FIELD MAINTENANCE PRINT SET

TABLE OF CONTENTS

DMR11

FIELD MAINTENANCE PRINT SET

DIGITAL EQUIPMENT CORPORATION

PRINT SET ORDER NO.

MP00911

REVISION HISTORY

REV	ECO NUMBER	DATE
C	DMR11-MK003	23 AUG 83

CONT. REVISION HISTORY

REV	ECO NUMBER	DATE

MADE BY: R. ROBICHAUD
DATE: 23 AUG 83

CHECKED BY: J. FALKOWSKI
DATE: 23 AUG 83 J. Falkowski
24 OCT 83 R. Bergeron

PROJECT ENGR: R. BERGERON
DATE: 23 AUG 83 27-OCT-83

RSPBLE ENGR: M. LAWRENCE
DATE: 23 AUG 83 B. Bergeron
27 OCT 83

FIELD SERVICE: S. CRANSTON
DATE: 23 AUG 83 S. Cranston
10-27-83

design

TITLE: FIELD MAINTENANCE PRINT SET

DMR11

SIZE	CODE	DOCUMENT NUMBER	REV.
K	TC	DMR11-0-1	C

SHEET 1 OF 1

MK

DRAWING DIRECTORY

FOR FIELD MAINTENANCE PRINT SET REFER TO K-TC-DMR11-0-1

UNIT VARIATIONS

VARIATION	TITLE
DMR11-M	DMR11 BASE OPTION, M8207-RA UPROC, M8203 LINECARD
DMR11-AP	SYSTEM INTEGRATED DMR11/RS232 FULL MODEM
DMR11-BP	SYSTEM INTEGRATED DMR11/V.35 OPTION
DMR11-CP	SYSTEM INTEGRATED DMR11/INTEGRAL MODEM
DMR11-EP	SYSTEM INTEGRATED DMR11/RS422 OPTION
DMR11-FP	SYSTEM INTEGRATED DMR11/RS423 OPTION

REVISION HISTORY			USED ON OPTION/MODEL
ENG	ECO NUMBER	REV	
ML	DMR11-MK003	B	DMR11

RESPONSIBLE ENG. : M. LAWRENCE
DATE : 23 AUG 83 — R. Bergeron 27-OCT-83

MADE BY : R. ROBICHAUD
DATE : 23 AUG 83

CHECKED BY : J. FALKOWSKI
DATE : 23 AUG 83 — J. Falkowski 26 SEP 83

DESIGN ENGINEER : R. BERGERON
DATE : 23 AUG 83 — R. Bergeron 27-OCT-83

PRODUCTION ENG. : W. LADNER
DATE : 23 AUG 83 — W. Ladner 27 OCT 83

d i s i t a l

TITLE DRAWING DIRECTORY

DMR11

SIZE	CODE	DOCUMENT NUMBER	REV.
K	DD	DMR11-0	B

SHEET 1 OF 2 | EDIT # 0001

MK

FIND #	DRAWING NUMBER	DESCRIPTION	TYPE
1	MP00911	F.M.P.S. DMR11 (MP)	-
	K-TC-DMR11-0-1	F.M.P.S. DMR11 (TC)	-
	K-PL-DMR11-0-0	DMR11 OPTION	E/M
	D-IA-BC08S-0-0	I/O CABLE ASSY	E/M
	K-PL-BC08S-0-DBP	I/O CABLE ASSY	E/M
	K-SP-DMR11-0-2	DMR11 ENGINEERING SPECIFICATION	-
	K-AR-CKCKREF-0-0	FLEXIBLE OPTION PLAN	-
2	B-DD-M8207-0	MICROCONTROLLER, DMP11	-
3	B-DD-M8203-0	MULTI DROP LINE UNIT	-
4	B-DD-H3254-0	M8203 TEST CONN J1	-
5	B-DD-H3255-0	M8203 TEST CONN J2	-
6	K-DD-CKDMR11-0	CKDMR11 DRAWING DIRECTORY	-
7	K-PL-7020872-0-0	SHIPPING LIST DMR11	-

