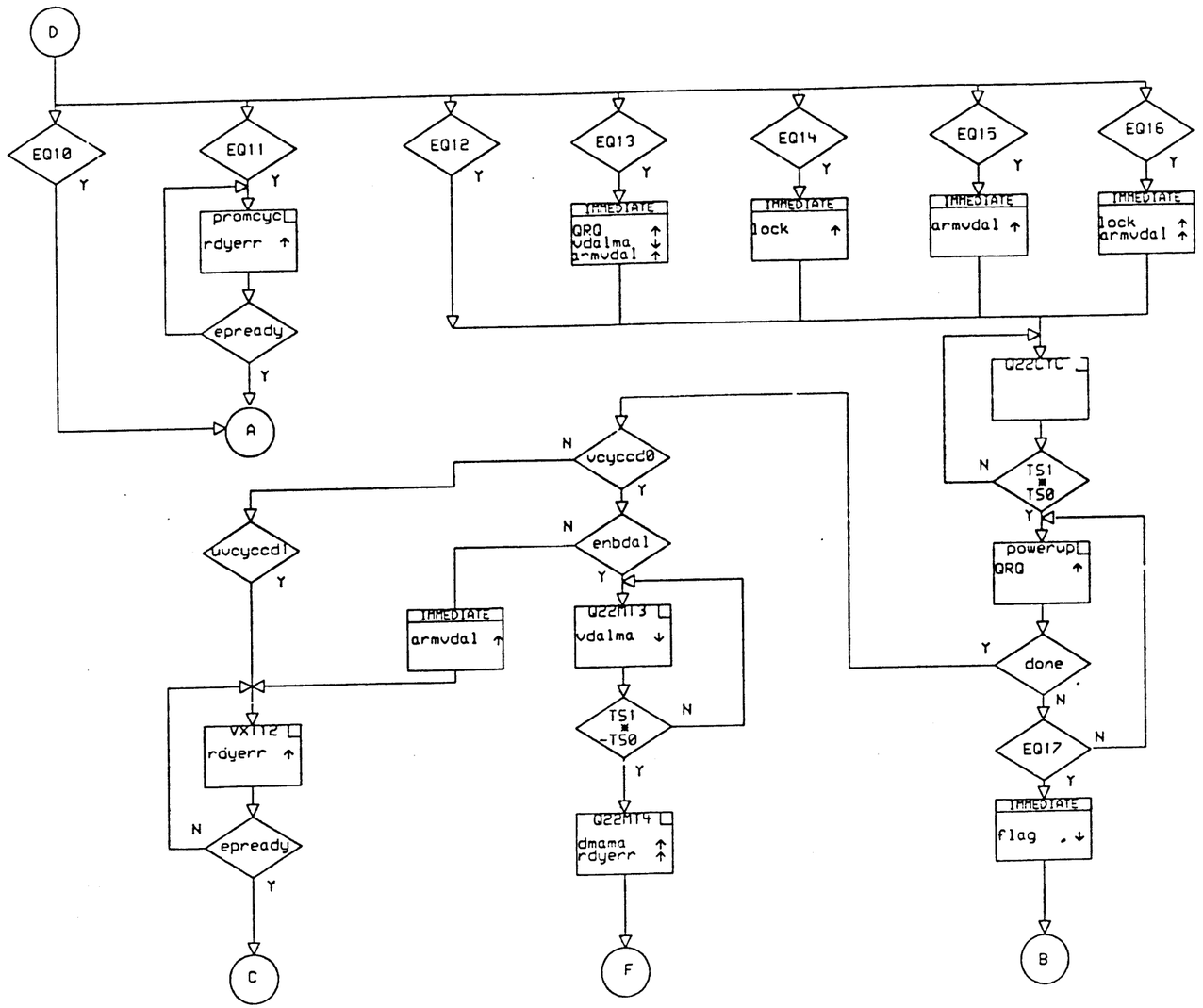
DEFINE
X←FIRST=0
X←STEP=SIZE

3.1

digital | DRN. ERW | DATE 8-19-86 | ENG. ERW | DATE 8-19-86
CHK'D. ERW | DATE 8-19-86 | BOARD LOCATION: | SHEET | OF
USRA: | TOP DOCUMENT NUMBER:
FIRST USED ON OPTION/MODEL:

TITLE: KA520 MEMORY SYSTEM ARBITER STATE FLOW DIAGRAMS
SIZE D | CODE CS | NUMBER M7478-0-52 | REV. A

REVISION | CHK | CHANGE NO | REV



EQUATIONS

EQ10 = -uvcyc * -uvcycd1 * -uvcycd0

EQ11 = -uvcyc * -uvcycd2 * -uvcycd1 * uvcycd0

EQ12 = -uvcyc * uvcycd2 * uvcycd1 * -uvcycd0

EQ13 = -uvcyc * uvcycd2 * -uvcycd1 * uvcycd0

EQ14 = -uvcyc * -uvcycd2 * uvcycd1 * -uvcycd0

EQ15 = -uvcyc * uvcycd2 * uvcycd1 * uvcycd0

EQ16 = -uvcyc * -uvcycd2 * uvcycd1 * uvcycd0

EQ17 = DRQ + TS1 * -TS0 * RR

3.2

DRAWING

NAME=MEM
ABBREV=MEM
LAST-MODIFIED=

REVISION			
CHK	CHANGE NO.	REV	

digital

DRN EPW DATE 8-19-86 ENG EPW DATE 8-19-86
CHK EPW DATE 8-19-86 BOARD LOCATION: SHEET OF
USRA: TOP DOCUMENT NUMBER:
FIRST USED ON OPTION/MODEL:

TITLE: KA620 MEMORY SYSTEM ARBITER STATE FLOW DIAGRAMS

SIZE D | CODE CS1 | NUMBER M7478-0-53 | REV. A

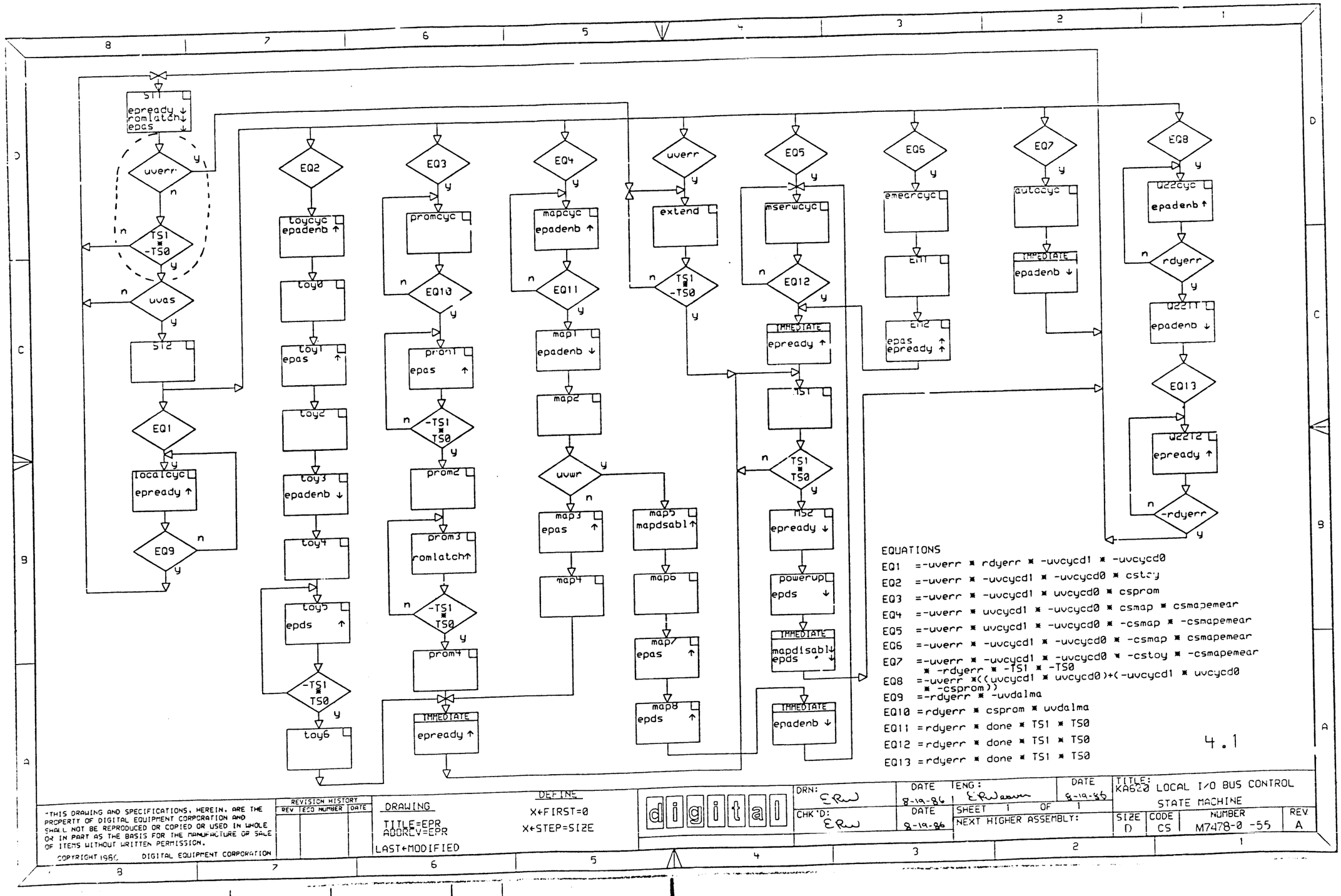
D | CS1 | M7478-0-53 | A

```
NAME 23_014L3_00 ;KA630 LOCAL I/O CONTROL MACHINE revision 2
OPTION PRESET
INPUT NC1, -UVDALMA, -RDYERR, CSTOY, -CSPROM, -CSMAP, CSMAPEMEAR,
INPUT -UVCYCD0, -UVCYCD1, NC0, UVWR, -DONE, -UVERR, TS0, TS1, BUVAS
OUTPUT NC3, MAPDISABLE, EPDS, -EPAS, NC2, -HIROMDLATCH, -EPADENB, -EPREADY

MACHINE 23_014L3_00

STATE POWERUP
GOTO ST1 [ -MAPDISABLE, -EPDS, -EPREADY, -EPAS, -HIROMDLATCH ]

STATE ST1, NUMBER LLHHLL
IF [ TS1 = -TS0 = BUVAS = -UVERR ] THEN ST2
IF [ TS1 = -TS0 = UVERR ] THEN EXTEND

STATE ST2, NUMBER LLLHLL ;WHAT SHOULD RUN? IF Q22 BUS PUT ADDRESS ON EPR.
IF [ -UVERR = RDYERR = -UVCYCD1 = -UVCYCD0 ] THEN LOCALCYC [ EPREADY ]
IF [ -UVERR = -UVCYCD1 = -UVCYCD0 = CSTOY ] THEN TOYCYC [ EPADENB ]
IF [ -UVERR = -UVCYCD1 = UVCYCD0 = CSPROM ] THEN PROMCYC
IF [-UVERR = UVCYCD1 = -UVCYCD0 = CSMAP = CSMAPEMEAR ] THEN MAPCYC [ EPADENB ]
IF [ -UVERR = UVCYCD1 = -UVCYCD0 = -CSMAP = -CSMAPEMEAR ] THEN MSERWCYC
IF [ -UVERR = -UVCYCD1 = -UVCYCD0 = -CSMAP = CSMAPEMEAR ] THEN EMEARCYC
IF [ -UVERR = -UVCYCD1 = -UVCYCD0 = -CSTOY = -CSMAPEMEAR = -RDYERR = -TS1 =&
-TS0 ] THEN AUTOCYC
IF [ -UVERR =((UVCYCD1 = UVCYCD0) + (-UVCYCD1 = UVCYCD0 = -CSPROM))] THEN&
Q22CYC [ EPADENB ]
IF [ UVERR ] THEN EXTEND

STATE EXTEND, NUMBER LLHLLL
IF [ TS1 = -TS0 ] THEN MS1

STATE LOCALCYC ;FAST READY FLEW BY BUT EPREADY ASSERTS TO STROBE ERRORS.
IF [ -RDYERR = -UVDALMA ] THEN ST1 [ -EPREADY, -HIROMDLATCH, -EPAS ]

STATE TOYCYC, NUMBER HLLHHH ;TOY CLOCK CYCLE
GOTO TOYT0

STATE TOYT0, NUMBER HLLHHL ;ADDRESS SETUP TIME
GOTO TOYT1          [ EPAS ] ;CHIP SELECT AND ADDRESS ARE STABLE SO GO TO IT.

STATE TOYT1, NUMBER HLLHLL
GOTO TOYT2 ;ADDRESS HOLD TIME.

STATE TOYT2, NUMBER HLLHLH
GOTO TOYT3          [ -EPADENB ]

STATE TOYT3, NUMBER HLLLLH
GOTO TOYT4 ;PREVENT TRISTATE OVERLAP.

STATE TOYT4, NUMBER HLHLLH
GOTO TOYT5          [ EPDS ] ;GET OR PUT THE DATA.

STATE TOYT5, NUMBER LLHLLH ;DELAY FOR DATA ACCESS TIME.
IF [ -TS1 = TS0 ] THEN TOYT6

STATE TOYT6, NUMBER LHLLLL ;TELL UVAX THAT CYCLE CAN FINISH.
GOTO MS1 [ EPREADY ]

STATE PROMCYC ;PROM CYCLE
IF [ UVDALMA = CSPROM = RDYERR ] THEN PROMT1 [ EPAS ] ;ADDRESS OK?

STATE PROMT1 ;DELAY FOR ACCESS TIME.
IF [ -TS1 = TS0 ] THEN PROMT2

STATE PROMT2 ;DELAY FOR ACCESS TIME, STROBE HI 16 BITS INTO LATCH.
GOTO PROMT3 [ HIROMDLATCH ] ;CHANGE ADDRESS TO LO 16 BITS.

STATE PROMT3 ;DELAY FOR ACCESS TIME.
IF [ -TS1 = TS0 ] THEN PROMT4

STATE PROMT4, NUMBER HLLLLL ;TELL MEMORY MACHINE AND UVAX TO FINISH.
GOTO MS1 [ EPREADY ]

STATE MAPCYC ;MAP CYCLE
IF [ RDYERR = DONE = TS1 = TS0 ] THEN MAPT1 [ -EPADENB ] ;HAVE THE Q22 BUS?

STATE MAPT1, NUMBER LLLHHH
GOTO MAPT2 ;PREVENT TRISTATE OVERLAP.

STATE MAPT2, NUMBER LLLHLH ;READ OR WRITE CYCLE?
IF [ UVWR ] THEN MAPT5 [ MAPDISABLE ] ;IF WRITE THEN 2 THE MAP OUTPUTS.
IF [ -UVWR ] THEN MAPT3 [ EPAS ] ;IF READ THEN GET DATA ON EPR BUS.

STATE MAPT3, NUMBER HHLLLH
GOTO MAPT4 ;DELAT ONE TICK TO SYNC UP.

STATE MAPT4, NUMBER HHLLLL ;TELL UVAX AND MEMORY MACHINE TO FINISH.
GOTO MS1 [ EPREADY ]

STATE MAPT5
GOTO MAPT6 ;PREVENT TRISTATE OVERLAP.

STATE MAPT6 ;ENABLE THE WRITE DATA.
GOTO MAPT7      [ EPAS ]

STATE MAPT7 ;ASSERT THE WRITE STROBE.
GOTO MAPT8      [ EPDS ]

STATE MAPT8 ;SYNC UP WITH UVAX AND MEMORY MACHINE.
GOTO MSERWCYC [ -EPADENB ]

STATE MSERWCYC ;MSER WRITE CYCLE, GET THE Q22 BUS, STROBE THE DATA.
IF [ RDYERR = DONE = TS1 = TS0 ] THEN MS1 [ EPREADY ]

STATE MS1, NUMBER LLLLLL ;STROBE THE MSER DATA WITH EPREADY.
IF [ TS1 = TS0 ] THEN MS2 [ -EPREADY ]

STATE MS2
GOTO POWERUP [ -EPDS ]

STATE EMEARCYC, NUMBER HHHHLH ;EXTERNAL MEAR CYCLE.
GOTO EM1

STATE EM1, NUMBER HHHLLH ;ENABLE THE EPR DATA AND TELL UVAX TO FINISH.
GOTO EM2 [ EPAS, EPREADY ]

STATE EM2, NUMBER HHHLLL
GOTO MS1 [ EPREADY ]

STATE AUTOCYC ;NOTHING TO DO SO BACK FOR ANOTHER LOOK.
GOTO ST1 [ -EPREADY, -HIROMDLATCH, -EPAS, -EPADENB ]

STATE Q22CYC ;Q22 BUS IAK OR Q22 BUS READ OR WRITE.
IF [ RDYERR ] THEN Q22T1 [ -EPADENB ]

STATE Q22T1
IF [ RDYERR = DONE = TS1 = TS0 ] THEN Q22T2 [ EPREADY ]

STATE Q22T2 ;WAIT UNTIL MEMORY MACHINE IS DONE.
IF [ -RDYERR ] THEN ST1 [ -EPREADY, -HIROMDLATCH, -EPAS ]

END
```

NOTE: THIS LOCAL I/O CONTROL MACHINE WAS FIRST USED ON THE KA630 (M7606).

REVISIONS		
CHK	CHANGE NO.	REV

DRN. ERW	DATE 8-19-86	ENG ERW	DATE 8-19-86	TITLE: LOCAL I/O CONTROL MACHINE LISTING	
CHK'D ERW	DATE 9-19-86	BOARD LOCATION:	SHEET 1 OF 1		
DSK:		NEXT HIGHER ASSEMBLY:		SIZE D	CODE CS	NUMBER M7372-0-54	REV. A
FIRST USED ON OPTION/MODEL:							



EQUATIONS

EQ1 =-uverr * rdyerr * -uvcycd1 * -uvcycd0

EQ2 =-uverr * -uvcycd1 * -uvcycd0 * cstoy

EQ3 =-uverr * -uvcycd1 * uvcycd0 * csprom

EQ4 =-uverr * uvcycd1 * -uvcycd0 * csmap * csmapemear

EQ5 =-uverr * uvcycd1 * -uvcycd0 * -csmap * -csmapemear

EQ6 =-uverr * -uvcycd1 * -uvcycd0 * -csmap * csmapemear

EQ7 =-uverr * -uvcycd1 * -uvcycd0 * -cstoy * -csmapemear * -rdyerr * -TS1 * -TS0

EQ8 =-uverr *((uvcycd1 * uvcycd0)+(-uvcycd1 * uvcycd0 * -csprom))

EQ9 =-rdyerr * -uvdalma

EQ10 =rdyerr * csprom * uvdalma

EQ11 =rdyerr * done * TS1 * TS0

EQ12 =rdyerr * done * TS1 * TS0

EQ13 =rdyerr * done * TS1 * TS0

4.1

REVISION HISTORY

REV	ECO NUMBER	DATE

DRAWING

TITLE=EPR
ADDRLV=EPR

LAST=MODIFIED

DEFINE

X=FIRST=0
X=STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: KA620 LOCAL I/O BUS CONTROL STATE MACHINE	
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1			
		NEXT HIGHER ASSEMBLY:		SIZE D / CODE CS / NUMBER M7478-0 -55	REV A

```
name 23_008L3_00_E20    1022 bus arbitration control machine

input   nci15, -lock, -qrq, -arb, sdmgi, sdmr, srply, ssack,
input   ssync, nci6, t_o, -initrq, -done, nci2, nci1, nci0

output  nco7, -grant, tdmgo, tsack, nci3, tdmr, tinit, -enb8641

machine q_bus_arb

state A
goto Q [-grant, -tdmgo, -tsack, -tdmr, tinit, -enb8641]

state B
if [-ssack * (arb + (-arb * sdmgi)) * (qrq + initrq) * (ssync + srply)] then D
if [-ssack * arb * qrq * -initrq * -ssync * -srply] then E [grant, -tdmr]
if [-ssack * arb *       initrq * -ssync * -srply] then Q [tinit, -tdmr]
if [-ssack * ((arb * sdmr) + (-arb * sdmgi)) * -qrq * -initrq] then C [tdmgo]
if [-ssack * ((arb * sdmr) + (-arb * sdmgi)) * -qrq * -initrq * -ssync * -srply] then E &
if [-ssack * -arb * sdmgi * qrq * -initrq * -ssync * -srply] then Q &
      [grant, -tdmr, tsack]
if [-ssack * -arb * sdmgi *              initrq * -ssync * -srply] then Q &
      [tinit, -tdmr, tsack]
if [ssack * (qrq + initrq) + -arb * -sdmgi * (qrq + initrq)] then [ tdmr]
if [ssack * -qrq * -initrq + -arb * -sdmgi * -qrq * -initrq + &
      arb * -qrq * -initrq * -sdmr] then [-tdmr]

state C
if [arb * ssack] then B [-tdmgo, -tsack, -tinit, -grant, enb8641]
if [arb * -ssack * t_o] then F [-tdmgo]
if [-arb * -sdmgi] then B [-tdmgo, -tsack, -tinit, -grant, enb8641]

state D
if [-ssync * -srply * arb * qrq * -initrq] then E [grant, -tdmr]
if [-ssync * -srply * arb * -qrq * -initrq] then E [-grant, -tdmr]
if [-ssync * -srply * arb *  initrq] then Q [tinit, -tdmr]
if [-ssync * -srply * -arb * qrq * -initrq] then E [grant, tsack, -tdmr]
if [-ssync * -srply * -arb * -qrq * -initrq] then E [-grant, tsack, -tdmr]
if [-ssync * -srply * -arb * initrq] then Q [tinit, tsack, -tdmr]

state E
if [-qrq * -lock] then B [-tdmgo, -tsack, -tinit, -grant, enb8641]
if [-qrq] then [-grant]
if [qrq] then [grant]

state F
goto H

state H
goto J

state J
goto K

state K
goto L

state L
goto M

state M
goto N

state N
goto P

state P
goto B [-tdmgo, -tsack, -tinit, -grant, enb8641]

state Q
if [-initrq] then B [-tdmgo, -tsack, -tinit, -grant, enb8641]

END
```

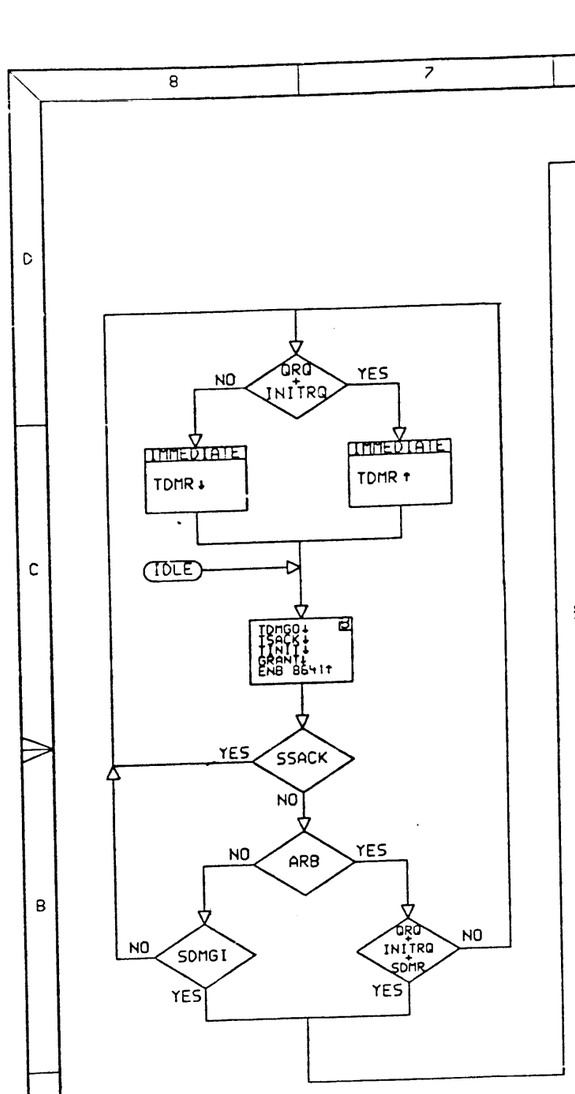

REVISIONS		
CHK	CHANGE NO.	REV

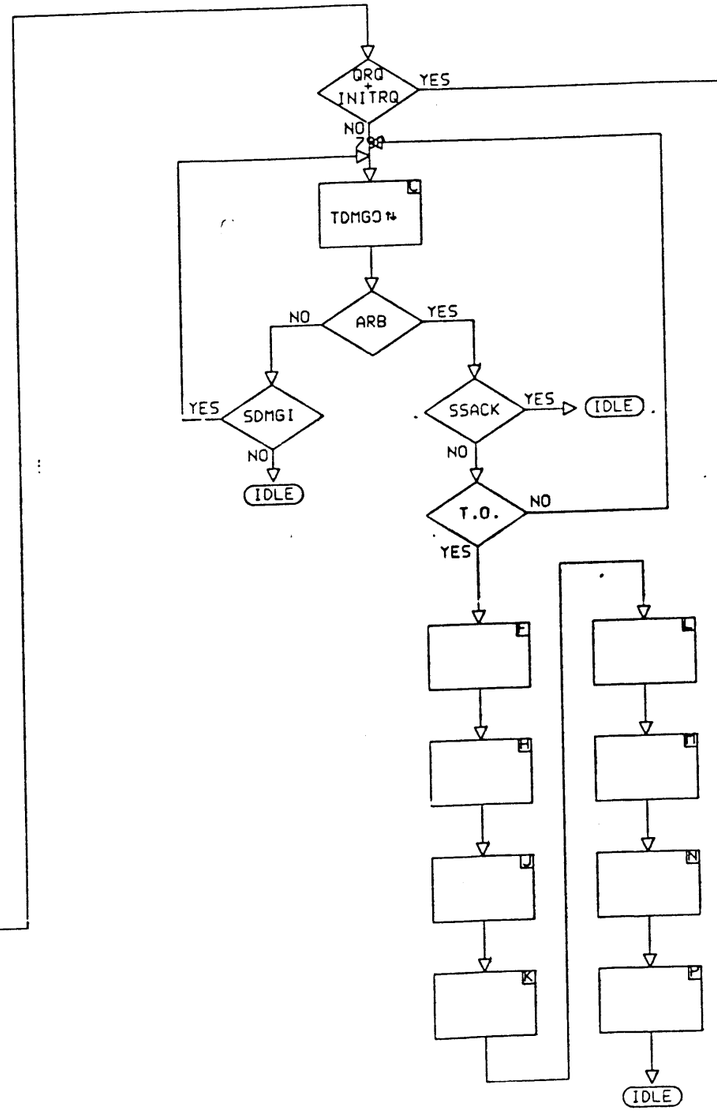
digital

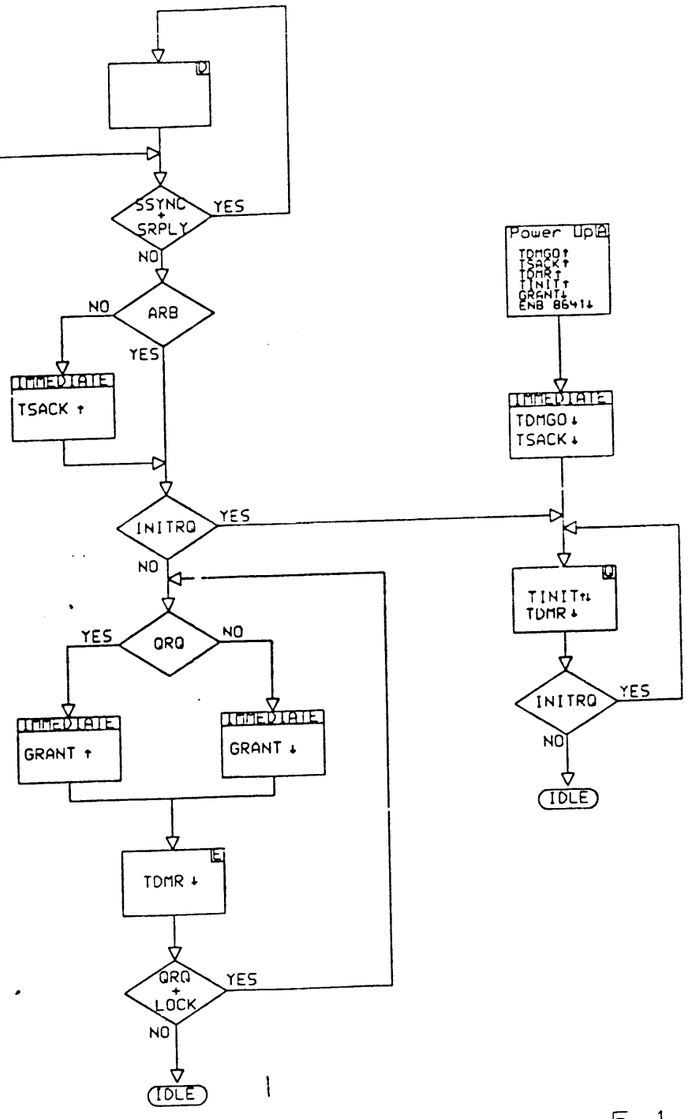
DRN. ERW DATE 8-19-86
CHK'D ERW DATE 8-19-86
ENG ERW DATE 8-19-86
BOARD LOCATION:
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL:

TITLE: Q22 BUS ARB. CTL MACHINE LISTING

SIZE	CODE	NUMBER	REV.
D	CS	M7478-0-56	A







5.1

REVISION HISTORY		
REV	ECO NUMBER	DATE

DRAWING
TITLE=ARB
ABBREV=arb
LAST-MODIFIED=

DEFINE
X←FIRST=0
X←STEP=SIZE

digital

DRN: ERW	DATE 8-19-86	ENG: ERW	DATE 8-19-86	TITLE: QBUS ARBITRATION CONTROLLER DETAILED CONTROL FLOW DIAGRAM
CHK'D: ERW	DATE 8-19-86	SHEET 1 OF 1		
		NEXT HIGHER ASSEMBLY:	SIZE D / CODE CS	NUMBER M7478-0 -57 / REV A

```
name 23_009L3_00_E26    Q22 bus master cycle control machine

input   nci15, -cd0, -cd1, -bm0, -bm1, -bm2, -bm3, uVWR
input   valid, nci6, t_o, rref, srply, -grant, -qbiocyc, qale

output  nco7, -EnbDal, -EnbData, -tdio, nco3, tiako, tsync, -done

local   first

machine q_bus_master

state A, number -hhhhh
if [-grant] then B [first, -EnbDal, -EnbData, -done, -tdio, -tiako, -tsync]

state B, number -hhlhl
if [grant ≡ qale ≡ -(-cd1)] then P [EnbDal]
if [grant ≡ qale ≡ (-cd1 ≡ -cd0)]  then T
if [grant ≡ qale ≡ (-cd1 ≡ cd0)] then C [tdio, -first]

state C, number -hllhl
goto D

state D, number -lllhl
goto E

state E, number -hllhh
goto F

state F, number -lllhh
goto H

state H, number -lhlhh
goto J [tiako]

state J, number -lhhll
goto V

state K, number -lhllh
goto L

state L, number -hhlll
goto M

state M, number -lhlhl
goto N [-EnbData, -tdio, -first]

state N, number -lhlll
if      [-srply] then P [EnbDal, -tsync]

state P, number -hlhhl
goto R

state R, number -llhhl
goto S

state S, number -hlhhh
goto T

state T, number -llhhh
if    [qale ≡ (-cd0 + (valid ≡ -qbiocyc))] &
   then AP    [done]
if    [qale ≡    cd0 ≡ (-valid + qbiocyc)] &
   then U     [tsync]
if      [qale ≡ cd0 ≡ valid ≡ -qbiocyc ≡ -first] then [-tsync]
if      [qale ≡ cd0 ≡ valid ≡ -qbiocyc ≡  first] then [ tsync, -first]

state U, number -hlhll
goto V

state V, number -llhll
if      [uVWR] then AB [EnbData]
if      [-uVWR] then AJ [tdio, -EnbDal]

state AJ, number -hhllh
if      [t_o + srply] then AK

state AK, number -hlllh
goto AL

state AL, number -llllh
goto AM
if [-t_o] then [EnbData]

state AM, number -hllll
if      [-t_o ≡ -uVWR ≡ (bm2≡bm1) ≡ first ≡ -rref] then N &
                        [-EnbData, -tdio, -tiako, -first]
if      [t_o + uVWR + -(bm2≡bm1) + -first + rref] then AN &
                        [-EnbData, -tdio, -tiako]

state AN, number -lllll
if      [-srply ≡ -t_o ≡ first ≡ (bm2≡bm1) ≡ -uVWR] &
   then V [-first]
if      [-srply ≡ -t_o ≡ first ≡ (bm2≡bm1) ≡ uVWR] &
   then AB [-first, EnbData]
if      [-srply ≡ (t_o + -(bm2≡bm1) + -first)] &
   then AP [-tsync, done, -EnbDal]

state AP, number -hhlhh
if      [grant ≡ -qbiocyc ≡ -qale] then S
if      [-grant + qbiocyc + qale] then A

state AB, number -hhhll
goto AC

state AC, number -lhhhl
goto AD

state AD, number -hhhhl
goto AE [tdio]

state AE, number -hhhlh
if      [t_o + srply] then AF

state AF, number -hlhlh
if &
[-t_o ≡ first ≡ (bm2≡bm1) ≡ -((-uVWR + bm0 ≡ bm3) ≡ rref)] &
   then K     [-tdio]
if &
[t_o + -first + -(bm2≡bm1) + rref ≡ (-uVWR + bm0 ≡ bm3)] &
   then AH    [-tdio]

state AH, number -llhlh
goto AL

END
```

REVISIONS		
CHK	CHANGE NO.	REV

DRN. ERW DATE 8-19-86 | ENG. ERW DATE 8-19-86 | CHK'D ERW DATE 8-19-86

DSKIG,T2P(4,550)

FIRST USED ON OPTION/MODEL:

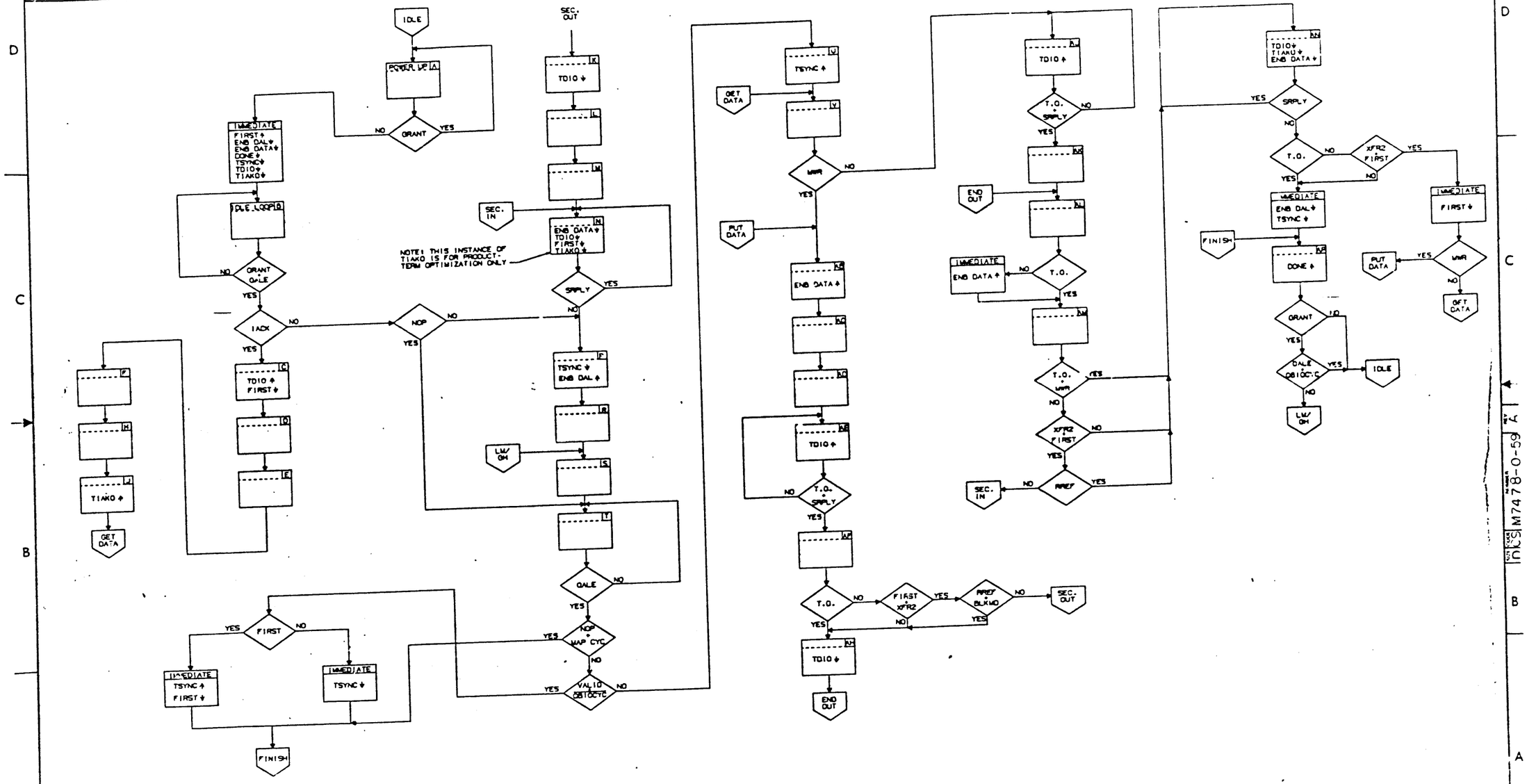
BOARD LOCATION:

SHEET 1 OF 1

NEXT HIGHER ASSEMBLY:

TITLE: Q22 BUS MASTER CTL MACHINE LISTING

SIZE	CODE	NUMBER	REV.
D	CS	M7478-0-58	A



REVISION HISTORY

DATE	ECO NUMBER	REV

TITLE
Q22 BUS MASTER CONTROL
MACHINE FLOW DIAGRAM

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
D	CS	M7478-0-59	A

SCALE 1/1
SHEET 1 OF 1

```
name 23_810L3_00_E33    !Q22 bus slave cycle control machine

input   -drq, -dmaMA, selcol, -bdy16, oddwd, -sel_db, qwr, -QMemEnb
input   valid, nc16, xwtbt, rbs7, sdout, sdin, ssync, -done

output  nco7, DC021rcv, nco5, qale, nco3, incctr, -armreply, -drq

local flag

machine q_bus_slave

state AA, number -hhhhh
goto A [DC021rcv, -drq, qale, -armreply, -flag]

state A, number -lllll
if [-dmaMA] then A2 [qale]


state A2, number -lhlll
goto B [-incctr]


state B1, number -lhhll
goto C [armreply]

state C, number -llhll
always [-armreply]
if [-ssync * flag] then K [drq]
if [-ssync * -flag] then A &
        [DC021rcv, -armreply, -flag, -drq]
if [ssync * sdout * -dmaMA * -xwtbt * -bdy16 * -oddwd] then D [incctr, flag]
if [ssync * sdout * -dmaMA * (xwtbt + bdy16)] then E [drq, flag, incctr]
if [ssync * sdout * -dmaMA * -xwtbt * -bdy16 * oddwd] then E &
        [drq, -flag, incctr]

state D
if [-sdout] then B1 [-incctr]

state E, number -llhlh
always [-armreply]
if [dmaMA] then [-drq]
if [-sdout] then J
if [sdout * dmaMA * selcol] then F

state F
if [-sdout] then H [-incctr]

state H, number -hlhhl
if [-ssync] then A [DC021rcv, -armreply, -flag, -drq]
if [ssync * -flag] then C [armreply]

state J, number -hlllh
if [dmaMA] then [-drq]
if [-ssync] then K
if [ssync * dmaMA * selcol] then J1

state J1, number -hhllh
goto H [-incctr]

state K, number -llllh
if [dmaMA + -drq] then A [DC021rcv, -armreply, -flag, -drq]

state L1, number -lhhhh
goto M [armreply]

state M, number -llhhh
always [-armreply]
if [-sdin * -sdout] then N [DC021rcv]

state N, number -lllhl
if [-ssync] then A [DC021rcv, -armreply, -flag, -drq]
if [ssync * sdin * -flag] then L1 [-DC021rcv, flag]
if [ssync * -(sdin * -flag) * sdout] then M [armreply, flag]

state P, number -hllll
if [dmaMA] then [-drq]
if [-ssync] then K
if [ssync * dmaMA * selcol] then R

state R, number -hhlll
goto R1 [-incctr]

state R1, number -hhlhl
goto R2 [-DC021rcv]

state R2, number -lhhhl
goto S [armreply]

state S, number -llhhl
always [-armreply]
if [-ssync] then A [DC021rcv, -armreply, -flag, -drq]
if [ssync * sdin * bdy16] then U
if [ssy.. * sdin * -bdy16] then T [incctr]

state T
if [-sdin * -rbs7] then V &
        [-incctr, DC021rcv, qale]
if [-sdin * rbs7 * oddw¿] then  S &
        [-incctr, armrepl¡]
if [-sdin * rbs7 * -oddwd] then P &
        [-incctr, DC021rcv, drq]

state U
if [-sdin] then V [DC021rcv, qale]

state V, number -hllhl
if [-ssync] then A [DC021rcv, -armreply, -flag, -drq]
if [ssync * sdout] then V1 [-qale]

state V1, number -lhhlh
goto E [armreply, flag, drq]

state B, number -lhlhl
if [-done * ssync * -sel_db *  QMemEnb] then B1A
if [-done * ssync * -sel_db * -QMemEnb] then H [flag, -incctr]
if [-done * ssync * sel_db] then N [-qale, DC021rcv]
if [done * dmaMa] then AA [-qale]

state B1A
if [-valid] then H [flag, -incctr]
if [valid *  -qwr] then P  [ -qale, drq]
if [valid *   qwr] then B1 [ -qale, -incctr]

END
```


REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN — DATE 8-19-86 — ENG — DATE 8-14-86
CHK'D. — DATE 8-19-86
BOARD LOCATION:
SHEET 1 OF 1
NEXT HIGHER ASSEMBLY:
DSK17,T3P[4,550]   [09-AUG-85 07:39]
FIRST USED ON OPTION/MODEL:

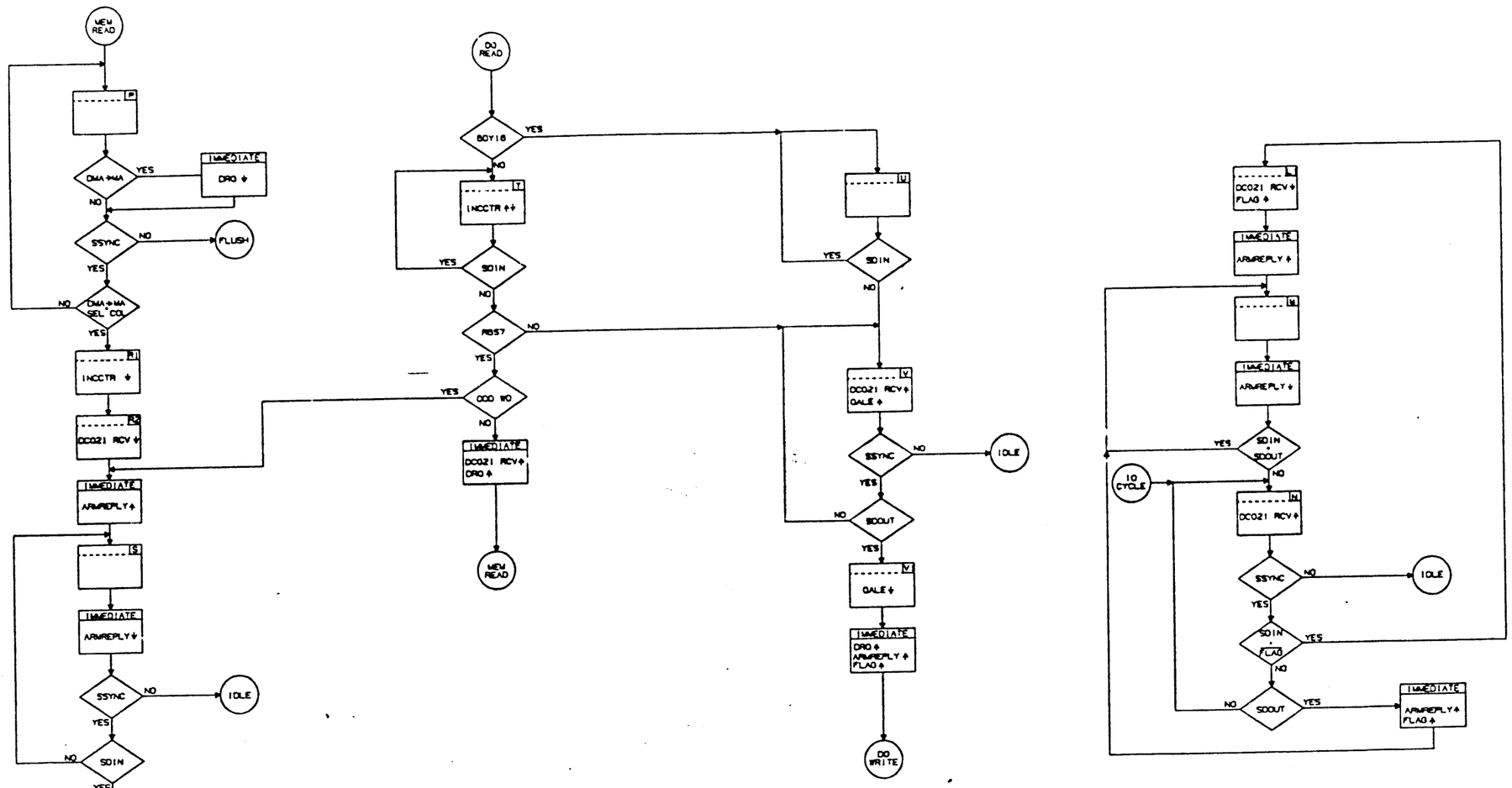
TITLE: Q22 BUS SLAVE CTL MACHINE LISTING

SIZE	CODE	NUMBER	REV.
D	CS	M7479-0-60	A

POWER UP
IMMEDIATE
QALE ↑
IDLE
A
DC021 REV ↑
ARMREPLY ↑
FLAG ↓
DRQ ↓
DMA → MA
YES
NO
A2
QALE ↑
B
INCCTR ↑
DONE
NO
YES
DMA → MA
NO
YES
SSYNC
NO
YES
SELOB
YES
NO
IMMEDIATE
QALE ↑
IO CYCLE
QMEMEN
NO
YES
IMMEDIATE
FLAG ↑
NOT SELECT
B1A
VALID
NO
YES
IMMEDIATE
QALE ↑
QWR
YES
NO
IMMEDIATE
DRQ ↑
MEM READ
IMMEDIATE
QALE ↓
MEM WRITE
IMMEDIATE
ARMREPLY ↑
C
IMMEDIATE
ARMREPLY ↑
SSYNC
NO
YES
FLAG
YES
NO
IMMEDIATE
DRQ ↑
FLUSH
IDLE
SDOUT
DMA → MA
NO
YES
BOY18
XMIT
YES
NO
ODD WD
YES
NO
D
INCCTR ↑
FLAG ↓
SDOUT
YES
NO
IMMEDIATE
DRQ ↑
FLAG ↓
INCCTR ↑
IMMEDIATE
DRQ ↑
FLAG ↓
INCCTR ↑
DO WRITE
B1
INCCTR ↑
MEM WRITE
DO WRITE
E
IMMEDIATE
ARMREPLY ↑
DMA → MA
YES
NO
IMMEDIATE
DRQ ↓
SDOUT
NO
YES
DMA → MA SEL COL
NO
YES
F
SDOUT
YES
NO
J
DMA → MA
YES
NO
IMMEDIATE
DRQ ↓
SSYNC
NO
YES
DMA → MA SEL COL
NO
YES
U1
K
DRQ DMA → MA
NO
YES
FLUSH
IDLE
NOT SELECT
H
INC CTR ↑
SSYNC
NO
YES
IDLE
FLAG
YES
NO
MEM WRITE

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE	Q22 BUS SLAVE CONTROL MACHINE FLOW DIAGRAM
DOCUMENT NUMBER	DCS M7478-0-61
SIZE	D
CODE	
REV	A
SCALE	1/1
SHEET	1 OF 1



REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE	Q22 BUS SLAVE CONTROL MACHINE FLOW DIAGRAM		
DOCUMENT NUMBER	SIZE D	CODE CS	NUMBER M7478-0-62
REV A	SCALE 1/1	SHEET 1 OF 1	

DCS M7478-0-62 A

DEC PART NUMBER: 23-E42F1-00 KA628 -A, 1MB RAS DECODE PROM (E79)
DATE ORIGINATED: 10-September-1984

HEX LOC	HEX DATA
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002	9
003	4
004	9
005	9
006	9
007	4
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009	9
00A	4
00B	4
00C	4
00D	4
00E	4
00F	4
010	4
011	4
012	4
013	9
014	4
015	4
016	4
017	9
018	4
019	4
01A	4
01B	9
01C	4
01D	4
01E	4
01F	8
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021	9
022	9
023	4
024	9
025	9
026	9
027	4
028	9
029	9
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02C	5
02D	5
02E	0
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031	5
032	0
033	9
034	5
035	5
036	0
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038	5
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03B	9
03C	5
03D	5
03E	8
03F	9
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049	9
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04B	4
04C	6
04D	0
04E	0
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053	9
054	6
055	0
056	1
057	9
058	6
059	0
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05B	9
05C	6
05D	8
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05F	9
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061	9
062	9
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066	9
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06D	0
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0CA	5
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0CE	1
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0D2	9
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REVISIONS — CHK | CHANGE NO. | REV

digital — DRN: E R — CHK'D: E R — DATE: 4-19-86 — ENG: E R — BOARD LOCATION: — SHEET 1 OF 1 — NEXT HIGHER ASSEMBLY: — FIRST USED ON OPTION/MODEL:

TITLE: 1KX4 RAS DECODE PROM (E79) LISTING

SIZE: D — CODE: CS — NUMBER: M7479-0-63 — REV: A

```
T:      PAL16L8A
P:      23-169J5-00  E40
N:      BARRY MASKAS
D:      25 OCT 1984
S:      /RPOK /BTRYOK CSMAPEMEAR /EPAS EPDS UVWR /DONE QALE /GRANT
        GND SRPLY /CLRPSH /ENBLS646 /WRMAP /EN8BDAL RDIN DC021RCV /TDIO
        /RCVBDALH VCC
B:      IF [VCC] CLRPSH = RPOK + BTRYOK
        IF [VCC] ENBLS646 = CSMAPEMEAR * EPAS
        IF [VCC] WRMAP = CSMAPEMEAR * UVWR * EPDS
        IF [VCC] EN8BDAL  = /GRANT * /RDIN * /DONE +
        GRANT * /DONE * QALE + /DC021RCV * /GRANT * /DONE
        .F [VCC] RCVBDALH = /TDIO * /DC021RCV + /TDIO * GRANT +
        /SRPLY * /DC021RCV + /SRPLY * GRANT + UVWR * /DC021RCV +
        UVWR * GRANT
E:      KA630-A, -B, -C, -D (M7606) MISC. CONTROL STROBES

T:      PAL16L8A
P:      23-170J5-00  E78
N:      BARRY MASKAS
D:      25 OCT 1984
S:      /PE3 /PE2 /PE1 /PE0 /MSER0 /MEMWR /BYTACT3 /BYTACT2 /BYTACT1
        GND /BYTACT0 /HI16PER /LO16PER /PERR /SELCOL /ENBCAS0H /ENBCAS1H
        /ENBCAS2H /ENBCAS3H VCC
B:      IF [VCC] HI16PER = MSER0 * PE2 * BYTACT2 + MSER0 * PE3 * BYTACT3
        IF [VCC] LO16PER = MSER0 * PE0 * BYTACT0 + MSER0 * PE1 * BYTACT1
        IF [VCC] PERR = MSER0 * /MEMWR * PE0 * BYTACT0 + MSER0 * /MEMWR *
        PE1 * BYTACT1 + MSER0 * /MEMWR * PE2 * BYTACT2 + MSER0 * /MEMWR *
        PE3 * BYTACT3
        IF [VCC] ENBCAS0H = /SELCOL + /BYTACT0
        IF [VCC] ENBCAS1H = /SELCOL + /BYTACT1
        IF [VCC] ENBCAS2H = /SELCOL + /BYTACT2
        IF [VCC] ENBCAS3H = /SELCOL + /BYTACT3
E:      KA630-A, -B, -C, -D (M7606) MEMORY SYSTEM CAS CONTROL STROBES AND
E:      PARITY ERROR DETECTION STROBES

T:      PAL16L8A
P:      23-171J5-00  E86
N:      BARRY MASKAS
D:      25 OCT 1984
S:      /UVCYCCD2 /DMAMA /DONE /MSER1 /UVCYC /MEMWR DECODE /DATABUFENB
        MEMCD0 GND MEMCD1 /MSWT0H /MSWT1H SELCOL /BUFENB /BUFENB0 /BUFENB1
        /BDIRT /STARTCYC VCC
B:      IF [VCC] MSWT0H = /MEMCD1 + MEMCD0 + /MEMWR + /UVCYC
        IF [VCC] MSWT1H = MEMCD1 + /MEMWR + /UVCYC
        IF [VCC] BUFENB = MEMCD1 * /MEMCD0 * /MEMWR * SELCOL * /DMAMA +
        MEMCD1 * /MEMCD0 * /MEMWR * DATABUFENB + MEMCD1 * /MEMCD0 * MEMWR *
        UVCYC * MSER1
        IF [VCC] BUFENB0 = /MEMCD1 * MEMCD0 * /MEMWR * SELCOL * /DMAMA +
        /MEMCD1 * MEMCD0 * /MEMWR * DATABUFENB + /MEMCD1 *
        MEMCD0 * MEMWR * UVCYC * MSER1
        IF [VCC] BUFENB1 = /MEMCD1 * /MEMCD0 * /MEMWR * SELCOL * /DMAMA +
        /MEMCD1 * /MEMCD0 * /MEMWR * DATABUFENB + /MEMCD1 *
        /MEMCD0 * MEMWR * UVCYC * MSER1
        IF [VCC] BDIRT = MEMWR * DECODE + MEMWR * SELCOL * MSER1
        IF [VCC] STARTCYC = /DMAMA * UVCYCCD2 * UVCYC * /MEMWR +
        /DMAMA * DECODE * /UVCYCCD2 * UVCYC * /MEMWR * DONE + /DMAMA * UVCYC *
        MEMWR + DMAMA * DECODE + DMAMA * SELCOL
E:      KA630-A, -B, -C, -D (M7606) MEMORY SUBSYSTEM BUFFER CONTROL STROBES
E:      AND MEMORY CYCLE ENABLE STROBE
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NOTE: THESE PALS WERE FIRST USED ON THE KA630 A,B,C,D (M7606).

digital	DRN. E RW	DATE 8-19-86	ENG E R Weaver DATE 8-19-86
DSK13.T2P[4,550]	CHK'D. E RW	DATE 8-19-86	BOARD LOCATION: SHEET 1 OF 1
FIRST USED ON OPTION/MODEL:			NEXT HIGHER ASSEMBLY:

TITLE: PALASM LISTINGS FOR PAL16L8A DEVICES

SIZE	CODE	NUMBER	REV.
D	CS	M7478 -0-64	A

REVISIONS		
CHK	CHANGE NO.	REV

+12.0V	raw +12 volts
+3VA	logic "high" voltage
+5.0V	raw +5 volts
-12.0V	charge pump generated -12 volts
ARB(L)	asserted if module is bus arbiter
ARM REPLY(L)	sets ENBREPLY (inside Qbus gate array)
ARM UVDAL(L)	asserted to enable the uVDAL (-) MD transceivers
ARMRDYERR(L)	indicates that memory arbiter is READY to finish a cycle
ASYNC T.O.(H)	Q-bus timeout
AUX HLT(H)	auxiliary processor halt
BBS7(L)	Qbus BS7 (selects I/O page, used in block mode handshake)
BDAL(21:0)L	Qbus data/address lines
BDCOK(H)	Qbus DCOK signal (indicates DC power at proper level)
BDG CD(1:0)L	firmware mode select from configuration connector to BDR
BDIN(L)	Qbus DIN control signal
BCIRT(L)	dram buffer direction transmit enable
BDMGI(L)	Qbus DMGI (DMA grant in)
BDMGO(L)	Qbus DMGO (DMA grant out)
BDMR(L)	Qbus DMR (DMA request)
BDOUT(L)	Qbus DOUT control signal
BDR(3:0)L	boot and diagnostic register LED controls
BDT16(L)	indicates address is at a 16 word boundary
BEVENT(L)	Qbus EVENT signal (terminated but not used)
BHALT(L)	Qbus HALT signal
BIAKI(L)	Qbus IAKI (interrupt acknowledge in)
BIAKO(L)	Qbus IAKO (interrupt acknowledge out)
BINIT(L)	Qbus INIT signal (clobbers/inits everybody on bus)
BIRQ(7:4)L	Qbus IRQ lines (interrupt requests)
BMAA(8:0)H	buffered and damped local dram array address signals
BMCAS(3:0)H	byte active controlled unbuffered column address strobes
BMSWT(0)L	buffered and damped local dram array write signal
BPOK(H)	Qbus POK signal (indicates sufficient power for operation)
BREAK(H)	serial line break indication from DLART
BREF(L)	Qbus REF signal (used in block mode handshake)
BRPLY(L)	Qbus RPLY control signal (reply)
BRS(2:0)L	bit rate selection (from back panel into DLART)
BSACK(L)	Qbus SACK control signal (bus acknowledge)
BSYNC(L)	Qbus SYNC control signal (strobes address, frames transactions)
BTRY OK(L)	indicates battery voltage above minimum threshold
BTRYV(H)	raw battery voltage from back panel
BTRYV1(H)	battery or system voltage supply to watch/ram (TOY) chip
BTVREF(H)	battery supplied reference voltage (used to detect the battery)
BUF ENB(L)	local dram array data transceiver receive direction enable
BUF ENB(1:0)L	expansion dram array data transceiver receive direction enable
BUVAS(H)	buffered RTVAX address strobe
BUVAS(L)	buffered RTVAX address strobe
BUVCLKO(H)	buffered RTVAX clock out
BUVRESET(H)	buffered RTVAX reset
BUVRESET(L)	buffered RTVAX reset
BWTBT(L)	Qbus WTBT signal (indicates write cycle, and byte write)
BYTACT(3:0)L	byte active bits to mem sequencer
CAS(3:0)L	buffered and damped local dram array column address strobes
CLK 614.4KHZ(H)	clock from 614.4KHz oscillator
CLK 614.4KHZ(L)	clock from 614.4KHz oscillator
CLK031(H)	clock from 32KHz oscillator (31us period)
CLK25(H)	clock from 40MHz oscillator (25ns period)
CLR PS(H)	clear power sense in TOY clock
CONF(3:2)L	configuration connector buffered inputs (see table on 1.10)
CS DL(L)	chip select for DLART
CS MAP(L)	chip select for MAP

CS MAP;EMEAR(H)	chip select for MAP or EMEAR (external mem. err. addr. reg.)
CS PROM(L)	chip select for PROM
CS TOY(H)	chip select for TOY
CTL XDAL(1:0)H	address function bits (see table on 1.7)
DATA BUF ENB(L)	qbus slave memory cycle
DC021RCV(H)	controls direction of DC021 during slave mode transactions
DECODE(H)	allows memory sequencer to decode and RAS memory
DLA0(1:0)H	the two lo-order address lines for the DLART
DLRD(L)	read signal for DLART
DLRRQ(H)	receiver interrupt from DLART
DLSI(H)	serial data in (to DLART)
DLSO(H)	serial data out (from DLART)
DLWR(L)	write signal for DLART
DLXRQ(H)	transmitter interrupt from DLART
DMA->MA(L)	"DMA acknowledge" from main memory state machine
DOK(H)	delayed indication of DC power at proper level
DONE(L)	indicates that requested transaction is completed
DROCOK(H)	delayed indication of DC power at proper level
DRQ(L)	DMA request to main memory state machine
ENB 8641(L)	enable for Qbus drivers (for disabling drivers at power up)
ENB BDAL(L)	output enable for DC021 xcvr's
ENB CAS(3:0)H	select column and byte active controlled column address strobe enables
ENB DAL(L)	enable data/address onto Q-bus
ENB DATA(L)	mux'd output; enables data onto Q-bus (write), or strobes data in from Q-bus (read)
ENB LS646(L)	output enable control strobe for EPR (-> XLAT AD transceivers
EPAD ENB(L)	external processor bus (local I/O bus) address enable
EPAD(1)H	firmware proms LSB address control
EPAS(L)	external processor bus (local I/O bus) address strobe
EPDS(H)	external processor bus (local I/O bus) data strobe
EPR(15:0)H	external processor bus (local I/O bus) address/data bus
EPREADY(L)	auxiliary machine rdy for DC379 READY or uVERR logic
FORCEINIT(H)	assertion forces arbitration machine to reset and assert TINIT
FSTRDY(H)	low 16 mega-byte normal (fast) RTVAX ready strobe
GRANT(L)	Q-bus grant sent to Q-bus Master state machine
HI16PER(L)	high word parity error from memory sequencer
HIROMDLATCH(L)	signals RTVAX intfce gate array to latch hi-order rom data
HLT ENB(L)	configuration connector buffered halt enable mask and BDR flag
INC CTR(H)	increments block mode address counter
INITRQ(L)	init request from RTVAX's bus init register
INTRVL TIM(L)	interval timer 10mS
IRQ(7:5)L	RTVAX interrupt request inputs for processor levels 17, 16, 15
LO16MB(L)	indicates address is in low 16 MB of 30 bit address space
LO16PER(L)	low word parity error from memory sequencer
LOCAL NXM(H)	low 16 mega-byte non-existent physical memory flag
LOCK(L)	asserted if RTVAX is doing "read lock/write unlock"
LPD(3:0)H	local dram array transceiver generated byte parity data bits
LRD(31:0)H	local dram array transceiver data bits
LPERR(L)	local low 16 mega-byte dram parity error strobe
MA(23:2)H	memory address bus
MAA(9:0)L	row/column multiplexed memory address bus
MAP AD(21:9)H	RDAL bits 21:9 latched for translation map
MAP DISABLE(H)	scatter/gather map ram output enable control
MBMAA(8:0)H	local dram array buffered address signals
MBMSWT(0)L	local dram array buffered write strobe
MCAS(3:0)L	local dram array buffered column address strobes
MD(31:0)H	32 bit memory data bus
MEM CD(1:0)H	memory array selection codes (see 2.1.2)
MEMWR(L)	indicates a write to memory

REVISIONS		
CHK	CHANGE NO.	REV

digital

DSKIT,TPC(4,550)

FIRST USED ON OPTION/MODEL:

DRN ERW	DATE 8-19-84	ENG ERWarren	DATE 8-19-84
CHK'D ERW	DATE 8-19-84	BOARD LOCATION:	
		SHEET 1 OF 2	
		NEXT HIGHER ASSEMBLY:	

TITLE: MNEMONIC DICTIONARY

SIZE	CODE	NUMBER	REV.
D	CS	MZ379-0-65	A

MRAS(81:80)L	local dram array buffered row address strobes
MSER(1:0)L	memory system error register write wrong parity and parity trap enable controls
MSID(4:0)L	expansion memory identification codes
MSWT(1:0)H	expansion memory write control strobes
ODD WD(H)	indicates an odd word address
OSC@31(H)	watch/ram (TOY chip) clock input (31us)
PD(3:2)H	local dram array parity data
LPD(3:0)H	local dram array dampened parity data
PE(3:0)L	dram array transceiver (wire-ored) byte parity error strobes
PERR(L)	local dram array byte active and select column controlled parity error strobe
PF(L)	power failure strobe
QALE(H)	Q-bus address latch enable (also indicates "slave idle")
QBIOCYC(L)	RTVAX is addressing Q-bus I/O space (not memory)
QMEMENB(L)	enables Q-bus access to local memory
QRQ(L)	Q-bus request from RTVAX
QWR(H)	WTBT input from Q-bus (latched at assertion of SYNC)
RAS ALL(H)	generates RAS for all memory banks during refresh
RAS DECODE(L)	row address strobe decoder enable
RAS(81:80)L	buffered and damped local dram array row address strobes
RAS(8:0)H	nine row address strobes for the nine possible banks of dram
RBS7(H)	BS7 input from Q-bus
RCV BDAL(H)	controls the direction of the DC821 xcvr's
RD(31:16)H	undampened local dram array data transceiver data lines
RDCOK(L)	indicates DC power at proper level
RDIN(H)	DIN from the Q-bus
RDMGI(H)	DMGI from the Q-bus
RDMR(H)	DMR from the Q-bus
RDOUT(H)	DOUT from the Q-bus
READY(H)	DC379 generated RTVAX ready strobe, armed by EPREADY
REF REQ(H)	indicates a refresh cycle needed
REF->MA(L)	clears a refresh request & enables ref adrs onto MA
RHALT(H)	HALT from the Q-bus
RIAKI(H)	IAKI from the Q-bus
RINIT(H)	INIT from the Q-bus
RIRQ(7:4)H	IRQ's from the Q-bus
RPOK(L)	POK from the Q-bus
RR(H)	sync'd refresh request (to memory arbiter)
RREF(H)	REF from the Q-bus
RRPLY(H)	RPLY from the Q-bus
RSACK(H)	SACK from the Q-bus
RSYNC(H)	SYNC input from Q-bus
RSYNC(L)	inverted SYNC for latching XDAL's for scatter/gather map
RUN(L)	exited halt protected prom and prefetching and dram refreshing status flag
SDIN(H)	sync'd DIN from the Q-bus
SDMGI(H)	sync'd DMGI from the Q-bus
SDMR(H)	sync'd DMR from the Q-bus
SDOUT(H)	sync'd DOUT from the Q-bus
SEL DB(L)	Q-bus doorbell select
SEL LO16MB(L)	dynamic low 16 mega-byte address comparitor output
SELCOL(H)	RAM timing signal (indicates existing memory)
SELCOL(L)	RAM timing signal (indicates existing memory)
SG1(L)	soft ground (for use by board testers)
SG4(L)	soft ground (for use by board testers)
SI(H)	terminated eia serial in +
SI(L)	terminated eia serial in -
SRPLY(H)	sync'd RPLY input from Q-bus
SRUN(L)	goes to "RUN" light on front panel

SSACK(H)	sync'd SACK input from Q-bus
SSYNC(H)	sync'd SYNC input from Q-bus
START CYC(L)	select column control for lock or non-existent memory cycles
SYSCLK(H)	unbuffered system clock used to drive RTVAX and FPU
T.O.(H)	sync'd 10 usec. timeout
TBS7(H)	BS7 output to Q-bus
TDIO(L)	TDIN or TDOUT control from Q-bus master state machine
TDMGO(H)	DMGO output to Q-bus
TDMR(H)	DMR output to Q-bus
TIAKO(H)	IAKO output to Q-bus
TINIT(H)	INIT output to Q-bus (externally gated by ARB)
TREF(H)	REF output to Q-bus
TRPLY(H)	TRPLY output to Q-bus
TS(1:0)H	"t-state" counter outputs (sync'd to RTVAX ucycle at power up)
TS(1)L	"t-state" grey code counter inverted feedback next state control
TSACK(H)	SACK output to Q-bus
TSYNC(H)	SYNC output to Q-bus
UVAS(L)	RTVAX address strobe
UVBM(3:0)L	byte mask bits from rtvax
UVBR(14)L	bus interrupt request input for processor level 14
UVCLKO(H)	unbuffered RTVAX clock out
UVCS(2:0)H	RTVAX cycle status strobes (see table on 1.1)
UVCYC(L)	low 16 mega-byte dram cycle started flag (enables select column strobe)
UVCYCCD(2:0)L	RTVAX cycle codes (see table on 1.7)
UVDAL->MA(L)	enables RTVAX latched addresses onto MA bus
UVDAL(31:0)H	RTVAX data/address lines
UVDBE(L)	RTVAX data buffer enable strobe
UVDS(L)	RTVAX data strobe
UVEPS(L)	RTVAX external processor strobe
UVERR(L)	RTVAX error (forces abnormal termination of cycle)
UVHALT(L)	RTVAX halt
UVRDY(L)	RTVAX ready control input
UVRESET(L)	RTVAX reset control signal
UVWR(H)	buffered RTVAX write signal
UVWR(L)	RTVAX write signal
V1.2REF(H)	1.2 volt reference in battery sense circuit
V4.3REF(H)	4.3 volt regulator in charge pump circuit
VALID(H)	valid bit from "scatter-gather" map
WR MAP(L)	write control signal for map
XDAL(21:0)H	address/data in/out from Q-bus
XDBI RQ(H)	doorbell interrupt request
XDMA QPE(H)	Q-bus parity error on a Q-bus read cycle
XLAT AD(23:9)H	translated addresses out of scatter/gather map
XWTBT(H)	WTBT input from Q-bus

REVISIONS		
CHK	CHANGE NO.	REV

DR E R W — DATE 8-14-86
CHK'D E R W — DATE 8-14-86
ENG E R W — DATE 8-14-86
BOARD LOCATION:
SHEET 2 OF 2
NEXT HIGHER ASSEMBLY:
DSK:2,T2P(4,550)
FIRST USED ON CPTION/MODEL:

TITLE: MNEMONIC DICTIONARY

SIZE	CODE	NUMBER	REV.
D	CS	M7378-0-65	A

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GLOBAL SIGNAL CROSS REFERENCE -   12-OCT-1984

A120V   -0.08   0.1   +12.0V H
   AD2   1   A        FINGER   Pg. 1.11
   C34   1   A<0>     CAP      Pg. 1.9
   C39   1   A<0>     CAP      Pg. 1.11
   C68   1   A<1>     CAP      Pg. 1.11
   C69   1   A<0>     CAP      Pg. 1.11
   E15   6   VOUT     9543     Pg. 1.9
   E23   8   V+       9536     Pg. 1.9
   F1    1   P1       FUSE     Pg. 1.9
   R13   2   A        RES      Pg. 1.8

A120VL   -0.08   0.1   12.0V L
   C32   2   B<0>     CAP      Pg. 1.9
   C33   2   B<0>     CAP      Pg. 1.9
   D4    2   B        DIODE    Pg. 1.9
   E23   5   V-       9636     Pg. 1.9
   R7    1   B        RES      Pg. 1.9

A3VA   -7.32   0.12   +3VA H
   E3    26   E2      5565     Pg. 1.5
   E4    26   E2      5565     Pg. 1.5
   E31   4    -PR     F74      Pg. 2.1.1
   E31   13   -CL     F74      Pg. 2.1.1
   E34   1    -CL     F74      Pg. 2.1.1
   E34   10   -PR     F74      Pg. 2.1.1
   E56   15   A<5>    F521     Pg. 1.2
   R9    6    A<0>    SIP2A    Pg. 2.1.1
   R9    10   A<0>    SIP2A    Pg. 2.1.1

A50V   0.0   0.0   +5.0V H
   AA2   1   A        FINGER   Pg. 1.11
   BA2   1   A        FINGER   Pg. 1.11
   BV1   1   A        FINGER   Pg. 1.11
   C1    1   A<5>     CAP      Pg. 1.11
   C2    1   A<4>     CAP      Pg. 1.11
   C3    1   A<3>     CAP      Pg. 1.11
   C4    1   A<2>     CAP      Pg. 1.11
   C5    1   A<1>     CAP      Pg. 1.11
   C6    1   A<0>     CAP      Pg. 1.11
   C7    1   A<45>    CAP      Pg. 1.11
   C8    1   A<44>    CAP      Pg. 1.11
   C9    1   A<43>    CAP      Pg. 1.11
   C10   1   A<42>    CAP      Pg. 1.11
   C11   1   A<41>    CAP      Pg. 1.11
   C12   1   A<40>    CAP      Pg. 1.11
   C13   1   A<39>    CAP      Pg. 1.11
   C14   1   A<38>    CAP      Pg. 1.11
   C15   1   A<37>    CAP      Pg. 1.11
   C16   1   A<36>    CAP      Pg. 1.11
   C17   1   A<35>    CAP      Pg. 1.11
   C18   1   A<34>    CAP      Pg. 1.11
   C19   1   A<33>    CAP      Pg. 1.11
   C20   1   A<32>    CAP      Pg. 1.11
   C21   1   A<31>    CAP      Pg. 1.11
   C22   1   A<30>    CAP      Pg. 1.11
   C23   1   A<29>    CAP      Pg. 1.11
   C24   1   A<28>    CAP      Pg. 1.11
   C25   1   A<27>    CAP      Pg. 1.11
   C26   1   A<26>    CAP      Pg. 1.11
   C27   1   A<25>    CAP      Pg. 1.11
   C37   1   A<0>     CAP      Pg. 1.11
   C38   1   A<0>     CAP      Pg. 1.11
   C42   1   A<24>    CAP      Pg. 1.11
   C43   1   A<23>    CAP      Pg. 1.11
   C44   1   A<22>    CAP      Pg. 1.11
   C45   1   A<21>    CAP      Pg. 1.11
   C46   1   A<20>    CAP      Pg. 1.11
   C47   1   A<19>    CAP      Pg. 1.11
   C48   1   A<18>    CAP      Pg. 1.11
   C49   1   A<17>    CAP      Pg. 1.11
   C50   1   A<16>    CAP      Pg. 1.11
   C51   1   A<15>    CAP      Pg. 1.11
   C52   1   A<14>    CAP      Pg. 1.11
   C53   1   A<13>    CAP      Pg. 1.11
   C54   1   A<12>    CAP      Pg. 1.11
   C55   1   A<11>    CAP      Pg. 1.11
   C56   1   A<10>    CAP      Pg. 1.11
   C57   1   A<9>     CAP      Pg. 1.11
   C58   1   A<8>     CAP      Pg. 1.11
   C59   1   A<7>     CAP      Pg. 1.11
   C60   1   A<6>     CAP      Pg. 1.11
   C61   1   A<5>     CAP      Pg. 1.11
   C62   1   A<4>     CAP      Pg. 1.11
   C63   1   A<3>     CAP      Pg. 1.11
   C64   1   A<2>     CAP      Pg. 1.11
   C65   1   A<1>     CAP      Pg. 1.11
   C66   1   A<0>     CAP      Pg. 1.11
   C71   1   A<49>    CAP      Pg. 1.11
   C72   1   A<48>    CAP      Pg. 1.11
   C73   1   A<47>    CAP      Pg. 1.11
   C74   1   A<46>    CAP      Pg. 1.11
   C75   1   A<55>    CAP      Pg. 1.11
   C76   1   A<54>    CAP      Pg. 1.11
   C77   1   A<53>    CAP      Pg. 1.11
   C78   1   A<52>    CAP      Pg. 1.11
   C79   1   A<51>    CAP      Pg. 1.11
   C80   1   A<50>    CAP      Pg. 1.11
   CA2   1   A        FINGER   Pg. 1.3
   D6    1   A        DIODE    Pg. 1.8
   D7    2   B        DIODE    Pg. 1.8
   D9    1   A        DIODE    Pg. 1.7
   D10   1   P1<0>    LEDPACK  Pg. 1.10
   D11   1   P1<0>    LEDPACK  Pg. 1.10
   D12   1   P1<0>    LEDPACK  Pg. 1.10
   D13   1   P1<0>    LEDPACK  Pg. 1.10
   D14   1   P1<0>    LEDPACK  Pg. 1.10
   DA2   1   A        FINGER   Pg. 1.3
   E29   8   V+       LM211    Pg. 1.8
   F2    1   P1       FUSE     Pg. 1.10
   R9    1   VCC      SIP2A    Pg. 2.1.2
   R10   1   VCC      SIP2A    Pg. 1.4
   R16   2   A        RES      Pg. 1.7
   R23   1   VCC      SIP2A    Pg. 1.8
   W1    1   A        JUMPER   Pg. 1.9

ARBL   -1.780   0.145   ARB(L)
   E16   4     A<0>    8640         Pg. 1.6
   E16   6     B<0>    8640         Pg. 1.6
   E16   10    B<0>    8640         Pg. 1.6
   E16   11    B<3>    8640         Pg. 1.6
   E20   19    I11     82S167       Pg. 2.2
   E24   7     -ENB1   8641         Pg. 1.6
   E45   131   -ARB    GATEARRAY2   Pg. 1.4

ARMRDYERRL   -0.1   0.025   ARMRDYERR(L)
   E27   11   06    82S105   Pg. 2.1
   E39   18   I12   82S167   Pg. 2.1

ARMREPLYL   -0.01   0.01   ARM REPLY(L)
   E33   14    01       82S167       Pg. 2.2
   E45   137   -TRPLY   GATEARRAY2   Pg. 1.4

ARMUVDALL   -1.4   0.1   ARM UVDAL(L)
   E27   16   02     82S105   Pg. 2.1
   E52   19   -OE    F245     Pg. 1.2
   E65   12   A<0>   F32      Pg. 2.1.1
   E71   19   -OE    F245     Pg. 1.2
   E85   19   -OE    F245     Pg. 1.2
   E99   19   -OE    F245     Pg. 1.2

ASYNCTOH   -0.6   0.02   ASYNC T.O.(H)
   E8    4     D<3>         F374         Pg. 2.2
   E45   132   ASYNC T.O.   GATEARRAY2   Pg. 1.4

AUXHLTH   -0.01   0.01   AUX HLT(H)
   E44   84    TX AUX HLT   GATEARRAY1   Pg. 1.7
   E45   104   AUX HLT      GATEARRAY2   Pg. 1.4

BBS7L   0.0   0.0   BBS7(L)
   AP2   1    A      FINGER   Pg. 1.6
   E19   15   -B4    8641     Pg. 1.6
   R26   6    A<1>   TERM     Pg. 1.6

BDALL0   0.0   0.0   BDAL<0>L
   AU2   1   A       FINGER   Pg. 1.6
   E11   7   -Y<0>   DC021    Pg. 1.6
   R25   2   A<0>    TERM     Pg. 1.6

BDALL1   0.0   0.0   BDAL<1>L
   AV2   1   A       FINGER   Pg. 1.6
   E11   6   -Y<1>   DC021    Pg. 1.6
   R26   3   A<1>    TERM     Pg. 1.6

BDALL10   0.0   0.0   BDAL<10>L
   BP2   1   A        FINGER   Pg. 1.6
   E36   7   -Y<10>   DC021    Pg. 1.6
   R24   8   A<2>     TERM     Pg. 1.6

BDALL11   0.0   0.0   BDAL<11>L
   BR2   1   A        FINGER   Pg. 1.6
   E36   6   -Y<11>   DC021    Pg. 1.6
   R24   7   A<3>     TERM     Pg. 1.6

BDALL12   0.0   0.0   BDAL<12>L
   BS2   1   A        FINGER   Pg. 1.6
   E36   5   -Y<12>   DC021    Pg. 1.6
   R24   6   A<4>     TERM     Pg. 1.6

BDALL13   0.0   0.0   BDAL<13>L
   BT2   1   A        FINGER   Pg. 1.6
   E36   4   -Y<13>   DC021    Pg. 1.6
   R24   5   A<5>     TERM     Pg. 1.6

BDALL14   0.0   0.0   BDAL<14>L
   BU2   1   A        FINGER   Pg. 1.6
   E36   3   -Y<14>   DC021    Pg. 1.6
   R24   4   A<6>     TERM     Pg. 1.6

BDALL15   0.0   0.0   BDAL<15>L
   BV2   1   A        FINGER   Pg. 1.6
   E36   2   -Y<15>   DC021    Pg. 1.6
   R24   3   A<7>     TERM     Pg. 1.6

BDALL16   0.0   0.0   BDAL<16>L
   AC1   1   A        FINGER   Pg. 1.6
   E11   3   -Y<16>   DC021    Pg. 1.6
   R27   4   A<0>     TERM     Pg. 1.6

BDALL17   0.0   0.0   BDAL<17>L
   AD1   1   A        FINGER   Pg. 1.6
   E11   4   -Y<17>   DC021    Pg. 1.6
   R27   5   A<1>     TERM     Pg. 1.6

BDALL18   0.0   0.0   BDAL<18>L
   BC1   1   A        FINGER   Pg. 1.6
   E11   9   -Y<18>   DC021    Pg. 1.6
   R25   3   A<2>     TERM     Pg. 1.6

BDALL19   0.0   0.0   BDAL<19>L
   BD1   1   A        FINGER   Pg. 1.6
   E11   8   -Y<19>   DC021    Pg. 1.5
   R25   4   A<3>     TERM     Pg. 1.6

BDALL2   0.0   0.0   BDAL<2>L
   BE2   1   A       FINGER   Pg. 1.6
   E30   4   -Y<2>   DC021    Pg. 1.6
   R25   7   A<2>    TERM     Pg. 1.6

BDALL20   0.0   0.0   BDAL<20>L
   BE1   1   A        FINGER   Pg. 1.6
   E30   2   -Y<20>   DC021    Pg. 1.6
   R25   5   A<4>     TERM     Pg. 1.6

BDALL21   0.0   0.0   BDAL<21>L
   BF1   1   A        FINGER   Pg. 1.5
   E30   3   -Y<21>   DC021    Pg. 1.5
   R25   6   A<5>     TERM     Pg. 1.5

BDALL3   0.0   0.0   BDAL<3>L
   BF2   1   A       FINGER   Pg. 1.5
   E30   5   -Y<3>   DC021    Pg. 1.5
   R25   8   A<3>    TERM     Pg. 1.5

BDALL4   0.0   0.0   BDAL<4>L
   BH2   1   A       FINGER   Pg. 1.5
   E30   6   -Y<4>   DC021    Pg. 1.5
   R25   9   A<4>    TERM     Pg. 1.6

BDALL5   0.0   0.0   BDAL<5>L
   BJ2   1    A       FINGER   Pg. 1.5
   E30   7    -Y<5>   DC021    Pg. 1.6
   R25   10   A<5>    TERM     Pg. 1.6

BDALL6   0.0   0.0   BDAL<6>L
   BK2   1    A       FINGER   Pg. 1.6
   E30   8    -Y<6>   DC021    Pg. 1.5
   R25   11   A<6>    TERM     Pg. 1.6

BDALL7   0.0   0.0   BDAL<7>L
   BL2   1    A       FINGER   Pg. 1.5
   E30   9    -Y<7>   DC021    Pg. 1.6
   R25   12   A<7>    TERM     Pg. 1.6

BDALL8   0.0   0.0   BDAL<8>L
   BM2   1    A       FINGER   Pg. 1.6
   E36   9    -Y<8>   DC021    Pg. 1.5
   R24   10   A<0>    TERM     Pg. 1.6

BDALL9   0.0   0.0   BDAL<9>L
   BN2   1   A       FINGER   Pg. 1.6
   E36   8   -Y<9>   DC021    Pg. 1.6
   R24   9   A<1>    TERM     Pg. 1.6

BDCOKH   -0.8   0.04   BDCOK(H)
   BA1   1    A      FINGER   Pg. 1.6
   E24   1    -B1    8641     Pg. 1.6
   E35   1    A<0>   LS26     Pg. 1.9
   E35   4    A<0>   LS26     Pg. 1.9
   R26   12   A<3>   TERM     Pg. 1.6

BDGCDL0   -0.030   0.030   BDG CD<0>L
   E28   18   Y<2>          LS244        Pg. 1.10
   E44   77   -DBG CD<0>    GATEARRAY1   Pg. 1.7

BDGCDL1   -0.030   0.030   BDG CD<1>L
   E28   3    Y<0>          LS244        Pg. 1.10
   E44   78   -DBG CD<1>    GATEARRAY1   Pg. 1.7

BDINL   0.0   0.0   BDIN(L)
   AH2   1    A      FINGER   Pg. 1.6
   E7    15   -B4    8641     Pg. 1.6
   R27   8    A<2>   TERM     Pg. 1.6

BDIRTL   -8.0   0.2   BDIRT(L)
   E58    14   -OET   29853    Pg. 1.3
   E64    14   -OET   29853    Pg. 1.3
   E86    18   O5     16L8A    Pg. 2.1.2
   E92    14   -OET   29853    Pg. 1.3
   E106   14   -OET   29853    Pg. 1.3
   J1     21   P21    CONN50   Pg. 1.3

BDMGIL   0.0   0.0   BDMGI(L)
   AR2   1   A      FINGER   Pg. 1.6
   E7    4   -B2    8641     Pg. 1.6
   R26   8   A<2>   TERM     Pg. 1.6
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REVISIONS | CHK | CHANGE NO. | REV

digital | DRN. ERW | DATE 8-19-86 | ENG ERWagner | DATE 8-19-86 | TITLE: KA620 CROSS REFERENCE SIGNALS

CHK'D ERW | DATE 8-19-86 | BOARD LOCATION: | SHEET 1 OF 24

DSK:NAMSRT.T2P(4.550) | NEXT HIGHER ASSEMBLY: B-DD-M7478 2

FIRST USED ON OPTION/MODEL:

SIZE D | CODE DD | NUMBER M7478-0-0 | REV. A

BDMGOL	0.0	0.0	BDMGO(L)	
AS2	1	A	FINGER	Pg. 1.6
E19	1	-B1	8641	Pg. 1.6
R26	10	A(1)	TERM	Pg. 1.6

BDMRL	0.0	0.0	BDMR(L)	
AN1	1	A	FINGER	Pg. 1.6
E5	4	-B2	8641	Pg. 1.6
R25	4	A(3)	TERM	Pg. 1.6

BDOUTL	0.0	0.0	BDOUT(L)	
AE2	1	A	FINGER	Pg. 1.6
E7	12	-B3	8641	Pg. 1.6
R27	6	A(1)	TERM	Pg. 1.6

BDRL0	-0.410	0.030	BDR(0)L	
E41	10	A(0)	LS367	Pg. 1.10
E44	71	-BDR(0)	GATEARRAY1	Pg. 1.7

BDRL1	-0.410	0.030	BDR(1)L	
E41	6	A(0)	LS367	Pg. 1.10
E44	74	-BDR(1)	GATEARRAY1	Pg. 1.7

BDRL2	-0.410	0.030	BDR(2)L	
E41	4	A(0)	LS367	Pg. 1.10
E44	75	-BDR(2)	GATEARRAY1	Pg. 1.7

BDRL3	-0.410	0.030	BDR(3)L	
E41	2	A(2)	LS367	Pg. 1.10
E44	76	-BDR(3)	GATEARRAY1	Pg. 1.7

BDY16L	-0.1	0.025	BDY16(L)	
E33	19	I11	82S167	Pg. 2.2
E45	98	-BDY16	GATEARRAY2	Pg. 1.4

BEVENTL	0.0	0.0	BEVENT(L)	
BR1	1	A	FINGER	Pg. 1.6
R24	2	A(0)	TERM	Pg. 1.6

BHALTL	0.0	0.0	BHALT(L)	
AP1	1	A	FINGER	Pg. 1.6
E24	12	-B3	8641	Pg. 1.6
R26	7	A(4)	TERM	Pg. 1.6

BIAKIL	0.0	0.0	BIAKI(L)	
AM2	1	A	FINGER	Pg. 1.6
E7	1	-B1	8641	Pg. 1.6
R27	12	A(1)	TERM	Pg. 1.6

BIAKOL	0.0	0.0	BIAKO(L)	
AN2	1	A	FINGER	Pg. 1.6
E5	1	-B1	8641	Pg. 1.6
R25	5	A(0)	TERM	Pg. 1.6

BINITL	0.0	0.0	BINIT(L)	
AT2	1	A	FINGER	Pg. 1.6
E24	15	-B4	8641	Pg. 1.6
R25	11	A(1)	TERM	Pg. 1.5

BIRQL4	-0.02	0.02	BIRQ(4)L	
AL2	1	A	FINGER	Pg. 1.6
E16	5	B(0)	8640	Pg. 1.6
R27	11	A(2)	TERM	Pg. 1.6

BIRQL5	-0.02	0.02	BIRQ(5)L	
AA1	1	A	FINGER	Pg. 1.6
E16	12	A(0)	8640	Pg. 1.5
R27	2	A(3)	TERM	Pg. 1.6

BIRQL6	-0.02	0.02	BIRQ(6)L	
AB1	1	A	FINGER	Pg. 1.6
E16	9	A(0)	8640	Pg. 1.6
R27	3	A(4)	TERM	Pg. 1.6

BIRQL7	-0.02	0.02	BIRQ(7)L	
BP1	1	A	FINGER	Pg. 1.6
E16	7	A(0)	8640	Pg. 1.6
R24	12	A(5)	TERM	Pg. 1.6

BMAA0	-0.360	0.360	BMAA(0)H	
E48	5	A(0)	256K	Pg. 1.3
E49	5	A(0)	256K	Pg. 1.3
E50	5	A(0)	256K	Pg. 1.3
E51	5	A(0)	256K	Pg. 1.3
E54	5	A(0)	256K	Pg. 1.3
E55	5	A(0)	256K	Pg. 1.3
E56	5	A(0)	256K	Pg. 1.3
E57	5	A(0)	256K	Pg. 1.3
E60	5	A(0)	256K	Pg. 1.3
E61	5	A(0)	256K	Pg. 1.3
E62	5	A(0)	256K	Pg. 1.3
E63	5	A(0)	256K	Pg. 1.3
E67	5	A(0)	256K	Pg. 1.3
E68	5	A(0)	256K	Pg. 1.3
E69	5	A(0)	256K	Pg. 1.3
E70	5	A(0)	256K	Pg. 1.3
E74	5	A(0)	256K	Pg. 1.3
E75	5	A(0)	256K	Pg. 1.3
E76	5	A(0)	256K	Pg. 1.3
E77	5	A(0)	256K	Pg. 1.3
E81	5	A(0)	256K	Pg. 1.3
E82	5	A(0)	256K	Pg. 1.3
E83	5	A(0)	256K	Pg. 1.3
E84	5	A(0)	256K	Pg. 1.3
E88	5	A(0)	256K	Pg. 1.3
E89	5	A(0)	256K	Pg. 1.3
E90	5	A(0)	256K	Pg. 1.3
E91	5	A(0)	256K	Pg. 1.3
E95	5	A(0)	256K	Pg. 1.3
E96	5	A(0)	256K	Pg. 1.3
E97	5	A(0)	256K	Pg. 1.3
E98	5	A(0)	256K	Pg. 1.3
E102	5	A(0)	256K	Pg. 1.3
E103	5	A(0)	256K	Pg. 1.3
E104	5	A(0)	256K	Pg. 1.3
E105	5	A(0)	256K	Pg. 1.3
R33	6	A(0)	SIP6B	Pg. 1.3

BMAA1	-0.360	0.360	BMAA(1)H	
E48	7	A(1)	256K	Pg. 1.3
E49	7	A(1)	256K	Pg. 1.3
E50	7	A(1)	256K	Pg. 1.3
E51	7	A(1)	256K	Pg. 1.3
E54	7	A(1)	256K	Pg. 1.3
E55	7	A(1)	256K	Pg. 1.3
E56	7	A(1)	256K	Pg. 1.3
E57	7	A(1)	256K	Pg. 1.3
E60	7	A(1)	256K	Pg. 1.3
E61	7	A(1)	256K	Pg. 1.3
E62	7	A(1)	256K	Pg. 1.3
E63	7	A(1)	256K	Pg. 1.3
E67	7	A(1)	256K	Pg. 1.3
E68	7	A(1)	256K	Pg. 1.3
E69	7	A(1)	256K	Pg. 1.3
E70	7	A(1)	256K	Pg. 1.3
E74	7	A(1)	256K	Pg. 1.3
E75	7	A(1)	256K	Pg. 1.3
E76	7	A(1)	256K	Pg. 1.3
E77	7	A(1)	256K	Pg. 1.3
E81	7	A(1)	256K	Pg. 1.3
E82	7	A(1)	256K	Pg. 1.3
E83	7	A(1)	256K	Pg. 1.3
E84	7	A(1)	256K	Pg. 1.3
E88	7	A(1)	256K	Pg. 1.3
E89	7	A(1)	256K	Pg. 1.3
E90	7	A(1)	256K	Pg. 1.3
E91	7	A(1)	256K	Pg. 1.3
E95	7	A(1)	256K	Pg. 1.3
E96	7	A(1)	256K	Pg. 1.3
E97	7	A(1)	256K	Pg. 1.3
E98	7	A(1)	256K	Pg. 1.3
E102	7	A(1)	256K	Pg. 1.3
E103	7	A(1)	256K	Pg. 1.3
E104	7	A(1)	256K	Pg. 1.3
E105	7	A(1)	256K	Pg. 1.3
R33	4	A(1)	SIP6B	Pg. 1.3

BMAA2	-0.360	0.360	BMAA(2)H	
E48	6	A(2)	256K	Pg. 1.3
E49	6	A(2)	256K	Pg. 1.3
E50	6	A(2)	256K	Pg. 1.3
E51	6	A(2)	256K	Pg. 1.3
E54	6	A(2)	256K	Pg. 1.3
E55	6	A(2)	256K	Pg. 1.3
E56	6	A(2)	256K	Pg. 1.3
E57	5	A(2)	256K	Pg. 1.3
E60	6	A(2)	256K	Pg. 1.3
E61	6	A(2)	256K	Pg. 1.3
E62	6	A(2)	256K	Pg. 1.3
E63	6	A(2)	256K	Pg. 1.3
E67	6	A(2)	256K	Pg. 1.3
E68	6	A(2)	256K	Pg. 1.3
E69	6	A(2)	256K	Pg. 1.3
E70	6	A(2)	256K	Pg. 1.3
E74	6	A(2)	256K	Pg. 1.3
E75	6	A(2)	256K	Pg. 1.3
E76	6	A(2)	256K	Pg. 1.3
E77	6	A(2)	256K	Pg. 1.3
E81	6	A(2)	256K	Pg. 1.3
E82	6	A(2)	256K	Pg. 1.3
E83	6	A(2)	256K	Pg. 1.3
E84	6	A(2)	256K	Pg. 1.3
E88	6	A(2)	256K	Pg. 1.3
E89	6	A(2)	256K	Pg. 1.3
E90	6	A(2)	256K	Pg. 1.3
E91	6	A(2)	256K	Pg. 1.3
E95	6	A(2)	256K	Pg. 1.3
E96	6	A(2)	256K	Pg. 1.3
E97	6	A(2)	256K	Pg. 1.3
E98	6	A(2)	256K	Pg. 1.3
E102	6	A(2)	256K	Pg. 1.3
E103	6	A(2)	256K	Pg. 1.3
E104	6	A(2)	256K	Pg. 1.3
E105	6	A(2)	256K	Pg. 1.3
R33	2	A(2)	SIP6B	Pg. 1.3

BMAA3	-0.360	0.360	BMAA(3)H	
E48	12	A(3)	256K	Pg. 1.3
E49	12	A(3)	256K	Pg. 1.3
E50	12	A(3)	256K	Pg. 1.3
E51	12	A(3)	256K	Pg. 1.3
E54	12	A(3)	256K	Pg. 1.3
E55	12	A(3)	256K	Pg. 1.3
E56	12	A(3)	256K	Pg. 1.3
E57	12	A(3)	256K	Pg. 1.3
E60	12	A(3)	256K	Pg. 1.3
E61	12	A(3)	256K	Pg. 1.3
E62	12	A(3)	256K	Pg. 1.3
E63	12	A(3)	256K	Pg. 1.3
E67	12	A(3)	256K	Pg. 1.3
E68	12	A(3)	256K	Pg. 1.3
E69	12	A(3)	256K	Pg. 1.3
E70	12	A(3)	256K	Pg. 1.3
E74	12	A(3)	256K	Pg. 1.3
E75	12	A(3)	256K	Pg. 1.3
E76	12	A(3)	256K	Pg. 1.3
E77	12	A(3)	256K	Pg. 1.3
E81	12	A(3)	256K	Pg. 1.3
E82	12	A(3)	256K	Pg. 1.3
E83	12	A(3)	256K	Pg. 1.3
E84	12	A(3)	256K	Pg. 1.3
E88	12	A(3)	256K	Pg. 1.3
E89	12	A(3)	256K	Pg. 1.3
E90	12	A(3)	256K	Pg. 1.3
E91	12	A(3)	256K	Pg. 1.3
E95	12	A(3)	256K	Pg. 1.3
E96	12	A(3)	256K	Pg. 1.3
E97	12	A(3)	256K	Pg. 1.3
E98	12	A(3)	256K	Pg. 1.3
E102	12	A(3)	256K	Pg. 1.3
E103	12	A(3)	256K	Pg. 1.3
E104	12	A(3)	256K	Pg. 1.3
E105	12	A(3)	256K	Pg. 1.3
R32	6	A(3)	SIP6B	Pg. 1.3

BMAA4	-0.360	0.360	BMAA(4)H	
E48	11	A(4)	256K	Pg. 1.3
E49	11	A(4)	256K	Pg. 1.3
E50	11	A(4)	256K	Pg. 1.3
E51	11	A(4)	256K	Pg. 1.3
E54	11	A(4)	256K	Pg. 1.3
E55	11	A(4)	256K	Pg. 1.3
E56	11	A(4)	256K	Pg. 1.3
E57	11	A(4)	256K	Pg. 1.3
E60	11	A(4)	256K	Pg. 1.3
E61	11	A(4)	256K	Pg. 1.3
E62	11	A(4)	256K	Pg. 1.3
E63	11	A(4)	256K	Pg. 1.3
E67	11	A(4)	256K	Pg. 1.3
E68	11	A(4)	256K	Pg. 1.3
E69	11	A(4)	256K	Pg. 1.3
E70	11	A(4)	256K	Pg. 1.3
E74	11	A(4)	256K	Pg. 1.3
E75	11	A(4)	256K	Pg. 1.3
E76	11	A(4)	256K	Pg. 1.3
E77	11	A(4)	256K	Pg. 1.3
E81	11	A(4)	256K	Pg. 1.3
E82	11	A(4)	256K	Pg. 1.3
E83	11	A(4)	256K	Pg. 1.3
E84	11	A(4)	256K	Pg. 1.3
E88	11	A(4)	256K	Pg. 1.3
E89	11	A(4)	256K	Pg. 1.3
E90	11	A(4)	256K	Pg. 1.3
E91	11	A(4)	256K	Pg. 1.3
E95	11	A(4)	256K	Pg. 1.3
E96	11	A(4)	256K	Pg. 1.3
E97	11	A(4)	256K	Pg. 1.3
E98	11	A(4)	256K	Pg. 1.3
E102	11	A(4)	256K	Pg. 1.3
E103	11	A(4)	256K	Pg. 1.3
E104	11	A(4)	256K	Pg. 1.3
E105	11	A(4)	256K	Pg. 1.3
R32	4	A(4)	SIP6B	Pg. 1.3

BMAA5	-0.360	0.360	BMAA(5)H	
E48	10	A(5)	256K	Pg. 1.3
E49	10	A(5)	256K	Pg. 1.3
E50	10	A(5)	256K	Pg. 1.3
E51	10	A(5)	256K	Pg. 1.3
E54	10	A(5)	256K	Pg. 1.3
E55	10	A(5)	256K	Pg. 1.3
E56	10	A(5)	256K	Pg. 1.3
E57	10	A(5)	256K	Pg. 1.3
E60	10	A(5)	256K	Pg. 1.3
E61	10	A(5)	256K	Pg. 1.3
E62	10	A(5)	256K	Pg. 1.3
E63	10	A(5)	256K	Pg. 1.3
E67	10	A(5)	256K	Pg. 1.3
E68	10	A(5)	256K	Pg. 1.3
E69	10	A(5)	256K	Pg. 1.3
E70	10	A(5)	256K	Pg. 1.3
E74	10	A(5)	256K	Pg. 1.3
E75	10	A(5)	256K	Pg. 1.3
E76	10	A(5)	256K	Pg. 1.3
E77	10	A(5)	256K	Pg. 1.3
E81	10	A(5)	256K	Pg. 1.3
E82	10	A(5)	256K	Pg. 1.3
E83	10	A(5)	256K	Pg. 1.3
E84	10	A(5)	256K	Pg. 1.3

digital | DR: ERW | DATE 8-19-86 | ENG: E. Rubano | DATE 8-19-86
CHK: ERW | DATE 8-19-86 | BOARD LOCATION: | SHEET 2 OF 2
TITLE: KA620 CROSS REFERENCE SIGNALS
SIZE D | CODE 100 | NUMBER M7478-0-0 | REV. A
NEXT HIGHER ASSY: B-DD-M7478-0
FIRST USED ON OPTION MODEL:
REVISIONS | CHK | CHANGE NO. | REV.

BMAA5	-0.360	0.360	BMAA<5>H (CONT.)	
E88	10	A<5>	256K	Pg. 1.3
E89	10	A<5>	256K	Pg. 1.3
E90	10	A<5>	256K	Pg. 1.3
E91	10	A<5>	256K	Pg. 1.3
E95	10	A<5>	256K	Pg. 1.3
E96	10	A<5>	256K	Pg. 1.3
E97	10	A<5>	256K	Pg. 1.3
E98	10	A<5>	256K	Pg. 1.3
E102	10	A<5>	256K	Pg. 1.3
E103	10	A<5>	256K	Pg. 1.3
E104	10	A<5>	256K	Pg. 1.3
E105	10	A<5>	256K	Pg. 1.3
R32	2	A<5>	SIP68	Pg. 1.3
BMAA6	-0.360	0.360	BMAA<6>H	
E48	13	A<6>	255K	Pg. 1.3
E49	13	A<6>	256K	Pg. 1.3
E50	13	A<6>	256K	Pg. 1.3
E51	13	A<6>	256K	Pg. 1.3
E54	13	A<6>	256K	Pg. 1.3
E55	13	A<6>	256K	Pg. 1.3
E56	13	A<6>	256K	Pg. 1.3
E57	13	A<6>	256K	Pg. 1.3
E60	13	A<6>	256K	Pg. 1.3
E61	13	A<6>	256K	Pg. 1.3
E62	13	A<6>	256K	Pg. 1.3
E63	13	A<6>	256K	Pg. 1.3
E67	13	A<6>	256K	Pg. 1.3
E68	13	A<6>	256K	Pg. 1.3
E69	13	A<6>	256K	Pg. 1.3
E70	13	A<6>	255K	Pg. 1.3
E74	13	A<5>	256K	Pg. 1.3
E75	13	A<5>	256K	Pg. 1.3
E76	13	A<5>	256K	Pg. 1.3
E77	13	A<6>	256K	Pg. 1.3
E81	13	A<6>	255K	Pg. 1.3
E82	13	A<6>	256K	Pg. 1.3
E83	13	A<5>	255K	Pg. 1.3
E84	13	A<6>	256K	Pg. 1.3
E88	13	A<6>	256K	Pg. 1.3
E89	13	A<6>	256K	Pg. 1.3
E90	13	A<6>	256K	Pg. 1.3
E91	13	A<6>	256K	Pg. 1.3
E95	13	A<6>	256K	Pg. 1.3
E96	13	A<6>	256K	Pg. 1.3
E97	13	A<6>	256K	Pg. 1.3
E98	13	A<6>	256K	Pg. 1.3
E102	13	A<6>	256K	Pg. 1.3
E103	13	A<6>	255K	Pg. 1.3
E104	13	A<6>	256K	Pg. 1.3
E105	13	A<6>	256K	Pg. 1.3
R31	6	A<6>	SIP68	Pg. 1.3
BMAA7	-0.360	0.360	BMAA<7>H	
E48	9	A<7>	256K	Pg. 1.3
E49	9	A<7>	256K	Pg. 1.3
E50	9	A<7>	256K	Pg. 1.3
E51	9	A<7>	256K	Pg. 1.3
E54	9	A<7>	256K	Pg. 1.3
E55	9	A<7>	255K	Pg. 1.3
E56	9	A<7>	256K	Pg. 1.3
E57	9	A<7>	256K	Pg. 1.3
E60	9	A<7>	256K	Pg. 1.3
E61	9	A<7>	256K	Pg. 1.3
E62	9	A<7>	256K	Pg. 1.3
E63	9	A<7>	256K	Pg. 1.3
E67	9	A<7>	256K	Pg. 1.3
E68	9	A<7>	256K	Pg. 1.3
E69	9	A<7>	256K	Pg. 1.3
E70	9	A<7>	256K	Pg. 1.3
E74	9	A<7>	255K	Pg. 1.3
E75	9	A<7>	256K	Pg. 1.3
E76	9	A<7>	256K	Pg. 1.3
E77	9	A<7>	255K	Pg. 1.3
E81	9	A<7>	256K	Pg. 1.3
E82	9	A<7>	256K	Pg. 1.3
E83	9	A<7>	256K	Pg. 1.3
E84	9	A<7>	256K	Pg. 1.3
E88	9	A<7>	256K	Pg. 1.3
E89	9	A<7>	255K	Pg. 1.3
E90	9	A<7>	256K	Pg. 1.3
E91	9	A<7>	256K	Pg. 1.3
E95	9	A<7>	256K	Pg. 1.3
E96	9	A<7>	256K	Pg. 1.3
E97	9	A<7>	256K	Pg. 1.3
E98	9	A<7>	256K	Pg. 1.3
E102	9	A<7>	256K	Pg. 1.3
E103	9	A<7>	256K	Pg. 1.3
E104	9	A<7>	256K	Pg. 1.3
E105	9	A<7>	256K	Pg. 1.3
R31	4	A<7>	SIP68	Pg. 1.3
BMAA8	-0.360	0.360	BMAA<8>H	
E48	1	A<8>	256K	Pg. 1.3
E49	1	A<8>	256K	Pg. 1.3
E50	1	A<8>	256K	Pg. 1.3
E51	1	A<8>	256K	Pg. 1.3
E54	1	A<8>	256K	Pg. 1.3
E55	1	A<8>	256K	Pg. 1.3
E56	1	A<8>	256K	Pg. 1.3
E57	1	A<9>	256K	Pg. 1.3
E60	1	A<8>	256K	Pg. 1.3
E61	1	A<6	255K	Pg. 1.3
E62	1	A<8>	256K	Pg. 1.3
E63	1	A<8>	256K	Pg. 1.3
E67	1	A<8>	256K	Pg. 1.3
E68	1	A<8>	256K	Pg. 1.3
E69	1	A<3>	256K	Pg. 1.3
E70	1	A<8>	256K	Pg. 1.3
E74	1	A<8>	256K	Pg. 1.3
E75	1	A<8>	256K	Pg. 1.3
E76	1	A<8>	256K	Pg. 1.3
E77	1	A<8>	256K	Pg. 1.3
E81	1	A<8>	256K	Pg. 1.3
E82	1	A<8>	256K	Pg. 1.3
E83	1	A<8>	256K	Pg. 1.3
E84	1	A<8>	256K	Pg. 1.3
E88	1	A<8>	256K	Pg. 1.3
E89	1	A<8>	256K	Pg. 1.3
E90	1	A<8>	256K	Pg. 1.3
E91	1	A<8>	256K	Pg. 1.3
E95	1	A<8>	256K	Pg. 1.3
E96	1	A<8>	256K	Pg. 1.3
E97	1	A<8>	256K	Pg. 1.3
E98	1	A<8>	256K	Pg. 1.3
E102	1	A<8>	256K	Pg. 1.3
E103	1	A<8>	256K	Pg. 1.3
E104	1	A<8>	256K	Pg. 1.3
E105	1	A<8>	256K	Pg. 1.3
R31	2	A<8>	SIP68	Pg. 1.3
BMCAS0	-0.6	0.02	BMCAS<0>H	
CE2	1	A	FINGER	Pg. 1.3
E59	10	Q<2>	F174	Pg. 2.1.1
E87	9	A<0>	F04	Pg. 1.3
BMCAS1	-0.6	0.02	BMCAS<1>H	
CH2	1	A	FINGER	Pg. 1.3
E59	7	Q<3>	F174	Pg. 2.1.1
E87	5	A<0>	F04	Pg. 1.3
BMCAS2	-0.6	0.02	BMCAS<2>H	
DP2	1	A	FINGER	Pg. 1.3
E59	2	Q<4>	F174	Pg. 2.1.1
E87	3	A<0>	F04	Pg. 1.3
BMCAS3	-0.6	0.02	BMCAS<3>H	
DR2	1	A	FINGER	Pg. 1.3
E59	5	Q<5>	F174	Pg. 2.1.1
E87	1	A<0>	F04	Pg. 1.3
BMSWTL0	-0.360	0.360	BMSWT<0>L	
E48	3	-WR	256K	Pg. 1.3
E49	3	-WR	256K	Pg. 1.3
E50	3	-WR	256K	Pg. 1.3
E51	3	-WR	256K	Pg. 1.3
E54	3	-WR	256K	Pg. 1.3
E55	3	-WR	256K	Pg. 1.3
E56	3	-WR	256K	Pg. 1.3
E57	3	-WR	256K	Pg. 1.3
E60	3	-WR	256K	Pg. 1.3
E61	3	-WR	256K	Pg. 1.3
E62	3	-WR	256K	Pg. 1.3
E63	3	-WR	256K	Pg. 1.3
E67	3	-WR	256K	Pg. 1.3
E68	3	-WR	256K	Pg. 1.3
E69	3	-WR	256K	Pg. 1.3
E70	3	-WR	256K	Pg. 1.3
E74	3	-WR	256K	Pg. 1.3
E75	3	-WR	256K	Pg. 1.3
E76	3	-WR	256K	Pg. 1.3
E77	3	-WR	256K	Pg. 1.3
E81	3	-WR	256K	Pg. 1.3
E82	3	-WR	256K	Pg. 1.3
E83	3	-WR	256K	Pg. 1.3
E84	3	-WR	256K	Pg. 1.3
E88	3	-WR	256K	Pg. 1.3
E89	3	-WR	256K	Pg. 1.3
E90	3	-WR	256K	Pg. 1.3
E91	3	-WR	256K	Pg. 1.3
E95	3	-WR	256K	Pg. 1.3
E96	3	-WR	256K	Pg. 1.3
E97	3	-WR	256K	Pg. 1.3
E98	3	-WR	256K	Pg. 1.3
E102	3	-WR	256K	Pg. 1.3
E103	3	-WR	256K	Pg. 1.3
E104	3	-WR	256K	Pg. 1.3
E105	3	-WR	256K	Pg. 1.3
R34	6	A<0>	SIP68	Pg. 1.3
BPOKH	0.0	0.0	BPOK(H)	
BB1	1	A	FINGER	Pg. 1.6
E24	4	-B2	8641	Pg. 1.6
R25	2	A<2>	TERM	Pg. 1.6
BREAKH	-0.02	0.02	BREAK(H)	
E13	33	BREAK	DC319	Pg. 1.9
E44	85	BREAK	GATEARRAY1	Pg. 1.7
BREFL	0.0	0.0	BREF(L)	
AR1	1	A	FINGER	Pg. 1.6
E19	12	-B3	8641	Pg. 1.6
R26	9	A<0>	TERM	Pg. 1.6
BRPLYL	0.0	0.0	BRPLY(L)	
AF2	1	A	FINGER	Pg. 1.6
E5	12	-B3	8641	Pg. 1.6
R27	7	A<0>	TERM	Pg. 1.5
BRSL0	-0.030	0.030	BRS<0>L	
E13	31	-BRS<0>	DC319	Pg. 1.9
E28	12	Y<0>	LS244	Pg. 1.10
BRSL1	-0.030	0.030	BRS<1>L	
E13	37	-BRS<1>	DC319	Pg. 1.9
E28	14	Y<1>	LS244	Pg. 1.10
BRSL2	-0.030	0.030	BRS<2>L	
E13	38	-BRS<2>	DC319	Pg. 1.9
E28	16	Y<2>	LS244	Pg. 1.10
BSACKL	0.0	0.0	BSACK(L)	
BN1	1	A	FINGER	Pg. 1.6
E19	4	-B2	8641	Pg. 1.6
R24	11	A<0>	TERM	Pg. 1.6
BSYNCL	0.0	0.0	BSYNC(L)	
AJ2	1	A	FINGER	Pg. 1.5
E5	15	-B4	8641	Pg. 1.6
R27	9	A<3>	TERM	Pg. 1.5
BTRYOKL	-0.25	0.025	BTRY OK(L)	
E29	7	C	LM211	Pg. 1.8
E40	2	I1	16L8A	Pg. 1.4
R23	3	A<0>	SIP2A	Pg. 1.8
BTRYV1H	0.0	0.0	BTRYV1(H)	
C35	1	A<0>	CAP	Pg. 1.8
D7	1	A	DIODE	Pg. 1.8
D8	1	A	DIODE	Pg. 1.8
E14	24	ST	MC146818	Pg. 1.9
R11	2	A	RES	Pg. 1.8
R12	2	A	RES	Pg. 1.8
R14	2	A	RES	Pg. 1.8
R28	2	A<0>	SIP10B	Pg. 1.8
Y1	16	BT	320SC	Pg. 1.8
BTRYVH	0.0	0.0	BTRYV(H)	
J2	10	P10	20PINCONN	Pg. 1.10
R17	2	A	RES	Pg. 1.8
R28	1	B<0>	SIP10B	Pg. 1.8
BTVREFH	0.0	0.0	BTVREF(H)	
C29	2	B<0>	CAP	Pg. 1.8
C41	1	A<0>	CAP	Pg. 1.8
E29	3	IN-	LM211	Pg. 1.8
R17	1	B	RES	Pg. 1.8
R18	2	A	RES	Pg. 1.8
BUFENBL	-16.5	0.4	BUF ENB(L)	
E58	1	-OER	29853	Pg. 1.3
E58	13	-ENAB	29853	Pg. 1.3
E64	1	-OER	29853	Pg. 1.3
E64	13	-ENAB	29853	Pg. 1.3
E86	15	O3	16L8A	Pg. 2.1.2
E92	1	-OER	29853	Pg. 1.3
E92	13	-ENAB	29853	Pg. 1.3
E106	1	-OER	29853	Pg. 1.3
E106	13	-ENAB	29853	Pg. 1.3
BUFENBL0	0.0	0.0	BUF ENB<0>L	
E86	16	O4	16L8A	Pg. 2.1.2
J1	28	P28	CONN50	Pg. 1.3
BUFENBL1	0.0	0.0	BUF ENB<1>L	
E86	17	O5	16L8A	Pg. 2.1.2
J1	23	P23	CONN50	Pg. 1.3
BUVASH	-0.8	0.07	BUVAS(H)	
E27	8	I1	82S105	Pg. 2.1
E32	11	A<0>	F04	Pg. 1.1
E32	12	-Y<0>	F04	Pg. 1.1
E39	8	I0	82S167	Pg. 2.1
BUVASL	-1.8	0.060	BUVAS(L)	
E32	10	-Y<0>	F04	Pg. 1.1
E46	11	E	F373	Pg. 1.2
E53	11	E	F373	Pg. 1.2
E73	11	E	F373	Pg. 1.2
BUVCLKOH	-4.86	0.255	BUVCLKO(H)	
E8	11	CLOCK	F374	Pg. 2.2
E12	11	CLOCK	F374	Pg. 2.2
E17	9	CLOCK	F174	Pg. 2.1.1
E20	1	CLK	82S167	Pg. 2.2
E26	1	CLK	82S167	Pg. 2.2
E27	1	CLK	82S105	Pg. 2.1
E31	3	CLOCK	F74	Pg. 2.1.1
E31	11	CLOCK	F74	Pg. 2.1.1
E33	1	CLK	82S167	Pg. 2.2
E34	11	CLOCK	F74	Pg. 2.1.1
E37	6	Y<0>	F32	Pg. 1.1
E39	1	CLK	82S167	Pg. 2.1
E44	12	UVCLKO	GATEARRAY1	Pg. 1.7

REVISIONS

CHK | CHANGE NO. | REV

digital

DR | DATE 8-19-86 | ENG | DATE 8-19-86

CHK'D | DATE 8-19-86

BOARD LOCATION:

SHEET 3 OF 24

NEXT HIGHER ASSEMBLY: B-DD-M7478-0

DSK:NAMSRT.T2PL4.

FIRST USED ON OPTION/MODEL:

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE D | CODE DD | NUMBER M7478-0-0 | REV. A

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BUVRESETH  -4.94  0.37  BUVRESET(H)
 E5   9   -ENB2   8641          Pg. 1.6
 E13  39  TEST    DC319         Pg. 1.9
 E19  9   -ENB2   8641          Pg. 1.6
 E23  3   A(1)    9636          Pg. 1.9
 E25  13  A(0)    LS04          Pg. 1.7
 E26  16  PROE    82S167        Pg. 2.2
 E27  19  PROE    82S105        Pg. 2.1
 E32  6   -Y(0)   F04           Pg. 1.7
 E33  16  PROE    82S167        Pg. 2.2
 E39  16  PROE    82S167        Pg. 2.1
 E65  5   B(0)    F32           Pg. 2.2
 E79  10  -CS     512X4PROM     Pg. 2.1.2
 W5   1   A       JUMPER        Pg. 2.1.2

BUVRESETL  -1.2  0.04  BUVRESET(L)
 E17  1   -CL     F174   Pg. 2.1.1
 E25  12  -Y(0)   LS04   Pg. 1.7
 E59  1   -CL     F174   Pg. 2.1.1

BWTBTL  0.0  0.0  BWTBT(L)
 AK2  1   A       FINGER  Pg. 1.6
 E11  5   -Y(22)  DC021   Pg. 1.6
 R27  10  A(2)    TERM    Pg. 1.6

BYTACTL0  -0.25  0.025  BYTACT(0)L
 E45  75  -BYT ACT(0)  GATEARRAY2  Pg. 1.4
 E78  11  I9           16L6A       Pg. 2.1.2

BYTACTL1  -0.25  0.025  BYTACT(1)L
 E45  78  -BYT ACT(1)  GATEARRAY2  Pg. 1.4
 E78  9   I8           16L8A       Pg. 2.1.2

BYTACTL2  -0.25  0.025  BYTACT(2)L
 E45  74  -BYT ACT(2)  GATEARRAY2  Pg. 1.4
 E78  8   I7           16L8A       Pg. 2.1.2

BYTACTL3  -0.25  0.025  BYTACT(3)L
 E45  70  -BYT ACT(3)  GATEARRAY2  Pg. 1.4
 E78  7   I6           16L8A       Pg. 2.1.2

CASL0  -0.09  0.09  CAS(0)L
 E51  15  -CAS  256K   Pg. 1.3
 E57  15  -CAS  256K   Pg. 1.3
 E63  15  -CAS  256K   Pg. 1.3
 E70  15  -CAS  256K   Pg. 1.3
 E77  15  -CAS  256K   Pg. 1.3
 E84  15  -CAS  256K   Pg. 1.3
 E91  15  -CAS  256K   Pg. 1.3
 E98  15  -CAS  256K   Pg. 1.3
 E105 15  -CAS  256K   Pg. 1.3
 R40  4   A(0)  SIP88  Pg. 1.3

CASL1  -0.09  0.09  CAS(1)L
 E50  15  -CAS  256K   Pg. 1.3
 E56  15  -CAS  256K   Pg. 1.3
 E62  15  -CAS  256K   Pg. 1.3

 E69  15  -CAS  256K   Pg. 1.3
 E76  15  -CAS  256K   Pg. 1.3
 E83  15  -CAS  256K   Pg. 1.3
 E90  15  -CAS  256K   Pg. 1.3
 E97  15  -CAS  256K   Pg. 1.3
 E104 15  -CAS  256K   Pg. 1.3
 R40  2   A(0)  SIP88  Pg. 1.3

CASL2  -0.09  0.09  CAS(2)L
 E49  15  -CAS  256K   Pg. 1.3
 E55  15  -CAS  256K   Pg. 1.3
 E61  15  -CAS  256K   Pg. 1.3
 E68  15  -CAS  256K   Pg. 1.3
 E75  15  -CAS  256K   Pg. 1.3
 E82  15  -CAS  256K   Pg. 1.3
 E89  15  -CAS  256K   Pg. 1.3
 E96  15  -CAS  256K   Pg. 1.3
 E103 15  -CAS  256K   Pg. 1.3
 R39  8   A(2)  SIP88  Pg. 1.3
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CASL3  -0.09  0.09  CAS(3)L
 E48  15  -CAS  256K   Pg. 1.3
 E54  15  -CAS  256K   Pg. 1.3
 E60  15  -CAS  256K   Pg. 1.3
 E67  15  -CAS  256K   Pg. 1.3
 E74  15  -CAS  256K   Pg. 1.3
 E81  15  -CAS  256K   Pg. 1.3
 E88  15  -CAS  256K   Pg. 1.3