FIND #	DRAWING NUMBER	DESCRIPTION	TYPE

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

d	i	s	i	t	a	l

TITLE: DRAWING DIRECTORY DMR11

SIZE: K | CODE: DD | DOCUMENT NUMBER: DMR11-0 | REV.: B

SHEET 2 OF 2 | EDIT # 0001

MK

AUTOMATED BY PRTLST,3L(40)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION M A2	AP A2	BP A2	CP A2	EP A2	FP A2
					VARIATION REVISION LEVEL:						
1	1	D-UA-M8207-0-0	M8207-RA		MICROPROCESSOR BASED SYNCHRONOUS	1	1	1	1	1	1
2	2	D-UA-M8203-0-0	M8203-00		DMP11 LINE UNIT,RS-449,INTEGRAL	1	1	1	1	1	1
3	3	D-IA-BC08S-0-0	BC08S-01		12" SHIELDED I/O CABLE,H856 EA E	1	1	1	1	1	1
4	4	D-UA-H3254-0-0	H3254-00		M8203 TEST CONNECTOR J1	1	1	1	1	1	1
5	5	D-UA-H3255-0-0	H3255-00		M8203 TEST CONNECTOR J2	1	1	1	1	1	1
6	6	K-PL-CKDMR11-0-0	CKDMR11-00		CABKIT REF TO K-AR-CKCKREF-0-0	-	1	1	1	1	1
7	7	K-PL-7020872-0-0	7020872-01		SHIPPING LIST (DMR11)	1	1	1	1	1	1

8 NOTE: NOTE 1; CKDMR11-00 IS A REFERENCE VARIANT ONLY. SEE K-AR-CKCKREF-0-0 FOR EXACT VARIANT APPLICATION.

REVISION HISTORY			BASIC PART NO: DMR11
ENG	ECO NUMBER	REV	SECTION A OF A
---	INITIAL	*	SECTION,VARIATION INDEX
RH	DMR11-MK001	A	[A]M ,AP,BP,CP,EP,FP
ML	DMR11-MK003	B	
ML	DMR11-MK004	C	[B]
			[C]
			[D]
			[E]
			[F]

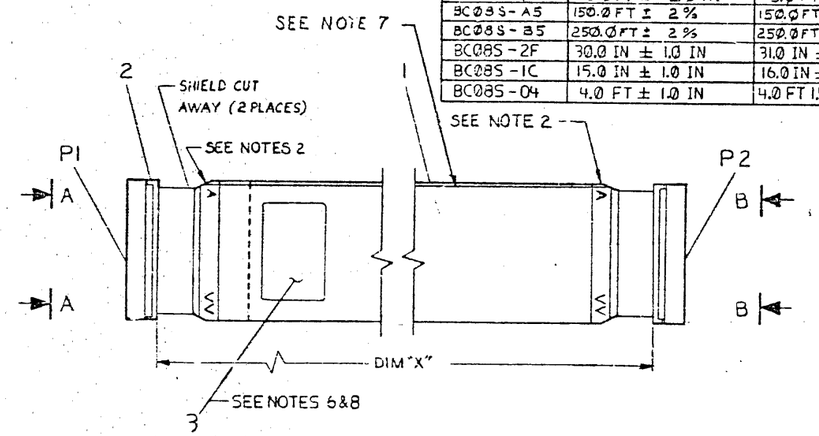
DRN: D. ZWICKER	DATE: 08-FEB-80	D I G I T A L
CHK'D: G. HOVEY	DATE: 19-AUG-85	TITLE PARTS LIST DMR11 OPTION
DES.ENG: H. YANG	DATE: 08-FEB-80	DOCUMENT NUMBER
RESP.ENG.: P. HARRINGTON	DATE: 19AUG85	SIZE: K | CODE: PL | NUMBER: DMR11-0-0 | REV: C
MFG.ENG.: G. ARMBRUSTER	DATE: 08-FEB-80	RELEASE DATE: 12-AUG-85
ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER: #K-DD-DMR11-0	FILE NAME: MK0021.PLS | EDIT #: 11