 E95  15  -CAS  256K   Pg. 1.3
 E102 15  -CAS  256K   Pg. 1.3
 R39  6   A(0)  SIP88  Pg. 1.3

CLK031H  0.0  0.0  CLK031(H)
 R3   2   A     RES    Pg. 1.8
 Y1   9   CLK   32OSC  Pg. 1.8

CLK25H  -0.02  0.02  CLK25(H)
 E42  14  CLKI    DC337  Pg. 1.1
 E43  17  CLKI    DC333  Pg. 1.1
 E47  6   -Y(0)   F00    Pg. 1.1

CLK6144KHZH  -0.520  0.06  CLK 614.4KHZ(H)
 E13  32  CLK              DC319       Pg. 1.9
 E15  1   B(0)             9643        Pg. 1.9
 E45  3   CLK 614.4KHZ     GATEARRAY2  Pg. 1.4
 E47  3   -Y(0)            F00         Pg. 1.9

CLK6144KHZL  -1.1  0.060  CLK 614.4KHZ(L)
 E15  3   B(0)  9643    Pg. 1.9
 E47  2   B(0)  F00     Pg. 1.9
 Y2   3   OSC   614OSC  Pg. 1.9

CLRPSH  -0.4  0.02  CLR PS(H)
 E35  5   B(0)  LS26   Pg. 1.8
 E40  12  O0    16L8A  Pg. 1.4

CONFL2  -0.04  0.04  CONF(2)L
 E28  7   Y(0)         LS244       Pg. 1.10
 E44  80  -CPU CD(0)   GATEARRAY1  Pg. 1.7
 E45  114 -CPU CD(0)   GATEARRAY2  Pg. 1.4

CONFL3  -0.04  0.04  CONF(3)L
 E28  9   Y(0)         LS244       Pg. 1.10
 E44  82  -CPU CD(1)   GATEARRAY1  Pg. 1.7
 E45  110 -CPU CD(1)   GATEARRAY2  Pg. 1.4

CSDLL  -0.01  0.01  CS DL(L)
 E13  2   -CS     DC319       Pg. 1.9
 E44  40  -CS DL  GATEARRAY1  Pg. 1.7

CSMAPEMEARH  -0.35  0.05  CS MAP;EMEAR(H)
 E39  22  I8              82S167      Pg. 2.1
 E40  3   I2              16L8A       Pg. 1.4
 E44  49  -CS MAP;EMEAR   GATEARRAY1  Pg. 1.7

CSMAPL  -0.9  0.055  CS MAP(L)
 E9   22  SBA      LS646       Pg. 1.5
 E10  22  SBA      LS646       Pg. 1.5
 E39  21  I9       82S167      Pg. 2.1
 E44  48  -CS MAP  GATEARRAY1  Pg. 1.7

CSPROML  -0.120  0.045  CS PROM(L)
 E21  20  -CS       27256       Pg. 1.9
 E22  20  -CS       27256       Pg. 1.9
 E39  20  I10       82S167      Pg. 2.1
 E44  46  -CS PROM  GATEARRAY1  Pg. 1.7

CSTOYH  -0.5  0.045  CS TOY(H)
 E35  2   B(0)    LS26        Pg. 1.8
 E39  19  I11     82S167      Pg. 2.1
 E44  47  CS TOY  GATEARRAY1  Pg. 1.7

CTLXDAL0  -0.01  0.01  CTL XDAL(0)H
 E44  69  F(0)  GATEARRAY1  Pg. 1.7
 E45  115 F(0)  GATEARRAY2  Pg. 1.4
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CTLXDAL1  -0.01  0.01  CTL XDAL(1)H
 E44  70  F(1)  GATEARRAY1  Pg. 1.7
 E45  112 F(1)  GATEARRAY2  Pg. 1.4

D2ANODEH  0.0  0.0  D2ANODE(H)
 C30  2   B(0)  CAP    Pg. 1.9
 D2   2   B     DIODE  Pg. 1.9
 D3   1   A     DIODE  Pg. 1.9

D4CATHODEL  0.0  0.0  D4CATHODE(L)
 C31  2   B(0)  CAP    Pg. 1.9
 D3   2   B     DIODE  Pg. 1.9
 D4   1   A     DIODE  Pg. 1.9

DATABUFENBL  -0.25  0.025  DATA BUF ENB(L)
 E17  7   Q(3)  F174   Pg. 2.1.1
 E86  8   I7    16L8A  Pg. 2.1.2

DC021RCVH  0.0  0.0  DC021RCV(H)
 E33  9   O5    82S167  Pg. 2.2
 E40  17  O5    16L8A   Pg. 1.4

DECODEH  -2.05  0.045  DECODE(H)
 E27  15  O3    82S105  Pg. 2.1
 E31  1   -CL   F74     Pg. 2.1.1
 E86  7   I6    16L8A   Pg. 2.1.2

DLAD0  -0.01  0.01  DLAD(0)H
 E13  22  A(1)     DC319       Pg. 1.9
 E44  41  DLAD(0)  GATEARRAY1  Pg. 1.7

DLAD1  -0.01  0.01  DLAD(1)H
 E13  23  A(2)     DC319       Pg. 1.9
 E44  42  DLAD(1)  GATEARRAY1  Pg. 1.7

DLRDL  -0.01  0.01  DLRD(L)
 E13  1   -RD    DC319       Pg. 1.9
 E44  38  -DLRD  GATEARRAY1  Pg. 1.7

DLRRQH  -0.02  0.02  DLRRQ(H)
 E13  26  DLRRQ  DC319       Pg. 1.9
 E44  88  DLRRQ  GATEARRAY1  Pg. 1.7

DLSIH  -0.01  0.01  DLSI(H)
 E13  27  SI  DC319  Pg. 1.9
 E18  2   O   9639   Pg. 1.9

DLSOH  -0.09  0.11  DLSO(H)
 E13  30  SO    DC319  Pg. 1.9
 E23  2   A(0)  9636   Pg. 1.9

DLWRL  -0.01  0.01  DLWR(L)
 E13  3   -WR    DC319       Pg. 1.9
 E44  39  -DLWR  GATEARRAY1  Pg. 1.7

DLXRQH  -0.02  0.02  DLXRQ(H)
 E13  29  DLXRQ  DC319       Pg. 1.9
 E44  87  DLXRQ  GATEARRAY1  Pg. 1.7

DMAMAL  -4.16  0.16  DMA->MA(L)
 E2   1   -OE       LS373       Pg. 1.5
 E6   1   -OE       LS373       Pg. 1.5
 E27  18  O0        82S105      Pg. 2.1
 E33  17  I13       82S167      Pg. 2.2
 E34  13  -CL       F74         Pg. 2.1.1
 E45  76  -DMA->MA  GATEARRAY2  Pg. 1.4
 E47  13  B(0)      F00         Pg. 2.1.1
 E65  9   A(0)      F32         Pg. 2.1.1
 E86  2   I1        16L8A       Pg. 2.1.2

DOKH  0.0  0.0  DOK(H)
 E35  11  -Y(0)  LS26    Pg. 1.7
 R28  7   A(0)   SIP10B  Pg. 1.7
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DONEL  -2.9  0.15  DONE(L)
 E20  5   I3   82S167  Pg. 2.2
 E26  15  O2   82S167  Pg. 2.2
 E27  22  I13  82S105  Pg. 2.1
 E33  8   I0   82S167  Pg. 2.2
 E39  4   I4   82S167  Pg. 2.1
 E40  7   I6   16L8A   Pg. 1.4
 E86  3   I2   16L8A   Pg. 2.1.2

DRDCOKH  -0.01  0.01  DRDCOK(H)
 C40  1   A(0)   CAP         Pg. 1.7
 D9   2   B      DIODE       Pg. 1.7
 E44  99  RDCOK  GATEARRAY1  Pg. 1.7
 R16  1   B      RES         Pg. 1.7
 R28  8   A(0)   SIP10B      Pg. 1.7

DRQL  -0.1  0.025  DRQ(L)
 E27  23  I12  82S105  Pg. 2.1
 E33  15  O0   82S167  Pg. 2.2

E100P14H  -0.6  0.02  E100P14(H)
 E39  4   -(0)  F02   Pg. 2.1.2
 E100 14  E2    F537  Pg. 2.1.2

E15P5H  0.0  0.0  E15P5(H)
 C31  1   A(0)  CAP   Pg. 1.9
 E15  5   Y(2)  9643  Pg. 1.9

E15P7H  0.0  0.0  E15P7(H)
 C30  1   A(0)  CAP   Pg. 1.9
 E15  7   Y(2)  9643  Pg. 1.9

E17P2H  -2.5  0.02  E17P2(H)
 E17  2   Q(4)  F174  Pg. 2.1.1
 E17  4   D(5)  F174  Pg. 2.1.1

E17P6L  -0.6  0.02  E17P6(L)
 E17  6   D(3)  F174  Pg. 2.1.1
 E55  8   Y(0)  F32   Pg. 2.1.1

E25P2H  -1.6  0.04  E25P2(H)
 E7   14  T4     8641  Pg. 1.6
 E25  2   -Y(0)  LS04  Pg. 1.6

E35P3L  -0.01  0.01  E35P3(L)
 E14  13  -CE    MC146818  Pg. 1.8
 E35  3   -Y(0)  LS26      Pg. 1.8
 R14  1   B      RES       Pg. 1.8

E35P6L  -0.01  0.01  E35P6(L)
 C28  1   A(0)   CAP       Pg. 1.8
 E14  22  PS     MC146818  Pg. 1.8
 E35  6   -Y(0)  LS26      Pg. 1.8
 R12  1   B      RES       Pg. 1.8

E35P8L  -0.01  0.01  E35P8(L)
 E14  18  -RESET  MC146818  Pg. 1.8
 E35  8   -Y(0)   LS26      Pg. 1.8
 R11  1   B       RES       Pg. 1.8

E37P11H  -1.6  0.04  E37P11(H)
 E5   2   T1    8641  Pg. 1.6
 E37  11  Y(0)  F32   Pg. 1.6

E39P10L  -2.4  0.04  E39P10(L)
 E31  10  -PR    F74  Pg. 2.1.1
 E34  12  D(0)   F74  Pg. 2.1.1
 E38  10  -Y(0)  F02  Pg. 2.1.1

E41P11L  0.0  0.0  E41P11(L)
 D14  2   P2(0)  LEDPACK  Pg. 1.10
 E41  11  Y(0)   LS357    Pg. 1.10

E47P11H  -0.6  0.02  E47P11(H)
 E31  2   D(0)   F74  Pg. 2.1.1
 E47  11  -Y(0)  F00  Pg. 2.1.1
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digital | DRN. E.R. | DATE 8-19-86 | ENG. E.R. | DATE 8-19-86 | TITLE: KA620 CROSS REFERENCE SIGNALS
CHK'D E.R. | DATE 8-19-86 | BOARD LOCATION: | SHEET OF
DSK:NAMSPT.T2P(4.550) | NEXT HIGHER ASSEMBLY: B-DD-M7478-0-0 | SIZE CODE D | NUMBER DD M7478-0-0 | REV.
FIRST USED ON OPTION/MODEL:

REVISIONS | CHK | CHANGE NO. | REV

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E47P8L   -1.8   0.02   E47P8(L)
  E34  4   -PR    F74   Pg. 2.1.1
  E47  8   -Y<0>  F00   Pg. 2.1.1

E59P12H  -0.6   0.02   E59P12(H)
  E59  12  Q<1>   F174  Pg. 2.1.1
  E59  14  D<0>   F174  Pg. 2.1.1

E59P13H  -0.5   0.02   E59P13(H)
  E32  2   -Y<0>  F04   Pg. 2.1.1
  E59  13  D<1>   F174  Pg. 2.1.1

E65P11L  -0.5   0.02   E55P11(L)
  E34  2   D<0>   F74   Pg. 2.1.1
  E65  11  Y<0>   F32   Pg. 2.1.1

E79P13H  -0.85  0.060  E79P13(H)
  E79   13  01   512X4PROM  Pg. 2.1.2
  E100  7   A1   F537       Pg. 2.1.2

E79P14H  -0.85  0.060  E79P14(H)
  E79   14  00   512X4PROM  Pg. 2.1.2
  E120  6   A0   F537       Pg. 2.1.2

E79P15H  -0.25  0.04   E79P15(H)
  E79  15  A9   512X4PROM  Pg. 2.1.2
  W5   2   3    JUMPER     Pg. 2.1.2
  W5   2   B    JUMPER     Pg. 2.1.2

E79P8H   -0.25  0.04   E79P8(H)
  E79  8   A10  512X4PROM  Pg. 2.1.2
  W3   2   B    JUMPER     Pg. 2.1.2
  W4   2   B    JUMPER     Pg. 2.1.2

ENB8641L  -4.8  0.120  ENB 8641(L)
  E5   7   -ENB1  8641    Pg. 1.6
  E7   9   -ENB2  8641    Pg. 1.5
  E19  7   -ENB1  8641    Pg. 1.6
  E20  15  00     82S167  Pg. 2.2

ENBBDALL  -1.2  0.240  ENB BDAL(L)
  E11  19  -OE  DC021  Pg. 1.6
  E30  19  -OE  DC021  Pg. 1.6
  E36  19  -OE  DC021  Pg. 1.6
  E40  15  03   16L8A  Pg. 1.4

ENBCAS0  -2.6  0.02  ENB CAS<0>H
  E59  11  D<2>  F174   Pg. 2.1.1
  E78  16  04    16L8A  Pg. 2.1.2

ENBCAS1  -0.5  0.02  ENB CAS<1>H
  E59  6   D<3>  F174   Pg. 2.1.1
  E78  17  05    16L8A  Pg. 2.1.2

ENBCAS2  -0.6  0.02  ENB CAS<2>H
  E59  3   D<4>  F174   Pg. 2.1.1
  E78  18  06    16L8A  Pg. 2.1.2

ENBCAS3  -0.5  0.02  ENB CAS<3>H
  E59  4   D<5>  F174   Pg. 2.1.1
  E78  19  07    16L8A  Pg. 2.1.2

ENBDALL  -0.11  0.035  ENB DAL(L)
  E26  9    05                82S167      Pg. 2.2
  E27  21   I14               82S105      Pg. 2.1
  E45  122  -ENB ADDR         GATEARRAY2  Pg. 1.4

ENBDATAL  -0.02  0.42  ENB DATA(L)
  E25  10   04                82S167      Pg. 2.2
  E44  25   -ENB DATA         GATEARRAY1  Pg. 1.7
  E45  140  -ENB DATA         GATEARRAY2  Pg. 1.4

ENBLS646L  -0.8  0.04  ENB LS646(L)
  E9   21  -OE  LS646  Pg. 1.5
  E10  21  -OE  LS646  Pg. 1.5
  E40  13  01   16L8A  Pg. 1.4
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EPAD1  -0.02  0.02  EPAD<1>H
  E21  10  AD<0>  27256       Pg. 1.9
  E22  10  AD<0>  27256       Pg. 1.9
  E44  44  EPAD1  GATEARRAY1  Pg. 1.7

EPADENBL  -0.01  0.01  EPAD ENB(L)
  E39  14  01              82S167      Pg. 2.1
  E44  35  -EPAD ENB       GATEARRAY1  Pg. 1.7

EPASL  -0.280  0.055  EPAS(L)
  E14  14  -AS  MC146818  Pg. 1.8
  E21  22  -OE  27256     Pg. 1.9
  E22  22  -OE  27256     Pg. 1.9
  E39  11  03   82S167    Pg. 2.1
  E40  4   I3   16L8A     Pg. 1.4

EPDSH  -0.260  0.035  EPDS(H)
  E14  17  -DS  MC146818  Pg. 1.8
  E39  10  04   82S167    Pg. 2.1
  E40  5   I4   16L8A     Pg. 1.4

EPR0  0.0  0.0  EPR<0>H
  E10  11  A<0>    LS646       Pg. 1.5
  E13  4   DAL<0>  DC319       Pg. 1.5
  E14  4   AD<0>   MC146818    Pg. 1.8
  E22  11  DB<0>   27256       Pg. 1.9
  E44  68  EPR<0>  GATEARRAY1  Pg. 1.7

EPR1  0.0  0.0  EPR<1>H
  E10  10  A<1>    LS646       Pg. 1.5
  E13  5   DAL<1>  DC319       Pg. 1.9
  E14  5   AD<1>   MC146818    Pg. 1.8
  E22  12  DB<1>   27256       Pg. 1.9
  E44  67  EPR<1>  GATEARRAY1  Pg. 1.7

EPR10  -0.440  0.06  EPR<10>H
  E9   9    A<2>     LS646       Pg. 1.5
  E13  14   DAL<10>  DC319       Pg. 1.9
  E21  13   DB<10>   27256       Pg. 1.9
  E44  57   EPR<10>  GATEARRAY1  Pg. 1.7
  E45  119  EPR<10>  GATEARRAY2  Pg. 1.4

EPR11  -0.440  0.06  EPR<11>H
  E9   8    A<3>     LS646       Pg. 1.5
  E13  15   DAL<11>  DC319       Pg. 1.9
  E21  15   DB<11>   27256       Pg. 1.9
  E44  56   EPR<11>  GATEARRAY1  Pg. 1.7
  E45  123  EPR<11>  GATEARRAY2  Pg. 1.4

EPR12  -0.440  0.06  EPR<12>H
  E9   7    A<4>     LS646       Pg. 1.5
  E13  16   DAL<12>  DC319       Pg. 1.9
  E21  16   DB<12>   27256       Pg. 1.9
  E44  53   EPR<12>  GATEARRAY1  Pg. 1.7
  E45  125  EPR<12>  GATEARRAY2  Pg. 1.4

EPR13  -0.440  0.06  EPR<13>H
  E9   6    A<5>     LS646       Pg. 1.5
  E13  17   DAL<13>  DC319       Pg. 1.9
  E21  17   DB<13>   27256       Pg. 1.9
  E44  52   EPR<13>  GATEARRAY1  Pg. 1.7
  E45  121  EPR<13>  GATEARRAY2  Pg. 1.4

EPR14  -0.440  0.06  EPR<14>H
  E9   5    A<6>     LS646       Pg. 1.5
  E13  18   DAL<14>  DC319       Pg. 1.9
  E21  18   DB<14>   27256       Pg. 1.9
  E44  51   EPR<14>  GATEARRAY1  Pg. 1.7
  E45  128  EPR<14>  GATEARRAY2  Pg. 1.4

EPR15  -0.440  0.06  EPR<15>H
  E9   4    A<7>     LS646       Pg. 1.5
  E13  19   DAL<15>  DC319       Pg. 1.9
  E21  19   DB<15>   27256       Pg. 1.9
  E44  50   EPR<15>  GATEARRAY1  Pg. 1.7
  E45  129  EPR<15>  GATEARRAY2  Pg. 1.4
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EPR2  0.0  0.0  EPR<2>H
  E10  9   A<2>    LS646       Pg. 1.5
  E13  6   DAL<2>  DC319       Pg. 1.9
  E14  6   AD<2>   MC146818    Pg. 1.8
  E22  13  DB<2>   27256       Pg. 1.9
  E44  65  EPR<2>  GATEARRAY1  Pg. 1.7

EPR3  0.0  0.0  EPR<3>H
  E10  8   A<3>    LS646       Pg. 1.5
  E13  7   DAL<3>  DC319       Pg. 1.9
  E14  7   AD<3>   MC146818    Pg. 1.8
  E22  15  DB<3>   27256       Pg. 1.9
  E44  64  EPR<3>  GATEARRAY1  Pg. 1.7

EPR4  0.0  0.0  EPR<4>H
  E10  7   A<4>    LS646       Pg. 1.5
  E13  8   DAL<4>  DC319       Pg. 1.9
  E14  8   AD<4>   MC146818    Pg. 1.8
  E22  16  DB<4>   27256       Pg. 1.9
  E44  63  EPR<4>  GATEARRAY1  Pg. 1.7

EPR5  0.0  0.0  EPR<5>H
  E10  6   A<5>    LS646       Pg. 1.5
  E13  9   DAL<5>  DC319       Pg. 1.9
  E14  9   AD<5>   MC146818    Pg. 1.8
  E22  17  DB<5>   27256       Pg. 1.9
  E44  62  EPR<5>  GATEARRAY1  Pg. 1.7

EPR6  0.0  0.0  EPR<6>H
  E10  5   A<6>    LS646       Pg. 1.5
  E13  10  DAL<6>  DC319       Pg. 1.9
  E14  10  AD<6>   MC146818    Pg. 1.8
  E22  18  DB<6>   27256       Pg. 1.9
  E44  61  EPR<6>  GATEARRAY1  Pg. 1.7

EPR7  0.0  0.0  EPR<7>H
  E10  4   A<7>    LS646       Pg. 1.5
  E13  11  DAL<7>  DC319       Pg. 1.9
  E14  11  AD<7>   MC146818    Pg. 1.8
  E22  19  DB<7>   27256       Pg. 1.9
  E44  60  EPR<7>  GATEARRAY1  Pg. 1.7

EPR8  0.0  0.0  EPR<8>H
  E9   11  A<0>    LS646       Pg. 1.5
  E13  12  DAL<8>  DC319       Pg. 1.9
  E21  11  DB<8>   27256       Pg. 1.9
  E44  59  EPR<8>  GATEARRAY1  Pg. 1.7

EPR9  -0.440  0.06  EPR<9>H
  E9   10   A<1>    LS646       Pg. 1.5
  E13  13   DAL<9>  DC319       Pg. 1.9
  E21  12   DB<9>   27256       Pg. 1.9
  E44  58   EPR<9>  GATEARRAY1  Pg. 1.7
  E45  120  EPR<9>  GATEARRAY2  Pg. 1.4

EPREADYL  -0.11  0.035  EPREADY(L)
  E27  20  I15                82S105      Pg. 2.1
  E39  15  00                 82S167      Pg. 2.1
  E44  15  -ARMRDYERR         GATEARRAY1  Pg. 1.7

FORCEINITH  -0.1  0.025  FORCEINIT(H)
  E20  16  PROE  82S167  Pg. 2.2
  E65  6   Y<0>  F32     Pg. 2.2

FSTRDYH  -0.6  0.02  FSTRDY(H)
  E34  9   Q<0>  F74  Pg. 2.1.1
  E38  12  B<0>  F02  Pg. 1.1

GND  -27.82  1.010  GND H
  AC2  1  A  FINGER  Pg. 1.11
  AJ1  1  A  FINGER  Pg. 1.11
  AM1  1  A  FINGER  Pg. 1.11
  AT1  1  A  FINGER  Pg. 1.11
  BC2  1  A  FINGER  Pg. 1.11
  BJ1  1  A  FINGER  Pg. 1.11
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  BM1  1  A      FINGER  Pg. 1.11
  BT1  1  A      FINGER  Pg. 1.11
  C1   2  B<5>   CAP     Pg. 1.11
  C2   2  B<4>   CAP     Pg. 1.11
  C3   2  B<3>   CAP     Pg. 1.11
  C4   2  B<2>   CAP     Pg. 1.11
  C5   2  B<1>   CAP     Pg. 1.11
  C6   2  B<0>   CAP     Pg. 1.11
  C7   2  B<45>  CAP     Pg. 1.11
  C8   2  B<44>  CAP     Pg. 1.11
  C9   2  B<43>  CAP     Pg. 1.11
  C10  2  B<42>  CAP     Pg. 1.11
  C11  2  B<41>  CAP     Pg. 1.11
  C12  2  B<40>  CAP     Pg. 1.11
  C13  2  B<39>  CAP     Pg. 1.11
  C14  2  B<38>  CAP     Pg. 1.11
  C15  2  B<37>  CAP     Pg. 1.11
  C16  2  B<36>  CAP     Pg. 1.11
  C17  2  B<35>  CAP     Pg. 1.11
  C18  2  B<34>  CAP     Pg. 1.11
  C19  2  B<33>  CAP     Pg. 1.11
  C20  2  B<32>  CAP     Pg. 1.11
  C21  2  B<31>  CAP     Pg. 1.11
  C22  2  B<30>  CAP     Pg. 1.11
  C23  2  B<29>  CAP     Pg. 1.11
  C24  2  B<28>  CAP     Pg. 1.11
  C25  2  C<27>  CAP     Pg. 1.11
  C26  2  B<25>  CAP     Pg. 1.11
  C27  2  B<25>  CAP     Pg. 1.8
  C28  1  B<0>   CAP     Pg. 1.9
  C32  1  A<0>   CAP     Pg. 1.9
  C33  1  A<2>   CAP     Pg. 1.9
  C34  2  B<2>   CAP     Pg. 1.8
  C35  2  B<0>   CAP     Pg. 1.11
  C37  2  B<3>   CAP     Pg. 1.11
  C38  2  B<2>   CAP     Pg. 1.11
  C39  2  B<0>   CAP     Pg. 1.7
  C40  2  B<0>   CAP     Pg. 1.8
  C41  2  B<0>   CAP     Pg. 1.11
  C42  2  B<24>  CAP     Pg. 1.11
  C43  2  B<23>  CAP     Pg. 1.11
  C44  2  B<22>  CAP     Pg. 1.11
  C45  2  B<21>  CAP     Pg. 1.11
  C46  2  B<20>  CAP     Pg. 1.11
  C47  2  B<19>  CAP     Pg. 1.11
  C48  2  B<18>  CAP     Pg. 1.11
  C49  2  B<17>  CAP     Pg. 1.11
  C50  2  B<16>  CAP     Pg. 1.11
  C51  2  B<15>  CAP     Pg. 1.11
  C52  2  B<14>  CAP     Pg. 1.11
  C53  2  B<13>  CAP     Pg. 1.11
  C54  2  B<12>  CAP     Pg. 1.11
  C55  2  B<11>  CAP     Pg. 1.11
  C56  2  B<10>  CAP     Pg. 1.11
  C57  2  B<9>   CAP     Pg. 1.11
  C58  2  B<8>   CAP     Pg. 1.11
  C59  2  B<7>   CAP     Pg. 1.11
  C60  2  B<6>   CAP     Pg. 1.11
  C61  2  B<5>   CAP     Pg. 1.11
  C62  2  B<4>   CAP     Pg. 1.11
  C63  2  B<3>   CAP     Pg. 1.11
  C64  2  B<2>   CAP     Pg. 1.11
  C65  2  B<1>   CAP     Pg. 1.11
  C66  2  B<0>   CAP     Pg. 1.11
  C68  2  B<1>   CAP     Pg. 1.11
  C69  2  B<0>   CAP     Pg. 1.11
  C71  2  B<49>  CAP     Pg. 1.11
  C72  2  B<48>  CAP     Pg. 1.11
  C73  2  B<47>  CAP     Pg. 1.11
  C74  2  B<46>  CAP     Pg. 1.11
  C75  2  B<55>  CAP     Pg. 1.11
  C76  2  B<54>  CAP     Pg. 1.11
  C77  2  B<53>  CAP     Pg. 1.11
  C78  2  B<52>  CAP     Pg. 1.11
  C79  2  B<51>  CAP     Pg. 1.11
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REVISIONS — CHK | CHANGE NO. | REV

digital — DRN: ERW DATE 8-19-86 — CHK'D: ERW DATE 8-19-86 — ENG: ERW 8-19-86

TITLE: KA622 CROSS REFERENCE SIGNALS

BOARD LOCATION: — NEXT HIGHER ASSEMBLY: B-DD-M7478-2 — FIRST USED ON OPTION/MODEL:

SIZE D — CODE DD — NUMBER M7478-2-0 — REV. A

Signal / Ref	Pin	Signal name	Part	Page
GND	-27.82	1.010	GND H (CONT.)	
CS2	2	B<50>	CAP	Pg. 1.11
CC2	1	A	FINGER	Pg. 1.3
CT1	1	A	FINGER	Pg. 1.3
D1	2	B	ZDIODE	Pg. 1.9
D5	2	B	ZDIODE	Pg. 1.8
DC2	1	A	FINGER	Pg. 1.3
DT1	1	A	FINGER	Pg. 1.3
E1	1	-OE	LS373	Pg. 1.5
E3	20	-E1	5565	Pg. 1.5
E4	20	-E1	5565	Pg. 1.5
E6	8	D<15>	LS373	Pg. 1.5
E7	2	T1	8641	Pg. 1.6
E7	5	T2	8641	Pg. 1.6
E8	1	-OE	F374	Pg. 2.2
E9	1	CAB	LS646	Pg. 1.5
E9	2	SAB	LS646	Pg. 1.5
E10	1	CAB	LS646	Pg. 1.5
E10	2	SAB	LS646	Pg. 1.5
E12	1	-OE	F374	Pg. 2.2
E13	21	A<0>	DC319	Pg. 1.9
E13	28	-PBRI	DC319	Pg. 1.9
E14	20	CKFS	MC146818	Pg. 1.8
E24	2	T1	8641	Pg. 1.6
E24	5	T2	8641	Pg. 1.6
E24	9	-ENB2	8641	Pg. 1.6
E24	11	T3	8641	Pg. 1.6
E29	1	E	LM211	Pg. 1.8
E29	4	V-	LM211	Pg. 1.8
E42	59	TEST	DC337	Pg. 1.1
E43	5	TEST	DC333	Pg. 1.1
E58	11	-CLR	29853	Pg. 1.3
E54	11	-CLR	29853	Pg. 1.3
E56	1	-G	F521	Pg. 1.2
E56	2	A<0>	F521	Pg. 1.2
E56	4	A<1>	F521	Pg. 1.2
E55	6	A<2>	F521	Pg. 1.2
E55	8	A<3>	F521	Pg. 1.2
E56	11	A<4>	F521	Pg. 1.2
E66	13	A<5>	F521	Pg. 1.2
E66	17	A<7>	F521	Pg. 1.2
E56	18	B<7>	F521	Pg. 1.2
E82	6	A<3>	F240	Pg. 1.3
E80	17	A<2>	F240	Pg. 1.3
E92	11	-CLR	29853	Pg. 1.3
E93	5	I0<1>	F158	Pg. 1.3
E93	6	I1<1>	F158	Pg. 1.3
E94	4	A<1>	F240	Pg. 1.3
E94	8	A<0>	F240	Pg. 1.3
E101	13	I1<0>	F158	Pg. 1.3
E101	14	I0<0>	F158	Pg. 1.3
E106	11	-CLR	29853	Pg. 1.3
J1	1	P1	CONN50	Pg. 1.3
J1	6	P6	CONN50	Pg. 1.3
J1	13	P13	CONN50	Pg. 1.3
J1	20	P20	CONN50	Pg. 1.3
J1	25	P25	CONN50	Pg. 1.3
J1	26	P26	CONN50	Pg. 1.3
J1	30	P30	CONN50	Pg. 1.3
J1	31	P31	CONN50	Pg. 1.3
J1	38	P38	CONN50	Pg. 1.3
J1	45	P45	CONN50	Pg. 1.3
J1	50	P50	CONN50	Pg. 1.3
J2	1	P1	20PINCONN	Pg. 1.10
J2	2	P2	20PINCONN	Pg. 1.10
J2	3	P3	20PINCONN	Pg. 1.10
J2	6	P6	20PINCONN	Pg. 1.10
J2	12	P12	20PINCONN	Pg. 1.10
J2	16	P16	20PINCONN	Pg. 1.10
J3	2	P2	10PINCONN	Pg. 1.9
J3	4	P4	10PINCONN	Pg. 1.9
J3	5	P5	10PINCONN	Pg. 1.9
J3	9	P9	10PINCONN	Pg. 1.9
R1	2	A	RES	Pg. 1.1
R2	2	A	RES	Pg. 2.1.2
R4	2	A	RES	Pg. 1.9
R3	2	A	RES	Pg. 1.[illegible]
R18	1	B	RES	Pg. 1.8
R29	1	B	RES	Pg. 1.10
W4	1	A	JUMPER	Pg. 2.1.2
GRANTL	-0.350	0.06	GRANT(L)	
E20	9	05	82S167	Pg. 2.2
E26	6	I2	82S167	Pg. 2.2
E40	9	I8	16L8A	Pg. 1.4
E45	116	-GRANT	GATEARRAY2	Pg. 1.4
HI16PERL	-0.01	0.01	HI16PER(L)	
E45	82	HI WORD ERR	GATEARRAY2	Pg. 1.4
E78	12	00	16L8A	Pg. 2.1.2
HIROMDLATCHL	-0.01	0.01	HIROMDLATCH(L)	
E33	13	02	82S167	Pg. 2.1
E44	43	-HIROMDLATCH	GATEARRAY1	Pg. 1.7
HLTENBL	-0.01	0.01	HLT ENB(L)	
E41	13	Y<0>	LS367	Pg. 1.10
E44	83	-HLT ENB	GATEARRAY1	Pg. 1.7
INCCTRH	-0.01	0.01	INC CTR(H)	
E33	13	02	82S167	Pg. 2.2
E45	95	INC CTR	GATEARRAY2	Pg. 1.4
INITRQL	-0.11	0.035	INITRQ(L)	
E20	4	I4	82S167	Pg. 2.2
E43	18	-DMR	DC333	Pg. 1.1
E44	96	-INITRQ	GATEARRAY1	Pg. 1.7
INTRVLTIML	-0.02	0.02	INTRVL TIM(L)	
E43	10	-INTTIM	DC333	Pg. 1.1
E44	101	-INTRVL TIM	GATEARRAY1	Pg. 1.7
E45	106	-INTRVL TIM	GATEARRAY2	Pg. 1.4
IRQL5	-0.01	0.01	IRQ<5>L	
E25	8	-Y<0>	LS04	Pg. 1.1
E43	6	-IRQ<1>	DC333	Pg. 1.1
IRQL6	-0.01	0.01	IRQ<6>L	
E25	10	-Y<0>	LS04	Pg. 1.1
E43	4	-IRQ<2>	DC333	Pg. 1.1
IRQL7	-0.01	0.01	IRQ<7>L	
E25	4	-Y<0>	LS04	Pg. 1.1
E43	3	-IRQ<3>	DC333	Pg. 1.1
J2P11L	0.0	0.0	J2P11(L)	
D10	2	P2<0>	LEDPACK	Pg. 1.10
E41	3	Y<0>	LS367	Pg. 1.10
J2	11	P11	20PINCONN	Pg. 1.10
J2P13L	-0.2	0.02	J2P13(L)	
E28	2	A<0>	LS244	Pg. 1.10
J2	13	P13	20PINCONN	Pg. 1.10
R10	7	A<3>	SIP2A	Pg. 1.10
J2P14L	-0.2	0.02	J2P14(L)	
E28	17	A<0>	LS244	Pg. 1.10
J2	14	P14	20PINCONN	Pg. 1.10
R10	6	A<4>	SIP2A	Pg. 1.10
J2P15L	-0.4	0.02	J2P15(L)	
E41	14	A<0>	LS367	Pg. 1.10
J2	15	P15	20PINCONN	Pg. 1.10
R10	3	A<7>	SIP2A	Pg. 1.10
J2P17L	-0.2	0.02	J2P17(L)	
E28	8	A<0>	LS244	Pg. 1.10
J2	17	P17	20PINCONN	Pg. 1.10
R10	10	A<0>	SIP2A	Pg. 1.10
J2P18L	-0.2	0.02	J2P18(L)	
E28	6	A<1>	LS244	Pg. 1.10
J2	18	P18	20PINCONN	Pg. 1.10
R10	9	A<1>	SIP2A	Pg. 1.10
J2P19L	-0.2	0.02	J2P19(L)	
E28	4	A<2>	LS244	Pg. 1.10
J2	19	P19	20PINCONN	Pg. 1.10
R10	8	A<2>	SIP2A	Pg. 1.10
J2P20L	0.0	0.0	J2P20(L)	
F2	2	P2	FUSE	Pg. 1.10
J2	20	P20	20PINCONN	Pg. 1.10
J2P4L	-0.2	0.02	J2P4(L)	
E28	13	A<0>	LS244	Pg. 1.10
J2	4	P4	20PINCONN	Pg. 1.10
R10	5	A<5>	SIP2A	Pg. 1.10
J2P5L	-0.2	0.02	J2P5(L)	
E28	11	A<0>	LS244	Pg. 1.10
J2	5	P5	20PINCONN	Pg. 1.10
R10	4	A<6>	SIP2A	Pg. 1.10
J2P7L	0.0	0.0	J2P7(L)	
D13	2	P2<0>	LEDPACK	Pg. 1.10
E41	9	Y<0>	LS367	Pg. 1.10
J2	7	P7	20PINCONN	Pg. 1.10
J2P8L	0.0	0.0	J2P8(L)	
D12	2	P2<0>	LEDPACK	Pg. 1.10
E41	7	Y<0>	LS367	Pg. 1.10
J2	8	P8	20PINCONN	Pg. 1.10
J2P9L	0.0	0.0	J2P9(L)	
D11	2	P2<0>	LEDPACK	Pg. 1.10
E41	5	Y<2>	LS367	Pg. 1.10
J2	9	P9	20PINCONN	Pg. 1.10
J3P10H	0.0	0.0	J3P10(H)	
F1	2	P2	FUSE	Pg. 1.9
J3	10	P10	10PINCONN	Pg. 1.9
J3P1L	0.0	0.0	J3P1(L)	
E23	6	-Y<1>	9636	Pg. 1.9
J3	1	P01	10PINCONN	Pg. 1.9
J3P3L	0.0	0.0	J3P3(L)	
E23	7	-Y<0>	9636	Pg. 1.9
J3	3	P3	10PINCONN	Pg. 1.9
J3P7L	0.0	0.0	J3P7(L)	
J3	7	P7	10PINCONN	Pg. 1.9
R28	3	B<0>	SIP10B	Pg. 1.9
J3P8H	0.0	0.0	J3P8(H)	
J3	8	P8	10PINCONN	Pg. 1.9
R28	5	B<0>	SIP10B	Pg. 1.9
LO16MBL	-1.27	0.11	LO16MB(L)	
E6	9	Q<15>	LS373	Pg. 1.5
E37	1	A<0>	F32	Pg. 2.1.1
E38	5	A<0>	F02	Pg. 2.1.2
E73	2	Q<22>	F373	Pg. 1.2
R9	8	A<0>	SIP2A	Pg. 1.2
LO16PERL	-0.01	0.01	LO16PER(L)	
E45	83	LO WORD ERR	GATEARRAY2	Pg. 1.4
E78	13	01	16L8A	Pg. 2.1.2
LOCALNXMH	-0.76	0.105	LOCAL NXM(H)	
E27	7	I2	82S105	Pg. 2.1
E38	8	A<0>	F02	Pg. 2.1.1
E44	20	LOCAL NXM	GATEARRAY1	Pg. 1.7
E100	13	09	F537	Pg. 2.1.2
LOCKL	-0.1	0.025	LOCK(L)	
E20	17	I13	82S167	Pg. 2.2
E27	12	05	82S105	Pg. 2.1
LPD0	-1.022	0.07	LPD<0>H	
E105	2	DIN<0>	256K	Pg. 1.3
E105	14	DOUT<0>	256K	Pg. 1.3
E106	15	PAR	29853	Pg. 1.3
LPD1	-1.020	0.07	LPD<1>H	
E92	15	PAR	29853	Pg. 1.3
E104	2	DIN<0>	256K	Pg. 1.3
E104	14	DOUT<0>	256K	Pg. 1.3
LPD2	-0.22	0.02	LPD<2>H	
E103	2	DIN<0>	256K	Pg. 1.3
E103	14	DOUT<0>	256K	Pg. 1.3
R39	3	B<0>	SIP8B	Pg. 1.3
LPD3	-0.22	0.02	LPD<3>H	
E102	2	DIN<0>	256K	Pg. 1.3
E102	14	DOUT<0>	256K	Pg. 1.3
R37	3	B<0>	SIP8B	Pg. 1.3
LPERRL	-0.11	0.035	LPERR(L)	
E27	6	I3	82S105	Pg. 2.1
E34	5	Q<0>	F74	Pg. 2.1.1
E44	17	-LPERR	GATEARRAY1	Pg. 1.7
LRD0	-1.020	0.07	LRD<0>H	
E98	2	DIN<1>	256K	Pg. 1.3
E98	14	DOUT<1>	256K	Pg. 1.3
E106	23	B<0>	29853	Pg. 1.3
LRD1	-1.020	0.07	LRD<1>H	
E91	2	DIN<2>	256K	Pg. 1.3
E91	14	DOUT<2>	256K	Pg. 1.3
E106	22	B<1>	29853	Pg. 1.3
LRD10	[illegible].020	[illegible]	LRD<10>H	
E83	2	DIN<3>	256K	Pg. 1.3
E83	14	DOUT<3>	256K	Pg. 1.3
E92	21	B<2>	29853	Pg. 1.3
LRD11	-1.020	0.07	LRD<11>H	
E76	2	DIN<4>	256K	Pg. 1.3
E76	14	DOUT<4>	256K	Pg. 1.3
E92	20	B<3>	29853	Pg. 1.3
LRD12	-1.020	0.07	LRD<12>H	
E69	2	DIN<5>	256K	Pg. 1.3
E69	14	DOUT<5>	256K	Pg. 1.3
E92	19	B<4>	29853	Pg. 1.3
LRD13	-1.020	0.07	LRD<13>H	
E62	2	DIN<6>	256K	Pg. 1.3
E62	14	DOUT<6>	256K	Pg. 1.3
E92	18	B<5>	29853	Pg. 1.3
LRD14	-1.020	0.07	LRD<14>H	
E56	2	DIN<7>	256K	Pg. 1.3
E56	14	DOUT<7>	256K	Pg. 1.3
E92	17	B<6>	29853	Pg. 1.3
LRD15	-1.020	0.07	LRD<15>H	
E50	2	DIN<8>	256K	Pg. 1.3
E50	14	DOUT<8>	256K	Pg. 1.3
E92	16	B<7>	29853	Pg. 1.3
LRD16	-2.02	0.02	LRD<16>H	
E96	2	DIN<1>	256K	Pg. 1.3
E96	14	DOUT<1>	256K	Pg. 1.3
R38	3	B<0>	SIP8B	Pg. 1.3
LRD17	-0.02	0.02	LRD<17>H	
E89	2	DIN<2>	256K	Pg. 1.3
E89	14	DOUT<2>	256K	Pg. 1.3
R38	1	B<1>	SIP8B	Pg. 1.3

REVISIONS
CHK | CHANGE NO. | REV

digital
DRN. ERW DATE 8-19-86 | ENG. ERWaaru DATE 8-19-86
CHK'D ERW DATE 8-19-86 | BOARD LOCATION:
SHEET 6 OF 24
DSK:
NEXT HIGHER ASSEMBLY: B-DD-M7478-0
FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS
SIZE D | CODE IDD | NUMBER M7478-0-0 | REV. A

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LRD18  -0.02  0.02   LRD<18>H
  E82   2   DIN<3>    256K    Pg. 1.3
  E82   14  DOUT<3>   256K    Pg. 1.3
  R39   1   B<2>      SIP88   Pg. 1.3

LRD19  -0.02  0.02   LRD<19>H
  E75   2   DIN<4>    256K    Pg. 1.3
  E75   14  DOUT<4>   256K    Pg. 1.3
  R42   7   B<3>      SIP88   Pg. 1.3

LRD2  -1.020  0.07   LRD<2>H
  E84   2   DIN<3>    256K    Pg. 1.3
  E84   14  DOUT<3>   256K    Pg. 1.3
  E106  21  B<2>      29853   Pg. 1.3

LRD20  -0.02  0.02   LRD<20>H
  E68   2   DIN<5>    256K    Pg. 1.3
  E68   14  DOUT<5>   256K    Pg. 1.3
  R42   5   B<4>      SIP88   Pg. 1.3

LRD21  -0.02  0.02   LRD<21>H
  E61   2   DIN<6>    256K    Pg. 1.3
  E61   14  DOUT<6>   256K    Pg. 1.3
  R35   1   B<5>      SIP88   Pg. 1.3

LRD22  -0.02  0.02   LRD<22>H
  E55   2   DIN<7>    256K    Pg. 1.3
  E55   14  DOUT<7>   256K    Pg. 1.3
  R37   7   B<6>      SIP88   Pg. 1.3

LRD23  -0.02  0.02   LRD<23>H
  E49   2   DIN<8>    256K    Pg. 1.3
  E49   14  DOUT<8>   256K    Pg. 1.3
  R37   5   B<7>      SIP88   Pg. 1.3

LRD24  -0.02  0.02   LRD<24>H
  E95   2   DIN<1>    256K    Pg. 1.3
  E95   14  DOUT<1>   256K    Pg. 1.3
  R37   1   B<0>      SIP88   Pg. 1.3

LRD25  -0.02  0.02   LRD<25>H
  E88   2   DIN<2>    256K    Pg. 1.3
  E88   14  DOUT<2>   256K    Pg. 1.3
  R36   7   B<1>      SIP88   Pg. 1.3

LRD26  -0.02  0.02   LRD<26>H
  E81   2   DIN<3>    256K    Pg. 1.3
  E81   14  DOUT<3>   256K    Pg. 1.3
  R36   5   B<2>      SIP88   Pg. 1.3

LRD27  -0.02  0.02   LRD<27>H
  E74   2   DIN<4>    256K    Pg. 1.3
  E74   14  DOUT<4>   256K    Pg. 1.3
  R36   3   B<3>      SIP88   Pg. 1.3

LRD28  -0.02  0.02   LRD<28>H
  E67   2   DIN<5>    256K    Pg. 1.3
  E67   14  DOUT<5>   256K    Pg. 1.3
  R36   1   B<4>      SIP88   Pg. 1.3

LRD29  -0.02  0.02   LRD<29>H
  E60   2   DIN<6>    256K    Pg. 1.3
  E60   14  DOUT<6>   256K    Pg. 1.3
  R35   7   B<5>      SIP88   Pg. 1.3

LRD3  -1.020  0.07   LRD<3>H
  E77   2   DIN<4>    256K    Pg. 1.3
  E77   14  DOUT<4>   256K    Pg. 1.3
  E106  20  B<3>      29853   Pg. 1.3

LRD30  -0.02  0.02   LRD<30>H
  E54   2   DIN<7>    256K    Pg. 1.3
  E54   14  DOUT<7>   256K    Pg. 1.3
  R35   5   B<6>      SIP88   Pg. 1.3

LRD31  -0.02  0.02   LRD<31>H
  E48   2   DIN<8>    256K    Pg. 1.3
  E48   14  DOUT<8>   256K    Pg. 1.3
  R35   3   B<7>      SIP88   Pg. 1.3

LRD4  -1.020  0.07   LRD<4>H
  E70   2   DIN<5>    256K    Pg. 1.3
  E70   14  DOUT<5>   256K    Pg. 1.3
  E106  19  B<4>      29853   Pg. 1.3

LRD5  -1.020  0.07   LRD<5>H
  E63   2   DIN<6>    256K    Pg. 1.3
  E63   14  DOUT<6>   256K    Pg. 1.3
  E106  18  B<5>      29853   Pg. 1.3

LRD6  -1.020  0.07   LRD<6>H
  E57   2   DIN<7>    256K    Pg. 1.3
  E57   14  DOUT<7>   256K    Pg. 1.3
  E106  17  B<6>      29853   Pg. 1.3

LRD7  -1.020  0.07   LRD<7>H
  E51   2   DIN<8>    256K    Pg. 1.3
  E51   14  DOUT<8>   256K    Pg. 1.3
  E106  16  B<7>      29853   Pg. 1.3

LRD8  -1.020  0.07   LRD<8>H
  E92   23  B<0>      29853   Pg. 1.3
  E97   2   DIN<1>    256K    Pg. 1.3
  E97   14  DOUT<1>   256K    Pg. 1.3

LRD9  -1.020  0.07   LRD<9>H
  E90   2   DIN<2>    256K    Pg. 1.3
  E90   14  DOUT<2>   256K    Pg. 1.3
  E92   22  B<1>      23353   Pg. 1.3

MA10  -0.49  0.11    MA<10>H
  E6    16  Q<1>      LS373   Pg. 1.5
  E21   24  AD<9>     27256   Pg. 1.9
  E22   24  AD<9>     27256   Pg. 1.9
  E72   14  I0<0>     F158    Pg. 1.3
  E73   19  Q<8>      F373    Pg. 1.2

MA11  -0.49  0.11    MA<11>H
  E6    15  Q<2>      LS373   Pg. 1.5
  E21   21  AD<10>    27256   Pg. 1.9
  E22   21  AD<10>    27256   Pg. 1.9
  E72   11  I0<1>     F158    Pg. 1.3
  E73   12  Q<9>      F373    Pg. 1.2

MA12  -0.49  0.11    MA<12>H
  E6    12  Q<3>      LS373   Pg. 1.5
  E21   23  AD<11>    27256   Pg. 1.9
  E22   23  AD<11>    27256   Pg. 1.9
  E72   5   I0<2>     F158    Pg. 1.3
  E73   6   Q<10>     F373    Pg. 1.2

MA13  -0.49  0.11    MA<13>H
  E6    5   Q<4>      LS373   Pg. 1.5
  E21   2   AD<12>    27256   Pg. 1.9
  E22   2   AD<12>    27256   Pg. 1.9
  E72   2   I0<3>     F158    Pg. 1.3
  E73   9   Q<11>     F373    Pg. 1.2

MA14  -0.49  0.11    MA<14>H
  E2    9   Q<5>      LS373   Pg. 1.5
  E21   26  AD<13>    27256   Pg. 1.9
  E22   26  AD<13>    27256   Pg. 1.9
  E53   12  Q<12>     F373    Pg. 1.2
  E101  11  I0<4>     F158    Pg. 1.3

MA15  -0.47  0.09    MA<15>H
  E2    2   Q<6>      LS373   Pg. 1.5
  E53   9   Q<13>     F373    Pg. 1.2
  E93   14  I0<5>     F158    Pg. 1.3
  W2    1   A         JUMPER  Pg. 1.9

MA16  -0.470  0.09   MA<16>H
  E6    2   Q<7>      LS373   Pg. 1.5
  E46   2   Q<14>     F373    Pg. 1.2
  E101  2   I0<6>     F158    Pg. 1.3

MA17  -0.470  0.09   MA<17>H
  E2    19  Q<8>      LS373   Pg. 1.5
  E46   19  Q<15>     F373    Pg. 1.2
  E93   2   I0<7>     F158    Pg. 1.3

MA18  -0.48  0.1     MA<18>H
  E2    15  Q<9>      LS373       Pg. 1.5
  E45   86  REF<8>    GATEARRAY2  Pg. 1.4
  E53   6   Q<16>     F373        Pg. 1.2
  E101  6   I1<8>     F158        Pg. 1.3
  W6    1   A         JUMPER      Pg. 2.1.2

MA19  -0.47  0.09    MA<19>H
  E2    16  Q<10>     LS373   Pg. 1.5
  E46   9   Q<17>     F373    Pg. 1.2
  E101  5   I0<8>     F158    Pg. 1.3
  W3    1   A         JUMPER  Pg. 2.1.2

MA2  -0.480  0.100   MA<2>H
  E21   9   AD<1>     27256       Pg. 1.9
  E22   9   AD<1>     27256       Pg. 1.9
  E45   96  MA<2>     GATEARRAY2  Pg. 1.4
  E72   13  I1<0>     F158        Pg. 1.3
  E73   16  Q<0>      F373        Pg. 1.2

MA20  -0.72  0.13    MA<20>H
  E2    12  Q<11>     LS373       Pg. 1.5
  E46   6   Q<18>     F373        Pg. 1.2
  E79   2   A5        512X4PROM   Pg. 2.1.2
  E93   10  I1<9>     F158        Pg. 1.3

MA21  -0.72  0.13    MA<21>H
  E6    6   Q<12>     LS373       Pg. 1.5
  E53   5   Q<19>     F373        Pg. 1.2
  E79   1   A6        512X4PROM   Pg. 2.1.2
  E93   11  I0<9>     F158        Pg. 1.3

MA22  -0.32  0.11    MA<22>H
  E2    6   Q<13>     LS373       Pg. 1.5
  E46   16  Q<20>     F373        Pg. 1.2
  E79   17  A7        512X4PROM   Pg. 2.1.2

MA23  -0.32  0.11    MA<23>H
  E2    5   Q<14>     LS373       Pg. 1.5
  E46   5   Q<21>     F373        Pg. 1.2
  E79   16  A8        512X4PROM   Pg. 2.1.2

MA3  -0.480  0.100   MA<3>H
  E21   8   AD<2>     27256       Pg. 1.9
  E22   8   AD<2>     27256       Pg. 1.9
  E45   92  MA<3>     GATEARRAY2  Pg. 1.4
  E72   10  I1<1>     F158        Pg. 1.3
  E73   15  Q<1>      F373        Pg. 1.2

MA4  -0.480  0.100   MA<4>H
  E21   7   AD<3>     27256       Pg. 1.9
  E22   7   AD<3>     27256       Pg. 1.9
  E45   94  MA<4>     GATEARRAY2  Pg. 1.4
  E46   15  Q<2>      F373        Pg. 1.2
  E72   6   I1<2>     F158        Pg. 1.3

MA5  -0.480  0.100   MA<5>H
  E21   6   AD<4>     27256       Pg. 1.9
  E22   6   AD<4>     27256       Pg. 1.9
  E45   89  MA<5>     GATEARRAY2  Pg. 1.4
  E72   3   I1<3>     F158        Pg. 1.3
  E73   5   Q<3>      F373        Pg. 1.2

MA6  -0.432  0.100   MA<6>H
  E21   5   AD<5>     27256       Pg. 1.9
  E22   5   AD<5>     27256       Pg. 1.9
  E45   88  MA<6>     GATEARRAY2  Pg. 1.4
  E46   12  Q<4>      F373        Pg. 1.2
  E101  10  I1<4>     F158        Pg. 1.3

MA7  -0.480  0.100   MA<7>H
  E21   4   AD<6>     27256       Pg. 1.9
  E22   4   AD<6>     27256       Pg. 1.9
  E45   87  MA<7>     GATEARRAY2  Pg. 1.4
  E53   16  Q<5>      F373        Pg. 1.2
  E93   13  I1<5>     F158        Pg. 1.3

MA8  -0.432  0.100   MA<8>H
  E21   3   AD<7>     27256       Pg. 1.9
  E22   3   AD<7>     27256       Pg. 1.9
  E45   84  MA<8>     GATEARRAY2  Pg. 1.4
  E53   15  Q<6>      F373        Pg. 1.2
  E101  3   I1<6>     F158        Pg. 1.3

MA9  -0.5  0.120     MA<9>H
  E6    19  Q<0>      LS373       Pg. 1.5
  E21   25  AD<8>     27256       Pg. 1.9
  E22   25  AD<8>     27256       Pg. 1.9
  E45   85  REF<7>    GATEARRAY2  Pg. 1.4
  E53   19  Q<7>      F373        Pg. 1.2
  E93   3   I1<7>     F158        Pg. 1.3

MAAL0  -1.0  0.02    MAA<0>L
  CR2   1   A         FINGER  Pg. 1.3
  E72   12  -Y<0>     F158    Pg. 1.3
  E80   15  A<0>      F240    Pg. 1.3

MAAL1  -1.0  0.02    MAA<1>L
  CN2   1   A         FINGER  Pg. 1.3
  E72   9   -Y<1>     F156    Pg. 1.3
  E80   13  A<1>      F240    Pg. 1.3

MAAL2  -1.0  0.02    MAA<2>L
  CP2   1   A         FINGER  Pg. 1.3
  E72   7   -Y<2>     F158    Pg. 1.3
  E80   11  A<2>      F240    Pg. 1.3

MAAL3  -1.0  0.02    MAA<3>L
  DF2   1   A         FINGER  Pg. 1.3
  E72   4   -Y<3>     F158    Pg. 1.3
  E80   2   A<3>      F240    Pg. 1.3

MAAL4  -1.0  0.02    MAA<4>L
  DE2   1   A         FINGER  Pg. 1.3
  E94   6   A<4>      F240    Pg. 1.3
  E101  9   -Y<4>     F158    Pg. 1.3

MAAL5  -1.0  0.02    MAA<5>L
  DD2   1   A         FINGER  Pg. 1.3
  E80   8   A<5>      F240    Pg. 1.3
  E93   12  -Y<5>     F158    Pg. 1.3

MAAL6  -1.0  0.02    MAA<6>L
  DH2   1   A         FINGER  Pg. 1.3
  E94   2   A<6>      F240    Pg. 1.3
  E101  4   -Y<6>     F158    Pg. 1.3

MAAL7  -1.0  0.02    MAA<7>L
  DB2   1   A         FINGER  Pg. 1.3
  E80   4   A<7>      F240    Pg. 1.3
  E93   4   -Y<7>     F158    Pg. 1.3

MAAL8  -1.0  0.02    MAA<8>L
  CS2   1   A         FINGER  Pg. 1.3
  E94   11  A<8>      F240    Pg. 1.3
  E101  7   -Y<8>     F158    Pg. 1.3
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REVISIONS — CHK | CHANGE NO. | REV

digital — DR ERW — DATE 8-19-86 — CHK ERW — DATE 8-19-86 — ENG E Rw — DATE 8-19-86

BOARD LOCATION: — SHEET 7 OF 24

NEXT HIGHER ASSEMBLY: B-DD-M7478-0

DSK:NAMSRT.TPPF4.550 — FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS

SIZE D — CODE DD — NUMBER M7478-0-0 — REV A

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RCVBDALH   -1.2   0.240  RCV BDAL(H)
  E11   1   DIR   DC021   Pg. 1.6
  E30   1   DIR   DC021   Pg. 1.6
  E35   1   DIR   DC021   Pg. 1.6
  E40   19  07    16L8A   Pg. 1.4

RD16  -1.0  0.05  RD<16>H
  E54  23  B<0>  29853  Pg. 1.3
  R38  4   A<0>  SIP88  Pg. 1.3

RD17  -1.0  0.05  RD<17>H
  E64  22  B<1>  29853  Pg. 1.3
  R39  2   A<1>  SIP88  Pg. 1.3

RD18  -1.0  0.05  RD<18>H
  E64  21  B<2>  29853  Pg. 1.3
  R39  2   A<2>  SIP88  Pg. 1.3

RD19  -1.0  0.05  RD<19>H
  E64  20  B<3>  29853  Pg. 1.3
  R40  8   A<3>  SIP88  Pg. 1.3

RD20  -1.0  0.05  RD<20>H
  E64  19  B<4>  29853  Pg. 1.3
  R40  6   A<4>  SIP88  Pg. 1.3

RD21  -1.0  0.05  RD<21>H
  E64  18  B<5>  29853  Pg. 1.3
  R35  2   A<5>  SIP88  Pg. 1.3

RD22  -1.0  0.05  RD<22>H
  E64  17  B<6>  29853  Pg. 1.3
  R37  6   A<5>  SIP88  Pg. 1.3

RD23  -1.0  0.05  RD<23>H
  E64  16  B<7>  29853  Pg. 1.3
  R37  6   A<7>  SIP88  Pg. 1.3

RD24  -1.0  0.05  RD<24>H
  E58  23  B<0>  29853  Pg. 1.3
  R37  2   A<0>  SIP88  Pg. 1.3

RD25  -1.0  0.05  RD<25>H
  E58  22  B<1>  29853  Pg. 1.3
  R36  8   A<1>  SIP88  Pg. 1.3

RD26  -1.0  0.05  RD<26>H
  E58  21  B<2>  29853  Pg. 1.3
  R35  6   A<2>  SIP88  Pg. 1.3

RD27  -1.0  0.05  RD<27>H
  E58  20  B<3>  29853  Pg. 1.3
  R36  4   A<3>  SIP88  Pg. 1.3

RD28  -1.0  0.05  RD<28>H
  E58  19  B<4>  29853  Pg. 1.3
  R36  2   A<4>  SIP88  Pg. 1.3

RD29  -1.0  0.05  RD<29>H
  E58  18  B<5>  29853  Pg. 1.3
  R35  8   A<5>  SIP88  Pg. 1.3

RD30  -1.0  0.05  RD<30>H
  E58  17  B<6>  29853  Pg. 1.3
  R35  6   A<6>  SIP88  Pg. 1.3

RD31  -1.0  0.05  RD<31>H
  E58  16  B<7>  29853  Pg. 1.3
  R35  4   A<7>  SIP88  Pg. 1.3

RDCOKL   -1.81   0.09   RDCOK(L)
  E24   3    R1      8641          Pg. 1.6
  E35   12   A<0>    LS26          Pg. 1.7
  E35   13   B<0>    LS26          Pg. 1.7
  E41   12   A<0>    LS367         Pg. 1.10
  E45   10   -DCOK   GATEARRAY2    Pg. 1.4
  E65   4    A<0>    F32           Pg. 2.2

RDINH   -0.61   0.039   RDIN(H)
  E7    13  R4     8641          Pg. 1.6
  E12   7   D<2>   F374          Pg. 2.2
  E40   16  04     16L8A         Pg. 1.4
  E45   11  RDIN   GATEARRAY2    Pg. 1.4

RDMGIH   -0.6   0.02   RDMGI(H)
  E7   6    R2     8641  Pg. 1.6
  E8   16   D<0>   F374  Pg. 2.2

RDMRH   -0.6   0.02   RDMR(H)
  E5   6   R2     8641  Pg. 1.6
  E8   8   D<2>   F374  Pg. 2.2

RDOUTH   -0.61   0.030   RDOUT(H)
  E7    10  R3      8641          Pg. 1.6
  E12   14  D<1>    F374          Pg. 2.2
  E45   4   RDOUT   GATEARRAY2    Pg. 1.4

READYH   -0.6   0.02   READY(H)
  E38   11  A<0>    F02           Pg. 1.1
  E44   13  READY   GATEARRAY1    Pg. 1.7

REFMAL   -0.61   0.030   REF->MA(L)
  E27   17  01          825105        Pg. 2.1
  E32   1   A<0>        F04           Pg. 2.1.1
  E45   77  -REF->MA    GATEARRAY2    Pg. 1.4

REFREQH   -0.6   0.02   REF REQ(H)
  E17   3     D<4>      F174          Pg. 2.1.1
  E45   130   REF REQ   GATEARRAY2    Pg. 1.4

RHALTH   -0.01   0.01   RHALT(H)
  E24   10  R3      8641          Pg. 1.6
  E44   92  RHALT   GATEARRAY1    Pg. 1.7

RIAKIH   -0.6   0.02   RIAKI(H)
  E7    3   R1     8641  Pg. 1.6
  E37   13  B<0>   F32   Pg. 1.6

RINITH   -0.01   0.01   RINIT(H)
  E24   13  R4      8641          Pg. 1.6
  E44   98  RINIT   GATEARRAY1    Pg. 1.7

RIRQ4   -0.01   0.01   RIRQ<4>H
  E16   3   -Y<0>   8640          Pg. 1.6
  E44   89  RIRQ4   GATEARRAY1    Pg. 1.7

RIRQ5   -0.4   0.02   RIRQ<5>H
  E16   13  -Y<0>   8640  Pg. 1.6
  E25   9   A<0>    LS04  Pg. 1.1

RIRQ6   -0.4   0.02   RIRQ<6>H
  E16   14  -Y<0>   8640  Pg. 1.6
  E25   11  A<0>    LS04  Pg. 1.1

RIRQ7   -0.4   0.02   RIRQ<7>H
  E16   2   -Y<0>   8640  Pg. 1.6
  E25   3   A<0>    LS04  Pg. 1.1

RPOKL   -0.66   0.055   RPOK(L)
  E24   6   R2      8641          Pg. 1.6
  E25   5   A<0>    LS04          Pg. 1.1
  E40   1   I0      16L8A         Pg. 1.4
  E44   97  -RPOK   GATEARRAY1    Pg. 1.7

RREFH   -0.1   0.025   RREF(H)
  E19   10  R3   8641     Pg. 1.6
  E26   4   I4   82S167   Pg. 2.2

RRH   -0.7   0.045   RR(H)
  E17   5   Q<5>   F174     Pg. 2.1.1
  E27   4   I5     825105   Pg. 2.1
  E65   2   B<0>   F32      Pg. 1.10

RRPLYH   -0.6   0.02   RRPLY(H)
  E5    10  R3     8641  Pg. 1.6
  E12   17  D<0>   F374  Pg. 2.2

RSACKH   -0.6   0.02   RSACK(H)
  E8    13  D<1>   F374  Pg. 2.2
  E19   6   R2     8641  Pg. 1.6

RSYNCH   -1.21   0.05   RSYNC(H)
  E5    13  R4      8641          Pg. 1.6
  E12   3   D<3>    F374          Pg. 2.2
  E32   3   A<0>    F04           Pg. 1.6
  E45   8   RSYNC   GATEARRAY2    Pg. 1.4

RSYNCL   -0.4   0.02   RSYNC(L)
  E1    11  E       LS373  Pg. 1.5
  E32   4   -Y<0>   F04    Pg. 1.6

RUNL   -0.6   0.02   RUN(L)
  E44   26  -RUN   GATEARRAY1   Pg. 1.7
  E65   1   A<0>   F32          Pg. 1.10

SDINH   -0.15   0.075   SDIN(H)
  E12   9   Q<2>   F374     Pg. 2.2
  E33   6   I2     82S167   Pg. 2.2

SDMGIH   -0.15   0.075   SDMGI(H)
  E8    16  Q<0>   F374     Pg. 2.2
  E20   20  I10    82S167   Pg. 2.2

SDMRH   -0.15   0.075   SDMR(H)
  E8    6   Q<2>   F374     Pg. 2.2
  E20   21  I9     82S167   Pg. 2.2

SDOUTH   -0.15   0.075   SDOUT(H)
  E12   12  Q<1>   F374     Pg. 2.2
  E33   5   I3     82S167   Pg. 2.2

SELCOLH   -0.1   0.025   SELCOL(H)
  E31   8   -Q<0>   F74      Pg. 2.1.1
  E33   18  I12     82S167   Pg. 2.2
  E86   14  02      16L8A    Pg. 2.1.2

SELCOLL   -3.6   0.16   SELCOL(L)
  E31    9   Q<0>    F74     Pg. 2.1.1
  E34    3   CLOCK   F74     Pg. 2.1.1
  E65    10  B<0>    F32     Pg. 2.1.1
  E72    1   S       F158    Pg. 1.3
  E78    15  03      16L8A   Pg. 2.1.2
  E93    1   S       F158    Pg. 1.3
  E101   1   S       F158    Pg. 1.3

SELDBL   -0.1   0.025   SEL DB(L)
  E33   21    I9        82S167       Pg. 2.2
  E45   113   -SEL DB   GATEARRAY2   Pg. 1.4

SELLO16MBL   -0.6   0.02   SEL LO16MB(L)
  E66   19  -Y      F521   Pg. 1.2
  E73   3   D<22>   F373   Pg. 1.2

SGIL   -7.6   0.240   SGI(L)
  E38    6    B<0>   F02    Pg. 2.1.2
  E72    15   -E     F158   Pg. 1.3
  E80    1    -OE    F240   Pg. 1.3
  E80    19   -OE    F240   Pg. 1.3
  E93    15   -E     F158   Pg. 1.3
  E94    1    -OE    F240   Pg. 1.3
  E94    19   -OE    F240   Pg. 1.3
  E100   5    -OE    F537   Pg. 2.1.2
  E101   15   -E     F158   Pg. 1.3
  R2     1    B      RES    Pg. 2.1.2

SG4L   -1.2   0.09   SG4(L)
  E28   1    -OE     LS244   Pg. 1.10
  E28   19   -OE     LS244   Pg. 1.10
  E41   1    -ENAB   LS367   Pg. 1.10
  E41   15   -ENAB   LS367   Pg. 1.10
  R29   2    A       RES     Pg. 1.10

SIH   -3.25   3.25   SI(H)
  C67   2   B<0>   CAP      Pg. 1.9
  E18   7   INV    9639     Pg. 1.9
  R7    2   A      RES      Pg. 1.9
  R28   6   A<0>   SIP108   Pg. 1.9

SIL   -3.25   3.25   SI(L)
  C67   1   A<0>   CAP      Pg. 1.9
  E18   8   NINV   9639     Pg. 1.9
  R8    1   B      RES      Pg. 1.9
  R28   4   A<0>   SIP108   Pg. 1.9

SRPLYH   -0.5   0.125   SRPLY(H)
  E12   19  Q<0>   F374     Pg. 2.2
  E20   22  I8     82S167   Pg. 2.2
  E26   5   I3     82S167   Pg. 2.2
  E40   11  I9     16L8A    Pg. 1.4

SRUNL   0.0   0.0   SRUN(L)
  AF1   1   A      FINGER   Pg. 1.10
  E65   3   Y<0>   F32      Pg. 1.10

SSACKH   -0.15   0.075   SSACK(H)
  E8    15  Q<1>   F374     Pg. 2.2
  E20   23  I7     82S167   Pg. 2.2

SSYNCH   -0.25   0.1   SSYNC(H)
  E12   5   Q<3>   F374     Pg. 2.2
  E20   2   I6     82S167   Pg. 2.2
  E33   7   I1     82S167   Pg. 2.2

STARTCYCL   -0.6   0.02   START CYC(L)
  E38   9    B<0>   F02     Pg. 2.1.1
  E86   19   07     16L8A   Pg. 2.1.2

SYSCLKH   -0.6   0.02   SYSCLK(H)
  E47   4   A<0>   F00   Pg. 1.1
  Y3    3   OSC    OSC   Pg. 1.1

TBS7H   -1.6   0.04   TBS7(H)
  E19   14    T4     8641         Pg. 1.6
  E45   135   TBS7   GATEARRAY2   Pg. 1.4

TDIOL   -1.61   0.05   TDIO(L)
  E7    7    -ENB1   8641         Pg. 1.6
  E26   11   03      82S167       Pg. 2.2
  E40   18   06      16L8A        Pg. 1.4
  E45   7    -TDIO   GATEARRAY2   Pg. 1.4

TDMGOH   -1.61   0.05   TDMGO(H)
  E19   2     T1      8641         Pg. 1.6
  E20   10    04      82S167       Pg. 2.2
  E45   136   TDMGO   GATEARRAY2   Pg. 1.4

TDMRH   -1.6   0.04   TDMR(H)
  E5    5    T2   8641     Pg. 1.6
  E20   13   02   82S167   Pg. 2.2

TIAKOH   -0.6   0.02   TIAKO(H)
  E26   13   02     82S167   Pg. 2.2
  E37   12   A<0>   F32      Pg. 1.6

TINITH   -2.43   0.11   TINIT(H)
  E13   24    INIT     DC319        Pg. 1.9
  E20   14    01       82S167       Pg. 2.2
  E24   14    T4       8641         Pg. 1.6
  E35   9     A<0>     LS26         Pg. 1.8
  E35   10    B<0>     LS26         Pg. 1.8
  E44   122   TINIT    GATEARRAY1   Pg. 1.7
  E45   103   -RESET   GATEARRAY2   Pg. 1.[illegible]
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REVISIONS | CHK | CHANGE NO. | REV

digital | DRN ERW | DATE 8-19-86 | ENG ERW | DATE 8-19-86
CHK ERW | DATE 8-19-86 | BOARD LOCATION: | SHEET 10 OF 24
DSK:NAMSRT.T2P[4,550] | NEXT HIGHER ASSEMBLY: B-DD-M7478-0
FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS

SIZE D | CODE DD | NUMBER M7478-0-0 | REV. A