LEGEND

NUMBER	DIM."X" VAR	DIM "Y" REF
BCØ8S-ØL	1Ø.ØIN ± Ø.5 IN	11.ØIN ± Ø.5 IN
BCØ8S-ØI	12.ØIN ± 1.Ø IN	13.ØIN ± 1.Ø IN
BCØ8S-1B	14.ØIN ± 1.Ø IN	15.ØIN ± 1.Ø IN
BCØ8S-1K	21.ØIN ± 1.Ø IN	22.ØIN ± 1.Ø IN
BCØ8S-Ø2	24.ØIN ± 1.Ø IN	25.ØIN ± 1.Ø IN
BCØ8S-2K	33.ØIN ± 1.Ø IN	34.ØIN ± 1.Ø IN
BCØ8S-5L	7Ø.ØIN ± 2.Ø IN	71.ØIN ± 2.ØIN
BCØ8S-Ø7	7.ØFT ± 2.ØIN	7.ØFT 1.ØIN ± 2.ØIN
BCØ8S-Ø8	8.ØFT ± 2.ØIN	8.ØFT 1.ØIN ± 2.ØIN
BCØ8S-Ø9	9.ØFT ± 2.Ø IN	9.ØFT 1.ØIN ± 2.ØIN
BCØ8S-1Ø	1Ø.ØFT ± 3.Ø IN	1Ø.ØFT 1.ØIN ± 3.ØIN
BCØ3S-11	11.ØFT ± 3.ØIN	11.ØFT 1.ØIN ± 3.ØIN
BCØ8S-12	12.ØFT ± 3.ØIN	12.ØFT 1.ØIN ± 3.ØIN
BCØ8S-13	13.ØFT ± 3.ØIN	13.ØFT 1.ØIN ± 3.ØIN
BCØ8S-14	14.ØFT ± 3.ØIN	14.ØFT 1.ØIN ± 3.ØIN
BCØ8S-15	15.ØFT ± 3.ØIN	15.ØFT 1.ØIN ± 3.ØIN
BCØ8S-16	16.ØFT ± 3.ØIN	16.ØFT 1.ØIN ± 3.ØIN
BCØ8S-17	17.ØFT ± 3.ØIN	17.ØFT 1.ØIN ± 3.ØIN
BCØ8S-18	18.ØFT ± 3.ØIN	18.ØFT 1.ØIN ± 3.ØIN
BCØ8S-19	19.ØFT ± 3.ØIN	19.ØFT 1.ØIN ± 3.ØIN
BCØ8S-2Ø	2Ø.ØFT ± 3.ØIN	2Ø.ØFT 1.ØIN ± 3.ØIN
BCØ8S-25	25.ØFT ± 3.Ø IN	25.ØFT 1.ØIN ± 3.ØIN
BCØ3S-3Ø	3Ø.ØFT ± 7.2 IN	3Ø.ØFT 1.ØIN ± 7.2 IN
BCØ8S-35	35.ØFT ± 8.4 IN	35.ØFT 1.ØIN ± 8.4 IN
BCØ8S-5Ø	5Ø.ØFT ± 12.ØIN	5Ø.ØFT 1.ØIN ± 12.ØIN
BCØ8S-Ø3	3.ØFT ± 1.ØIN	3.ØFT 1.5ØIN ± 1.ØIN
BCØ8S-Ø5	5.ØFT ± 2.Ø IN	5.Ø FT 1.5ØIN ± 2.ØIN
BCØ8S-A5	15Ø.ØFT ± 2%	15Ø.ØFT 1.5ØIN ± 2%
BCØ8S-B5	25Ø.ØFT ± 2%	25Ø.ØFT 1.5ØIN ± 2%
BC08S-2F	30.0 IN ± 1.0 IN	31.0 IN ± 1.0 IN
BC08S-1C	15.0 IN ± 1.0 IN	16.0 IN ± 1.0 IN
BC08S-04	4.0 FT ± 1.0 IN	4.0 FT 1.5 IN ± 1.0 IN

NOTES:

1. CONNECTORS P1 AND P2, ARE TO BE WIRED POINT TO POINT.
2. CONNECTOR LEGEND IDENTIFICATION TO BE PLACED ON SHIELD SIDE AT EACH END OF CABLE ASSEMBLY.
3. MUST BE ASSEMBLED TO PROCESS SPECIFICATION 7606485-0-0.
4. ~~INSPECTION AND TEST STAMPS TO BE PLACED AT EACH END OF THE CABLE ASSEMBLY.~~
5. ~~THE NUMBER BCØ3S MUST BE ON THE CABLE IN CONJUNCTION WITH CONNECTOR LEGEND IDENTIFICATION.~~
6. ADD ITEM 3 APPROX 4 IN FROM CONNECTOR P1. EITHER I.D. LABLE 3616989-00 OR 3616073-00 MAY BE USED. PLACE ON SMOOTH SIDE OF CABLE.
7. IF MARKER STRIPE APPERS ON CABLE, ITEM 1, IT IS TO BE POSITIONED BETWEEN A-A.
8. THIS LABEL MAY BE REQUIRED PER UL. REQUIREMENT FOR INTERCONNECTING SYSTEMS.