```
MD6   -1.410  0.1   MD<6>H
  E45   42  MD<6>   GATEARRAY2  Pg. 1.4
  E99   14  B<6>    F245        Pg. 1.2
  E105  8   A<6>    29853       Pg. 1.3
  J1    10  P10     CONN50      Pg. 1.3

MD7   -1.410  0.1   MD<7>H
  E45   59  MD<7>   GATEARRAY2  Pg. 1.4
  E99   15  B<7>    F245        Pg. 1.2
  E105  9   A<7>    29853       Pg. 1.3
  J1    9   P9      CONN50      Pg. 1.3

MD8   -1.410  0.1   MD<8>H
  E45   38  MD<8>   GATEARRAY2  Pg. 1.4
  E85   11  B<8>    F245        Pg. 1.2
  E92   2   A<0>    29853       Pg. 1.3
  J1    12  P12     CONN50      Pg. 1.3

MD9   -1.410  0.1   MD<9>H
  E45   60  MD<9>   GATEARRAY2  Pg. 1.4
  E85   12  B<9>    F245        Pg. 1.2
  E92   3   A<1>    29853       Pg. 1.3
  J1    11  P11     CONN50      Pg. 1.3

MEMCD0   -1.11  0.095  MEM CD<0>H
  E44   103  MEM CD<0>  GATEARRAY1  Pg. 1.7
  E79   12   O2         512X4PROM   Pg. 2.1.2
  E86   9    I8         16L8A       Pg. 2.1.2
  E100  16   A2         F537        Pg. 2.1.2

MEMCD1   -1.11  0.095  MEM CD<1>H
  E44   104  MEM CD<1>  GATEARRAY1  Pg. 1.7
  E79   11   O3         512X4PROM   Pg. 2.1.2
  E85   11   I9         16L8A       Pg. 2.1.2
  E100  17   A3         F537        Pg. 2.1.2

MEMWRL   -0.6  0.075  MEMWR(L)
  E27   27  I8        825105      Pg. 2.1
  E45   79  -MEM WR   GATEARRAY2  Pg. 1.4
  E78   6   I5        16L8A       Pg. 2.1.2
  E86   6   I5        16L8A       Pg. 2.1.2

MRASL80   -0.05  0.05  MRAS<80>L
  E94   7   -Y<0>   F240    Pg. 1.3
  R34   3   B<0>    SIP6B   Pg. 1.3

MRASL81   -0.05  0.05  MRAS<81>L
  E94   3   -Y<0>   F240    Pg. 1.3
  R34   1   B<0>    SIP6B   Pg. 1.3

MSERL0   -0.25  0.025  MSER<0>L
  E44   105  -MSER<0>  GATEARRAY1  Pg. 1.7
  E78   5    I4        16L9A       Pg. 2.1.2

MSERL1   -0.25  0.025  MSER<1>L
  E44   105  -MSER<1>  GATEARRAY1  Pg. 1.7
  E86   4    I3        16L8A       Pg. 2.1.2

MSIDL0   -0.25  0.04  MSID<0>L
  CJ2   1   A      FINGER      Pg. 1.3
  E79   5   A0     512X4PROM   Pg. 2.1.2
  R23   9   A<0>   SIP2A       Pg. 2.1.2

MSIDL1   -0.25  0.04  MSID<1>L
  CM2   1   A      FINGER      Pg. 1.3
  E79   6   A1     512X4PROM   Pg. 2.1.2
  R23   8   A<1>   SIP2A       Pg. 2.1.2

MSIDL2   -0.25  0.04  MSID<2>L
  DJ2   1   A      FINGER      Pg. 1.3
  E79   7   A2     512X4PROM   Pg. 2.1.2
  R23   7   A<2>   SIP2A       Pg. 2.1.2

MSIDL3   -0.25  0.04  MSID<3>L
  DM2   1   A      FINGER      Pg. 1.3
  E79   4   A3     512X4PROM   Pg. 2.1.2
  R23   6   A<3>   SIP2A       Pg. 2.1.2

MSIDL4   -0.25  0.04  MSID<4>L
  CT2   1   A      FINGER      Pg. 1.3
  E79   3   A4     512X4PROM   Pg. 2.1.2
  R23   5   A<4>   SIP2A       Pg. 2.1.2

MSWT0   -1.0  0.02  MSWT<0>H
  E86   12  00     16L8A  Pg. 2.1.2
  E94   15  A<0>   F240   Pg. 1.3

MSWT1   0.0  0.0  MSWT<1>H
  CK2   1   A    FINGER  Pg. 1.3
  E86   13  01   16L8A   Pg. 2.1.2

NC  0.0  0.0  NC H
  E11   2   -Y<23>   DC021       Pg. 1.6
  E11   18  A<23>    DC021       Pg. 1.6
  E33   10  O4       82S167      Pg. 2.2
  E20   8   I0       82S167      Pg. 2.2
  E20   7   I1       82S167      Pg. 2.2
  E20   6   I2       82S167      Pg. 2.2
  E17   10  Q<2>     F174        Pg. 2.1.1
  E17   11  D<2>     F174        Pg. 2.1.1
  E34   6   -Q<0>    F74         Pg. 2.1.1
  E31   5   Q<0>     F74         Pg. 2.1.1
  E34   8   -Q<0>    F74         Pg. 2.1.1
  E43   22  -DMG     DC333       Pg. 1.1
  E43   9   VBB      DC333       Pg. 1.1
  E14   23  SQW      MC146818    Pg. 1.8
  E14   21  CKOUT    MC146818    Pg. 1.8
  E14   19  -IRQ     MC146818    Pg. 1.8
  E14   3   OSC2     MC146818    Pg. 1.8
  E13   34  BRCLK    DC319       Pg. 1.9
  E13   25  CLKC20   DC319       Pg. 1.9
  E13   36  CLK60    DC319       Pg. 1.9
  E13   35  CLK50    DC319       Pg. 1.9
  J3    6   P6       10PINCONN   Pg. 1.9
  E101  12  -Y<0>    F158        Pg. 1.3
  E93   7   -Y<1>    F158        Pg. 1.3
  E94   12  -Y<0>    F240        Pg. 1.3
  E94   16  -Y<1>    F240        Pg. 1.3
  E80   3   -Y<2>    F240        Pg. 1.3
  E80   14  -Y<3>    F240        Pg. 1.3
  E5    3   R1       8641        Pg. 1.6
  E19   3   R1       8641        Pg. 1.6

ODDWDH   -0.1  0.025  ODD WD(H)
  E33   20   I10      82S167      Pg. 2.2
  E45   118  ODD WD   GATEARRAY2  Pg. 1.4

OSC031H   -0.01  0.01  OSC031(H)
  E14   2   OSC1   MC146818  Pg. 1.8
  R3    1   B      RES       Pg. 1.8

PD2   -1.0  0.05  PD<2>H
  E64   15  PAR    29853   Pg. 1.3
  R39   4   A<0>   SIP8B   Pg. 1.3

PD3   -1.0  0.05  PD<3>H
  E58   15  PAR    29853   Pg. 1.3
  R37   4   A<0>   SIP8B   Pg. 1.3

PEL0   -0.25  0.025  PE<0>L
  E78   4   I3     16L8A    Pg. 2.1.2
  E106  10  -ERR   29853    Pg. 1.3
  J1    19  P19    CONN50   Pg. 1.3
  R9    5   A<0>   SIP2A    Pg. 2.1.2

PEL1   -0.25  0.025  PE<1>L
  E78   3   I2     16L8A    Pg. 2.1.2
  E92   10  -ERR   29853    Pg. 1.3
  J1    24  P24    CONN50   Pg. 1.3
  R9    4   A<1>   SIP2A    Pg. 2.1.2

PEL2   -0.25  0.025  PE<2>L
  E64   10  -ERR   29853    Pg. 1.3
  E78   2   I1     16L8A    Pg. 2.1.2
  J1    32  P32    CONN50   Pg. 1.3
  R9    3   A<2>   SIP2A    Pg. 2.1.2

PEL3   -0.25  0.025  PE<3>L
  E58   10  -ERR   29853    Pg. 1.3
  E78   1   I0     16L8A    Pg. 2.1.2
  J1    27  P27    CONN50   Pg. 1.3
  R9    2   A<3>   SIP2A    Pg. 2.1.2

PERRL   -0.6  0.02  PERR(L)
  E65   13  B<0>   F32     Pg. 2.1.1
  E78   14  O2     16L8A   Pg. 2.1.2

PFL   -0.01  0.01  PF(L)
  E25   6   -Y<0>    LS04    Pg. 1.1
  E43   8   -PWRFL   DC333   Pg. 1.1

QALEH   -1.160  0.1  QALE(H)
  E2    11   E      LS373       Pg. 1.5
  E6    11   E      LS373       Pg. 1.5
  E26   8    I0     82S167      Pg. 2.2
  E33   11   O3     82S167      Pg. 2.2
  E40   8    I7     16L8A       Pg. 1.4
  E45   124  QALE   GATEARRAY2  Pg. 1.4

QBIOCYCL   -0.11  0.035  QBIOCYC(L)
  E26   7    I1         82S167      Pg. 2.2
  E44   34   -QBIOCYC   GATEARRAY1  Pg. 1.7
  E45   134  -QBIOCYC   GATEARRAY2  Pg. 1.4

QMEMENBL   -0.1  0.025  QMEMENB(L)
  E33   23  I7          82S167      Pg. 2.2
  E45   93  -QMEM ENB   GATEARRAY2  Pg. 1.4

QRQL   -0.11  0.035  QRQ(L)
  E20   18  I12    82S167      Pg. 2.2
  E27   13  O4     82S105      Pg. 2.1
  E45   97  -QRQ   GATEARRAY2  Pg. 1.4

QWRH   -0.1  0.025  QWR(H)
  E33   22  I3    82S167      Pg. 2.2
  E45   99  QWR   GATEARRAY2  Pg. 1.4

R1E37PDL   -0.6  0.02  R1E37PD(L)
  E37   5   B<0>   F32   Pg. 1.1
  R1    1   B      RES   Pg. 1.1

R23E47PUH   -0.6  0.02  R23E47PU(H)
  E47   5   B<0>   F00     Pg. 1.1
  R23   10  A<0>   SIP2A   Pg. 1.1

R9E15PUH   -1.0  0.08  R9E15PU(H)
  E15   2   A<0>   9643    Pg. 1.9
  R9    9   A<0>   SIP2A   Pg. 1.9

R9E47PUH   -0.6  0.02  R9E47PU(H)
  E47   1   A<0>   F00     Pg. 1.9
  R9    7   A<0>   SIP2A   Pg. 1.9

RAS0   -0.05  0.05  RAS<0>H
  CU2   1   A    FINGER  Pg. 1.3
  E100  3   00   F537    Pg. 2.1.2

RAS1   -0.05  0.05  RAS<1>H
  CF2   1   A    FINGER  Pg. 1.3
  E100  2   01   F537    Pg. 2.1.2

RAS2   -0.05  0.05  RAS<2>H
  DN2   1   A    FINGER  Pg. 1.3
  E100  1   02   F537    Pg. 2.1.2

RAS3   -0.05  0.05  RAS<3>H
  DK2   1   A    FINGER  Pg. 1.3
  E100  19  03   F537    Pg. 2.1.2

RAS4   -0.05  0.05  RAS<4>H
  CL2   1   A    FINGER  Pg. 1.3
  E100  18  04   F537    Pg. 2.1.2

RAS5   -0.05  0.05  RAS<5>H
  CD2   1   A    FINGER  Pg. 1.3
  E100  8   05   F537    Pg. 2.1.2

RAS6   -0.05  0.05  RAS<6>H
  DU2   1   A    FINGER  Pg. 1.3
  E100  9   06   F537    Pg. 2.1.2

RAS7   -0.05  0.05  RAS<7>H
  DL2   1   A    FINGER  Pg. 1.3
  E100  11  07   F537    Pg. 2.1.2

RAS8   -2.05  0.09  RAS<8>H
  E94   13  A<0>   F240   Pg. 1.3
  E94   17  A<0>   F240   Pg. 1.3
  E100  12  08     F537   Pg. 2.1.2

RASALLH   -0.6  0.02  RAS ALL(H)
  E59   15  Q<0>   F174   Pg. 2.1.1
  E100  4   P      F537   Pg. 2.1.2

RASDECODEL   -1.2  0.04  RAS DECODE(L)
  E31   6   -Q<0>   F74    Pg. 2.1.1
  E37   2   B<0>    F32    Pg. 2.1.1
  E100  15  -E1     F537   Pg. 2.1.2

RASL80   -0.18  0.18  RAS<80>L
  E50   4   -RAS   256K    Pg. 1.3
  E51   4   -RAS   256K    Pg. 1.3
  E56   4   -RAS   256K    Pg. 1.3
  E57   4   -RAS   256K    Pg. 1.3
  E62   4   -RAS   256K    Pg. 1.3
  E63   4   -RAS   256K    Pg. 1.3
  E69   4   -RAS   256K    Pg. 1.3
  E70   4   -RAS   256K    Pg. 1.3
  E76   4   -RAS   256K    Pg. 1.3
  E77   4   -RAS   256K    Pg. 1.3
  E83   4   -RAS   256K    Pg. 1.3
  E84   4   -RAS   256K    Pg. 1.3
  E90   4   -RAS   256K    Pg. 1.3
  E91   4   -RAS   256K    Pg. 1.3
  E97   4   -RAS   256K    Pg. 1.3
  E98   4   -RAS   256K    Pg. 1.3
  E104  4   -RAS   256K    Pg. 1.3
  E105  4   -RAS   256K    Pg. 1.3
  R34   4   A<0>   SIP6B   Pg. 1.3

RASL81   -0.18  0.18  RAS<81>L
  E48   4   -RAS   256K    Pg. 1.3
  E49   4   -RAS   256K    Pg. 1.3
  E54   4   -RAS   256K    Pg. 1.3
  E55   4   -RAS   256K    Pg. 1.3
  E60   4   -RAS   256K    Pg. 1.3
  E61   4   -RAS   256K    Pg. 1.3
  E67   4   -RAS   256K    Pg. 1.3
  E68   4   -RAS   256K    Pg. 1.3
  E74   4   -RAS   256K    Pg. 1.3
  E75   4   -RAS   256K    Pg. 1.3
  E81   4   -RAS   256K    Pg. 1.3
  E82   4   -RAS   256K    Pg. 1.3
  E88   4   -RAS   256K    Pg. 1.3
  E89   4   -RAS   256K    Pg. 1.3
  E95   4   -RAS   256K    Pg. 1.3
  E96   4   -RAS   256K    Pg. 1.3
  E102  4   -RAS   256K    Pg. 1.3
  E103  4   -RAS   256K    Pg. 1.3
  R34   2   A<0>   SIP6B   Pg. 1.3

RBS7H   -0.11  0.035  RBS7(H)
  E19   13   R4     8641        Pg. 1.6
  E33   4    I4     82S167      Pg. 2.2
  E45   133  RBS7   GATEARRAY2  Pg. 1.4
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MAAL9  0.0  0.0  MAA<9>L
  C32  1   A      FINGER  Pg. 1.3
  E33  9   -Y<9>  F158    Pg. 1.3

MAPAD10  -0.030  0.030  MAP AD<10>H
  E3   9    AD<1>      5565          Pg. 1.5
  E4   9    AD<1>      5565          Pg. 1.5
  E45  141  MAP AD<10> GATEARRAY2    Pg. 1.4

MAPAD11  -0.030  0.030  MAP AD<11>H
  E3   8   AD<2>      5565          Pg. 1.5
  E4   8   AD<2>      5565          Pg. 1.5
  E45  6   MAP AD<11> GATEARRAY2    Pg. 1.4

MAPAD12  -0.030  0.030  MAP AD<12>H
  E3   7   AD<3>      5565          Pg. 1.5
  E4   7   AD<3>      5565          Pg. 1.5
  E45  2   MAP AD<12> GATEARRAY2    Pg. 1.4

MAPAD13  -0.030  0.030  MAP AD<13>H
  E3   6     AD<4>      5565        Pg. 1.5
  E4   6     AD<4>      5565        Pg. 1.5
  E45  142   MAP AD<13> GATEARRAY2  Pg. 1.4

MAPAD14  -0.04  0.04  MAP AD<14>H
  E1  19  Q<0>   LS373  Pg. 1.5
  E3   5  AD<5>  5565   Pg. 1.5
  E4   5  AD<5>  5565   Pg. 1.5

MAPAD15  -0.04  0.04  MAP AD<15>H
  E1  16  Q<1>   LS373  Pg. 1.5
  E3   4  AD<6>  5565   Pg. 1.5
  E4   4  AD<6>  5565   Pg. 1.5

MAPAD16  -0.04  0.04  MAP AD<16>H
  E1   5  Q<2>   LS373  Pg. 1.5
  E3   3  AD<7>  5565   Pg. 1.5
  E4   3  AD<7>  5565   Pg. 1.5

MAPAD17  -0.04  0.04  MAP AD<17>H
  E1  12  Q<3>   LS373  Pg. 1.5
  E3  25  AD<8>  5565   Pg. 1.5
  E4  25  AD<8>  5565   Pg. 1.5

MAPAD18  -0.04  0.04  MAP AD<18>H
  E1  15  Q<4>   LS373  Pg. 1.5
  E3  24  AD<9>  5565   Pg. 1.5
  E4  24  AD<9>  5565   Pg. 1.5

MAPAD19  -0.04  0.04  MAP AD<19>H
  E1   6  Q<5>   LS373  Pg. 1.5
  E3  21  AD<10> 5565   Pg. 1.5
  E4  21  AD<10> 5565   Pg. 1.5

MAPAD20  -0.04  0.04  MAP AD<20>H
  E1   9  Q<6>   LS373  Pg. 1.5
  E3  23  AD<11> 5565   Pg. 1.5
  E4  23  AD<11> 5565   Pg. 1.5

MAPAD21  -0.04  0.04  MAP AD<21>H
  E1   2  Q<7>   LS373  Pg. 1.5
  E3   2  AD<12> 5565   Pg. 1.5
  E4   2  AD<12> 5565   Pg. 1.5

MAPAD9  -0.030  0.030  MAP AD<9>H
  E3   10   AD<0>      5565          Pg. 1.5
  E4   10   AD<0>      5565          Pg. 1.5
  E45  139  MAP AD<9>  GATEARRAY2    Pg. 1.4

MAPDISABLEH  -0.02  0.02  MAP DISABLE<H>
  E3   22  -0E  5565    Pg. 1.5
  E4   22  -0E  5565    Pg. 1.5
  E39  9   05   825157  Pg. 2.1

MBMAA0  -0.05  0.05  MBMAA<0>H
  E80  5  -Y<0>  F240  Pg. 1.3
  R33  5  B<0>   SIP6B Pg. 1.3

MBMAA1  -0.05  0.05  MBMAA<1>H
  E80  7  -Y<1>  F240  Pg. 1.3
  R33  3  B<1>   SIP6B Pg. 1.3

MBMAA2  -0.05  0.05  MBMAA<2>H
  E80  9  -Y<2>  F240  Pg. 1.3
  R33  1  B<2>   SIP6B Pg. 1.3

MBMAA3  -0.05  0.05  MBMAA<3>H
  E80  18  -Y<3>  F240  Pg. 1.3
  R32  5   B<3>   SIP6B Pg. 1.3

MBMAA4  -0.05  0.05  MBMAA<4>H
  E94  14  -Y<4>  F240  Pg. 1.3
  R32  3   B<4>   SIP6B Pg. 1.3

MBMAA5  -0.05  0.05  MBMAA<5>H
  E80  12  -Y<5>  F240  Pg. 1.3
  R32  1   B<5>   SIP6B Pg. 1.3

MBMAA6  -0.05  0.05  MBMAA<6>H
  E94  18  -Y<6>  F240  Pg. 1.3
  R31  5   B<6>   SIP6B Pg. 1.3

MBMAA7  -0.05  0.05  MBMAA<7>H
  E80  16  -Y<7>  F240  Pg. 1.3
  R31  3   B<7>   SIP5B Pg. 1.3

MBMAA8  -0.05  0.05  MBMAA<8>H
  E94  9  -Y<8>  F240  Pg. 1.3
  R31  1  B<8>   SIP53 Pg. 1.3

MBMSWTL0  -0.05  0.05  MBMSWT<0>L
  E94  5  -Y<0>  F240  Pg. 1.3
  R34  5  B<0>   SIP6B Pg. 1.3

MCASL0  0.0  0.0  MCAS<0>L
  E87  8  -Y<0>  F04   Pg. 1.3
  R40  3  B<0>   SIP8B Pg. 1.3

MCASL1  0.0  0.0  MCAS<1>L
  E87  6  -Y<0>  F04   Pg. 1.3
  R40  1  B<0>   SIP8B Pg. 1.3

MCASL2  0.0  0.0  MCAS<2>L
  E87  4  -Y<0>  F04   Pg. 1.3
  R39  7  B<0>   SIP8B Pg. 1.3

MCASL3  0.0  0.0  MCAS<3>L
  E87  2  -Y<0>  F04   Pg. 1.3
  R39  5  B<0>   SIP8B Pg. 1.3

MD0  -1.410  0.1  MD<0>H
  E45  39  MD<0>  GATEARRAY2  Pg. 1.4
  E99  11  B<0>   F245        Pg. 1.2
  E106  2  A<0>   29853       Pg. 1.3
  J1    2  P2      CONN50      Pg. 1.3

MD1  -1.410  0.1  MD<1>H
  E45  56  MD<1>  GATEARRAY2  Pg. 1.4
  E99  12  B<1>   F245        Pg. 1.2
  E106  3  A<1>   29853       Pg. 1.3
  J1    3  P3      CONN50      Pg. 1.3

MD10  -1.410  0.1  MD<10>H
  E45  34  MD<10>  GATEARRAY2  Pg. 1.4
  E85  16  B<10>   F245        Pg. 1.2
  E92   4  A<2>    29853       Pg. 1.3
  J1   14  P14     CONN50      Pg. 1.3

MD11  -1.410  0.1  MD<11>H
  E45  61  MD<11>  GATEARRAY2  Pg. 1.4
  E85  17  B<11>   F245        Pg. 1.2
  E92   5  A<3>    29853       Pg. 1.3
  J1   15  P15     CONN50      Pg. 1.3

MD12  -1.410  0.1  MD<12>H
  E45  44  MD<12>  GATEARRAY2  Pg. 1.4
  E85  18  B<12>   F245        Pg. 1.2
  E92   6  A<4>    29853       Pg. 1.3
  J1   16  P16     CONN50      Pg. 1.3

MD13  -1.410  0.1  MD<13>H
  E45  62  MD<13>  GATEARRAY2  Pg. 1.4
  E85  13  B<13>   F245        Pg. 1.2
  E92   7  A<5>    29853       Pg. 1.3
  J1   17  P17     CONN50      Pg. 1.3

MD14  -1.410  0.1  MD<14>H
  E45  40  MD<14>  GATEARRAY2  Pg. 1.4
  E85  14  B<14>   F245        Pg. 1.2
  E92   8  A<6>    29853       Pg. 1.3
  J1   18  P18     CONN50      Pg. 1.3

MD15  -1.410  0.1  MD<15>H
  E45  63  MD<15>  GATEARRAY2  Pg. 1.4
  E71  12  B<15>   F245        Pg. 1.2
  E92   9  A<7>    29853       Pg. 1.3
  J1   29  P29     CONN50      Pg. 1.3

MD16  -1.410  0.1  MD<16>H
  E45  47  MD<16>  GATEARRAY2  Pg. 1.4
  E52  14  B<16>   F245        Pg. 1.2
  E64   2  A<0>    29853       Pg. 1.3
  J1   22  P22     CONN50      Pg. 1.3

MD17  -1.410  0.1  MD<17>H
  E45  65  MD<17>  GATEARRAY2  Pg. 1.4
  E52  17  B<17>   F245        Pg. 1.2
  E64   3  A<1>    29853       Pg. 1.3
  J1   33  P33     CONN50      Pg. 1.3

MD18  -1.410  0.1  MD<18>H
  E45  43  MD<18>  GATEARRAY2  Pg. 1.4
  E64   4  A<2>    29853       Pg. 1.3
  E71  13  B<18>   F245        Pg. 1.2
  J1   34  P34     CONN50      Pg. 1.3

MD19  -1.410  0.1  MD<19>H
  E45  69  MD<19>  GATEARRAY2  Pg. 1.4
  E52  16  B<19>   F245        Pg. 1.2
  E64   5  A<3>    29853       Pg. 1.3
  J1   35  P35     CONN50      Pg. 1.3

MD2  -1.410  0.1  MD<2>H
  E45  35  MD<2>  GATEARRAY2  Pg. 1.4
  E99  16  B<2>   F245        Pg. 1.2
  E106  4  A<2>   29853       Pg. 1.3
  J1    4  P4     CONN50      Pg. 1.3

MD20  -1.410  0.1  MD<20>H
  E45  41  MD<20>  GATEARRAY2  Pg. 1.4
  E52  18  B<20>   F245        Pg. 1.2
  E64   6  A<4>    29853       Pg. 1.3
  J1   36  P36     CONN50      Pg. 1.3

MD21  -1.410  0.1  MD<21>H
  E45  64  MD<21>  GATEARRAY2  Pg. 1.4
  E64   7  A<5>    29853       Pg. 1.3
  E85  15  B<21>   F245        Pg. 1.2
  J1   37  P37     CONN50      Pg. 1.3

MD22  -1.410  0.1  MD<22>H
  E45  52  MD<22>  GATEARRAY2  Pg. 1.4
  E52  12  B<22>   F245        Pg. 1.2
  E64   8  A<5>    29853       Pg. 1.3
  J1   40  P40     CONN50      Pg. 1.3

MD23  -1.410  0.1  MD<23>H
  E45  67  MD<23>  GATEARRAY2  Pg. 1.4
  E52  13  B<23>   F245        Pg. 1.2
  E64   9  A<7>    29853       Pg. 1.3
  J1   39  P39     CONN50      Pg. 1.3

MD24  -1.410  0.1  MD<24>H
  E45  46  MD<24>  GATEARRAY2  Pg. 1.4
  E58   2  A<0>    29853       Pg. 1.3
  E71  15  B<24>   F245        Pg. 1.2
  J1   42  P42     CONN50      Pg. 1.3

MD25  -1.410  0.1  MD<25>H
  E45  68  MD<25>  GATEARRAY2  Pg. 1.4
  E58   3  A<1>    29853       Pg. 1.3
  E71  17  B<25>   F245        Pg. 1.2
  J1   41  P41     CONN50      Pg. 1.3

MD26  -1.410  0.1  MD<26>H
  E45  51  MD<26>  GATEARRAY2  Pg. 1.4
  E58   4  A<2>    29853       Pg. 1.3
  E71  18  B<25>   F245        Pg. 1.2
  J1   44  P44     CONN50      Pg. 1.3

MD27  -1.410  0.1  MD<27>H
  E45  71  MD<27>  GATEARRAY2  Pg. 1.4
  E58   5  A<3>    29853       Pg. 1.3
  E71  11  B<27>   F245        Pg. 1.2
  J1   43  P43     CONN50      Pg. 1.3

MD28  -1.410  0.1  MD<28>H
  E45  48  MD<28>  GATEARRAY2  Pg. 1.4
  E58   6  A<4>    29853       Pg. 1.3
  E71  16  B<28>   F245        Pg. 1.2
  J1   46  P46     CONN50      Pg. 1.3

MD29  -1.410  0.1  MD<29>H
  E45  53  MD<29>  GATEARRAY2  Pg. 1.4
  E58   7  A<5>    29853       Pg. 1.3
  E71  14  B<29>   F245        Pg. 1.2
  J1   47  P47     CONN50      Pg. 1.3

MD3  -1.410  0.1  MD<3>H
  E45  58  MD<3>  GATEARRAY2  Pg. 1.4
  E99  17  B<3>   F245        Pg. 1.2
  E105  5  A<3>   29853       Pg. 1.3
  J1    5  P5     CONN50      Pg. 1.3

MD30  -1.410  0.1  MD<30>H
  E45  49  MD<30>  GATEARRAY2  Pg. 1.4
  E52  15  B<30>   F245        Pg. 1.2
  E58   8  A<6>    29853       Pg. 1.3
  J1   48  P48     CONN50      Pg. 1.3

MD31  -1.410  0.1  MD<31>H
  E45  52  MD<31>  GATEARRAY2  Pg. 1.4
  E52  11  B<31>   F245        Pg. 1.2
  E58   9  A<7>    29853       Pg. 1.3
  J1   49  P49     CONN50      Pg. 1.3

MD4  -1.410  0.1  MD<4>H
  E45  31  MD<4>  GATEARRAY2  Pg. 1.4
  E99  18  B<4>   F245        Pg. 1.2
  E106  6  A<4>   29853       Pg. 1.3
  J1    8  P8     CONN50      Pg. 1.3

MD5  -1.410  0.1  MD<5>H
  E45  57  MD<5>  GATEARRAY2  Pg. 1.4
  E99  13  B<5>   F245        Pg. 1.2
  E105  7  A<5>   29853       Pg. 1.3
  J1    7  P7     CONN50      Pg. 1.3
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REVISIONS

CHK	CHANGE NO.	REV

DR	E R W	DATE 8-19-84	ENG E R Wasson DATE 8-19-84
CHK'D	E R W	DATE 8-19-84	BOARD LOCATION:
DSK:NAPART.TPL[4,552]			NEXT HIGHER ASSEMBLY: B-DD-M7478-0
IF1PST USED ON OPTION/MODEL:			

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE D | NUMBER DD M7478-0-0 | REV. A

SHEET 2 OF 24

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TOH  -0.260  0.11  T.O.(H)
  E8   2   Q(3)  F374          Pg. 2.2
  E20  3   I3    825167        Pg. 2.2
  E26  3   I5    825167        Pg. 2.2
  E44  21  T.O.  GATEARRAY1    Pg. 1.7

TREFH  -1.6  0.04  TREF(H)
  E19  11  T3    8541          Pg. 1.6
  E45  14  TREF  GATEARRAY2    Pg. 1.4

TRPLYH  -1.6  0.04  TRPLY(H)
  E5   11  T3    8641          Pg. 1.6
  E45  5   DCREPLY GATEARRAY2  Pg. 1.4

TS0  -1.4  0.09  TS(0)H
  E17  13  D(1)  F174    Pg. 2.1.1
  E17  15  Q(0)  F174    Pg. 2.1.1
  E27  2   I7    825105  Pg. 2.1
  E39  6   I2    825167  Pg. 2.1
  E47  9   A(0)  F00     Pg. 2.1.1

TS1  -2.0  0.11  TS(1)H
  E17  12  Q(1)  F174    Pg. 2.1.1
  E27  3   I6    825105  Pg. 2.1
  E39  2   A(2)  F00     Pg. 2.1.1
  E39  3   B(0)  F00     Pg. 2.1.1
  E39  7   I1    825167  Pg. 2.1
  E47  10  B(2)  F00     Pg. 2.1.1

TSACKH  -1.6  0.04  TSACK(H)
  E19  5   T2    8541    Pg. 1.6
  E20  11  O3    825167  Pg. 2.2

TS1  -0.5  0.02  TS(1)L
  E17  14  D(0)  F174  Pg. 2.1.1
  E38  1   -Y(2)  F02  Pg. 2.1.1

TSYNCH  -1.6  0.04  TSYNC(H)
  E5   14  T4  8641    Pg. 1.6
  E25  14  O1  825167  Pg. 2.2

UN1963620PSLEW20  0.0  0.0  UN$1$9636$20P$SLEW$2(0)H
  E23  1  SLEW  9636  Pg. 1.9
  R4   1  B     RES   Pg. 1.9

UN1DIODE20PB20  0.0  0.0  UN$1$DIODE$20P$B$2(0)H
  D6  2  B  DIODE  Pg. 1.8
  D8  2  B  DIODE  Pg. 1.8
  R13 1  B  RES    Pg. 1.8

UN1F37418PD30  -0.65  0.07  UN$1$F374$18P$D$3(0)H
  E8  17  D(0)  F374  Pg. 2.2
  E8  19  Q(0)  F374  Pg. 2.2

UN1F37418PD31  -0.65  0.07  UN$1$F374$18P$D$3(1)H
  E8  12  Q(1)  F374  Pg. 2.2
  E8  14  D(1)  F374  Pg. 2.2

UN1F37418PD32  -0.65  0.07  UN$1$F374$18P$D$3(2)H
  E8  7  D(2)  F374  Pg. 2.2
  E8  9  Q(2)  F374  Pg. 2.2

UN1F37418PD33  -0.65  0.07  UN$1$F374$18P$D$3(3)H
  E8  3  D(3)  F374  Pg. 2.2
  E8  5  Q(3)  F374  Pg. 2.2

UN1F37426PG60  -0.65  0.07  UN$1$F374$26P$Q$6(0)H
  E12  16  Q(0)  F374  Pg. 2.2
  E12  18  D(0)  F374  Pg. 2.2

UN1F37426PG61  -0.65  0.07  UN$1$F374$26P$Q$6(1)H
  E12  13  D(1)  F374  Pg. 2.2
  E12  15  Q(1)  F374  Pg. 2.2

UN1F37426PG62  -0.65  0.07  UN$1$F374$26P$Q$6(2)H
  E12  6  D(2)  F374  Pg. 2.2
  E12  8  D(2)  F374  Pg. 2.2

UN1F37426PG63  -0.65  0.07  UN$1$F374$26P$Q$6(3)H
  E12  2  Q(3)  F374  Pg. 2.2
  E12  4  D(3)  F374  Pg. 2.2

UN1LM2119PB10  0.0  0.0  UN$1$LM211$9P$B$1(0)H
  E29  5  B    LM211  Pg. 1.8
  E29  6  D/S  LM211  Pg. 1.8

UVASL  -1.21  0.05  UVAS(L)
  E32  13  A(0)   F04          Pg. 1.1
  E43  30  -AS    DC333        Pg. 1.1
  E44  3   -UVAS  GATEARRAY1   Pg. 1.7
  E47  12  A(0)   F00          Pg. 2.1.1

UVBML0  -0.12  0.045  UVBM(0)L
  E26  19  I11          825167       Pg. 2.2
  E43  12  -BM(0)       DC333        Pg. 1.1
  E44  16  -UVBM(0)     GATEARRAY1   Pg. 1.7
  E45  143 -UVBM(0)     GATEARRAY2   Pg. 1.4

UVBML1  -0.11  0.035  UVBM(1)L
  E26  20  I10          825167       Pg. 2.2
  E43  13  -BM(1)       DC333        Pg. 1.1
  E45  100 -UVBM(1)     GATEARRAY2   Pg. 1.4

UVBML2  -0.11  0.035  UVBM(2)L
  E26  21  I9           825167       Pg. 2.2
  E43  14  -BM(2)       DC333        Pg. 1.1
  E45  105 -UVBM(2)     GATEARRAY2   Pg. 1.4

UVBML3  -0.11  0.035  UVBM(3)L
  E26  22  I8           825167       Pg. 2.2
  E43  15  -BM(3)       DC333        Pg. 1.1
  E45  101 -UVBM(3)     GATEARRAY2   Pg. 1.4

UVBRL14  -0.01  0.01  UVBR(14)L
  E43  7   -IRQ(0)  DC333        Pg. 1.1
  E44  93  -UVBR14  GATEARRAY1   Pg. 1.7

UVCLKOH  -1.21  0.05  UVCLKO(H)
  E37  4   A(0)   F32          Pg. 1.1
  E42  15  CLKO   DC337        Pg. 1.1
  E43  27  CLKO   DC333        Pg. 1.1
  E59  9   CLOCK  F174         Pg. 2.1.1

UVCS0  -0.02  0.02  UVCS(0)H
  E42  56  CS(0)  DC337        Pg. 1.1
  E43  26  CS(0)  DC333        Pg. 1.1
  E44  8   UVCS(0)  GATEARRAY1  Pg. 1.7

UVCS1  -0.02  0.02  UVCS(1)H
  E42  57  CS(1)  DC337        Pg. 1.1
  E43  25  CS(1)  DC333        Pg. 1.1
  E44  10  UVCS(1)  GATEARRAY1  Pg. 1.7

UVCS2  -0.120  0.04  UVCS(2)H
  E42  58  CS(2)  DC337        Pg. 1.1
  E43  24  CS(2)  DC333        Pg. 1.1
  E44  11  UVCS(2)  GATEARRAY1  Pg. 1.7
  E66  16  B(6)   F521         Pg. 1.2

UVCYCCDL0  -0.3  0.075  UVCYCCD(0)L
  E26  17  I13          825167       Pg. 2.2
  E27  24  I11          825105       Pg. 2.1
  E39  23  I7           825167       Pg. 2.1
  E44  22  -UVCYCD(0)   GATEARRAY1   Pg. 1.7

UVCYCCDL1  -0.3  0.075  UVCYCCD(1)L
  E26  18  I12          825167       Pg. 2.2
  E27  25  I10          825105       Pg. 2.1
  E39  2   I6           825167       Pg. 2.1
  E44  23  -UVCYCD(1)   GATEARRAY1   Pg. 1.7

UVCYCCDL2  -0.35  0.05  UVCYCCD(2)L
  E27  26  I9           825105       Pg. 2.1
  E44  24  -UVCYCD(2)   GATEARRAY1   Pg. 1.7
  E85  1   I0           16L8A        Pg. 2.1.2

UVCYCL  -0.95  0.07  UVCYC(L)
  E27  5   I4    825105  Pg. 2.1
  E31  12  D(0)  F74     Pg. 2.1.1
  E37  3   Y(0)  F32     Pg. 2.1.1
  E86  5   I4    16L8A   Pg. 2.1.2

UVDAL0  0.0  0.0  UVDAL(0)H
  E42  60  DAL(0)      DC337        Pg. 1.1
  E43  68  DAL(0)      DC333        Pg. 1.1
  E44  107 UVDAL(0)    GATEARRAY1   Pg. 1.7
  E99  9   A(0)        F245         Pg. 1.2

UVDAL1  0.0  0.0  UVDAL(1)H
  E42  61  DAL(1)      DC337        Pg. 1.1
  E43  67  DAL(1)      DC333        Pg. 1.1
  E44  110 UVDAL(1)    GATEARRAY1   Pg. 1.7
  E93  8   A(1)        F245         Pg. 1.2

UVDAL10  -1.03  0.09  UVDAL(10)H
  E42  5   DAL(10)     DC337        Pg. 1.1
  E43  56  DAL(10)     DC333        Pg. 1.1
  E44  120 UVDAL(10)   GATEARRAY1   Pg. 1.7
  E73  18  D(8)        F373         Pg. 1.2
  E85  4   A(10)       F245         Pg. 1.2

UVDAL11  -1.03  0.09  UVDAL(11)H
  E42  6   DAL(11)     DC337        Pg. 1.1
  E43  55  DAL(11)     DC333        Pg. 1.1
  E44  121 UVDAL(11)   GATEARRAY1   Pg. 1.7
  E73  13  D(9)        F373         Pg. 1.2
  E85  3   A(11)       F245         Pg. 1.2

UVDAL12  -1.03  0.09  UVDAL(12)H
  E42  7   DAL(12)     DC337        Pg. 1.1
  E43  54  DAL(12)     DC333        Pg. 1.1
  E44  122 UVDAL(12)   GATEARRAY1   Pg. 1.7
  E73  7   D(10)       F373         Pg. 1.2
  E85  2   A(12)       F245         Pg. 1.2

UVDAL13  -1.03  0.09  UVDAL(13)H
  E42  8   DAL(13)     DC337        Pg. 1.1
  E43  53  DAL(13)     DC333        Pg. 1.1
  E44  123 UVDAL(13)   GATEARRAY1   Pg. 1.7
  E73  8   D(11)       F373         Pg. 1.2
  E85  7   A(13)       F245         Pg. 1.2

UVDAL14  -1.03  0.09  UVDAL(14)H
  E42  9   DAL(14)     DC337        Pg. 1.1
  E43  52  DAL(14)     DC333        Pg. 1.1
  E44  124 UVDAL(14)   GATEARRAY1   Pg. 1.7
  E53  13  D(12)       F373         Pg. 1.2
  E85  6   A(14)       F245         Pg. 1.2

UVDAL15  -1.03  0.09  UVDAL(15)H
  E42  10  DAL(15)     DC337        Pg. 1.1
  E43  51  DAL(15)     DC333        Pg. 1.1
  E44  125 UVDAL(15)   GATEARRAY1   Pg. 1.7
  E53  8   D(13)       F373         Pg. 1.2
  E71  8   A(15)       F245         Pg. 1.2

UVDAL16  -1.03  0.09  UVDAL(16)H
  E42  25  DAL(16)     DC337        Pg. 1.1
  E43  50  DAL(16)     DC333        Pg. 1.1
  E44  128 UVDAL(16)   GATEARRAY1   Pg. 1.7
  E46  3   D(14)       F373         Pg. 1.2
  E52  6   A(16)       F245         Pg. 1.2

UVDAL17  -1.03  0.09  UVDAL(17)H
  E42  26  DAL(17)     DC337        Pg. 1.1
  E43  49  DAL(17)     DC333        Pg. 1.1
  E44  129 UVDAL(17)   GATEARRAY1   Pg. 1.7
  E46  18  D(15)       F373         Pg. 1.2
  E52  3   A(17)       F245         Pg. 1.2

UVDAL18  -1.03  0.09  UVDAL(18)H
  E42  27  DAL(18)     DC337        Pg. 1.1
  E43  48  DAL(18)     DC333        Pg. 1.1
  E44  130 UVDAL(18)   GATEARRAY1   Pg. 1.7
  E53  7   D(16)       F373         Pg. 1.2
  E71  7   A(18)       F245         Pg. 1.2

UVDAL19  -1.03  0.09  UVDAL(19)H
  E42  28  DAL(19)     DC337        Pg. 1.1
  E43  47  DAL(19)     DC333        Pg. 1.1
  E44  131 UVDAL(19)   GATEARRAY1   Pg. 1.7
  E46  8   D(17)       F373         Pg. 1.2
  E52  4   A(19)       F245         Pg. 1.2

UVDAL2  -1.03  0.09  UVDAL(2)H
  E42  62  DAL(2)      DC337        Pg. 1.1
  E43  66  DAL(2)      DC333        Pg. 1.1
  E44  111 UVDAL(2)    GATEARRAY1   Pg. 1.7
  E73  17  D(0)        F373         Pg. 1.2
  E99  4   A(2)        F245         Pg. 1.2

UVDAL20  -1.03  0.09  UVDAL(20)H
  E42  29  DAL(20)     DC337        Pg. 1.1
  E43  46  DAL(20)     DC333        Pg. 1.1
  E44  132 UVDAL(20)   GATEARRAY1   Pg. 1.7
  E46  7   D(18)       F373         Pg. 1.2
  E52  2   A(20)       F245         Pg. 1.2

UVDAL21  -1.03  0.09  UVDAL(21)H
  E42  30  DAL(21)     DC337        Pg. 1.1
  E43  45  DAL(21)     DC333        Pg. 1.1
  E44  133 UVDAL(21)   GATEARRAY1   Pg. 1.7
  E53  4   D(19)       F373         Pg. 1.2
  E85  5   A(21)       F245         Pg. 1.2

UVDAL22  -1.03  0.09  UVDAL(22)H
  E42  31  DAL(22)     DC337        Pg. 1.1
  E43  42  DAL(22)     DC333        Pg. 1.1
  E44  134 UVDAL(22)   GATEARRAY1   Pg. 1.7
  E46  17  D(20)       F373         Pg. 1.2
  E52  8   A(22)       F245         Pg. 1.2

UVDAL23  -1.03  0.09  UVDAL(23)H
  E42  32  DAL(23)     DC337        Pg. 1.1
  E43  41  DAL(23)     DC333        Pg. 1.1
  E44  135 UVDAL(23)   GATEARRAY1   Pg. 1.7
  E46  4   D(21)       F373         Pg. 1.2
  E52  7   A(23)       F245         Pg. 1.2

UVDAL24  -0.530  0.09  UVDAL(24)H
  E42  36  DAL(24)     DC337        Pg. 1.1
  E43  40  DAL(24)     DC333        Pg. 1.1
  E44  136 UVDAL(24)   GATEARRAY1   Pg. 1.7
  E66  3   B(0)        F521         Pg. 1.2
  E71  5   A(24)       F245         Pg. 1.2

UVDAL25  -0.530  0.09  UVDAL(25)H
  E42  37  DAL(25)     DC337        Pg. 1.1
  E43  39  DAL(25)     DC333        Pg. 1.1
  E44  137 UVDAL(25)   GATEARRAY1   Pg. 1.7
  E66  5   B(1)        F521         Pg. 1.2
  E71  3   A(25)       F245         Pg. 1.2

UVDAL26  -0.530  0.09  UVDAL(26)H
  E42  38  DAL(26)     DC337        Pg. 1.1
  E43  38  DAL(26)     DC333        Pg. 1.1
  E44  139 UVDAL(26)   GATEARRAY1   Pg. 1.7
  E66  7   B(2)        F521         Pg. 1.2
  E71  2   A(26)       F245         Pg. 1.2

UVDAL27  -0.530  0.09  UVDAL(27)H
  E42  39  DAL(27)     DC337        Pg. 1.1
  E43  37  DAL(27)     DC333        Pg. 1.1
  E44  140 UVDAL(27)   GATEARRAY1   Pg. 1.7
  E66  9   B(3)        F521         Pg. 1.2
  E71  9   A(27)       F245         Pg. 1.2
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REVISIONS			
CHK	CHANGE NO.	REV

DRN ERW — DATE 8-19-86
CHK ERW — DATE 8-19-86
ENG ERW — DATE 8-19-86
DSK:NAMSRT.T2P(4,550)
FIRST USED ON OPTION/MODEL:
BOARD LOCATION:
SHEET 11 OF 24
NEXT HIGHER ASSEMBLY: 8-DD-M7478-2

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE	CODE	NUMBER	REV.
D	DD	M7478-0-2	E

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UVDAL28  -0.530  0.09  UVDAL<28>H
  E42  40   DAL<28>      DC337        Pg. 1.1
  E43  36   DAL<28>      DC333        Pg. 1.1
  E44  141  UVDAL<28>    GATEARRAY1   Pg. 1.7
  E66  12   B<4>         F521         Pg. 1.2
  E71  4    A<28>        F245         Pg. 1.2

UVDAL29  -0.530  0.09  UVDAL<29>H
  E42  41   DAL<29>      DC337        Pg. 1.1
  E43  35   DAL<29>      DC333        Pg. 1.1
  E44  142  UVDAL<29>    GATEARRAY1   Pg. 1.7
  E66  14   B<5>         F521         Pg. 1.2
  E71  6    A<29>        F245         Pg. 1.2

UVDAL3  -1.03  0.09  UVDAL<3>H
  E42  63   DAL<3>       DC337        Pg. 1.1
  E43  65   DAL<3>       DC333        Pg. 1.1
  E44  112  UVDAL<3>     GATEARRAY1   Pg. 1.7
  E73  14   D<1>         F373         Pg. 1.2
  E99  3    A<3>         F245         Pg. 1.2

UVDAL30  0.0  0.0  UVDAL<30>H
  E42  42   DAL<30>      DC337        Pg. 1.1
  E43  34   DAL<30>      DC333        Pg. 1.1
  E44  143  UVDAL<30>    GATEARRAY1   Pg. 1.7
  E52  5    A<30>        F245         Pg. 1.2

UVDAL31  0.0  0.0  UVDAL<31>H
  E42  43   DAL<31>      DC337        Pg. 1.1
  E43  33   DAL<31>      DC333        Pg. 1.1
  E44  2    UVDAL<31>    GATEARRAY1   Pg. 1.7
  E52  9    A<31>        F245         Pg. 1.2

UVDAL4  -1.03  0.09  UVDAL<4>H
  E42  64   DAL<4>       DC337        Pg. 1.1
  E43  64   DAL<4>       DC333        Pg. 1.1
  E44  113  UVDAL<4>     GATEARRAY1   Pg. 1.7
  E46  14   D<2>         F373         Pg. 1.2
  E99  2    A<4>         F245         Pg. 1.2

UVDAL5  -1.03  0.09  UVDAL<5>H
  E42  65   DAL<5>       DC337        Pg. 1.1
  E43  63   DAL<5>       DC333        Pg. 1.1
  E44  114  UVDAL<5>     GATEARRAY1   Pg. 1.7
  E73  4    D<3>         F373         Pg. 1.2
  E99  7    A<5>         F245         Pg. 1.2

UVDAL6  -1.03  0.09  UVDAL<6>H
  E42  66   DAL<6>       DC337        Pg. 1.1
  E43  62   DAL<6>       DC333        Pg. 1.1
  E44  115  UVDAL<6>     GATEARRAY1   Pg. 1.7
  E46  13   D<4>         F373         Pg. 1.2
  E99  5    A<6>         F245         Pg. 1.2

UVDAL7  -1.03  0.09  UVDAL<7>H
  E42  67   DAL<7>       DC337        Pg. 1.1
  E43  59   DAL<7>       DC333        Pg. 1.1
  E44  116  UVDAL<7>     GATEARRAY1   Pg. 1.7
  E53  17   D<5>         F373         Pg. 1.2
  E99  5    A<7>         F245         Pg. 1.2

UVDAL8  -1.03  0.09  UVDAL<8>H
  E42  3    DAL<8>       DC337        Pg. 1.1
  E43  58   DAL<8>       DC333        Pg. 1.1
  E44  118  UVDAL<8>     GATEARRAY1   Pg. 1.7
  E53  14   D<6>         F373         Pg. 1.2
  E85  9    A<8>         F245         Pg. 1.2

UVDAL9  -1.03  0.09  UVDAL<9>H
  E42  4    DAL<9>       DC337        Pg. 1.1
  E43  57   DAL<9>       DC333        Pg. 1.1
  E44  119  UVDAL<9>     GATEARRAY1   Pg. 1.7
  E53  18   D<7>         F373         Pg. 1.2
  E85  8    A<9>         F245         Pg. 1.2

UVDALMAL  -1.9  0.085  UVDAL->MA(L)
  E27  10   07    825105   Pg. 2.1
  E39  17   I13   825167   Pg. 2.1
  E46  1    -OE   F373     Pg. 1.2
  E53  1    -OE   F373     Pg. 1.2
  E73  1    -OE   F373     Pg. 1.2

UVDBEL  -0.01  0.01  UVDBE(L)
  E43  20   -DBE    DC333        Pg. 1.1
  E44  6    -UVDBE  GATEARRAY1   Pg. 1.7

UVDSL  -0.01  0.01  UVDS(L)
  E43  29   -DS     DC333        Pg. 1.1
  E44  7    -UVDS   GATEARRAY1   Pg. 1.7

UVEPSL  -0.02  0.02  UVEPS(L)
  E42  54   -EPS    DC337        Pg. 1.1
  E43  23   -EPS    DC333        Pg. 1.1
  E44  5    -UVEPS  GATEARRAY1   Pg. 1.7

UVERRL  -0.21  0.06  UVERR(L)
  E27  9    I0     825105       Pg. 2.1
  E39  5    I3     825167       Pg. 2.1
  E43  20   -ERR   DC333        Pg. 1.1
  E44  14   -UVERR  GATEARRAY1   Pg. 1.7

UVHALTL  -0.01  0.01  UVHALT(L)
  E43  11   -HALT   DC333        Pg. 1.1
  E44  94   -UVHALT  GATEARRAY1   Pg. 1.7

UVRDYL  -0.01  0.01  UVRDY(L)
  E38  13   -RDY<0>  F02    Pg. 1.1
  E43  19   -RDY     DC333  Pg. 1.1

UVRESETL  -0.62  0.04  UVRESET(L)
  E32  5    A<0>     F04-         Pg. 1.7
  E42  16   -RESET   DC337        Pg. 1.1
  E43  16   -RESET   DC333        Pg. 1.1
  E44  95   -UVRESET  GATEARRAY1   Pg. 1.7

UVWRH  -4.06  0.265  UVWR(H)
  E7   11   T3     8641         Pg. 1.6
  E9   3    DIR    LS646        Pg. 1.5
  E10  3    DIR    LS646        Pg. 1.5
  E25  1    A<0>   LS04         Pg. 1.6
  E26  23   I7     825167       Pg. 2.2
  E32  8    -Y<0>  F04-         Pg. 1.1
  E33  3    I5     825167       Pg. 2.1
  E40  6    I5     16L8A        Pg. 1.4
  E45  80   UVWR   GATEARRAY2   Pg. 1.4
  E52  1    DIR    F245         Pg. 1.2
  E71  1    DIR    F245         Pg. 1.2
  E85  1    DIR    F245         Pg. 1.2
  E99  1    DIR    F245         Pg. 1.2

UVWRL  -0.63  0.05  UVWR(L)
  E14  15   -R/W   MC1468I8     Pg. 1.8
  E32  9    A<0>   F04          Pg. 1.1
  E42  55   -WR    DC337        Pg. 1.1
  E43  21   -WR    DC333        Pg. 1.1
  E44  4    -UVWR  GATEARRAY1   Pg. 1.7

V12REFH  0.0  0.0  V1.2REF(H)
  C29  1    A<0>   CAP          Pg. 1.8
  D5   1    A      ZDIODE       Pg. 1.8
  E29  2    IN+    LM211        Pg. 1.8
  R23  2    A<0>   SIP2A        Pg. 1.8

V43REFH  0.0  0.0  V4.3REF(H)
  D1   1    A  ZDIODE  Pg. 1.9
  D2   1    A  DIODE   Pg. 1.9

VALIDH  -0.61  0.08  VALID(H)
  E3   11   DB<15>  5555    Pg. 1.5
  E9   20   B<7>    LS646   Pg. 1.5
  E26  2    I6     825167  Pg. 2.2
  E33  2    I6     825167  Pg. 2.2

WIP2H  -0.02  0.02  WIP2(H)
  E21  27   AD<14>  27256   Pg. 1.9
  E22  27   AD<14>  27256   Pg. 1.9
  W1   2    B       JUMPER  Pg. 1.9
  W2   2    B       JUMPER  Pg. 1.9

WRMAPL  -0.02  0.02  WR MAP(L)
  E3   27   -WR  5565   Pg. 1.5
  E4   27   -WR  5565   Pg. 1.5
  E40  14   02   16L8A  Pg. 1.4

XDAL0  0.0  0.0  XDAL<0>H
  E11  13   A<0>       DC021        Pg. 1.6
  E45  13   XDAL<0>    GATEARRAY2   Pg. 1.4

XDAL1  0.0  0.0  XDAL<1>H
  E11  14   A<1>       DC021        Pg. 1.6
  E45  12   XDAL<1>    GATEARRAY2   Pg. 1.4

XDAL10  0.0  0.0  XDAL<10>H
  E36  13   A<10>      DC021        Pg. 1.6
  E45  26   XDAL<10>   GATEARRAY2   Pg. 1.4

XDAL11  0.0  0.0  XDAL<11>H
  E36  14   A<11>      DC021        Pg. 1.6
  E45  25   XDAL<11>   GATEARRAY2   Pg. 1.4

XDAL12  0.0  0.0  XDAL<12>H
  E36  15   A<12>      DC021        Pg. 1.6
  E45  33   XDAL<12>   GATEARRAY2   Pg. 1.4

XDAL13  0.0  0.0  XDAL<13>H
  E36  16   A<13>      DC021        Pg. 1.6
  E45  29   XDAL<13>   GATEARRAY2   Pg. 1.4

XDAL14  -2.01  0.09  XDAL<14>H
  E1   18   D<0>       LS373        Pg. 1.5
  E36  17   A<14>      DC021        Pg. 1.6
  E45  27   XDAL<14>   GATEARRAY2   Pg. 1.4

XDAL15  -2.01  0.09  XDAL<15>H
  E1   17   D<1>       LS373        Pg. 1.5
  E36  18   A<15>      DC021        Pg. 1.6
  E45  28   XDAL<15>   GATEARRAY2   Pg. 1.4

XDAL16  -2.01  0.09  XDAL<16>H
  E1   4    D<2>       LS373        Pg. 1.5
  E11  17   A<16>      DC021        Pg. 1.6
  E44  27   XDAL<16>   GATEARRAY1   Pg. 1.7

XDAL17  -2.01  0.09  XDAL<17>H
  E1   13   D<3>       LS373        Pg. 1.5
  E11  16   A<17>      DC021        Pg. 1.6
  E44  28   XDAL<17>   GATEARRAY1   Pg. 1.7

XDAL18  -2.01  0.09  XDAL<18>H
  E1   14   D<4>       LS373        Pg. 1.5
  E11  11   A<18>      DC021        Pg. 1.6
  E44  29   XDAL<18>   GATEARRAY1   Pg. 1.7