VIEW A-A
CONN. LEGEND REF

VIEW B-B
CONN. LEGEND REF

CAUTION: OFF SHEET PARTS LIST
SEE K-PL-BCØ8S-Ø-DBP

ITEM NO.	DESCRIPTION	DWG./PART NO.	QTY
1	~~LABEL, CABLE I.D.~~	3616989-00	4
1	~~LABEL, PRODUCT I.D.~~	~~ACC4255~~	3
2	CONNECTOR, 40 SOCKET	12H206-00	2
A/R	CABLE, FLAT 40 COND	1700004-00	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 90.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.015	±.024	±.04
	PREFERRED ☐	±.012	±.018	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN J. FERGUSEN	5-12-71	FIRST USED ON: LAB8-E
CHK'D K CRABBE	5-13-71	digital
ENG'D K CRABBE	5-13-71	TITLE: I/O CABLE ASSY (DIAG. JUMPER)
PROJ. ENG.	5-21-71	
PROD. P. FACTO	5-21-71	
NEXT HIGHER ASSY.		
A-PL-BCØ8S-FA-Ø		SIZE D · CODE 14 · NUMBER BCØ8S-Ø-Ø · REV Z
SCALE NONE		
SHEET 1 OF 1		DIST.

REVISION CHANGE #	CHK	REV.
1. BCØ8S-ØØØ1Ø		M
REVISED AND REDRAWN	W FISHER 14 JUN 76	
S. HOLMES	S HOLMES 23 JUN 76	
BCØ8S-ØØØ11	D.C.	N
D. CHIASSON 19 JULY		
E. J. NEUMEYER 7-30-76		
BCØ8S — MRØ13	J. NEUMEYER	R
BCØ8S-MRØ12	20 Nov 78	P

ARTHUR FILZ
A. FILZ
BCØ8S-MRØ14
A. FILZ
BCØ8S-MRØ15
A. FILZ
BCØ8S-PNØ16
BCØ8S-PNØ17
BCØ8S-PNØ18
BCØ8S-PNØ19
BCØ8S-PNØ20
MAURENCE
A. FILZ

AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

SHEET A1 OF A1

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 0L Z1	01 Z1	1B Z1	1K Z1	02 Z1	2K Z1	5L Z1	07 Z1	08 Z1	09 Z1	10 Z1	11 Z1
					VARIATION REVISION LEVEL:												
1	1	NOTES 3 & 4	1700004-00		CABLE,RIBBON BOND 40COND 30AWG	11	13	15	22	25	34	71	7	8	9	10	11
2	2		1211206-00		CONN,IDC 40SKT(2X20).100CC GOL	2	2	2	2	2	2	2	2	2	2	2	2
3	3	NOTES 1 & 2	3616989-00		LABEL,CABLE LARGE	1	1	1	1	1	1	1	1	1	1	1	2

4 NOTE: 1. EITHER I.D. CABLE 3616989-00 OR 3616073-00 MAY BE USED.
5 NOTE: 2. PLACE ON SMOOTH SIDE OF CABLE.
6 NOTE: 3. QUANTITY OF ITEM 1, VARIATIONS -0L, -01, -1B, -1K, -02, -2K, -5L, -2F, AND -1C ARE
7 NOTE: SHOWN IN INCHES.
8 NOTE: 4. QUANTITY OF ITEM 1, ALL OTHER VARIATIONS ARE SHOWN IN FEET. NOTE THAT THE
9 NOTE: QTY OF THESE VARIATIONS DO NOT INCLUDE ALLOWANCE FOR CONNECTORS.

REVISION HISTORY

ENGT	ECO NUMBER	REV
	INITIAL	W
ML	BC08S-PN019	Y
AF	BC08S-MR020	Z

BASIC PART NO: BC08S

SECTION A OF C

SECTION.VARIATION INDEX
[A]0L,01,1B,1K,02,2K,
5L,07,08,09,10,11
[B]12,13,14,15,16,17,
18,19,20,25,30,35
[C]50,03,05,A5,B5,2F,
1C,04
[D]
[E]
[F]

DRN: F. LASPISA — DATE: 15-NOV-83

CHK'D: L. GILBERT — DATE: 15-NOV-83

DES.ENG: E. KING — DATE: 15-NOV-83

RESP.ENG.: E. KING — DATE: 15-NOV-83

MFG.ENG.: J. DEBLASIO — DATE: 15-NOV-83

ASSEMBLY NUMBER: D-IA-BC08S-0-0

TOP DOCUMENT NUMBER: A-PL-DR8-EA-0

D I G I T A L

TITLE: PARTS LIST
I/O CABLE ASSY
(DIAG. JUMPER)