XDAL19  -2.01  0.09  XDAL<19>H
  E1   7    D<5>       LS373        Pg. 1.5
  E11  12   A<19>      DC021        Pg. 1.6
  E44  31   XDAL<19>   GATEARRAY1   Pg. 1.7

XDAL2  0.0  0.0  XDAL<2>H
  E30  16   A<2>       DC021        Pg. 1.6
  E45  15   XDAL<2>    GATEARRAY2   Pg. 1.4

XDAL20  -2.01  0.09  XDAL<20>H
  E1   8    D<6>       LS373        Pg. 1.5
  E30  18   A<20>      DC021        Pg. 1.6
  E44  32   XDAL<20>   GATEARRAY1   Pg. 1.7

XDAL21  -2.01  0.09  XDAL<21>H
  E1   3    D<7>       LS373        Pg. 1.5
  E30  17   A<21>      DC021        Pg. 1.6
  E44  33   XDAL<21>   GATEARRAY1   Pg. 1.7

XDAL3  0.0  0.0  XDAL<3>H
  E30  15   A<3>       DC021        Pg. 1.6
  E45  16   XDAL<3>    GATEARRAY2   Pg. 1.4

XDAL4  0.0  0.0  XDAL<4>H
  E30  14   A<4>       DC021        Pg. 1.6
  E45  17   XDAL<4>    GATEARRAY2   Pg. 1.4

XDAL5  0.0  0.0  XDAL<5>H
  E30  13   A<5>       DC021        Pg. 1.6
  E45  22   XDAL<5>    GATEARRAY2   Pg. 1.4

XDAL6  0.0  0.0  XDAL<6>H
  E30  12   A<6>       DC021        Pg. 1.6
  E45  20   XDAL<6>    GATEARRAY2   Pg. 1.4

XDAL7  0.0  0.0  XDAL<7>H
  E30  11   A<7>       DC021        Pg. 1.6
  E45  24   XDAL<7>    GATEARRAY2   Pg. 1.4

XDAL8  0.0  0.0  XDAL<8>H
  E36  11   A<8>       DC021        Pg. 1.6
  E45  23   XDAL<8>    GATEARRAY2   Pg. 1.4

XDAL9  0.0  0.0  XDAL<9>H
  E36  12   A<9>       DC021        Pg. 1.6
  E45  21   XDAL<9>    GATEARRAY2   Pg. 1.4

XDBIRQH  -0.02  0.02  XDBI RQ(H)
  E44  85   XDBI RQ   GATEARRAY1   Pg. 1.7
  E45  107  XDBI RQ   GATEARRAY2   Pg. 1.4
  R23  4    A<0>      SIP2A        Pg. 1.4

XDMAQPEH  -0.820  0.06  XDMA QPE(H)
  E9   23   CBA       LS646        Pg. 1.5
  E10  23   CBA       LS646        Pg. 1.5
  E44  79   XDMA QPE  GATEARRAY1   Pg. 1.7
  E45  111  XDMA QPE  GATEARRAY2   Pg. 1.4
  R10  2    A<0>      SIP2A        Pg. 1.4

XLATAD10  -0.81  0.05  XLAT AD<10>H
  E4   18   DB<1>     5565         Pg. 1.5
  E6   17   D<1>      LS373        Pg. 1.5
  E10  14   B<1>      LS646        Pg. 1.5

XLATAD11  -0.81  0.05  XLAT AD<11>H
  E4   17   DB<2>     5565         Pg. 1.5
  E6   14   D<2>      LS373        Pg. 1.5
  E10  15   B<2>      LS646        Pg. 1.5

XLATAD12  -0.81  0.05  XLAT AD<12>H
  E4   16   DB<3>     5565         Pg. 1.5
  E6   13   D<3>      LS373        Pg. 1.5
  E10  16   B<3>      LS646        Pg. 1.5

XLATAD13  -0.81  0.05  XLAT AD<13>H
  E4   15   DB<4>     5565         Pg. 1.5
  E6   4    D<4>      LS373        Pg. 1.5
  E10  17   B<4>      LS646        Pg. 1.5

XLATAD14  -0.81  0.05  XLAT AD<14>H
  E2   8    D<5>      LS373        Pg. 1.5
  E4   13   DB<5>     5565         Pg. 1.5
  E10  18   B<5>      LS646        Pg. 1.5

XLATAD15  -0.81  0.05  XLAT AD<15>H
  E2   3    D<6>      LS373        Pg. 1.5
  E4   12   DB<6>     5565         Pg. 1.5
  E10  19   B<6>      LS646        Pg. 1.5
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DRW. EQ DATE 6-19-86
CHK'D EQ DATE 6-19-86
ENG EQ DATE 6-19-86
DSK:
BOARD LOCATION:
SHEET 12 OF 24
NEXT HIGHER ASSEMBLY: B-DD-M7478-0
FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS
SIZE D | CODE DD | NUMBER M7478-0-0 | REV. 1.2

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XLATAD15  -0.81  0.05  XLAT AD<16>H
  E4   11  DB<7>    5565    Pg. 1.5
  E6    3  D<7>     LS373   Pg. 1.5
  E10  20  B<7>     LS646   Pg. 1.5

XLATAD17  -0.81  0.05  XLAT AD<17>H
  E2   18  D<8>     LS373   Pg. 1.5
  E3   19  DB<8>    5565    Pg. 1.5
  E9   13  B<0>     LS646   Pg. 1.5

XLATAD18  -0.81  0.05  XLAT AD<18>H
  E2   14  D<9>     LS373   Pg. 1.5
  E3   18  DB<9>    5565    Pg. 1.5
  E9   14  B<1>     LS646   Pg. 1.5

XLATAD19  -0.81  0.05  XLAT AD<19>H
  E2   17  D<10>    LS373   Pg. 1.5
  E3   17  DB<10>   5565    Pg. 1.5
  E9   15  B<2>     LS646   Pg. 1.5

XLATAD20  -0.81  0.05  XLAT AD<20>H
  E2   13  D<11>    LS373   Pg. 1.5
  E3   16  DB<11>   5565    Pg. 1.5
  E9   16  B<3>     LS646   Pg. 1.5

XLATAD21  -0.81  0.05  XLAT AD<21>H
  E3   15  DB<12>   5565    Pg. 1.5
  E6    7  D<12>    LS373   Pg. 1.5
  E9   17  B<4>     LS646   Pg. 1.5

XLATAD22  -0.81  0.05  XLAT AD<22>H
  E2    7  D<13>    LS373   Pg. 1.5
  E3   13  DB<13>   5565    Pg. 1.5
  E9   18  B<5>     LS646   Pg. 1.5

XLATAD23  -0.81  0.05  XLAT AD<23>H
  E2    4  D<14>    LS373   Pg. 1.5
  E3   12  DB<14>   5565    Pg. 1.5
  E9   19  B<6>     LS646   Pg. 1.5

XLATAD9   -0.81  0.05  XLAT AD<9>H
  E4   19  DB<0>    5565    Pg. 1.5
  E6   18  D<0>     LS373   Pg. 1.5
  E10  13  B<0>     LS646   Pg. 1.5

XWTBTH    -1.71  0.095  XWTBT<H>
  E11  15  A<22>  DC021       Pg. 1.6
  E33   3  15     825167      Pg. 2.2
  E45  32  XWTBT  GATEARRAY2  Pg. 1.4

END GLOBAL SIGNAL CROSS REFERENCE
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REVISIONS		
CHK	CHANGE NO.	REV

DRN. ER DATE 8-19-84 ENG ER DATE 8-19-84
CHK'D ER DATE 8-19-84 BOARD LOCATION:
DSK:NAMSRT. SHEET 12 OF 24
FIRST USED ON OPTION/MODEL: NEXT HIGHER ASSEMBLY: B-DD-M7478-0

TITLE: KA620 CROSS REFERENCE SIGNALS

SIZE	CODE	NUMBER	REV.
D	DD	M7478-0-0	A

GLOBAL PART CROSS REFERENCE - 12-OCT-1984

AA1 FINGER
1 BIRQL5 BIRQ<5>L Pg. 1.6

AA2 FINGER
1 A50V +5.0V Pg. 1.11

AB1 FINGER
1 BIRQL6 BIRQ<6>L Pg. 1.6

AC1 FINGER
1 BDALL16 BDAL<16>L Pg. 1.6

AC2 FINGER
1 GND GND Pg. 1.11

AD1 FINGER
1 BDALL17 BDAL<17>L Pg. 1.6

AD2 FINGER
1 A120V +12.0V Pg. 1.11

AE2 FINGER
1 BDOUTL BDOUT<L> Pg. 1.6

AF1 FINGER
1 SRUNL SRUN<L> Pg. 1.10

AF2 FINGER
1 BRPLYL BRPLY<L> Pg. 1.6

AH2 FINGER
1 BDINL BDIN<L> Pg. 1.6

AJ1 FINGER
1 GND GND Pg. 1.11

AJ2 FINGER
1 BSYNCL BSYNC<L> Pg. 1.6

AK2 FINGER
1 BWTBTL BWTBT<L> Pg. 1.6

AL2 FINGER
1 BIRQL4 BIRQ<4>L Pg. 1.6

AM1 FINGER
1 GND GND Pg. 1.11

AM2 FINGER
1 BIAKIL BIAKI<L> Pg. 1.6

AN1 FINGER
1 BDMRL BDMR<L> Pg. 1.6

AN2 FINGER
1 BIAKOL BIAKO<L> Pg. 1.6

AP1 FINGER
1 BHALTL BHALT<L> Pg. 1.6

AP2 FINGER
1 BBS7L BBS7<L> Pg. 1.6

AR1 FINGER
1 BREFL BREF<L> Pg. 1.6

AR2 FINGER
1 BDMGIL BDMGI<L> Pg. 1.6

AS2 FINGER
1 BDMGOL BDMGO<L> Pg. 1.6

AT1 FINGER
1 GND GND Pg. 1.11

AT2 FINGER
1 BINITL BINIT<L> Pg. 1.6

AU2 FINGER
1 BDALL0 BDAL<0>L Pg. 1.6

AV2 FINGER
1 BDALL1 BDAL<1>L Pg. 1.6

BA1 FINGER
1 BDCOKH BDCOK<H> Pg. 1.6

BA2 FINGER
1 A50V +5.0V Pg. 1.11

BB1 FINGER
1 BPOKH BPOK<H> Pg. 1.6

BC1 FINGER
1 BDALL18 BDAL<18>L Pg. 1.6

BC2 FINGER
1 GND GND Pg. 1.11

BD1 FINGER
1 BDALL19 BDAL<19>L Pg. 1.6

BE1 FINGER
1 BDALL20 BDAL<20>L Pg. 1.6

BE2 FINGER
1 BDALL2 BDAL<2>L Pg. 1.6

BF1 FINGER
1 BDALL21 BDAL<21>L Pg. 1.6

BF2 FINGER
1 BDALL3 BDAL<3>L Pg. 1.6

BH2 FINGER
1 BDALL4 BDAL<4>L Pg. 1.6

BJ1 FINGER
1 GND GND Pg. 1.11

BJ2 FINGER
1 BDALL5 BDAL<5>L Pg. 1.6

BK2 FINGER
1 BDALL6 BDAL<6>L Pg. 1.6

BL2 FINGER
1 BDALL7 BDAL<7>L Pg. 1.6

BM1 FINGER
1 GND GND Pg. 1.11

BM2 FINGER
1 BDALL8 BDAL<8>L Pg. 1.6

BN1 FINGER
1 BSACKL BSACK<L> Pg. 1.6

BN2 FINGER
1 BDALL9 BDAL<9>L Pg. 1.6

BP1 FINGER
1 BIRQL7 BIRQ<7>L Pg. 1.6

BP2 FINGER
1 BDALL10 BDAL<10>L Pg. 1.6

BR1 FINGER
1 BEVENTL BEVENT<L> Pg. 1.6

BR2 FINGER
1 BDALL11 BDAL<11>L Pg. 1.6

BS2 FINGER
1 BDALL12 BDAL<12>L Pg. 1.6

BT1 FINGER
1 GND GND Pg. 1.11

BT2 FINGER
1 BDALL13 BDAL<13>L Pg. 1.6

BU2 FINGER
1 BDALL14 BDAL<14>L Pg. 1.6

BV1 FINGER
1 A50V +5.0V Pg. 1.11

BV2 FINGER
1 BDALL15 BDAL<15>L Pg. 1.6

C1 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C2 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C3 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C4 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C5 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C6 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C7 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C8 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C9 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C10 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C11 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C12 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C13 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C14 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C15 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C16 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C17 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C18 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C19 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C20 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C21 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C22 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C23 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C24 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C25 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C26 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C27 CAP
1 A50V +5.0V Pg. 1.11
2 GND GND Pg. 1.11

C28 CAP
1 E35P6L E35P6<L> Pg. 1.8
2 GND GND Pg. 1.8

C29 CAP
1 V12REFH V1.2REF<H> Pg. 1.8
2 BTVREFH BTVREF<H> Pg. 1.8

C30 CAP
1 E15P7H E15P7<H> Pg. 1.9
2 D2ANODEH D2ANODE<H> Pg. 1.9

C31 CAP
1 E15P5H E15P5<H> Pg. 1.9
2 D4CATHODEL D4CATHODE<L> Pg. 1.9

C32 CAP
1 GND GND Pg. 1.9
2 A120VL 12.0V L Pg. 1.9

REVISIONS		
CHK	CHANGE NO.	REV

DRN ERW DATE 8-19-86
CHK ERW DATE 8-19-86
ENG ERW DATE 8-19-86
BOARD LOCATION:
SHEET 1A OF 24
DSK:
FIRST USED ON OPTION/MODEL:
NEXT HIGHER ASSEMBLY: B-DD-M7478-0

TITLE: KA620 CROSS REFERENCE SIGNALS
SIZE D | CODE DO | NUMBER M7478-0-0 | REV. A

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C33  CAP
  1  GND      GND          Pg. 1.9
  2  A120VL   12.0V L Pg. 1.5

C34  CAP
  1  A120V    +12.0V  Pg. 1.9
  2  GND      GND     Pg. 1.9

C35  CAP
  1  BTRTV1H  BTRTV1(H)  Pg. 1.8
  2  GND      GND        Pg. 1.8

C37  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C38  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C39  CAP
  1  A120V  +12.0V  Pg. 1.11
  2  GND    GND     Pg. 1.11

C40  CAP
  1  DRDCOKH  DRDCOK(H)  Pg. 1.7
  2  GND      GND        Pg. 1.7

C41  CAP
  1  BTVREFH  BTVREF(H)  Pg. 1.8
  2  GND      GND        Pg. 1.8

C42  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C43  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C44  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C45  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C46  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C47  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C48  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C49  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C50  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C51  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C52  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C53  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C54  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C55  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C56  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C57  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C58  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C59  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C60  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C61  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C62  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C63  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C64  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C65  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C66  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C67  CAP
  1  SIL  SI(L)  Pg. 1.9
  2  SIH  SI(H)  Pg. 1.9

C68  CAP
  1  A120V  +12.0V  Pg. 1.11
  2  GND    GND     Pg. 1.11

C69  CAP
  1  A120V  +12.0V  Pg. 1.11
  2  GND    GND     Pg. 1.11

C71  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C72  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C73  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C74  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C75  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C76  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C77  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C78  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C79  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

C80  CAP
  1  A50V  +5.0V  Pg. 1.11
  2  GND   GND    Pg. 1.11

CA2  FINGER
  1  A50V  +5.0V  Pg. 1.3

CB2  FINGER
  1  MAAL9  MAA(9)L  Pg. 1.3

CC2  FINGER
  1  GND  GND  Pg. 1.3

CD2  FINGER
  1  RAS5  RAS(5)H Pg. 1.3

CE2  FINGER
  1  BMCAS0  BMCAS(0)H Pg. 1.3

CF2  FINGER
  1  RAS1  RAS(1)H Pg. 1.3

CH2  FINGER
  1  BMCAS1  BMCAS(1)H Pg. 1.3

CJ2  FINGER
  1  MSIDL0  MSID(0)L  Pg. 1.3

CK2  FINGER
  1  MSWT1  MSWT(1)H Pg. 1.3

CL2  FINGER
  1  RAS4  RAS(4)H Pg. 1.3

CM2  FINGER
  1  MSIDL1  MSID(1)L  Pg. 1.3

CN2  FINGER
  1  MAAL1  MAA(1)L  Pg. 1.3

CP2  FINGER
  1  MAAL2  MAA(2)L  Pg. 1.3

CR2  FINGER
  1  MAAL0  MAA(0)L  Pg. 1.3

CS2  FINGER
  1  MAAL8  MAA(8)L  Pg. 1.3

CT1  FINGER
  1  GND  GND  Pg. 1.3

CT2  FINGER
  1  MSIDL4  MSID(4)L  Pg. 1.3

CU2  FINGER
  1  RAS0  RAS(0)H Pg. 1.3

D1  ZDIODE
  1  V43REFH  V4.3REF(H)  Pg. 1.9
  2  GND      GND         Pg. 1.9

D2  DIODE
  1  V43REFH    V4.3REF(H)  Pg. 1.9
  2  D2ANODEH   D2ANODE(H)  Pg. 1.9

D3  DIODE
  1  D2ANODEH    D2ANODE(H)    Pg. 1.9
  2  D4CATHODEL  D4CATHODE(L)  Pg. 1.9

D4  DIODE
  1  D4CATHODEL  D4CATHODE(L)  Pg. 1.9
  2  A120VL      12.0V L       Pg. 1.9

D5  ZDIODE
  1  V12REFH  V1.2REF(H)  Pg. 1.8
  2  GND      GND         Pg. 1.8

D6  DIODE
  1  A50V                +5.0VPG. 1.8
  2  UN1DIODE20PB20  UN$1$DIODE$20P$B$2(0)H Pg. 1.8

D7  DIODE
  1  BTRTV1H  BTRTV1(H)  Pg. 1.8
  2  A50V     +5.0V      Pg. 1.8

D8  DIODE
  1  BTRTV1H                BTRTV1(H)                PG. 1.8
  2  UN1DIODE20PB20  UN$1$DIODE$20P$B$2(0)H Pg. 1.8

D9  DIODE
  1  A50V      +5.0V      Pg. 1.7
  2  DRDCOKH   DRDCOK(H)  Pg. 1.7

D10  LEDPACK
  1  A50V     +5.0V     Pg. 1.10
  2  J2P11L   J2P11(L)  Pg. 1.10

D11  LEDPACK
  1  A50V    +5.0V    Pg. 1.10
  2  J2P9L   J2P9(L)  Pg. 1.10

D12  LEDPACK
  1  A50V    +5.0V    Pg. 1.10
  2  J2P8L   J2P8(L)  Pg. 1.10

D13  LEDPACK
  1  A50V    +5.0V    Pg. 1.10
  2  J2P7L   J2P7(L)  Pg. 1.10

D14  LEDPACK
  1  A50V     +5.0V     Pg. 1.10
  2  E41P11L  E41P11(L)  Pg. 1.10

DA2  FINGER
  1  A50V  +5.0V  Pg. 1.3

DB2  FINGER
  1  MAAL7  MAA(7)L  Pg. 1.3
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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN	DATE	ENG	DATE
CHK	DATE	BOARD LOCATION:	
DSK:PINSRT		SHEET 15 OF 24	
FIRST USED ON OPTION/MODEL:		NEXT HIGHER ASSEMBLY: B-DD-M7478-0	

TITLE: KA620 CROSS REFERENCE SIGNALS

SIZE	CODE	NUMBER	REV.
D	DD	M7478-0-0	A

DC2	FINGER		
1	GND	GND	Pg. 1.3
DD2	FINGER		
1	MAAL5	MAA<5>L	Pg. 1.3
DE2	FINGER		
1	MAAL4	MAA<4>L	Pg. 1.3
DF2	FINGER		
1	MAAL3	MAA<3>L	Pg. 1.3
DH2	FINGER		
1	MAAL6	MAA<6>L	Pg. 1.3
DJ2	FINGER		
1	MSIDL2	MSID<2>L	Pg. 1.3
DK2	FINGER		
1	RAS3	RAS<3>H	Pg. 1.3
DL2	FINGER		
1	RAS7	RAS<7>H	Pg. 1.3
DM2	FINGER		
1	MSIDL3	MSID<3>L	Pg. 1.3
DN2	FINGER		
1	RAS2	RAS<2>H	Pg. 1.3
DP2	FINGER		
1	BMCAS2	BMCAS<2>H	Pg. 1.3
DR2	FINGER		
1	BMCAS3	BMCAS<3>H	Pg. 1.3
DT1	FINGER		
1	GND	GND	Pg. 1.3
DU2	FINGER		
1	RAS6	RAS<6>H	Pg. 1.3

E1 LS373

1	GND	GND	Pg. 1.5
2	MAPAD21	MAP AD<21>H	Pg. 1.5
3	XDAL21	XDAL<21>H	Pg. 1.5
4	XDAL16	XDAL<16>H	Pg. 1.5
5	MAPAD16	MAP AD<16>H	Pg. 1.5
6	MAPAD19	MAP AD<19>H	Pg. 1.5
7	XDAL19	XDAL<19>H	Pg. 1.5
8	XDAL20	XDAL<20>H	Pg. 1.5
9	MAPAD20	MAP AD<20>H	Pg. 1.5
11	RSYNCL	RSYNC(L)	Pg. 1.5
12	MAPAD17	MAP AD<17>H	Pg. 1.5
13	XDAL17	XDAL<17>H	Pg. 1.5
14	XDAL18	XDAL<18>H	Pg. 1.5
15	MAPAD18	MAP AD<18>H	Pg. 1.5
16	MAPAD15	MAP AD<15>H	Pg. 1.5
17	XDAL15	XDAL<15>H	Pg. 1.5
18	XDAL14	XDAL<14>H	Pg. 1.5
19	MAPAD14	MAP AD<14>H	Pg. 1.5

E2 LS373

1	DMAMAL	DMA->MA(L)	Pg. 1.5
2	MA15	MA(15)H	Pg. 1.5
3	XLATAD15	XLAT AD<15>H	Pg. 1.5
4	XLATAD23	XLAT AD<23>H	Pg. 1.5
5	MA23	MA(23)H	Pg. 1.5
6	MA22	MA(22)H	Pg. 1.5
7	XLATAD22	XLAT AD<22>H	Pg. 1.5
8	XLATAD14	XLAT AD<14>H	Pg. 1.5
9	MA14	MA(14)H	Pg. 1.5
11	GALEH	GALE(H)	Pg. 1.5
12	MA20	MA(20)H	Pg. 1.5
13	XLATAD20	XLAT AD<20>H	Pg. 1.5
14	XLATAD18	XLAT AD<18>H	Pg. 1.5
15	MA18	MA(18)H	Pg. 1.5
16	MA19	MA(19)H	Pg. 1.5
17	XLATAD19	XLAT AD<19>H	Pg. 1.5
18	XLATAD17	XLAT AD<17>H	Pg. 1.5
19	MA17	MA(17)H	Pg. 1.5

E3 5565

2	MAPAD21	MAP AD<21>H	Pg. 1.5
3	MAPAD16	MAP AD<16>H	Pg. 1.5
4	MAPAD15	MAP AD<15>H	Pg. 1.5
5	MAPAD14	MAP AD<14>H	Pg. 1.5
6	MAPAD13	MAP AD<13>H	Pg. 1.5
7	MAPAD12	MAP AD<12>H	Pg. 1.5
8	MAPAD11	MAP AD<11>H	Pg. 1.5
9	MAPAD10	MAP AD<10>H	Pg. 1.5
10	MAPAD9	MAP AD<9>H	Pg. 1.5
11	VALIDH	VALID(H)	Pg. 1.5
12	XLATAD23	XLAT AD<23>H	Pg. 1.5
13	XLATAD22	XLAT AD<22>H	Pg. 1.5
15	XLATAD21	XLAT AD<21>H	Pg. 1.5
16	XLATAD20	XLAT AD<20>H	Pg. 1.5
17	XLATAD19	XLAT AD<19>H	Pg. 1.5
18	XLATAD18	XLAT AD<18>H	Pg. 1.5
19	XLATAD17	XLAT AD<17>H	Pg. 1.5
20	GND	GND	Pg. 1.5
21	MAPAD19	MAP AD<19>H	Pg. 1.5
22	MAPDISABLEH	MAP DISABLE(H)	Pg. 1.5
23	MAPAD20	MAP AD<20>H	Pg. 1.5
24	MAPAD18	MAP AD<18>H	Pg. 1.5
25	MAPAD17	MAP AD<17>H	Pg. 1.5
26	A3VA	+3VA H	Pg. 1.5
27	WRMAPL	WR MAP(L)	Pg. 1.5

E4 5565

2	MAPAD21	MAP AD<21>H	Pg. 1.5
3	MAPAD16	MAP AD<16>H	Pg. 1.5
4	MAPAD15	MAP AD<15>H	Pg. 1.5
5	MAPAD14	MAP AD<14>H	Pg. 1.5
6	MAPAD13	MAP AD<13>H	Pg. 1.5
7	MAPAD12	MAP AD<12>H	Pg. 1.5
8	MAPAD11	MAP AD<11>H	Pg. 1.5
9	MAPAD10	MAP AD<10>H	Pg. 1.5
10	MAPAD9	MAP AD<9>H	Pg. 1.5
11	XLATAD16	XLAT AD<16>H	Pg. 1.5
12	XLATAD15	XLAT AD<15>H	Pg. 1.5
13	XLATAD14	XLAT AD<14>H	Pg. 1.5
15	XLATAD13	XLAT AD<13>H	Pg. 1.5
16	XLATAD12	XLAT AD<12>H	Pg. 1.5
17	XLATAD11	XLAT AD<11>H	Pg. 1.5
18	XLATAD10	XLAT AD<10>H	Pg. 1.5
19	XLATAD9	XLAT AD<9>H	Pg. 1.5
20	GND	GND	Pg. 1.5
21	MAPAD19	MAP AD<19>H	Pg. 1.5
22	MAPDISABLEH	MAP DISABLE(H)	Pg. 1.5
23	MAPAD20	MAP AD<20>H	Pg. 1.5
24	MAPAD18	MAP AD<18>H	Pg. 1.5
25	MAPAD17	MAP AD<17>H	Pg. 1.5
26	A3VA	+3VA H	Pg. 1.5
27	WRMAPL	WR MAP(L)	Pg. 1.5

E5 8641

1	BIAKOL	BIAKO(L)	Pg. 1.6
2	E37P11H	E37P11(H)	Pg. 1.6
3	NC	NC H	Pg. 1.6
4	BDMRL	BDMR(L)	Pg. 1.6
5	TDMRH	TDMR(H)	Pg. 1.6
6	RDMRH	RDMR(H)	Pg. 1.6
7	ENB8641L	ENB 8641(L)	Pg. 1.6
9	BUVRESETH	BUVRESET(H)	Pg. 1.6
10	RRPLYH	RRPLY(H)	Pg. 1.6
11	TRPLYH	TRPLY(H)	Pg. 1.6
12	BRPLYL	BRPLY(L)	Pg. 1.6
13	RSYNCH	RSYNC(H)	Pg. 1.6
14	TSYNCH	TSYNC(H)	Pg. 1.6
15	BSYNCL	BSYNC(L)	Pg. 1.6

E6 LS373

1	DMAMAL	DMA->MA(L)	Pg. 1.5
2	MA16	MA(16)H	Pg. 1.5
3	XLATAD16	XLAT AD<16>H	Pg. 1.5
4	XLATAD13	XLAT AD<13>H	Pg. 1.5
5	MA13	MA(13)H	Pg. 1.5
6	MA21	MA(21)H	Pg. 1.5
7	XLATAD21	XLAT AD<21>H	Pg. 1.5
8	GND	GND	Pg. 1.5
9	LO16MBL	LO16MB(L)	Pg. 1.5
11	QALEH	QALE(H)	Pg. 1.5
12	MA12	MA(12)H	Pg. 1.5
13	XLATAD12	XLAT AD<12>H	Pg. 1.5
14	XLATAD11	XLAT AD<11>H	Pg. 1.5
15	MA11	MA(11)H	Pg. 1.5
16	MA10	MA(10)H	Pg. 1.5
17	XLATAD10	XLAT AD<10>H	Pg. 1.5
18	XLATAD9	XLAT AD<9>H	Pg. 1.5
19	MA9	MA(9)H	Pg. 1.5

E7 8641

1	BIAKIL	BIAKI(L)	Pg. 1.6
2	GND	GND	Pg. 1.6
3	RIAKIH	RIAKI(H)	Pg. 1.6
4	BDMGIL	BDMGI(L)	Pg. 1.6
5	GND	GND	Pg. 1.6
6	RDMGIH	RDMGI(H)	Pg. 1.6
7	TDIOL	TDIO(L)	Pg. 1.6
9	ENB8641L	ENB 8641(L)	Pg. 1.6
10	RDOUTH	RDOUT(H)	Pg. 1.6
11	UVWRH	UVWR(H)	Pg. 1.6
12	BDOUTL	BDOUT(L)	Pg. 1.6
13	RDINH	RDIN(H)	Pg. 1.6
14	E25P2H	E25P2(H)	Pg. 1.6
15	BDINL	BDIN(L)	Pg. 1.6

E8 F374

1	GND	GND PG. 2.2	
2	TOH	T.O.(H)	PG. 2.2
3	UN1F37418PD33	UN1F374$18P$D$3(3)H	Pg. 2.2
4	ASYNCTOH	ASYNC T.O.(H)	Pg. 2.2
5	UN1F37418PD33	UN1F374$18P$D$3(3)H	Pg. 2.2
6	SDMRH	SDMR(H)	PG. 2.2
7	UN1F37418PD32	UN1F374$18P$D$3(2)H	Pg. 2.2
8	RDMRH	RDMR(H)	PG. 2.2
9	UN1F37418PD32	UN1F374$18P$D$3(2)H	Pg. 2.2
11	BUVCLKOH	BUVCLKO(H)	PG. 2.2
12	UN1F37418PD31	UN1F374$18P$D$3(1)H	Pg. 2.2
13	RSACKH	RSACK(H)	PG. 2.2
14	UN1F37418PD31	UN1F374$18P$D$3(1)H	Pg. 2.2
15	SSACKH	SSACK(H)	PG. 2.2
16	SDMGIH	SDMGI(H)	PG. 2.2
17	UN1F37418PD30	UN1F374$18P$D$3(0)H	Pg. 2.2
18	RDMGIH	RDMGI(H)	PG. 2.2
19	UN1F37418PD30	UN1F374$18P$D$3(0)H	Pg. 2.2

E9 LS646

1	GND	GND	PG. 1.5
2	GND	GND	Pg. 1.5
3	UVWRH	UVWR(H)	Pg. 1.5
4	EPR15	EPR<15>H	Pg. 1.5
5	EPR14	EPR<14>H	Pg. 1.5
6	EPR13	EPR<13>H	Pg. 1.5
7	EPR12	EPR<12>H	Pg. 1.5
8	EPR11	EPR<11>H	Pg. 1.5
9	EPR10	EPR<10>H	Pg. 1.5
10	EPR9	EPR<9>H	Pg. 1.5
11	EPR8	EPR<8>H	Pg. 1.5
13	XLATAD17	XLAT AD<17>H	Pg. 1.5
14	XLATAD18	XLAT AD<18>H	Pg. 1.5
15	XLATAD19	XLAT AD<19>H	Pg. 1.5
16	XLATAD20	XLAT AD<20>H	Pg. 1.5
17	XLATAD21	XLAT AD<21>H	Pg. 1.5
18	XLATAD22	XLAT AD<22>H	Pg. 1.5
19	XLATAD23	XLAT AD<23>H	Pg. 1.5
20	VALIDH	VALID(H)	Pg. 1.5
21	ENBLS646L	ENB LS646(L)	Pg. 1.5
22	CSMAPL	CS MAP(L)	Pg. 1.5
23	XDMAQPEH	XDMA QPE(H)	Pg. 1.5

E10 LS646

1	GND	GND	PG. 1.5
2	GND	GND	PG. 1.5
3	UVWRH	UVWR(H)	Pg. 1.5
4	EPR7	EPR<7>H	Pg. 1.5
5	EPR6	EPR<6>H	Pg. 1.5
6	EPR5	EPR<5>H	Pg. 1.5
7	EPR4	EPR<4>H	Pg. 1.5
8	EPR3	EPR<3>H	Pg. 1.5
9	EPR2	EPR<2>H	Pg. 1.5
10	EPR1	EPR<1>H	Pg. 1.5
11	EPR0	EPR<0>H	Pg. 1.5
13	XLATAD9	XLAT AD<9>H	Pg. 1.5
14	XLATAD10	XLAT AD<10>H	Pg. 1.5
15	XLATAD11	XLAT AD<11>H	Pg. 1.5
16	XLATAD12	XLAT AD<12>H	Pg. 1.5
17	XLATAD13	XLAT AD<13>H	Pg. 1.5
18	XLATAD14	XLAT AD<14>H	Pg. 1.5
19	XLATAD15	XLAT AD<15>H	Pg. 1.5
20	XLATAD16	XLAT AD<16>H	Pg. 1.5
21	ENBLS646L	ENB LS646(L)	Pg. 1.5
22	CSMAPL	CS MAP(L)	Pg. 1.5
23	XDMAQPEH	XDMA QPE(H)	Pg. 1.5

E11 DC021

1	RCVBDALH	RCV BDAL(H)	PG. 1.6
2	NC	NC	PG. 1.6
3	BDALL16	BDAL<16>L	PG. 1.6
4	BDALL17	BDAL<17>L	PG. 1.6
5	BWTBTL	BWTBT(L)	PG. 1.6
6	BDALL1	BDAL<1>L	PG. 1.6
7	BDALL0	BDAL<0>L	PG. 1.6
8	BDALL19	BDAL<19>L	PG. 1.6
9	BDALL18	BDAL<18>L	PG. 1.6
11	XDAL18	XDAL<18>H	PG. 1.6
12	XDAL19	XDAL<19>H	PG. 1.6
13	XDAL0	XDAL<0>H	PG. 1.6
14	XDAL1	XDAL<1>H	PG. 1.6
15	XWTBTH	XWTBT(H)	PG. 1.6
16	XDAL17	XDAL<17>H	PG. 1.6
17	XDAL16	XDAL<16>H	PG. 1.6
18	NC	NC	PG. 1.6
19	ENBBDALL	ENB BDAL(L)	PG. 1.6

E12 F374

1	GND	GND PG. 2.2	
2	UN1F37425PQ53	UN1F374$26P$Q$6(3)H	Pg. 2.2
3	RSYNCH	RSYNC(H)	PG. 2.2
4	UN1F37425PQ63	UN1F374$26P$Q$6(3)H	Pg. 2.2
5	SSYNCH	SSYNC(H)	PG. 2.2
6	UN1F37425PQ62	UN1F374$26P$Q$6(2)H	Pg. 2.2
7	RDINH	RDIN(H)	PG. 2.2
8	UN1F37425PQ62	UN1F374$26P$Q$6(2)H	Pg. 2.2
9	SDINH	SDIN(H)	PG. 2.2
11	BUVCLKOH	BUVCLKO(H)	PG. 2.2
12	SDOUTH	SDOUT(H)	Pg. 2.2
13	UN1F37425PQ61	UN1F374$26P$Q$6(1)H	Pg. 2.2
14	RDOUTH	RDOUT(H)	PG. 2.2
15	UN1F37426PQ61	UN1F374$26P$Q$6(1)H	Pg. 2.2
16	UN1F37425PQ60	UN1F374$26P$Q$6(0)H	Pg. 2.2
17	RRPLYH	RRPLY(H)	PG. 2.2
18	UN1F37426PQ60	UN1F374$26P$Q$6(0)H	Pg. 2.2
19	SRPLYH	SRPLY(H)	PG. 2.2

REVISIONS			
CHK	CHANGE NO.	REV

DRN EQW DATE 8-19-86 ENG EQW DATE 8-19-86
CHK EQW DATE 8-19-86 BOARD LOCATION: SHEET 16 OF 24
DSK: NEXT HIGHER ASSEMBLY: 8-DD-M7478-C
FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS
SIZE CODE D DD NUMBER M7478-0-0 REV. A

E13	DC319		
1	DLRDL	DLRD(L)	PG. 1.9
2	CSDLL	CS DL(L)	Pg. 1.9
3	DLWRL	DLWR(L)	PG. 1.9
4	EPR0	EPR(0)H	PG. 1.9
5	EPR1	EPR(1)H	PG. 1.9
6	EPR2	EPR(2)H	PG. 1.9
7	EPR3	EPR(3)H	PG. 1.9
8	EPR4	EPR(4)H	PG. 1.9
9	EPR5	EPR(5)H	PG. 1.9
10	EPR6	EPR(6)H	PG. 1.9
11	EPR7	EPR(7)H	PG. 1.9
12	EPR8	EPR(8)H	PG. 1.9
13	EPR9	EPR(9)H	PG. 1.9
14	EPR10	EPR(10)H	Pg. 1.9
15	EPR11	EPR(11)H	Pg. 1.9
16	EPR12	EPR(12)H	Pg. 1.9
17	EPR13	EPR(13)H	Pg. 1.9
18	EPR14	EPR(14)H	Pg. 1.9
19	EPR15	EPR(15)H	Pg. 1.9
21	GND	GND	Pg. 1.9
22	DLAD0	DLAD(0)H	Pg. 1.9
23	DLAD1	DLAD(1)H	Pg. 1.9
24	TINITH	TINIT(H)	Pg. 1.9
25	NC	NC H	PG. 1.9
26	DLRRQH	DLRRQ(H)	Pg. 1.9
27	DLSIH	DLSI(H)	PG. 1.9
28	GND	GND	PG. 1.9
29	DLXRQH	DLXRQ(H)	Pg. 1.9
30	DLSOH	DLSO(H)	PG. 1.9
31	BRSL0	BRS(0)L	PG. 1.9
32	CLK6144KHZH	CLK 614.4KHZ(H)	Pg. 1.9
33	BREAKH	BREAK(H)	Pg. 1.9
34	NC	NC H	PG. 1.9
35	NC	NC H	PG. 1.9
36	NC	NC H	PG. 1.9
37	BRSL1	BRS(1)L	PG. 1.9
38	BRSL2	BRS(2)L	PG. 1.9
39	BUVRESETH	BUVRESET(H)	Pg. 1.9

E14	MC145818		
2	OSC031H	OSC031(H)	Pg. 1.8
3	NC	NC H	Pg. 1.8
4	EPR0	EPR(0)H	Pg. 1.8
5	EPR1	EPR(1)H	Pg. 1.8
6	EPR2	EPR(2)H	Pg. 1.8
7	EPR3	EPR(3)H	Pg. 1.8
8	EPR4	EPR(4)H	Pg. 1.8
9	EPR5	EPR(5)H	Pg. 1.8
10	EPR6	EPR(6)H	Pg. 1.8
11	EPR7	EPR(7)H	Pg. 1.8
13	E35P3L	E35P3(L)	Pg. 1.8
14	EPASL	EPAS(L)	Pg. 1.8
15	UVWRL	UVWR(L)	Pg. 1.8
17	EPDSH	EPDS(H)	Pg. 1.8
18	E35P8L	E35P8(L)	Pg. 1.8
19	NC	NC H	Pg. 1.8
20	GND	GND	Pg. 1.8
21	NC	NC H	Pg. 1.8
22	E35P6L	E35P6(L)	Pg. 1.8
23	NC	NC H	Pg. 1.8
24	BTRYV1H	BTRYV1(H)	Pg. 1.8

E15	9643		
1	CLK6144KHZH	CLK 614.4KHZ(H)	Pg. 1.9
2	R9E15PUH	R9E15PU(H)	Pg. 1.9
3	CLK6144KHZL	CLK 614.4KHZ(L)	Pg. 1.9
5	E15P5H	E15P5(H)	Pg. 1.9
6	A120V	+12.0V	PG. 1.9
7	E15P7H	E15P7(H)	Pg. 1.9

E16	8640		
2	RIRQ7	RIRQ(7)H	Pg. 1.6
3	RIRQ4	RIRQ(4)H	Pg. 1.6
4	ARBL	ARB(L)	Pg. 1.6
5	BIRQL4	BIRQ(4)L	Pg. 1.6
6	ARBL	ARB(L)	Pg. 1.6
7	BIRQL7	BIRQ(7)L	Pg. 1.6
9	BIRQL6	BIRQ(6)L	Pg. 1.6
10	ARBL	ARB(L)	Pg. 1.6
11	ARBL	ARB(L)	Pg. 1.6
12	BIRQL5	BIRQ(5)L	Pg. 1.6
13	RIRQ5	RIRQ(5)H	Pg. 1.6
14	RIRQ6	RIRQ(6)H	Pg. 1.6

E17	F174		
1	BUVRESETL	BUVRESET(L)	Pg. 2.1.1
2	E17P2H	E17P2(H)	Pg. 2.1.1
3	REFREQH	REF REQ(H)	Pg. 2.1.1
4	E17P2H	E17P2(H)	PG. 2.1.1
5	RRH	RR(H)	Pg. 2.1.1
6	E17P6L	E17P6(L)	Pg. 2.1.1
7	DATABUFENBL	DATA BUF ENB(L)	Pg. 2.1.1
9	BUVCLKOH	BUVCLKO(H)	PG. 2.1.1
10	NC	NC H	PG. 2.1.1
11	NC	NC H	PG. 2.1.1
12	TS1	TS(1)H	PG. 2.1.1
13	TS0	TS(0)H	PG. 2.1.1
14	TSL1	TS(1)L	PG. 2.1.1
15	TS0	TS(0)H	PG. 2.1.1

E18	9639		
2	DLSIH	DLSI(H)	Pg. 1.9
7	SIH	SI(H)	Pg. 1.9
8	SIL	SI(L)	Pg. 1.9

E19	8641		
1	BDMGOL	BDMGO(L)	Pg. 1.6
2	TDMGOH	TDMGO(H)	Pg. 1.6
3	NC	NC H	Pg. 1.6
4	BSACKL	BSACK(L)	Pg. 1.6
5	TSACKH	TSACK(H)	Pg. 1.6
6	RSACKH	RSACK(H)	Pg. 1.6
7	ENB8641L	ENB 8641(L)	Pg. 1.6
9	BUVRESETH	BUVRESET(H)	Pg. 1.6
10	RREFH	RREF(H)	Pg. 1.6
11	TREFH	TREF(H)	Pg. 1.6
12	BREFL	BREF(L)	Pg. 1.6
13	RBS7H	RBS7(H)	Pg. 1.6
14	TBS7H	TBS7(H)	Pg. 1.6
15	BBS7L	BBS7(L)	Pg. 1.6

E20	825167		
1	BUVCLKOH	BUVCLKO(H)	Pg. 2.2
2	SSYNCH	SSYNC(H)	Pg. 2.2
3	TOH	T.O.(H)	Pg. 2.2
4	INITRQL	INITRQ(L)	Pg. 2.2
5	DONEL	DONE(L)	Pg. 2.2
6	NC	NC H	PG. 2.2
7	NC	NC H	PG. 2.2
8	NC	NC H	PG. 2.2
9	GRANTL	GRANT(L)	Pg. 2.2
10	TDMGOH	TDMGO(H)	Pg. 2.2
11	TSACKH	TSACK(H)	Pg. 2.2
13	TDMRH	TDMR(H)	Pg. 2.2
14	TINITH	TINIT(H)	Pg. 2.2
15	ENB8641L	ENB 8641(L)	Pg. 2.2
16	FORCEINITH	FORCEINIT(H)	Pg. 2.2
17	LOCKL	LOCK(L)	Pg. 2.2
18	QRQL	QRQ(L)	Pg. 2.2
19	ARBL	ARB(L)	Pg. 2.2
20	SDMGIH	SDMGI(H)	Pg. 2.2
21	SDMRH	SDMR(H)	Pg. 2.2
22	SRPLYH	SRPLY(H)	Pg. 2.2
23	SSACKH	SSACK(H)	Pg. 2.2

E21	27256		
2	MA13	MA(13)H	Pg. 1.9
3	MA8	MA(8)H	Pg. 1.9
4	MA7	MA(7)H	Pg. 1.9
5	MA6	MA(6)H	Pg. 1.9
6	MA5	MA(5)H	Pg. 1.9
7	MA4	MA(4)H	Pg. 1.9
8	MA3	MA(3)H	Pg. 1.9
9	MA2	MA(2)H	Pg. 1.9
10	EPAD1	EPAD(1)H	Pg. 1.9
11	EPR8	EPR(8)H	Pg. 1.9
12	EPR9	EPR(9)H	Pg. 1.9
13	EPR10	EPR(10)H	Pg. 1.9
15	EPR11	EPR(11)H	Pg. 1.9
16	EPR12	EPR(12)H	Pg. 1.9
17	EPR13	EPR(13)H	Pg. 1.9
18	EPR14	EPR(14)H	Pg. 1.9
19	EPR15	EPR(15)H	Pg. 1.9
20	CSPROML	CS PROM(L)	Pg. 1.9
21	MA11	MA(11)H	Pg. 1.9
22	EPASL	EPAS(L)	Pg. 1.9
23	MA12	MA(12)H	Pg. 1.9
24	MA10	MA(10)H	Pg. 1.9
25	MA9	MA(9)H	Pg. 1.9
26	MA14	MA(14)H	Pg. 1.9
27	WIP2H	WIP2(H)	Pg. 1.9

E22	27256		
2	MA13	MA(13)H	Pg. 1.9
3	MA8	MA(8)H	Pg. 1.9
4	MA7	MA(7)H	Pg. 1.9
5	MA6	MA(6)H	Pg. 1.9
6	MA5	MA(5)H	Pg. 1.9
7	MA4	MA(4)H	Pg. 1.9
8	MA3	MA(3)H	Pg. 1.9
9	MA2	MA(2)H	Pg. 1.9
10	EPAD1	EPAD(1)H	Pg. 1.9
11	EPR0	EPR(0)H	Pg. 1.9
12	EPR1	EPR(1)H	Pg. 1.9
13	EPR2	EPR(2)H	Pg. 1.9
15	EPR3	EPR(3)H	Pg. 1.9
16	EPR4	EPR(4)H	Pg. 1.9
17	EPR5	EPR(5)H	Pg. 1.9
18	EPR6	EPR(6)H	Pg. 1.9
19	EPR7	EPR(7)H	Pg. 1.9
20	CSPROML	CS PROM(L)	Pg. 1.9
21	MA11	MA(11)H	Pg. 1.9
22	EPASL	EPAS(L)	Pg. 1.9
23	MA12	MA(12)H	Pg. 1.9
24	MA10	MA(10)H	Pg. 1.9
25	MA9	MA(9)H	Pg. 1.9
26	MA14	MA(14)H	Pg. 1.9
27	WIP2H	WIP2(H)	Pg. 1.9

E23	9636		
1	UN19636	20PSLEW20 UN$1$9636$20P$SLEW$2(0)	
2	DLSOH	DLSO(H)	PG. 1.9
3	BUVRESETH	BUVRESET(H)	PG. 1.9
5	A120VL	12.0V L	PG. 1.9
6	J3P1L	J3P1(L)	PG. 1.9
7	J3P3L	J3P3(L)	PG. 1.9
8	A120V	+12.0V	PG. 1.9

E24	8641		
1	BDCOKH	BDCOK(H)	Pg. 1.6
2	GND	GND	Pg. 1.6
3	RDCOKL	RDCOK(L)	Pg. 1.6
4	BPOKH	BPOK(H)	Pg. 1.6
5	GND	GND	Pg. 1.6
6	RPOKL	RPOK(L)	Pg. 1.6
7	ARBL	ARB(L)	Pg. 1.6
9	GND	GND	Pg. 1.6
10	RHALTH	RHALT(H)	Pg. 1.6
11	GND	GND	Pg. 1.6
12	BHALTL	BHALT(L)	Pg. 1.6
13	RINITH	RINIT(H)	Pg. 1.6
14	TINITH	TINIT(H)	Pg. 1.6
15	BINITL	BINIT(L)	Pg. 1.6

E25	LS64		
1	UVWRH	UVWR(H)	Pg. 1.6
2	E25P2H	E25P2(H)	Pg. 1.6
3	RIRQ7	RIRQ(7)H	Pg. 1.7
4	IRQL7	IRQ(7)L	Pg. 1.7
5	RPOKL	RPOK(L)	Pg. 1.7
6	PFL	PF(L)	Pg. 1.7
8	IRQL5	IRQ(5)L	Pg. 1.7
9	RIRQ5	RIRQ(5)H	Pg. 1.7
10	IRQL6	IRQ(6)L	Pg. 1.7
11	RIRQ6	RIRQ(6)H	Pg. 1.7
12	BUVRESETL	BUVRESET(L)	Pg. 1.7
13	BUVRESETH	BUVRESET(H)	Pg. 1.7

E26	825167		
1	BUVCLKOH	BUVCLKO(H)	Pg. 2.2
2	VALIDH	VALID(H)	Pg. 2.2
3	TOH	T.O.(H)	Pg. 2.2
4	RREFH	RREF(H)	Pg. 2.2
5	SRPLYH	SRPLY(H)	Pg. 2.2
6	GRANTL	GRANT(L)	Pg. 2.2
7	QBIOCYCL	QBIOCYC(L)	Pg. 2.2
8	GALEH	GALE(H)	Pg. 2.2
9	ENBDALL	ENB DAL(L)	Pg. 2.2
10	ENBDATAL	ENB DATA(L)	Pg. 2.2
11	TDIOL	TDIO(L)	Pg. 2.2
13	TIAKOH	TIAK(H)	Pg. 2.2
14	TSYNCH	TSYNC(H)	Pg. 2.2
15	DONEL	DONE(L)	Pg. 2.2
16	BUVRESETH	BUVRESET(H)	Pg. 2.2
17	UVCYCCDL0	UVCYCCD(0)L	Pg. 2.2
18	UVCYCCDL1	UVCYCCD(1)L	Pg. 2.2
19	UVBML0	UVBM(0)L	Pg. 2.2
20	UVBML1	UVBM(1)L	Pg. 2.2
21	UVBML2	UVBM(2)L	Pg. 2.2
22	UVBML3	UVBM(3)L	Pg. 2.2
23	UVWRH	UVWR(H)	Pg. 2.2

E27	825185		
1	BUVCLKOH	BUVCLKO(H)	Pg. 2.1
2	TS0	TS(0)H	Pg. 2.1
3	TS1	TS(1)H	Pg. 2.1
4	RRH	RR(H)	Pg. 2.1
5	UVCYCL	UVCYC(L)	Pg. 2.1
6	LPERRL	LPERR(L)	Pg. 2.1
7	LOCALNXMH	LOCAL NXM(H)	Pg. 2.1
8	BUVASH	BUVAS(H)	Pg. 2.1
9	UVERRL	UVERR(L)	Pg. 2.1
10	UVDALMAL	UVDAL->MA(L)	Pg. 2.1
11	ARMRDYERRL	ARMRDYERR(L)	Pg. 2.1
12	LOCKL	LOCK(L)	Pg. 2.1
13	QRQL	QRQ(L)	Pg. 2.1
15	DECODEH	DECODE(H)	Pg. 2.1
16	ARMUVDALL	ARM UVDAL(L)	Pg. 2.1
17	REFMAL	REF->MA(L)	Pg. 2.1
18	DMAMAL	DMA->MA(L)	Pg. 2.1
19	BUVRESETH	BUVRESET(H)	Pg. 2.1
20	EPREADYL	EPREADY(L)	Pg. 2.1
21	ENBDALL	ENB DAL(L)	Pg. 2.1
22	DONEL	DONE(L)	Pg. 2.1
23	DRQL	DRQ(L)	Pg. 2.1
24	UVCYCCDL0	UVCYCCD(0)L	Pg. 2.1
25	UVCYCCDL1	UVCYCCD(1)L	Pg. 2.1
26	UVCYCCDL2	UVCYCCD(2)L	Pg. 2.1
27	MEMWRL	MEMWR(L)	Pg. 2.1

E28	LS244		
1	SG4L	SG4(L)	Pg. 1.10
2	J2P13L	J2P13(L)	Pg. 1.10
3	BDGCDL1	BDG CD(1)L	Pg. 1.10
4	J2P19L	J2P19(L)	Pg. 1.10
6	J2P18L	J2P18(L)	Pg. 1.10
7	CONFL2	CONF(2)L	Pg. 1.10
8	J2P17L	J2P17(L)	Pg. 1.10

REVISIONS		
CHANGE NO.	REV	CHK

DRN ERW DATE 8-19-86 ENG ERW DATE 8-19-86

CHK'D ERW DATE 8-19-86 BOARD LOCATION: SHEET 17 OF 24

DESCRIPTION: FIRST USED ON OPTION/MODEL: NEXT HIGHER ASSEMBLY: 8-DD-M7478-0

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE D | CODE 100 | NUMBER M7478-0-0 | REV. 0

E28 LS244 (CONT.)

Pin	Net	Signal	Page
9	CONFL3	CONF<3>L	Pg. 1.10
11	J2P5L	J2P5(L)	Pg. 1.10
12	BRSL0	BRS<0>L	Pg. 1.10
13	J2P4L	J2P4(L)	Pg. 1.10
14	BRSL1	BRS<1>L	Pg. 1.10
16	BRSL2	BRS<2>L	Pg. 1.10
17	J2P14L	J2P14(L)	Pg. 1.10
18	BDGCDL0	BDG CD<0>L	Pg. 1.10
19	SG4L	SG4(L)	Pg. 1.10

E29 LM211

Pin	Net	Signal	Page
1	GND	GND PG. 1.8	
2	V12REFH	V1.2REF(H)	PG. 1.8
3	BTVREFH	BTVREF(H)	PG. 1.8
4	GND	GND PG. 1.8	
5	UN1LM2119PB10	UN1LM211$9P$B$1<0>H	Pg. 1.8
6	UN1LM2119PB10	UN1LM211$9P$B$1<0>H	Pg. 1.8
7	BTRYOKL	BTRY OK(L)	PG. 1.8
8	A50V	+5.0V	PG. 1.8

E30 DC021

Pin	Net	Signal	Page
1	RCVBDALH	RCV BDAL(H)	Pg. 1.6
2	BDALL20	BDAL<20>L	Pg. 1.6
3	BDALL21	BDAL<21>L	Pg. 1.6
4	BDALL2	BDAL<2>L	Pg. 1.6
5	BDALL3	BDAL<3>L	Pg. 1.6
6	BDALL4	BDAL<4>L	Pg. 1.6
7	BDALL5	BDAL<5>L	Pg. 1.6
8	BDALL6	BDAL<6>L	Pg. 1.6
9	BDALL7	BDAL<7>L	Pg. 1.6
11	XDAL7	XDAL<7>H	Pg. 1.6
12	XDAL6	XDAL<6>H	Pg. 1.6
13	XDAL5	XDAL<5>H	Pg. 1.6
14	XDAL4	XDAL<4>H	Pg. 1.6
15	XDAL3	XDAL<3>H	Pg. 1.6
16	XDAL2	XDAL<2>H	Pg. 1.6
17	XDAL21	XDAL<21>H	Pg. 1.6
18	XDAL20	XDAL<20>H	Pg. 1.6
19	ENBBDALL	ENB BDAL(L)	Pg. 1.6

E31 F74

Pin	Net	Signal	Page
1	DECODEH	DECODE(H)	Pg. 2.1.1
2	E47P11H	E47P11(H)	Pg. 2.1.1
3	BUVCLKOH	BUVCLKO(H)	Pg. 2.1.1
4	A3VA	+3VA H	Pg. 2.1.1
5	NC	NC H	PG. 2.1.1
6	RASDECODEL	RAS DECODE(L)	Pg. 2.1.1
8	SELCOLH	SELCOL(H)	Pg. 2.1.1
9	SELCOLL	SELCOL(L)	Pg. 2.1.1
10	E38P10L	E38P10(L)	Pg. 2.1.1
11	BUVCLKOH	BUVCLKO(H)	Pg. 2.1.1
12	UVCYCL	UVCYC(L)	Pg. 2.1.1
13	A3VA	+3VA H	Pg. 2.1.1

E32 F04

Pin	Net	Signal	Page
1	REFMAL	REF->MA(L)	Pg. 2.1.1
2	E59P13H	E59P13(H)	Pg. 2.1.1
3	RSYNCH	RSYNC(H)	Pg. 1.6
4	RSYNCL	RSYNC(L)	Pg. 1.6
5	UVRESETL	UVRESET(L)	Pg. 1.7
6	BUVRESETH	BUVRESET(H)	Pg. 1.7
8	UVWRH	UVWR(H)	Pg. 1.1
9	UVWRL	UVWR(L)	Pg. 1.1
10	BUVASL	BUVAS(L)	Pg. 1.1
11	BUVASH	BUVAS(H)	Pg. 1.1
12	BUVASH	BUVAS(H)	Pg. 1.1
13	UVASL	UVAS(L)	Pg. 1.1

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Pin	Net	Signal	Page
1	BUVCLKOH	BUVCLKO(H)	Pg. 2.2
2	VALIDH	VALID(H)	Pg. 2.2
3	XWTBTH	XWTBT(H)	Pg. 2.2
4	RBS7H	RBS7(H)	Pg. 2.2
5	SDOUTH	SDOUT(H)	Pg. 2.2
6	SDINH	SDIN(H)	Pg. 2.2
7	SSYNCH	SSYNC(H)	Pg. 2.2
8	DONEL	DONE(L)	Pg. 2.2
9	DC021RCVH	DC021RCV(H)	Pg. 2.2
10	NC	NC H	PG. 2.2
11	QALEH	QALE(H)	Pg. 2.2
13	INCCTRH	INC CTR(H)	Pg. 2.2
14	ARMREPLYL	ARM REPLY(L)	Pg. 2.2
15	DRQL	DRQ(L)	Pg. 2.2
16	BUVRESETH	BUVRESET(H)	Pg. 2.2
17	DMAMAL	DMA->MA(L)	Pg. 2.2
18	SELCOLH	SELCOL(H)	Pg. 2.2
19	BDY16L	BDY16(L)	Pg. 2.2
20	ODDWDH	ODD WD(H)	Pg. 2.2
21	SELDBL	SEL DB(L)	Pg. 2.2
22	QWRH	QWR(H)	Pg. 2.2
23	QMEMENBL	QMEMENB(L)	Pg. 2.2

E34 F74

Pin	Net	Signal	Page
1	A3VA	+3VA H	Pg. 2.1.1
2	E65P11L	E65P11(L)	Pg. 2.1.1
3	SELCOLL	SELCOL(L)	Pg. 2.1.1
4	E47P8L	E47P8(L)	Pg. 2.1.1
5	LPERRL	LPERR(L)	Pg. 2.1.1
6	NC	NC H	Pg. 2.1.1
8	NC	NC H	Pg. 2.1.1
9	FSTRDYH	FSTRDY(H)	Pg. 2.1.1
10	A3VA	+3VA H	Pg. 2.1.1
11	BUVCLKOH	BUVCLKO(H)	Pg. 2.1.1
12	E38P10L	E38P10(L)	Pg. 2.1.1
13	DMAMAL	DMA->MA(L)	Pg. 2.1.1

E35 LS26

Pin	Net	Signal	Page
1	BDCOKH	BDCOK(H)	Pg. 1.8
2	CSTOYH	CS TOY(H)	Pg. 1.8
3	E35P3L	E35P3(L)	Pg. 1.8
4	BDCOKH	BDCOK(H)	Pg. 1.8
5	CLRPSH	CLR PS(H)	Pg. 1.8
6	E35P6L	E35P6(L)	Pg. 1.8
8	E35P8L	E35P8(L)	Pg. 1.8
9	TINITH	TINIT(H)	Pg. 1.8
10	TINITH	TINIT(H)	Pg. 1.8
11	DOKH	DOK(H)	Pg. 1.7
12	RDCOKL	RDCOK(L)	Pg. 1.7
13	RDCOKL	RDCOK(L)	Pg. 1.7

E36 DC021

Pin	Net	Signal	Page
1	RCVBDALH	RCV BDAL(H)	Pg. 1.6
2	BDALL15	BDAL<15>L	Pg. 1.6
3	BDALL14	BDAL<14>L	Pg. 1.6
4	BDALL13	BDAL<13>L	Pg. 1.6
5	BDALL12	BDAL<12>L	Pg. 1.6
6	BDALL11	BDAL<11>L	Pg. 1.6
7	BDALL10	BDAL<10>L	Pg. 1.6
8	BDALL9	BDAL<9>L	Pg. 1.6
9	BDALL8	BDAL<8>L	Pg. 1.6
11	XDAL8	XDAL<8>H	Pg. 1.6
12	XDAL9	XDAL<9>H	Pg. 1.6
13	XDAL10	XDAL<10>H	Pg. 1.6
14	XDAL11	XDAL<11>H	Pg. 1.6
15	XDAL12	XDAL<12>H	Pg. 1.6
16	XDAL13	XDAL<13>H	Pg. 1.6
17	XDAL14	XDAL<14>H	Pg. 1.6
18	XDAL15	XDAL<15>H	Pg. 1.6
19	ENBBDALL	ENB BDAL(L)	Pg. 1.6

E37 F32

Pin	Net	Signal	Page
1	LO16MBL	LO16MB(L)	Pg. 2.1.1
2	RASDECODEL	RAS DECODE(L)	Pg. 2.1.1
3	UVCYCL	UVCYC(L)	Pg. 2.1.1
4	UVCLKOH	UVCLKO(H)	Pg. 1.1
5	R1E37PDL	R1E37PD(L)	Pg. 1.1
6	BUVCLKOH	BUVCLKO(H)	Pg. 1.1
11	E37P11H	E37P11(H)	Pg. 1.6
12	TIAKOH	TIAKO(H)	Pg. 1.6
13	RIAKIH	RIAKI(H)	Pg. 1.6

E38 F02

Pin	Net	Signal	Page
1	TSL1	TS<1>L	Pg. 2.1.1
2	TS1	TS<1>H	Pg. 2.1.1
3	TS1	TS<1>H	Pg. 2.1.1
4	E100P14H	E102P14(H)	Pg. 2.1.2
5	LO16MBL	LO16MB(L)	Pg. 2.1.2
6	SG1L	SG1(L)	Pg. 2.1.2
8	LOCALNXMH	LOCAL NXM(H)	Pg. 2.1.1
9	STARTCYCL	START CYC(L)	Pg. 2.1.1
10	E38P10L	E38P10(L)	Pg. 2.1.1
11	READYH	READY(H)	Pg. 1.1
12	FSTRDYH	FSTRDY(H)	Pg. 1.1
13	UVRDYL	UVRDY(L)	Pg. 1.1

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Pin	Net	Signal	Page
1	BUVCLKOH	BUVCLKO(H)	Pg. 2.1
2	UVCYCCDL1	UVCYCCD<1>L	Pg. 2.1
3	UVWRH	UVWR(H)	PG. 2.1
4	DONEL	DONE(L)	PG. 2.1
5	UVERRL	UVERR(L)	Pg. 2.1
6	TS0	TS<0>H	PG. 2.1
7	TS1	TS<1>H	PG. 2.1
8	BUVASH	BUVAS(H)	Pg. 2.1
9	MAPDISABLEH	MAP DISABLE(H)	Pg. 2.1
10	EPDSH	EPDS(H)	PG. 2.1
11	EPASL	EPAS(L)	PG. 2.1
13	HIROMDLATCHL	HIROMDLATCH(L)	Pg. 2.1
14	EPADENBL	EPAD ENB(L)	Pg. 2.1
15	EPREADYL	EPREADY(L)	Pg. 2.1
16	BUVRESETH	BUVRESET(H)	Pg. 2.1
17	UVDALMAL	UVDAL->MA(L)	Pg. 2.1
18	ARMRDYERRL	ARMRDYERR(L)	Pg. 2.1
19	CSTOYH	CS TOY(H)	Pg. 2.1
20	CSPROML	CS PROM(L)	Pg. 2.1
21	CSMAPL	CS MAP(L)	Pg. 2.1
22	CSMAPEMEARH	CS MAP;EMEAR(H)	Pg. 2.1
23	UVCYCCDL0	UVCYCCD<0>L	Pg. 2.1

E40 16L8A

Pin	Net	Signal	Page
1	RPOKL	RPOK(L)	PG. 1.4
2	BTRYOKL	BTRY OK(L)	Pg. 1.4
3	CSMAPEMEARH	CS MAP;EMEAR(H)	Pg. 1.4
4	EPASL	EPAS(L)	PG. 1.4
5	EPDSH	EPDS(H)	PG. 1.4
6	UVWRH	UVWR(H)	PG. 1.4
7	DONEL	DONE(L)	PG. 1.4
8	QALEH	QALE(H)	PG. 1.4
9	GRANTL	GRANT(L)	Pg. 1.4
11	SRPLYH	SRPLY(H)	Pg. 1.4
12	CLRPSH	CLR PS(H)	Pg. 1.4
13	ENBLS646L	ENB LS646(L)	Pg. 1.4
14	WRMAPL	WR MAP(L)	Pg. 1.4
15	ENBBDALL	ENB BDAL(L)	Pg. 1.4
16	RDINH	RDIN(H)	PG. 1.4
17	DC021RCVH	DC021RCV(H)	Pg. 1.4
18	TDIOL	TDIO(L)	PG. 1.4
19	RCVBDALH	RCV BDAL(H)	Pg. 1.4

E41 LS367

Pin	Net	Signal	Page
1	SG4L	SG4(L)	Pg. 1.10
2	BDRL3	BDR<3>L	Pg. 1.10
3	J2P11L	J2P11(L)	Pg. 1.10
4	BDRL2	BDR<2>L	Pg. 1.10
5	J2P9L	J2P9(L)	Pg. 1.10
6	BDRL1	BDR<1>L	Pg. 1.10
7	J2P8L	J2P8(L)	Pg. 1.10
9	J2P7L	J2P7(L)	Pg. 1.10
10	BDRL0	BDR<0>L	Pg. 1.10
11	E41P11L	E41P11(L)	Pg. 1.10
12	RDCOKL	RDCOK(L)	Pg. 1.10
13	HLTENBL	HLT ENB(L)	Pg. 1.10
14	J2P15L	J2P15(L)	Pg. 1.10
15	SG4L	SG4(L)	Pg. 1.10

E42 DC337

Pin	Net	Signal	Page
3	UVDAL8	UVDAL<8>H	Pg. 1.1
4	UVDAL9	UVDAL<9>H	Pg. 1.1
5	UVDAL10	UVDAL<10>H	Pg. 1.1
6	UVDAL11	UVDAL<11>H	Pg. 1.1
7	UVDAL12	UVDAL<12>H	Pg. 1.1
8	UVDAL13	UVDAL<13>H	Pg. 1.1
9	UVDAL14	UVDAL<14>H	Pg. 1.1
10	UVDAL15	UVDAL<15>H	Pg. 1.1
14	CLK25H	CLK25(H)	Pg. 1.1
15	UVCLKOH	UVCLKO(H)	Pg. 1.1
16	UVRESETL	UVRESET(L)	Pg. 1.1
25	UVDAL16	UVDAL<16>H	Pg. 1.1
26	UVDAL17	UVDAL<17>H	Pg. 1.1
27	UVDAL18	UVDAL<18>H	Pg. 1.1
28	UVDAL19	UVDAL<19>H	Pg. 1.1
29	UVDAL20	UVDAL<20>H	Pg. 1.1
30	UVDAL21	UVDAL<21>H	Pg. 1.1
31	UVDAL22	UVDAL<22>H	Pg. 1.1
32	UVDAL23	UVDAL<23>H	Pg. 1.1
36	UVDAL24	UVDAL<24>H	Pg. 1.1
37	UVDAL25	UVDAL<25>H	Pg. 1.1
38	UVDAL26	UVDAL<26>H	Pg. 1.1
39	UVDAL27	UVDAL<27>H	Pg. 1.1
40	UVDAL28	UVDAL<28>H	Pg. 1.1
41	UVDAL29	UVDAL<29>H	Pg. 1.1
42	UVDAL30	UVDAL<30>H	Pg. 1.1
43	UVDAL31	UVDAL<31>H	Pg. 1.1
54	UVEPSL	UVEPS(L)	Pg. 1.1
55	UVWRL	UVWR(L)	Pg. 1.1
56	UVCS0	UVCS<0>H	Pg. 1.1
57	UVCS1	UVCS<1>H	Pg. 1.1
58	UVCS2	UVCS<2>H	Pg. 1.1
59	GND	GND	Pg. 1.1
60	UVDAL0	UVDAL<0>H	Pg. 1.1
61	UVDAL1	UVDAL<1>H	Pg. 1.1
62	UVDAL2	UVDAL<2>H	Pg. 1.1
63	UVDAL3	UVDAL<3>H	Pg. 1.1
64	UVDAL4	UVDAL<4>H	Pg. 1.1
65	UVDAL5	UVDAL<5>H	Pg. 1.1
66	UVDAL6	UVDAL<6>H	Pg. 1.1
67	UVDAL7	UVDAL<7>H	Pg. 1.1

E43 DC333

Pin	Net	Signal	Page
3	IRQL7	IRQ<7>L	Pg. 1.1
4	IRQL6	IRQ<6>L	Pg. 1.1
5	GND	GND	PG. 1.1
6	IRQL5	IRQ<5>L	Pg. 1.1
7	UVBRL14	UVBR<14>L	PG. 1.1
8	PFL	PF(L)	PG. 1.1
9	NC	NC H	Pg. 1.1
10	INTRVLTIML	INTRVL TIM(L)	Pg. 1.1
11	UVHALTL	UVHALT(L)	Pg. 1.1
12	UVBML0	UVBM<0>L	Pg. 1.1
13	UVBML1	UVBM<1>L	Pg. 1.1
14	UVBML2	UVBM<2>L	Pg. 1.1
15	UVBML3	UVBM<3>L	Pg. 1.1
16	UVRESETL	UVRESET(L)	Pg. 1.1
17	CLK25H	CLK25(H)	Pg. 1.1
18	INITRQL	INITRQ(L)	Pg. 1.1
19	UVRDYL	UVRDY(L)	Pg. 1.1
20	UVERRL	UVERR(L)	Pg. 1.1
21	UVWRL	UVWR(L)	PG. 1.1
22	NC	NC H	Pg. 1.1
23	UVEPSL	UVEPS(L)	Pg. 1.1
24	UVCS2	UVCS<2>H	Pg. 1.1
25	UVCS1	UVCS<1>H	Pg. 1.1
26	UVCS0	UVCS<0>H	Pg. 1.1
27	UVCLKOH	UVCLKO(H)	Pg. 1.1
28	UVDBEL	UVDBE(L)	Pg. 1.1
29	UVDSL	UVDS(L)	Pg. 1.1
30	UVASL	UVAS(L)	Pg. 1.1
33	UVDAL31	UVDAL<31>H	Pg. 1.1
34	UVDAL30	UVDAL<30>H	Pg. 1.1

REVISIONS — CHK | CHANGE NO. | REV

digital	DRN: E Rw	DATE: 8-19-86	ENG: E R Weaver, DATE: 8-19-86
	CHK'D: E Rw	DATE: 8-19-86	BOARD LOCATION:
DSK:		SHEET 19 OF 24	NEXT HIGHER ASSEMBLY: B-DD-M7478-0
FIRST USED ON OPTION/MODEL:			

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE	CODE	NUMBER	REV.
D	DD	M7478-0-0	A

E43 DC333 (CONT.)

35	UVDAL29	UVDAL<29>H	Pg. 1.1
36	UVDAL28	UVDAL<28>H	Pg. 1.1
37	UVDAL27	UVDAL<27>H	Pg. 1.1
38	UVDAL26	UVDAL<26>H	Pg. 1.1
39	UVDAL25	UVDAL<25>H	Pg. 1.1
40	UVDAL24	UVDAL<24>H	Pg. 1.1
41	UVDAL23	UVDAL<23>H	Pg. 1.1
42	UVDAL22	UVDAL<22>H	Pg. 1.1
45	UVDAL21	UVDAL<21>H	Pg. 1.1
46	UVDAL22	UVDAL<20>H	Pg. 1.1
47	UVDAL19	UVDAL<19>H	Pg. 1.1
48	UVDAL18	UVDAL<18>H	Pg. 1.1
49	UVDAL17	UVDAL<17>H	Pg. 1.1
50	UVDAL16	UVDAL<16>H	Pg. 1.1
51	UVDAL15	UVDAL<15>H	Pg. 1.1
52	UVDAL14	UVDAL<14>H	Pg. 1.1
53	UVDAL13	UVDAL<13>H	Pg. 1.1
54	UVDAL12	UVDAL<12>H	Pg. 1.1
55	UVDAL11	UVDAL<11>H	Pg. 1.1
56	UVDAL10	UVDAL<10>H	Pg. 1.1
57	UVDAL9	UVDAL<9>H	Pg. 1.1
58	UVDAL8	UVDAL<8>H	Pg. 1.1
59	UVDAL7	UVDAL<7>H	Pg. 1.1
62	UVDAL6	UVDAL<6>H	Pg. 1.1
63	UVDAL5	UVDAL<5>H	Pg. 1.1
64	UVDAL4	UVDAL<4>H	Pg. 1.1
65	UVDAL3	UVDAL<3>H	Pg. 1.1
66	UVDAL2	UVDAL<2>H	Pg. 1.1
67	UVDAL1	UVDAL<1>H	Pg. 1.1
68	UVDAL0	UVDAL<0>H	Pg. 1.1

E44 GATEARRAY1

2	UVDAL31	UVDAL<31>H	Pg. 1.7
3	UVASL	UVAS(L)	PG. 1.7
4	UVWRL	UVWR(L)	PG. 1.7
5	UVEPSL	UVEPS(L)	Pg. 1.7
6	UVDBEL	UVDBE(L)	Pg. 1.7
7	UVDSL	UVDS(L)	PG. 1.7
8	UVCS0	UVCS<0>H	Pg. 1.7
10	UVCS1	UVCS<1>H	Pg. 1.7
11	UVCS2	UVCS<2>H	Pg. 1.7
12	BUVCLKOH	BUVCLKO(H)	Pg. 1.7
13	READYH	READY(H)	Pg. 1.7
14	UVERRL	UVERR(L)	Pg. 1.7
15	EPREADYL	EPREADY(L)	Pg. 1.7
16	UVBML0	UVBM<0>L	Pg. 1.7
17	LPERRL	LPERR(L)	Pg. 1.7
20	LOCALNXMH	LOCAL NXM(H)	PG. 1.7
21	TOH	T.O.(H)	Pg. 1.7
22	UVCYCCDL0	UVCYCCD<0>L	Pg. 1.7
23	UVCYCCDL1	UVCYCCD<1>L	Pg. 1.7
24	UVCYCCDL2	UVCYCCD<2>L	Pg. 1.7
25	ENBDATAL	ENB DATA(L)	PG. 1.7
26	RUNL	RUN(L)	Pg. 1.7
27	XDAL16	XDAL<16>H	Pg. 1.7
28	XDAL17	XDAL<17>H	Pg. 1.7
29	XDAL18	XDAL<18>H	Pg. 1.7
31	XDAL19	XDAL<19>H	Pg. 1.7
32	XDAL20	XDAL<20>H	Pg. 1.7
33	XDAL21	XDAL<21>H	Pg. 1.7
34	QBIOCYCL	QBIOCYC(L)	Pg. 1.7
35	EPADENBL	EPAD ENB(L)	PG. 1.7
38	DLRDL	DLRD(L)	PG. 1.7
39	DLWRL	DLWR(L)	Pg. 1.7
40	CSDLL	CS DL(L)	Pg. 1.7
41	DLAD0	DLAD<0>H	Pg. 1.7
42	DLAD1	DLAD<1>H	Pg. 1.7
43	HIROMDLATCHL	HIROMDLATCH(L)	Pg. 1.7
44	EPAD1	EPAD<1>H	Pg. 1.7
46	CSPROML	CS PROM(L)	Pg. 1.7
47	CSTOYH	CS TOY(H)	Pg. 1.7
48	CSMAPL	CS MAP(L)	Pg. 1.7
49	CSMAPEMEARH	CS MAP;EMEAR(H)	Pg. 1.7
50	EPR15	EPR<15>H	Pg. 1.7
51	EPR14	EPR<14>H	Pg. 1.7
52	EPR13	EPR<13>H	Pg. 1.7
53	EPR12	EPR<12>H	Pg. 1.7
56	EPR11	EPR<11>H	Pg. 1.7
57	EPR10	EPR<10>H	Pg. 1.7
58	EPR9	EPR<9>H	PG. 1.7
59	EPR8	EPR<8>H	PG. 1.7
60	EPR7	EPR<7>H	PG. 1.7
61	EPR6	EPR<6>H	PG. 1.7
62	EPR5	EPR<5>H	PG. 1.7
63	EPR4	EPR<4>H	PG. 1.7
64	EPR3	EPR<3>H	PG. 1.7
65	EPR2	EPR<2>H	PG. 1.7
67	EPR1	EPR<1>H	PG. 1.7
68	EPR0	EPR<0>H	PG. 1.7
69	CTLXDAL0	CTL XDAL<0>H	Pg. 1.7
70	CTLXDAL1	CTL XDAL<1>H	Pg. 1.7
71	BDRL0	BDR<0>L	PG. 1.7
74	BDRL1	BDR<1>L	Pg. 1.7
75	BDRL2	BDR<2>L	PG. 1.7
76	BDRL3	BDR<3>L	PG. 1.7
77	BDGCDL0	BDG CD<0>L	Pg. 1.7
78	BDGCDL1	BDG CD<1>L	Pg. 1.7
79	XDMAQPEH	XDMA QPE(H)	Pg. 1.7
80	CONFL2	CONF<2>L	Pg. 1.7
82	CONFL3	CONF<3>L	Pg. 1.7
83	HLTENBL	HLT ENB(L)	Pg. 1.7
84	AUXHLTH	AUX HLT(H)	Pg. 1.7
85	BREAKH	BREAK(H)	Pg. 1.7
86	XDBIRQH	XDBI RQ(H)	Pg. 1.7
87	DLXRQH	DLXRQ(H)	Pg. 1.7
88	DLRRQH	DLRRQ(H)	Pg. 1.7
89	RIRQ4	RIRQ<4>H	Pg. 1.7
92	RHALTH	RHALT(H)	Pg. 1.7
93	UVBRL14	UVBR<14>L	Pg. 1.7
94	UVHALTL	UVHALT(L)	Pg. 1.7
95	UVRESETL	UVRESET(L)	Pg. 1.7
96	INITRQL	INITRQ(L)	PG. 1.7
97	RPOKL	RPOK(L)	Pg. 1.7
98	RINITH	RINIT(H)	Pg. 1.7
99	DRDCOKH	DRDCOK(H)	Pg. 1.7
100	TINITH	TINIT(H)	Pg. 1.7
101	INTRVLTIML	INTRVL TIM(L)	Pg. 1.7
103	MEMCD0	MEM CD<0>H	Pg. 1.7
104	MEMCD1	MEM CD<1>H	Pg. 1.7
105	MSERL0	MSER<0>L	Pg. 1.7
106	MSERL1	MSER<1>L	Pg. 1.7
107	UVDAL0	UVDAL<0>H	Pg. 1.7
110	UVDAL1	UVDAL<1>H	Pg. 1.7
111	UVDAL2	UVDAL<2>H	Pg. 1.7
112	UVDAL3	UVDAL<3>H	Pg. 1.7
113	UVDAL4	UVDAL<4>H	Pg. 1.7
114	UVDAL5	UVDAL<5>H	Pg. 1.7
115	UVDAL6	UVDAL<6>H	Pg. 1.7
116	UVDAL7	UVDAL<7>H	Pg. 1.7
118	UVDAL8	UVDAL<8>H	Pg. 1.7
119	UVDAL9	UVDAL<9>H	Pg. 1.7
120	UVDAL10	UVDAL<10>H	Pg. 1.7
121	UVDAL11	UVDAL<11>H	Pg. 1.7
122	UVDAL12	UVDAL<12>H	Pg. 1.7
123	UVDAL13	UVDAL<13>H	Pg. 1.7
124	UVDAL14	UVDAL<14>H	Pg. 1.7
125	UVDAL15	UVDAL<15>H	Pg. 1.7
128	UVDAL16	UVDAL<16>H	Pg. 1.7
129	UVDAL17	UVDAL<17>H	Pg. 1.7
130	UVDAL18	UVDAL<18>H	Pg. 1.7
131	UVDAL19	UVDAL<19>H	Pg. 1.7
132	UVDAL20	UVDAL<20>H	Pg. 1.7
133	UVDAL21	UVDAL<21>H	Pg. 1.7
134	UVDAL22	UVDAL<22>H	Pg. 1.7
135	UVDAL23	UVDAL<23>H	Pg. 1.7
136	UVDAL24	UVDAL<24>H	Pg. 1.7
137	UVDAL25	UVDAL<25>H	Pg. 1.7
139	UVDAL26	UVDAL<26>H	Pg. 1.7
140	UVDAL27	UVDAL<27>H	Pg. 1.7
141	UVDAL28	UVDAL<28>H	Pg. 1.7
142	UVDAL29	UVDAL<29>H	Pg. 1.7
143	UVDAL30	UVDAL<30>H	Pg. 1.7

E45 GATEARRAY2

2	MAPAD12	MAP AD<12>H	Pg. 1.4
3	CLK6144KHZH	CLK 614.4KHZ(H)	Pg. 1.4
4	RDOUTH	RDOUT(H)	Pg. 1.4
5	TRPLYH	TRPLY(H)	Pg. 1.4
6	MAPAD11	MAP AD<11>H	PG. 1.4
7	TDIOL	TDIO(L)	Pg. 1.4
8	RSYNCH	RSYNC(H)	Pg. 1.4
10	RDCOKL	RDCOK(L)	PG. 1.4
11	RDINH	RDIN(H)	Pg. 1.4
12	XDAL1	XDAL<1>H	Pg. 1.4
13	XDAL0	XDAL<0>H	FG. 1.4
14	TREFH	TREF(H)	Pg. 1.4
15	XDAL2	XDAL<2>H	Pg. 1.4
16	XDAL3	XDAL<3>H	Pg. 1.4
17	XDAL4	XDAL<4>H	Pg. 1.4
20	XDAL6	XDAL<6>H	Pg. 1.4
21	XDAL9	XDAL<9>H	Pg. 1.4
22	XDAL5	XDAL<5>H	Pg. 1.4
23	XDAL8	XDAL<8>H	Pg. 1.4
24	XDAL7	XDAL<7>H	Pg. 1.4
25	XDAL11	XDAL<11>H	Pg. 1.4
26	XDAL10	XDAL<10>H	Pg. 1.4
27	XDAL14	XDAL<14>H	Pg. 1.4
28	XDAL15	XDAL<15>H	Pg. 1.4
29	XDAL13	XDAL<13>H	PG. 1.4
31	MD4	MD<4>H	Pg. 1.4
32	XWTBTH	XWTBT(H)	Pg. 1.4
33	XDAL12	XDAL<12>H	PG. 1.4
34	MD10	MD<10>H	PG. 1.4
35	MD2	MD<2>H	PG. 1.4
38	MD8	MD<8>H	PG. 1.4
39	MD0	MD<0>H	PG. 1.4
40	MD14	MD<14>H	PG. 1.4
41	MD20	MD<20>H	PG. 1.4
42	MD6	MD<6>H	PG. 1.4
43	MD18	MD<18>H	PG. 1.4
44	MD12	MD<12>H	PG. 1.4
46	MD24	MD<24>H	PG. 1.4
47	MD16	MD<16>H	PG. 1.4
48	MD28	MD<28>H	PG. 1.4
49	MD30	MD<30>H	PG. 1.4
50	MD22	MD<22>H	PG. 1.4
51	MD26	MD<26>H	PG. 1.4
52	MD31	MD<31>H	PG. 1.4
53	MD29	MD<29>H	PG. 1.4
56	MD1	MD<1>H	PG. 1.4
57	MD5	MD<5>H	PG. 1.4
58	MD3	MD<3>H	PG. 1.4
59	MD7	MD<7>H	PG. 1.4
60	MD9	MD<9>H	PG. 1.4
61	MD11	MD<11>H	PG. 1.4
62	MD13	MD<13>H	FG. 1.4
63	MD15	MD<15>H	PG. 1.4
64	MD21	MD<21>H	PG. 1.4
65	MD17	MD<17>H	PG. 1.4
67	MD23	MD<23>H	PG. 1.4
68	MD25	MD<25>H	PG. 1.4
69	MD19	MD<19>H	Pg. 1.4
70	BYTACTL3	BYTACT<3>L	PG. 1.4
71	MD27	MD<27>H	Pg. 1.4
74	BYTACTL2	BYTACT<2>L	Pg. 1.4
75	BYTACTL0	BYTACT<0>L	Pg. 1.4
76	DMAMAL	DMA->MA(L)	Pg. 1.4
77	REFMAL	REF->MA(L)	Pg. 1.4
78	BYTACTL1	BYTACT<1>L	Pg. 1.4
79	MEMWRL	MEMWR(L)	PG. 1.4
80	UVWRH	UVWR(H)	Pg. 1.4
82	HI16PERL	HI16PER(L)	Pg. 1.4
83	LO16PERL	LO16PER(L)	PG. 1.4
84	MA8	MA<8>H	PG. 1.4
85	MA9	MA<9>H	PG. 1.4
86	MA18	MA<18>H	PG. 1.4
87	MA7	MA<7>H	
88	MA6	MA<6>H	PG. 1.4
89	MA5	MA<5>H	PG. 1.4
92	MA3	MA<3>H	PG. 1.4
93	QMEMENBL	QMEMENB(L)	PG. 1.4
94	MA4	MA<4>H	PG. 1.4
95	INCCTRH	INC CTR(H)	PG. 1.4
96	MA2	MA<2>H	PG. 1.4
97	QRQL	QRQ(L)	PG. 1.4
98	BDY15L	BDY15(L)	PG. 1.4
99	QWRH	QWR(H)	Pg. 1.4
100	UVBML1	UVBM<1>L	Pg. 1.4
101	UVBML3	UVBM<3>L	Pg. 1.4
103	TINITH	TINIT(H)	Pg. 1.4
104	AUXHLTH	AUX HLT(H)	Pg. 1.4
105	UVBML2	UVBM<2>L	Pg. 1.4
106	INTRVLTIML	INTRVL TIM(L)	Pg. 1.4
107	XDBIRQH	XDBI RQ(H)	Pg. 1.4
110	CONFL3	CONF<3>L	Pg. 1.4
111	XDMAQPEH	XDMA QPE(H)	Pg. 1.4
112	CTLXDAL1	CTL XDAL<1>H	Pg. 1.4
113	SELDBL	SEL DB(L)	Pg. 1.4
114	CONFL2	CONF<2>L	Pg. 1.4
115	CTLXDAL0	CTL XDAL<0>H	Pg. 1.4
116	GRANTL	GRANT(L)	Pg. 1.4
118	ODDWDH	ODD WD(H)	Pg. 1.4
119	EPR10	EPR<10>H	PG. 1.4
120	EPR9	EPR<9>H	Pg. 1.4
121	EPR13	EPR<13>H	Pg. 1.4
122	ENBDALL	ENB DAL(L)	Pg. 1.4
123	EPR11	EPR<11>H	PG. 1.4
124	QALEH	QALE(H)	Pg. 1.4
125	EPR12	EPR<12>H	Pg. 1.4
128	EPR14	EPR<14>H	Pg. 1.4
129	EPR15	EPR<15>H	Pg. 1.4
130	REFREQH	REF REQ(H)	PG. 1.4
131	ARBL	ARB(L)	Pg. 1.4
132	ASYNCTOH	ASYNC T.O.(H)	PG. 1.4
133	RBS7H	RBS7(H)	Pg. 1.4
134	QBIOCYCL	QBIOCYC(L)	PG. 1.4
135	TBS7H	TBS7(H)	Pg. 1.4
136	TDMGOH	TDMGO(H)	Pg. 1.4
137	ARMREPLYL	ARM REPLY(L)	Pg. 1.4
139	MAPAD9	MAP AD<9>H	Pg. 1.4
140	ENBDATAL	ENB DATA(L)	Pg. 1.4
141	MAPAD10	MAP AD<10>H	Pg. 1.4
142	MAPAD13	MAP AD<13>H	Pg. 1.4
143	UVBML0	UVBM<0>L	Pg. 1.4

E46 F373

1	UVDALMAL	UVDAL->MA(L)	Pg. 1.2
2	MA15	MA<15>H	Pg. 1.2
3	UVDAL16	UVDAL<16>H	Pg. 1.2
4	UVDAL23	UVDAL<23>H	Pg. 1.2
5	MA23	MA<23>H	Pg. 1.2
6	MA20	MA<20>H	Pg. 1.2
7	UVDAL20	UVDAL<20>H	Pg. 1.2
8	UVDAL19	UVDAL<19>H	Pg. 1.2
9	MA19	MA<19>H	Pg. 1.2
11	BUVASL	BUVAS(L)	Pg. 1.2
12	MA6	MA<6>H	Pg. 1.2
13	UVDAL6	UVDAL<6>H	Pg. 1.2
14	UVDAL4	UVDAL<4>H	Pg. 1.2
15	MA4	MA<4>H	Pg. 1.2
16	MA22	MA<22>H	Pg. 1.2
17	UVDAL22	UVDAL<22>H	Pg. 1.2
18	UVDAL17	UVDAL<17>H	Pg. 1.2
19	MA17	MA<17>H	

digital | DRN E.R.W. | DATE 8-19-86 | ENG. E. R. W. | DATE 8-19-86 | TITLE: KA520 CROSS REFERENCE SIGNALS

CHK E.R.W. | DATE 8-19-86 | BOARD LOCATION: | SHEET 19 OF 24 | SIZE D | CODE DO | NUMBER M7478-0-2 | REV. A

DSK:PINSRT. | NEXT HIGHER ASSEMBLY: B-DD-M7478-2

FIRST USED ON OPTION/MODEL:

REVISIONS | CHK | CHANGE NO. | REV

E47	**F00**		
1	R9E47PUH	R9E47PU(H)	Pg. 1.9
2	CLK6144KHZL	CLK 614.4KHZ(L)	Pg. 1.9
3	CLK6144KHZH	CLK 614.4KHZ(H)	Pg. 1.9
4	SYSCLKH	SYSCLK(H)	Pg. 1.1
5	R23E47PUH	R23E47PU(H)	Pg. 1.1
6	CLK25H	CLK25(H)	Pg. 1.1
8	E47P8L	E47P8(L)	Pg. 2.1.1
9	TS0	TS<0>H	PG. 2.1.1
10	TS1	TS<1>H	PG. 2.1.1
11	E47P11H	E47P11(H)	Pg. 2.1.1
12	UVASL	UVAS(L)	PG. 2.1.1
13	DMAMAL	DMA->MA(L)	Pg. 2.1.1

E48	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD31	LRD<31>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD31	LRD<31>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E49	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD23	LRD<23>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD23	LRD<23>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

E50	**256K**		
1	BMAA9	BMAA<8>H	Pg. 1.3
2	LRD15	LRD<15>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD15	LRD<15>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E51	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD7	LRD<7>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD7	LRD<7>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

E52	**F245**		
1	UVWRH	UVWR(H)	Pg. 1.2
2	UVDAL20	UVDAL<20>H	Pg. 1.2
3	UVDAL17	UVDAL<17>H	Pg. 1.2
4	UVDAL19	UVDAL<19>H	Pg. 1.2
5	UVDAL30	UVDAL<30>H	Pg. 1.2
6	UVDAL16	UVDAL<16>H	Pg. 1.2
7	UVDAL23	UVDAL<23>H	Pg. 1.2
8	UVDAL22	UVDAL<22>H	Pg. 1.2
9	UVDAL31	UVDAL<31>H	Pg. 1.2
11	MD31	MD<31>H	Pg. 1.2
12	MD22	MD<22>H	Pg. 1.2
13	MD23	MD<23>H	Pg. 1.2
14	MD16	MD<16>H	Pg. 1.2
15	MD30	MD<30>H	Pg. 1.2
16	MD19	MD<19>H	Pg. 1.2
17	MD17	MD<17>H	Pg. 1.2
18	MD20	MD<20>H	Pg. 1.2
19	ARMUVDAL	ARM UVDAL(L)	Pg. 1.2

E53	**F373**		
1	UVDALMAL	UVDAL->MA(L)	Pg. 1.2
4	UVDAL21	UVDAL<21>H	Pg. 1.2
5	MA21	MA<21>H	Pg. 1.2
6	MA18	MA<18>H	Pg. 1.2
7	UVDAL18	UVDAL<18>H	Pg. 1.2
8	UVDAL 5	UVDAL<15>H	Pg. 1.2
9	MA15	MA<15>H	Pg. 1.2
11	BUVASL	BUVAS(L)	Pg. 1.2
12	MA14	MA<14>H	Pg. 1.2
13	UVDAL14	UVDAL<14>H	Pg. 1.2
14	UVDAL8	UVDAL<8>H	Pg. 1.2
15	MA8	MA<8>H	Pg. 1.2
16	MA7	MA<7>H	Pg. 1.2
17	UVDAL7	UVDAL<7>H	Pg. 1.2
18	UVDAL9	UVDAL<9>H	Pg. 1.2
19	MA9	MA<9>H	Pg. 1.2

E54	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD30	LRD<30>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD30	LRD<30>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E55	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD22	LRD<22>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD22	LRD<22>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

E56	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD14	LRD<14>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD14	LRD<14>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E57	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD6	LRD<6>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD6	LRD<6>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

E58	**29853**		
1	BUFENBL	BUF ENB(L)	Pg. 1.3
2	MD24	MD<24>H	Pg. 1.3
3	MD25	MD<25>H	Pg. 1.3
4	MD26	MD<26>H	Pg. 1.3
5	MD27	MD<27>H	Pg. 1.3
6	MD28	MD<28>H	Pg. 1.3
7	MD29	MD<29>H	Pg. 1.3
8	MD30	MD<30>H	Pg. 1.3
9	MD31	MD<31>H	Pg. 1.3
10	PEL3	PE<3>L	Pg. 1.3
11	GND	GND	Pg. 1.3
13	BUFENBL	BUF ENB(L)	Pg. 1.3
14	BDIRTL	BDIRT(L)	Pg. 1.3
15	PD3	PD<3>H	Pg. 1.3
16	RD31	RD<31>H	Pg. 1.3
17	RD30	RD<30>H	Pg. 1.3
18	RD29	RD<29>H	Pg. 1.3
19	RD28	RD<28>H	Pg. 1.3
20	RD27	RD<27>H	Pg. 1.3
21	RD26	RD<26>H	Pg. 1.3
22	RD25	RD<25>H	Pg. 1.3
23	RD24	RD<24>H	Pg. 1.3

E59	**F174**		
1	BUVRESETL	BUVRESET(L)	Pg. 2.1.1
2	BMCAS2	BMCAS<2>H	Pg. 2.1.1
3	ENBCAS2	ENB CAS<2>H	Pg. 2.1.1
4	ENBCAS3	ENB CAS<3>H	Pg. 2.1.1
5	BMCAS3	BMCAS<3>H	Pg. 2.1.1
6	ENBCAS1	ENB CAS<1>H	Pg. 2.1.1
7	BMCAS1	BMCAS<1>H	Pg. 2.1.1
9	UVCLKOH	UVCLKO(H)	Pg. 2.1.1
10	BMCAS0	BMCAS<0>H	Pg. 2.1.1
11	ENBCAS0	ENB CAS<0>H	Pg. 2.1.1
12	E59P12H	E59P12(H)	Pg. 2.1.1
13	E59P13H	E59P13(H)	Pg. 2.1.1
14	E59P12H	E59P12(H)	Pg. 2.1.1
15	RASALLH	RAS ALL(H)	Pg. 2.1.1

E60	**256K**		
1	BMAA9	BMAA<8>H	Pg. 1.3
2	LRD29	LRD<29>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD29	LRD<29>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E61	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD21	LRD<21>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD21	LRD<21>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

E62	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD13	LRD<13>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD13	LRD<13>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E63	**256K**		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD5	LRD<5>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD5	LRD<5>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

digital | DRW: ERW | DATE: 8-19-86 | ENG: E Rubaum | DATE: 8-19-86
CHK'D: ERW | DATE: 8-19-86 | BOARD LOCATION: | SHEET 22 OF 24
NEXT HIGHER ASSEMBLY: B-DD-M7478-0
FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS

SIZE: D | CODE: DD | NUMBER: M7478-0-0 | REV. A

E64 29853

1	BUFENBL	BUF ENB(L)	Pg. 1.3
2	MD16	MD(16)H	Pg. 1.3
3	MD17	MD(17)H	Pg. 1.3
4	MD18	MD(18)H	Pg. 1.3
5	MD19	MD(19)H	Pg. 1.3
6	MD20	MD(20)H	Pg. 1.3
7	MD21	MD(21)H	Pg. 1.3
8	MD22	MD(22)H	Pg. 1.3
9	MD23	MD(23)H	Pg. 1.3
10	PEL2	PE(2)L	Pg. 1.3
11	GND	GND	Pg. 1.3
13	BUFENBL	BUF ENB(L)	Pg. 1.3
14	BDIRTL	BDIRT(L)	Pg. 1.3
15	PD2	PD(2)H	Pg. 1.3
16	RD23	RD(23)H	Pg. 1.3
17	RD22	RD(22)H	Pg. 1.3
18	RD21	RD(21)H	Pg. 1.3
19	RD20	RD(20)H	Pg. 1.3
20	RD19	RD(19)H	Pg. 1.3
21	RD18	RD(18)H	Pg. 1.3
22	RD17	RD(17)H	Pg. 1.3
23	RD16	RD(16)H	Pg. 1.3

E65 F32

1	RUNL	RUN(L)	Pg. 1.10
2	RRH	RR(H)	Pg. 1.10
3	SRUNL	SRUN(L)	Pg. 1.10
4	RDCOKL	RDCOK(L)	Pg. 2.2
5	BUVRESETH	BUVRESET(H)	Pg. 2.2
6	FORCEINITH	FORCEINIT(H)	Pg. 2.2
8	E17PSL	E17PS(L)	Pg. 2.1.1
9	DMAMAL	DMA->MA(L)	Pg. 2.1.1
10	SELCOLL	SELCOL(L)	Pg. 2.1.1
11	E65P11L	E65P11(L)	Pg. 2.1.1
12	ARMUVDALL	ARM UVDAL(L)	Pg. 2.1.1
13	PERRL	PERR(L)	Pg. 2.1.1

E66 F521

1	GND	GND	PG. 1.2
2	GND	GND	PG. 1.2
3	UVDAL24	UVDAL(24)H	Pg. 1.2
4	GND	GND	PG. 1.2
5	UVDAL25	UVDAL(25)H	Pg. 1.2
6	GND	GND	PG. 1.2
7	UVDAL26	UVDAL(26)H	Pg. 1.2
8	GND	GND	PG. 1.2
9	UVDAL27	UVDAL(27)H	Pg. 1.2
11	GND	GND	PG. 1.2
12	UVDAL28	UVDAL(28)H	Pg. 1.2
13	GND	GND	PG. 1.2
14	UVDAL29	UVDAL(29)H	Pg. 1.2
15	A3VA	+3VA H	Pg. 1.2
16	UVCS2	UVCS(2)H	Pg. 1.2
17	GND	GND	PG. 1.2
18	GND	GND	PG. 1.2
19	SELLO16MBL	SEL LO16MB(L)	Pg. 1.2

E67 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD28	LRD(28)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL81	RAS(81)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD28	LRD(28)H	Pg. 1.3
15	CASL3	CAS(3)L	Pg. 1.3

E68 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD20	LRD(20)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL81	RAS(81)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD20	LRD(20)H	Pg. 1.3
15	CASL2	CAS(2)L	Pg. 1.3

E69 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD12	LRD(12)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL80	RAS(80)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD12	LRD(12)H	Pg. 1.3
15	CASL1	CAS(1)L	Pg. 1.3

E70 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD4	LRD(4)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL80	RAS(80)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD4	LRD(4)H	Pg. 1.3
15	CASL0	CAS(0)L	Pg. 1.3

E71 F245

1	UVWRH	UVWR(H)	Pg. 1.2
2	UVDAL26	UVDAL(26)H	Pg. 1.2
3	UVDAL25	UVDAL(25)H	Pg. 1.2
4	UVDAL28	UVDAL(28)H	Pg. 1.2
5	UVDAL24	UVDAL(24)H	Pg. 1.2
6	UVDAL29	UVDAL(29)H	Pg. 1.2
7	UVDAL18	UVDAL(18)H	Pg. 1.2
8	UVDAL15	UVDAL(15)H	Pg. 1.2
9	UVDAL27	UVDAL(27)H	Pg. 1.2
11	MD27	MD(27)H	Pg. 1.2
12	MD15	MD(15)H	Pg. 1.2
13	MD18	MD(18)H	Pg. 1.2
14	MD29	MD(29)H	Pg. 1.2
15	MD24	MD(24)H	Pg. 1.2
16	MD28	MD(28)H	Pg. 1.2
17	MD25	MD(25)H	Pg. 1.2
18	MD26	MD(26)H	Pg. 1.2
19	ARMUVDALL	ARM UVDAL(L)	Pg. 1.2

E72 F158

1	SELCOLL	SELCOL(L)	Pg. 1.3
2	MA13	MA(13)H	Pg. 1.3
3	MA5	MA(5)H	Pg. 1.3
4	MAAL3	MAA(3)L	Pg. 1.3
5	MA12	MA(12)H	Pg. 1.3
6	MA4	MA(4)H	Pg. 1.3
7	MAAL2	MAA(2)L	Pg. 1.3
9	MAAL1	MAA(1)L	Pg. 1.3
10	MA3	MA(3)H	Pg. 1.3
11	MA11	MA(11)H	Pg. 1.3
12	MAAL0	MAA(0)L	Pg. 1.3
13	MA2	MA(2)H	Pg. 1.3
14	MA10	MA(10)H	Pg. 1.3
15	SG1L	SG1(L)	Pg. 1.3

E73 F373

1	UVDALMAL	UVDAL->MA(L)	Pg. 1.2
2	LO16MBL	LO16MB(L)	Pg. 1.2
3	SELLO16MBL	SEL LO16MB(L)	Pg. 1.2
4	UVDAL5	UVDAL(5)H	Pg. 1.2
5	MA5	MA(5)H	Pg. 1.2
6	MA12	MA(12)H	Pg. 1.2
7	UVDAL12	UVDAL(12)H	Pg. 1.2
8	UVDAL13	UVDAL(13)H	Pg. 1.2
9	MA13	MA(13)H	Pg. 1.2
11	BUVASL	BUVAS(L)	Pg. 1.2
12	MA11	MA(11)H	Pg. 1.2
13	UVDAL11	UVDAL(11)H	Pg. 1.2
14	UVDAL3	UVDAL(3)H	Pg. 1.2
15	MA3	MA(3)H	Pg. 1.2
16	MA2	MA(2)H	Pg. 1.2
17	UVDAL2	UVDAL(2)H	Pg. 1.2
18	UVDAL10	UVDAL(10)H	Pg. 1.2
19	MA10	MA(10)H	Pg. 1.2

E74 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD27	LRD(27)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL81	RAS(81)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD27	LRD(27)H	Pg. 1.3
15	CASL3	CAS(3)L	Pg. 1.3

E75 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD19	LRD(19)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL81	RAS(81)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD19	LRD(19)H	Pg. 1.3
15	CASL2	CAS(2)L	Pg. 1.3

E76 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD11	LRD(11)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL80	RAS(80)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD11	LRD(11)H	Pg. 1.3
15	CASL1	CAS(1)L	Pg. 1.3

E77 256K

1	BMAA8	BMAA(8)H	Pg. 1.3
2	LRD3	LRD(3)H	Pg. 1.3
3	BMSWTL0	BMSWT(0)L	Pg. 1.3
4	RASL80	RAS(80)L	Pg. 1.3
5	BMAA0	BMAA(0)H	Pg. 1.3
6	BMAA2	BMAA(2)H	Pg. 1.3
7	BMAA1	BMAA(1)H	Pg. 1.3
9	BMAA7	BMAA(7)H	Pg. 1.3
10	BMAA5	BMAA(5)H	Pg. 1.3
11	BMAA4	BMAA(4)H	Pg. 1.3
12	BMAA3	BMAA(3)H	Pg. 1.3
13	BMAA6	BMAA(6)H	Pg. 1.3
14	LRD3	LRD(3)H	Pg. 1.3
15	CASL0	CAS(0)L	Pg. 1.3

E78 16L8A

1	PEL3	PE(3)L	Pg. 2.1.2
2	PEL2	PE(2)L	Pg. 2.1.2
3	PEL1	PE(1)L	Pg. 2.1.2
4	PEL0	PE(0)L	Pg. 2.1.2
5	MSERL0	MSER(0)L	Pg. 2.1.2
6	MEMWRL	MEMWR(L)	Pg. 2.1.2
7	BYTACTL3	BYTACT(3)L	Pg. 2.1.2
8	BYTACTL2	BYTACT(2)L	Pg. 2.1.2
9	BYTACTL1	BYTACT(1)L	Pg. 2.1.2
11	BYTACTL0	BYTACT(0)L	Pg. 2.1.2
12	MI16PERL	MI16PER(L)	Pg. 2.1.2
13	LO16PERL	LO16PER(L)	Pg. 2.1.2
14	PERRL	PERR(L)	Pg. 2.1.2
15	SELCOLL	SELCOL(L)	Pg. 2.1.2
16	ENBCAS0	ENB CAS(0)H	Pg. 2.1.2
17	ENBCAS1	ENB CAS(1)H	Pg. 2.1.2
18	ENBCAS2	ENB CAS(2)H	Pg. 2.1.2
19	ENBCAS3	ENB CAS(3)H	Pg. 2.1.2

E79 512X4PROM

1	MA21	MA(21)H	Pg. 2.1.2
2	MA20	MA(20)H	Pg. 2.1.2
3	MSIDL4	MSID(4)L	Pg. 2.1.2
4	MSIDL3	MSID(3)L	Pg. 2.1.2
5	MSIDL0	MSID(0)L	Pg. 2.1.2
6	MSIDL1	MSID(1)L	Pg. 2.1.2
7	MSIDL2	MSID(2)L	Pg. 2.1.2
8	E79P8H	E79P8(H)	Pg. 2.1.2
10	BUVRESETH	BUVRESET(H)	Pg. 2.1.2
11	MEMCD1	MEM CD(1)H	Pg. 2.1.2
12	MEMCD0	MEM CD(0)H	Pg. 2.1.2
13	E79P13H	E79P13(H)	Pg. 2.1.2
14	E79P14H	E79P14(H)	Pg. 2.1.2
15	E79P15H	E79P15(H)	Pg. 2.1.2
16	MA23	MA(23)H	Pg. 2.1.2
17	MA22	MA(22)H	Pg. 2.1.2

REVISIONS			
CHK	CHANGE NO.	DEV	

DRN: ERW DATE: 8-19-86
CHK'D ERW DATE: 8-19-86
ENG ERW DATE: 8-19-86
DSK:PINSRT
IFIRST USED ON OPTION/MODEL:
BOARD LOCATION:
SHEET 31 OF 34
NEXT HIGHER ASSEMBLY: 5-DD-M7478-0

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE	CODE	NUMBER	REV.
D	DD	M7478-0-0	A

E80 F240

1	SGIL	SGI(L)	Pg. 1.3
2	MAAL3	MAA<3>L	Pg. 1.3
3	NC	NC H	Pg. 1.3
4	MAAL7	MAA<7>L	Pg. 1.3
5	MBMAA0	MBMAA<0>H	Pg. 1.3
6	GND	GND	Pg. 1.3
7	MBMAA1	MBMAA<1>H	Pg. 1.3
8	MAAL5	MAA<5>L	Pg. 1.3
9	MBMAA2	MBMAA<2>H	Pg. 1.3
11	MAAL2	MAA<2>L	Pg. 1.3
12	MBMAA5	MBMAA<5>H	Pg. 1.3
13	MAAL1	MAA<1>L	Pg. 1.3
14	NC	NC H	Pg. 1.3
15	MAAL0	MAA<0>L	Pg. 1.3
16	MBMAA7	MBMAA<7>H	Pg. 1.3
17	GND	GND	Pg. 1.3
18	MBMAA3	MBMAA<3>H	Pg. 1.3
19	SGIL	SGI(L)	Pg. 1.3

E81 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD26	LRD<26>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD26	LRD<26>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E82 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD18	LRD<18>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD18	LRD<18>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

E83 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD10	LRD<10>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD10	LRD<10>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E84 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD2	LRD<2>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD2	LRD<2>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

E85 F245

1	UVWRH	UVWR(H)	Pg. 1.2
2	UVDAL12	UVDAL<12>H	Pg. 1.2
3	UVDAL11	UVDAL<11>H	Pg. 1.2
4	UVDAL10	UVDAL<10>H	Pg. 1.2
5	UVDAL21	UVDAL<21>H	Pg. 1.2
6	UVDAL14	UVDAL<14>H	Pg. 1.2
7	UVDAL13	UVDAL<13>H	Pg. 1.2
8	UVDAL9	UVDAL<9>H	Pg. 1.2
9	UVDAL8	UVDAL<8>H	Pg. 1.2
11	MD8	MD<8>H	Pg. 1.2
12	MD9	MD<9>H	Pg. 1.2
13	MD13	MD<13>H	Pg. 1.2
14	MD14	MD<14>H	Pg. 1.2
15	MD21	MD<21>H	Pg. 1.2
16	MD10	MD<10>H	Pg. 1.2
17	MD11	MD<11>H	Pg. 1.2
18	MD12	MD<12>H	Pg. 1.2
19	ARMUVDALL	ARM UVDAL(L)	Pg. 1.2

E86 16L8A

1	UVCYCCDL2	UVCYCCD<2>L	Pg. 2.1.2
2	DMAMAL	DMA->MA(L)	Pg. 2.1.2
3	DONEL	DONE(L)	Pg. 2.1.2
4	MSERL1	MSER<1>L	Pg. 2.1.2
5	UVCYCL	UVCYC(L)	Pg. 2.1.2
6	MEMWRL	MEMWR(L)	Pg. 2.1.2
7	DECODEH	DECODE(H)	Pg. 2.1.2
8	DATABUFENBL	DATA BUF ENB(L)	Pg. 2.1.2
9	MEMCD0	MEM CD<0>H	Pg. 2.1.2
11	MEMCD1	MEM CD<1>H	Pg. 2.1.2
12	MSWT0	MSWT<0>H	Pg. 2.1.2
13	MSWT1	MSWT<1>H	Pg. 2.1.2
14	SELCOLH	SELCOL(H)	Pg. 2.1.2
15	BUFENBL	BUF ENB(L)	Pg. 2.1.2
16	BUFENBL0	BUF ENB<0>L	Pg. 2.1.2
17	BUFENBL1	BUF ENB<1>L	Pg. 2.1.2
18	BDIRTL	BDIRT(L)	Pg. 2.1.2
19	STARTCYCL	START CYC(L)	Pg. 2.1.2

E87 F04

1	BMCAS3	BMCAS<3>H	Pg. 1.3
2	MCASL3	MCAS<3>L	Pg. 1.3
3	BMCAS2	BMCAS<2>H	Pg. 1.3
4	MCASL2	MCAS<2>L	Pg. 1.3
5	BMCAS1	BMCAS<1>H	Pg. 1.3
6	MCASL1	MCAS<1>L	Pg. 1.3
8	MCASL0	MCAS<0>L	Pg. 1.3
9	BMCAS0	BMCAS<0>H	Pg. 1.3

E88 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD25	LRD<25>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD25	LRD<25>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E89 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD17	LRD<17>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD17	LRD<17>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

E90 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD9	LRD<9>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD9	LRD<9>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E91 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD1	LRD<1>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD1	LRD<1>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

E92 29853

1	BUFENBL	BUF ENB(L)	Pg. 1.3
2	MD8	MD<8>H	Pg. 1.3
3	MD9	MD<9>H	Pg. 1.3
4	MD10	MD<10>H	Pg. 1.3
5	MD11	MD<11>H	Pg. 1.3
6	MD12	MD<12>H	Pg. 1.3
7	MD13	MD<13>H	Pg. 1.3
8	MD14	MD<14>H	Pg. 1.3
9	MD15	MD<15>H	Pg. 1.3
10	PEL1	PE<1>L	Pg. 1.3
11	GND	GND	Pg. 1.3
13	BUFENBL	BUF ENB(L)	Pg. 1.3
14	BDIRTL	BDIRT(L)	Pg. 1.3
15	LPD1	LPD<1>H	Pg. 1.3
16	LRD15	LRD<15>H	Pg. 1.3
17	LRD14	LRD<14>H	Pg. 1.3
18	LRD13	LRD<13>H	Pg. 1.3
19	LRD12	LRD<12>H	Pg. 1.3
20	LRD11	LRD<11>H	Pg. 1.3
21	LRD10	LRD<10>H	Pg. 1.3
22	LRD9	LRD<9>H	Pg. 1.3
23	LRD8	LRD<8>H	Pg. 1.3

E93 F158

1	SELCOLL	SELCOL(L)	Pg. 1.3
2	MA17	MA<17>H	Pg. 1.3
3	MA9	MA<9>H	Pg. 1.3
4	MAAL7	MAA<7>L	Pg. 1.3
5	GND	GND	Pg. 1.3
6	GND	GND	Pg. 1.3
7	NC	NC H	Pg. 1.3
9	MAAL9	MAA<9>L	Pg. 1.3
10	MA20	MA<20>H	Pg. 1.3
11	MA21	MA<21>H	Pg. 1.3
12	MAAL5	MAA<5>L	Pg. 1.3
13	MA7	MA<7>H	Pg. 1.3
14	MA15	MA<15>H	Pg. 1.3
15	SGIL	SGI(L)	Pg. 1.3

E94 F240

1	SGIL	SGI(L)	Pg. 1.3
2	MAAL6	MAA<6>L	Pg. 1.3
3	MRASL81	MRAS<81>L	Pg. 1.3
4	GND	GND	Pg. 1.3
5	MBMSWTL0	MBMSWT<0>L	Pg. 1.3
6	MAAL4	MAA<4>L	Pg. 1.3
7	MRASL80	MRAS<80>L	Pg. 1.3
8	GND	GND	Pg. 1.3
9	MBMAA8	MBMAA<8>H	Pg. 1.3
11	MAAL8	MAA<8>L	Pg. 1.3
12	NC	NC H	Pg. 1.3
13	RAS8	RAS<8>H	Pg. 1.3
14	MBMAA4	MBMAA<4>H	Pg. 1.3
15	MSWT0	MSWT<0>H	Pg. 1.3
16	NC	NC H	Pg. 1.3
17	RAS9	RAS<9>H	Pg. 1.3
18	MBMAA6	MBMAA<6>H	Pg. 1.3
19	SGIL	SGI(L)	Pg. 1.3

E95 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD24	LRD<24>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD24	LRD<24>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E96 256K

1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD16	LRD<16>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD16	LRD<16>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

REVISIONS — CHK | CHANGE NO. | REV.

digital — DRN ERW, DATE 8-19-86 — CHK ERW — ENG — DATE 8-19-86

TITLE: KA520 CROSS REFERENCE SIGNALS

SIZE D — CODE DD — NUMBER M7478-0-0 — REV. A

NEXT HIGHER ASSEMBLY B-DD-M7478-0-0

FIRST USED ON OPTION/MODEL:

E97	256K		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD8	LRD<8>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LRD8	LRD<8>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E98	256K		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LRD0	LRD<0>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<5>H	Pg. 1.3
14	LRD0	LRD<0>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

E99	F245		
1	UVWRH	UVWR(H)	Pg. 1.2
2	UVDAL4	UVDAL<4>H	Pg. 1.2
3	UVDAL3	UVDAL<3>H	Pg. 1.2
4	UVDAL2	UVDAL<2>H	Pg. 1.2
5	UVDAL7	UVDAL<7>H	Pg. 1.2
6	UVDAL6	UVDAL<6>H	Pg. 1.2
7	UVDAL5	UVDAL<5>H	Pg. 1.2
8	UVDAL1	UVDAL<1>H	Pg. 1.2
9	UVDAL0	UVDAL<0>H	Pg. 1.2
11	MD0	MD<0>H	Pg. 1.2
12	MD1	MD<1>H	Pg. 1.2
13	MD5	MD<5>H	Pg. 1.2
14	MD6	MD<6>H	Pg. 1.2
15	MD7	MD<7>H	Pg. 1.2
16	MD2	MD<2>H	Pg. 1.2
17	MD3	MD<3>H	Pg. 1.2
18	MD4	MD<4>H	Pg. 1.2
19	ARMUVDALL	ARM UVDAL(L)	Pg. 1.2

E100	F537		
1	RAS2	RAS<2>H	Pg. 2.1.2
2	RAS1	RAS<1>H	Pg. 2.1.2
3	RAS0	RAS<0>H	Pg. 2.1.2
4	RASALLH	RAS ALL(H)	Pg. 2.1.2
5	SG1L	SG1(L)	Pg. 2.1.2
6	E79P14H	E79P14(H)	Pg. 2.1.2
7	E79P13H	E79P13(H)	Pg. 2.1.2
8	RAS5	RAS<5>H	Pg. 2.1.2
9	RAS6	RAS<6>H	Pg. 2.1.2
11	RAS7	RAS<7>H	Pg. 2.1.2
12	RAS8	RAS<8>H	Pg. 2.1.2
13	LOCALNXMH	LOCAL NXM(H)	Pg. 2.1.2
14	E100P14H	E100P14(H)	Pg. 2.1.2
15	RASDECODEL	RAS DECODE(L)	Pg. 2.1.2
16	MEMCD0	MEM CD<0>H	Pg. 2.1.2
17	MEMCD1	MEM CD<1>H	Pg. 2.1.2
18	RAS4	RAS<4>H	Pg. 2.1.2
19	RAS3	RAS<3>H	Pg. 2.1.2

E101	F158		
1	SELCOLL	SELCOL(L)	Pg. 1.3
2	MA16	MA<15>H	Pg. 1.3
3	MA8	MA<8>H	Pg. 1.3
4	MAAL6	MAA<5>L	Pg. 1.3
5	MA19	MA<19>H	Pg. 1.3
6	MA18	MA<18>H	Pg. 1.3
7	MAAL8	MAA<8>L	Pg. 1.3
9	MAAL4	MAA<4>L	Pg. 1.3
10	MA6	MA<6>H	Pg. 1.3
11	MA14	MA<14>H	Pg. 1.3
12	NC	NC H	Pg. 1.3
13	GND	GND	Pg. 1.3
14	GND	GND	Pg. 1.3
15	SG1L	SG1(L)	Pg. 1.3

E102	256K		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LPD3	LPD<3>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LPD3	LPD<3>H	Pg. 1.3
15	CASL3	CAS<3>L	Pg. 1.3

E103	256K		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LPD2	LPD<2>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL81	RAS<81>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LPD2	LPD<2>H	Pg. 1.3
15	CASL2	CAS<2>L	Pg. 1.3

E104	256K		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LPD1	LPD<1>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LPD1	LPD<1>H	Pg. 1.3
15	CASL1	CAS<1>L	Pg. 1.3

E105	256K		
1	BMAA8	BMAA<8>H	Pg. 1.3
2	LPD0	LPD<0>H	Pg. 1.3
3	BMSWTL0	BMSWT<0>L	Pg. 1.3
4	RASL80	RAS<80>L	Pg. 1.3
5	BMAA0	BMAA<0>H	Pg. 1.3
6	BMAA2	BMAA<2>H	Pg. 1.3
7	BMAA1	BMAA<1>H	Pg. 1.3
9	BMAA7	BMAA<7>H	Pg. 1.3
10	BMAA5	BMAA<5>H	Pg. 1.3
11	BMAA4	BMAA<4>H	Pg. 1.3
12	BMAA3	BMAA<3>H	Pg. 1.3
13	BMAA6	BMAA<6>H	Pg. 1.3
14	LPD0	LPD<0>H	Pg. 1.3
15	CASL0	CAS<0>L	Pg. 1.3

E106	29853		
1	BUFENBL	BUF ENB(L)	Pg. 1.3
2	MD0	MD<0>H	Pg. 1.3
3	MD1	MD<1>H	Pg. 1.3
4	MD2	MD<2>H	Pg. 1.3
5	MD3	MD<3>H	Pg. 1.3
6	MD4	MD<4>H	Pg. 1.3
7	MD5	MD<5>H	Pg. 1.3
8	MD6	MD<6>H	Pg. 1.3
9	MD7	MD<7>H	Pg. 1.3
10	PEL0	PE<0>L	Pg. 1.3
11	GND	GND	Pg. 1.3
13	BUFENBL	BUF ENB(L)	Pg. 1.3
14	BDIRTL	BDIRT(L)	Pg. 1.3
15	LPD0	LPD<0>H	Pg. 1.3
16	LRD7	LRD<7>H	Pg. 1.3
17	LRD6	LRD<6>H	Pg. 1.3
18	LRD5	LRD<5>H	Pg. 1.3
19	LRD4	LRD<4>H	Pg. 1.3
20	LRD3	LRD<3>H	Pg. 1.3
21	LRD2	LRD<2>H	Pg. 1.3
22	LRD1	LRD<1>H	Pg. 1.3
23	LRD0	LRD<0>H	Pg. 1.3

F1	FUSE		
1	A120V	+12.0V	Pg. 1.9
2	J3P10H	J3P10(H)	Pg. 1.9

F2	FUSE		
1	A50V	+5.0V	Pg. 1.10
2	J2P20L	J2P20(L)	Pg. 1.10

J1	CONN50		
1	GND	GND	PG. 1.3
2	MD0	MD<0>H	Pg. 1.3
3	MD1	MD<1>H	Pg. 1.3
4	MD2	MD<2>H	Pg. 1.3
5	MD3	MD<3>H	Pg. 1.3
6	GND	GND	PG. 1.3
7	MD5	MD<5>H	Pg. 1.3
8	MD4	MD<4>H	Pg. 1.3
9	MD7	MD<7>H	Pg. 1.3
10	MD6	MD<6>H	Pg. 1.3
11	MD9	MD<9>H	Pg. 1.3
12	MD8	MD<8>H	Pg. 1.3
13	GND	GND	PG. 1.3
14	MD10	MD<10>H	Pg. 1.3
15	MD11	MD<11>H	Pg. 1.3
16	MD12	MD<12>H	Pg. 1.3
17	MD13	MD<13>H	Pg. 1.3
18	MD14	MD<14>H	Pg. 1.3
19	PEL0	PE<0>L	Pg. 1.3
20	GND	GND	PG. 1.3
21	BDIRTL	BDIRT(L)	Pg. 1.3
22	MD16	MD<16>H	Pg. 1.3
23	BUFENBL1	BUF ENB<1>L	Pg. 1.3
24	PEL1	PE<1>L	Pg. 1.3
25	GND	GND	PG. 1.3
26	GND	GND	PG. 1.3
27	PEL3	PE<3>L	Pg. 1.3
28	BUFENBL0	BUF ENB<0>L	Pg. 1.3
29	MD15	MD<15>H	Pg. 1.3
30	GND	GND	PG. 1.3
31	GND	GND	PG. 1.3
32	PEL2	PE<2>L	Pg. 1.3
33	MD17	MD<17>H	Pg. 1.3
34	MD18	MD<18>H	Pg. 1.3
35	MD19	MD<19>H	Pg. 1.3
36	MD20	MD<20>H	Pg. 1.3
37	MD21	MD<21>H	Pg. 1.3
38	GND	GND	PG. 1.3
39	MD23	MD<23>H	Pg. 1.3
40	MD22	MD<22>H	Pg. 1.3
41	MD25	MD<25>H	Pg. 1.3
42	MD24	MD<24>H	Pg. 1.3
43	MD27	MD<27>H	Pg. 1.3
44	MD26	MD<26>H	Pg. 1.3
45	GND	GND	PG. 1.3
46	MD28	MD<28>H	Pg. 1.3
47	MD29	MD<29>H	Pg. 1.3
48	MD30	MD<30>H	Pg. 1.3
49	MD31	MD<31>H	Pg. 1.3
50	GND	GND	PG. 1.3

J2	20PINCONN		
1	GND	GND	Pg. 1.10
2	GND	GND	Pg. 1.10
3	GND	GND	Pg. 1.10
4	J2P4L	J2P4(L)	Pg. 1.10
5	J2P5L	J2P5(L)	Pg. 1.10
6	GND	GND	Pg. 1.10
7	J2P7L	J2P7(L)	Pg. 1.10
8	J2P8L	J2P8(L)	Pg. 1.10
9	J2P9L	J2P9(L)	Pg. 1.10
10	BTRYVH	BTRYV(H)	Pg. 1.10
11	J2P11L	J2P11(L)	Pg. 1.10
12	GND	GND	Pg. 1.10
13	J2P13L	J2P13(L)	Pg. 1.10
14	J2P14L	J2P14(L)	Pg. 1.10
15	J2P15L	J2P15(L)	Pg. 1.10
16	GND	GND	Pg. 1.10
17	J2P17L	J2P17(L)	Pg. 1.10
18	J2P18L	J2P18(L)	Pg. 1.10
19	J2P19L	J2P19(L)	Pg. 1.10
20	J2P20L	J2P20(L)	Pg. 1.10

J3	10PINCONN		
1	J3P1L	J3P1(L)	Pg. 1.9
2	GND	GND	Pg. 1.9
3	J3P3L	J3P3(L)	Pg. 1.9
4	GND	GND	Pg. 1.9
5	GND	GND	Pg. 1.9
6	NC	NC H	Pg. 1.9
7	J3P7L	J3P7(L)	Pg. 1.9
8	J3P8H	J3P8(H)	Pg. 1.9
9	GND	GND	Pg. 1.9
10	J3P10H	J3P10(H)	Pg. 1.9

R1	RES		
1	R1E37PDL	R1E37PD(L)	Pg. 1.1
2	GND	GND	Pg. 1.1

R2	RES		
1	SG1L	SG1(L)	Pg. 2.1.2
2	GND	GND	Pg. 2.1.2

R3	RES		
1	OSC031H	OSC031(H)	Pg. 1.8
2	CLK031H	CLK031(H)	Pg. 1.8

R4	RES		
1	UN1963520PSLEW20	UN$1$9635$20P$SLEW$2<0>H	Pg. 1.9
2	GND	GND	PG. 1.9

REVISIONS | CHK | CHANGE NO. | REV

digital

DRN: E R. | DATE 12-19-86 | ENG: E R. | DATE 8-19-86

CHK'D: E R. | DATE 8-19-86 | BOARD LOCATION:

SHEET 23 OF 24

NEXT HIGHER ASSEMBLY: B-DD-M7478-0

DSK:PINSRT

FIRST USED ON OPTION/MODEL:

TITLE: KA620 CROSS REFERENCE SIGNALS

SIZE D | CODE DD | NUMBER M7478-0-0 | REV. A

R7 RES
1 A120VL 12.0V L Pg. 1.9
2 SIH SI(H) Pg. 1.9

R8 RES
1 SIL SI(L) Pg. 1.9
2 GND GND Pg. 1.9

R9 SIP2A
1 A50V +5.0V Pg. 2.1.2
2 PEL3 PE<3>L Pg. 2.1.2
3 PEL2 PE<2>L Pg. 2.1.2
4 PEL1 PE<1>L Pg. 2.1.2
5 PEL0 PE<0>L Pg. 2.1.1
6 A3VA +3VA H Pg. 1.9
7 R9E47PUH R9E47PU(H) Pg. 1.2
8 LO16M3L LO16M3(L) Pg. 1.9
9 R9E15PUH R9E15PU(H) Pg. 2.1.1
10 A3VA +3VA H

R10 SIP2A
1 A50V +5.0V Pg. 1.4
2 XDMAQPEH XDMA QPE(H) Pg. 1.4
3 J2P15L J2P15(L) Pg. 1.10
4 J2P5L J2P5(L) Pg. 1.10
5 J2P4L J2P4(L) Pg. 1.10
6 J3P14L J3P14(L) Pg. 1.10
7 J2P13L J2P13(L) Pg. 1.10
8 J2P19L J2P19(L) Pg. 1.10
9 J2P18L J2P18(L) Pg. 1.10
10 J2P17L J2P17(L) Pg. 1.10

R11 RES
1 E35P8L E35P8(L) Pg. 1.8
2 BTRYVIH BTRYVI(H) Pg. 1.8

R12 RES
1 E35P6L E35P6(L) Pg. 1.8
2 BTRYVIH BTRYVI(H) Pg. 1.8

R13 RES
1 UNIDIODE20PB20 UN1DIODE$20P$B$2<0>H Pg. 1.8
2 A120V +12.0V Pg. 1.8

R14 RES
1 E35P3L E35P3(L) Pg. 1.8
2 BTRYVIH BTRYVI(H) Pg. 1.8

R16 RES
1 DRDCOKH DRDCOK(H) Pg. 1.7
2 A50V +5.0V Pg. 1.7

R17 RES
1 BTVREFH BTVREF(H) Pg. 1.8
2 BTRYVH BTRYV(H) Pg. 1.8

R18 RES
1 GND GND Pg. 1.8
2 BTVREFH BTVREF(H) Pg. 1.8

R23 SIP2A
1 A50V +5.0V Pg. 1.8
2 V12REFH V1.2REF(H) Pg. 1.8
3 BTRYOKL BTRY OK(L) Pg. 1.8
4 XDBIRQH XDBI RQ(H) Pg. 1.4
5 MSIDL4 MSID<4>L Pg. 2.1.2
6 MSIDL3 MSID<3>L Pg. 2.1.2
7 MSIDL2 MSID<2>L Pg. 2.1.2
8 MSIDL1 MSID<1>L Pg. 2.1.2
9 MSIDL0 MSID<0>L Pg. 2.1.2
10 R23E47PUH R23E47PU(H) Pg. 1.1

R24 TERM
2 BEVENTL BEVENT(L) Pg. 1.6
3 BDALL15 BDAL<15>L Pg. 1.6
4 BDALL14 BDAL<14>L Pg. 1.6
5 BDALL13 BDAL<13>L Pg. 1.6
6 BDALL12 BDAL<12>L Pg. 1.6
7 BDALL11 BDAL<11>L Pg. 1.6
8 BDALL10 BDAL<10>L Pg. 1.6
9 BDALL9 BDAL<9>L Pg. 1.6
10 BDALL8 BDAL<8>L Pg. 1.6
11 BSACKL BSACK(L) Pg. 1.6
12 BIRQL7 BIRQ<7>L Pg. 1.6

R25 TERM
2 BPOKH BPOK(H) Pg. 1.6
3 BDALL18 BDAL<18>L Pg. 1.6
4 BDALL19 BDAL<19>L Pg. 1.6
5 BDALL20 BDAL<20>L Pg. 1.6
6 BDALL21 BDAL<21>L Pg. 1.6
7 BDALL2 BDAL<2>L Pg. 1.6
8 BDALL3 BDAL<3>L Pg. 1.6
9 BDALL4 BDAL<4>L Pg. 1.6
10 BDALL5 BDAL<5>L Pg. 1.6
11 BDALL6 BDAL<6>L Pg. 1.6
12 BDALL7 BDAL<7>L Pg. 1.6

R26 TERM
2 BDALL0 BDAL<0>L Pg. 1.6
3 BDALL1 BDAL<1>L Pg. 1.6
4 BDMRL BDMR(L) Pg. 1.6
5 BIAKOL BIAKO(L) Pg. 1.6
6 BBS7L BBS7(L) Pg. 1.6
7 BHALTL BHALT(L) Pg. 1.6
8 BDMGIL BDMGI(L) Pg. 1.6
9 BREFL BREF(L) Pg. 1.6
10 BDMGOL BDMGO(L) Pg. 1.6
11 BINITL BINIT(L) Pg. 1.6
12 BDCOKH BDCOK(H) Pg. 1.6

R27 TERM
2 BIRQL5 BIRQ<5>L Pg. 1.6
3 BIRQL6 BIRQ<6>L Pg. 1.6
4 BDALL16 BDAL<16>L Pg. 1.6
5 BDALL17 BDAL<17>L Pg. 1.6
6 BDOUTL BDOUT(L) Pg. 1.6
7 BRPLYL BRPLY(L) Pg. 1.6
8 BDINL BDIN(L) Pg. 1.6
9 BSYNCL BSYNC(L) Pg. 1.6
10 BWTBTL BWTBT(L) Pg. 1.6
11 BIRQL4 BIRQ<4>L Pg. 1.6
12 BIAKIL BIAKI(L) Pg. 1.6

R28 SIP10B
1 BTRYVH BTRYV(H) Pg. 1.8
2 BTRYVIH BTRYVI(H) Pg. 1.8
3 J3P7L J3P7(L) Pg. 1.9
4 SIL SI(L) Pg. 1.9
5 J3P8H J3P8(H) Pg. 1.9
6 SIH SI(H) Pg. 1.9
7 DOKH DOK(H) Pg. 1.7
8 DRDCOKH DRDCOK(H) Pg. 1.7

R29 RES
1 GND GND Pg. 1.10
2 SG4L SG4(L) Pg. 1.10

R31 SIP6B
1 MBMAA8 MBMAA<8>H Pg. 1.3
2 BMAA8 BMAA<8>H Pg. 1.3
3 MBMAA7 MBMAA<7>H Pg. 1.3
4 BMAA7 BMAA<7>H Pg. 1.3
5 MBMAA6 MBMAA<6>H Pg. 1.3
6 BMAA6 BMAA<6>H Pg. 1.3

R32 SIP6B
1 MBMAA5 MBMAA<5>H Pg. 1.3
2 BMAA5 BMAA<5>H Pg. 1.3
3 MBMAA4 MBMAA<4>H Pg. 1.3
4 BMAA4 BMAA<4>H Pg. 1.3
5 MBMAA3 MBMAA<3>H Pg. 1.3
6 BMAA3 BMAA<3>H Pg. 1.3

R33 SIP6B
1 MBMAA2 MBMAA<2>H Pg. 1.3
2 BMAA2 BMAA<2>H Pg. 1.3
3 MBMAA1 MBMAA<1>H Pg. 1.3
4 BMAA1 BMAA<1>H Pg. 1.3
5 MBMAA0 MBMAA<0>H Pg. 1.3
6 BMAA0 BMAA<0>H Pg. 1.3

R34 SIP6B
1 MRASL81 MRAS<81>L Pg. 1.3
2 RASL81 RAS<81>L Pg. 1.3
3 MRASL80 MRAS<80>L Pg. 1.3
4 RASL80 RAS<80>L Pg. 1.3
5 MBMSWTL0 MBMSWT<0>L Pg. 1.3
6 BMSWTL0 BMSWT<0>L Pg. 1.3

R35 SIP8B
1 LRD21 LRD<21>H Pg. 1.3
2 RD21 RD<21>H Pg. 1.3
3 LRD31 LRD<31>H Pg. 1.3
4 RD31 RD<31>H Pg. 1.3
5 LRD30 LRD<30>H Pg. 1.3
6 RD30 RD<30>H Pg. 1.3
7 LRD29 LRD<29>H Pg. 1.3
8 RD29 RD<29>H Pg. 1.3

R36 SIP8B
1 LRD28 LRD<28>H Pg. 1.3
2 RD28 RD<28>H Pg. 1.3
3 LRD27 LRD<27>H Pg. 1.3
4 RD27 RD<27>H Pg. 1.3
5 LRD26 LRD<26>H Pg. 1.3
6 RD26 RD<26>H Pg. 1.3
7 LRD25 LRD<25>H Pg. 1.3
8 RD25 RD<25>H Pg. 1.3

R37 SIP8B
1 LRD24 LRD<24>H Pg. 1.3
2 RD24 RD<24>H Pg. 1.3
3 LPD3 LPD<3>H Pg. 1.3
4 PD3 PD<3>H Pg. 1.3
5 LRD23 LRD<23>H Pg. 1.3
6 RD23 RD<23>H Pg. 1.3
7 LRD22 LRD<22>H Pg. 1.3
8 RD22 RD<22>H Pg. 1.3

R38 SIP8B
1 LRD17 LRD<17>H Pg. 1.3
2 RD17 RD<17>H Pg. 1.3
3 LRD16 LRD<16>H Pg. 1.3
4 RD16 RD<16>H Pg. 1.3

R39 SIP8B
1 LRD18 LRD<18>H Pg. 1.3
2 RD18 RD<18>H Pg. 1.3
3 LPD2 LPD<2>H Pg. 1.3
4 PD2 PD<2>H Pg. 1.3
5 MCASL3 MCAS<3>L Pg. 1.3
6 CASL3 CAS<3>L Pg. 1.3
7 MCASL2 MCAS<2>L Pg. 1.3
8 CASL2 CAS<2>L Pg. 1.3

R40 SIP8B
1 MCASL1 MCAS<1>L Pg. 1.3
2 CASL1 CAS<1>L Pg. 1.3
3 MCASL0 MCAS<0>L Pg. 1.3
4 CASL0 CAS<0>L Pg. 1.3
5 LRD20 LRD<20>H Pg. 1.3
6 RD20 RD<20>H Pg. 1.3
7 LRD19 LRD<19>H Pg. 1.3
8 RD19 RD<19>H Pg. 1.3

W1 JUMPER
1 A50V +5.0V Pg. 1.9
2 W1P2H W1P2(H) Pg. 1.9

W2 JUMPER
1 MA15 MA<15>H Pg. 1.9
2 W1P2H W1P2(H) Pg. 1.9

W3 JUMPER
1 MA19 MA<19>H Pg. 2.1.2
2 E79P8H E79P8(H) Pg. 2.1.2

W4 JUMPER
1 GND GND Pg. 2.1.2
2 E79P8H E79P8(H) Pg. 2.1.2

W5 JUMPER
1 BUVRESETH BUVRESET(H) Pg. 2.1.2
2 E79P15H E79P15(H) Pg. 2.1.2

W6 JUMPER
1 MA18 MA<18>H Pg. 2.1.2
2 E79P15H E79P15(H) Pg. 2.1.2

Y1 3205C
9 CLK031H CLK031(H) Pg. 1.8
16 BTRYVIH BTRYVI(H) Pg. 1.8

Y2 614OSC
3 CLK6144KHZL CLK 614.4KHZ(L) Pg. 1.9

Y3 OSC
3 SYSCLKH SYSCLK(H) Pg. 1.1

END GLOBAL PART CROSS REFERENCE

DRN. ERW	DATE 8-9-86
CHK'D ERW	DATE 8-19-86
ENG. ERW	DATE 8-19-86
TITLE:	KA620 CROSS REFERENCE SIGNALS
BOARD LOCATION:	SHEET 24 OF 24
NEXT HIGHER ASSEMBLY:	16-DD-M7478-0
SIZE / CODE / NUMBER / REV.	D / IDD / M7478-0-0 / A
FIRST USED ON OPTION/MODEL:	

SIZE	CODE	NUMBER	REV
B	DD	H3263-0-0	B

DRAWING NO.	NO OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		H3263-00	KA630 CNF	A1 A1
D-UA-H3263-0-0	1		KA630-CNF UNIT ASSEMBLY	A A
K-CS-H3263-0-1	1		KA630-CNF SCHEMATIC	A A
K-PL-H3263-0-DBP	1		KA630-CNF PARTS LIST	A B
K-PC-H3263-0-DBJ			P.C. DESIGN DATA BASE	A A
		5016698-01	ETCHED CIRCUIT BOARD	A1 A1
B-DD-5016698-0-0			DRAWING DIRECTORY	A A
K-CS-H3263-0-DBV			VALID DATA BASE	A A

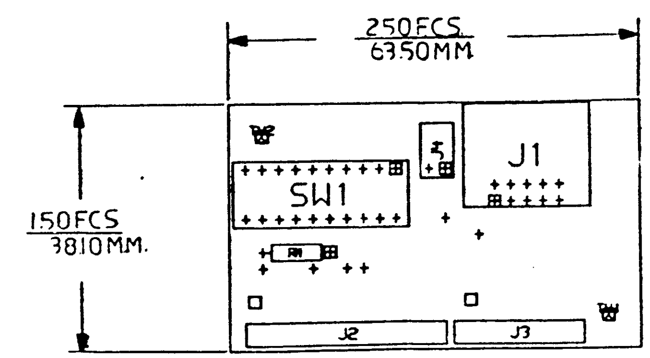
NOTES:

REVISION HISTORY			
REV.	A	B	
ECO NO.	INIT	H3263-ML001	
DATE	1/85	3/86	

digital

DRN. B.CORMIER	DATE 1/28/85	TITLE KA630-CNF	
CHK'D E.LANDRY	DATE 1/28/85		
DES. ENG. G.MASKAS	DATE 1-Feb-85	DOCUMENT NUMBER	
RESP. ENG. K.MCNAMARA	DATE 1-Feb-85	SIZE B / CODE DD / NUMBER H3263-0-0	REV. B
MFG. ENG. KEITH WORTMAN	DATE 1-Feb-85	SHEET 1 OF 1	

DRB 126C
EN-01242-16-REVA(396)



NOTES:

STEP & REPEAT	↑ Y AXIS ____ STEP ____ TIMES
	→ X AXIS ____ STEP ____ TIMES

CHK	CHANGE NO	REV

ETCH REV. A1

SIGNATURES	DATE
DRN. RONALD RHOADES	
CHK'D.	
MECH. ENG. B. MASKAS	
PROJ. ENG. B. MASKAS	
PROD. Keith Wartman	
SCALE 2:1	
SHT. OF	

digital

TITLE KA630-CNF

SIZE	CODE	NUMBER	REV
D	UA	H3263-0-0	A

NEXT HIGHER ASSY. B-DD-H3263-0-0

MS#275370

AUTOMATED BY VAX-PL (V1.1)

PARTS LIST

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 00 A1	REFERENCE DESIGNATORS
1	1	D-MD-5016698-0-0	50-16698-01		CIRCUIT DRILL AND ETCH BOARD	1	
2	2		12-15563-05		CONN,P+S 14POS(2X07).100CC	1	J3
3	3		12-15563-06		CONN,P+S 24POS(2X12).100CC	1	J2
4	4		12-17310-00		SW,DIP 10POS/1PST 5VDC100MA S	1	SW1
5	5		12-14434-02		PCB,HEADER 02PIN(1X02).100CC 90D	1	J4
6	6		12-13506-04		PCB HEADER 09PIN(2X05).100CC 90D	1	J1
7	7		13-00365-00		1.0 K .25 W 5.0 % CF	1	R1

REVISION HISTORY		
ENG	ECO NUMBER	REV
---	INITIAL	A
BM	H3263-ML001	B

KPL MODULE FORMAT: SECTION A OF A

SECTION/VARIATION INDEX

[A]	00	[M]	
[B]		[N]	
[C]		[P]	
[D]		[Q]	
[E]		[R]	
[F]		[S]	
[H]		[T]	
[J]		[V]	
[K]		[W]	
[L]		[Y]	

DRN: RONALD RHOADES
DATE: 08-NOV-84

CHK'D: B. CORMIER
DATE: 03-DEC-84

DES.ENG: B. MASKAS
DATE: 03-DEC-84

RESP.ENG.: B. MASKAS
DATE: 05-MAR-85

MFG.ENG: K. WORKMAN
DATE: 05-MAR-85

DIGITAL

TITLE: PARTS LIST
KA630-CNF

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	H3263-0-DBP	B

RELEASE DATE: 07-MAR-86
RELEASE STATUS: RELEASED

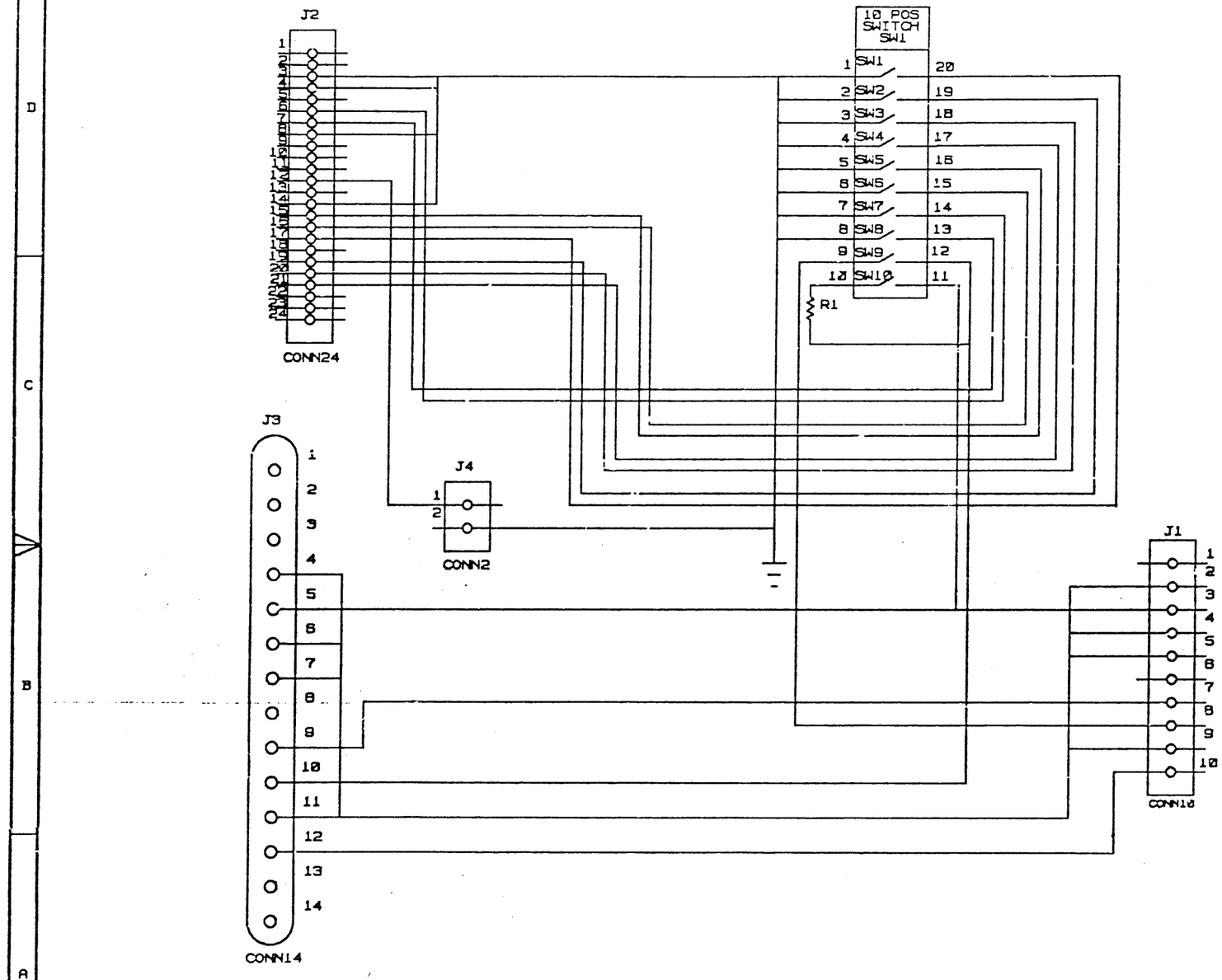
BASIC PART NUMBER: H3263

ASSEMBLY NUMBER: D-UA-H3263-0-0

TOP DOCUMENT NUMBER: B-DD-H3263-0-0

FILE NAME: ML5478.PLS

EDIT #: 1



S1-1

ON HALT ENABLE

OFF HALT ENABLE

S1-4	S1-3	S1-2	BAUD
OFF	OFF	OFF	300
OFF	OFF	ON	600
OFF	ON	OFF	1200
OFF	ON	ON	2400
ON	OFF	OFF	4800
ON	OFF	ON	9600
ON	ON	OFF	19200
ON	ON	ON	38400

S1-6	S1-5	
OFF	OFF	NORMAL
OFF	ON	LANGUAGE INQUIRY
ON	OFF	MAINTENCE
ON	ON	MANUFACTURING

S1-8	S1-7	
OFF	OFF	ARBITER
OFF	ON	AUXILIARY 1
ON	OFF	AUXILIARY 2
ON	ON	AUXILIARY 3

S1-10	S1-9	
OFF	OFF	SEND ONLY
OFF	ON	NORMAL
ON	OFF	MAINTENCE
ON	ON	ILLEGAL

DEFINE

X_FIRST=0

X_STEP=SIZE

DRAWING

TITLE=XKA630

ABBREV=XKA630

LAST_MODIFIED=Wed Mar 8 10:30:14 1985

REVISION		
CHK	CHANGE NO.	REV

DRN. R BUREAU DATE 12-8-84

CHK D. R. MASKAS DATE 12-19-84

ENG. D. R. MASKAS DATE 12-19-84

BOARD LOCATION

LIBRARY

FIRST USED ON OPTION/MODEL:

TOP DOCUMENT NUMBER: B-DD-HQ253-0-0

TITLE: KA630 CNF

SIZE	CODE	NUMBER	REV.
K	CS	HQ253-0-D3V	A