DOCUMENT NUMBER SIZE	CODE	NUMBER	REV
K	PL	BC08S-0-DBP	Z

RELEASE DATE: 15-JUL-85

FILE NAME: BC08SZ.PLS

EDIT #: 7

AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

SHEET B1 OF B1

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION 12	13	14	15	16	17	18	19	20	25	30	35
					VARIATION REVISION LEVEL:	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1
1	1	NOTES 3 & 4	1700004-00		CABLE,RIBBON BOND 40COND 30AWG	12	13	14	15	16	17	18	19	20	25	30	35
2	2		1211206-00		CONN,IDC 40SKT(2X20).100CC GOL	2	2	2	2	2	2	2	2	2	2	2	2
3	3	NOTES 1 & 2	3616989-00		LABEL,CABLE LARGE	2	2	2	2	2	2	2	2	2	2	2	2

4 NOTE: 1. EITHER I.D. CABLE 3616989-00 OR 3616073-00 MAY BE USED.
5 NOTE: 2. PLACE ON SMOOTH SIDE OF CABLE.
6 NOTE: 3. QUANTITY OF ITEM 1, VARIATIONS -0L, -01, -1B, -1K, -02, -2K, -5L, -2F, AND -1C ARE
7 NOTE: SHOWN IN INCHES.
8 NOTE: 4. QUANTITY OF ITEM 1, ALL OTHER VARIATIONS ARE SHOWN IN FEET. NOTE THAT THE
9 NOTE: QTY OF THESE VARIATIONS DO NOT INCLUDE ALLOWANCE FOR CONNECTORS.

REVISION HISTORY

ENG	ECO NUMBER	REV
	[NITIAL	W
ML	BC08S-RM019	Y
AF	BC08S-MR020	Z

BASIC PART NO: BC08S

SECTION B OF C

SECTION.VARIATION INDEX
[A]0L,01,1B,1K,02,2K,
5L,07,08,09,10,11
[B]12,13,14,15,16,17,
18,19,20,25,30,35
[C]50,03,05,A5,B5,2F,
1C,04
[D]
[E]
[F]

DRN: F. LASPISA	DATE: 15-NOV-83	
CHK'D: L. GILBERT	DATE: 15-NOV-83	
DES.ENG: E. KING	DATE: 15-NOV-83	
RESP.ENG.: E. KING	DATE: 15-NOV-83	
MFG.ENG.: J. DEBLASIO	DATE: 15-NOV-83	

ASSEMBLY NUMBER: D-IA-BC08S-0-0

TOP DOCUMENT NUMBER: A-PL-DR8-EA-0

D I G I T A L

TITLE PARTS LIST
I/O CABLE ASSY
(DIAG. JUMPER)

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	BC08S-0-DBP	Z

RELEASE DATE: 15-JUL-85

FILE NAME: BC08SZ.PLS

EDIT # 7

AUTOMATED BY PRTLST.5R(55)

P A R T S L I S T

SHEET C1 OF C1

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION							
					VARIATION REVISION LEVEL:	50 Z1	03 Z1	05 Z1	A5 Z1	B5 Z1	2F Z1	1C Z1	04 A1
1	1	NOTES 3 & 4	1700004-00		CABLE,RIBBON BOND 40COND 30AWG	50	3	5	150	250	31	16	4
2	2		1211206-00		CONN,IDC 40SKT(2X20).100CC GOL	2	2	2	2	2	2	2	2
3	3	NOTES 1 & 2	3616989-00		LABEL,CABLE LARGE	2	1	1	2	2	1	1	1

4 NOTE: 1. EITHER I.D. CABLE 3616989-00 OR 3616023-00 MAY BE USED.
5 NOTE: 2. PLACE ON SMOOTH SIDE OF CABLE.
6 NOTE: 3. QUANTITY OF ITEM 1, VARIATIONS -0L, -01, -1B, -1K, -02, -2K, -5L, -2F, AND -1C ARE
7 NOTE: SHOWN IN INCHES.
8 NOTE: 4. QUANTITY OF ITEM 1, ALL OTHER VARIATIONS ARE SHOWN IN FEET. NOTE THAT THE
9 NOTE: QTY OF THESE VARIATIONS DO NOT INCLUDE ALLOWANCE FOR CONNECTORS.

REVISION HISTORY

ENG	ECO NUMBER	REV
	INITIAL	W
ML	BC08S-RN019	Y
AF	BC08S-MR020	Z

BASIC PART NO: BC08S

SECTION C OF C

SECTION.VARIATION INDEX
[A]0L,01,1B,1K,02,2K,
5L,07,08,09,10,11
[B]12,13,14,15,16,17,
18,19,20,25,30,35
[C]50,03,05,A5,B5,2F,
1C,04
[D]

[E]

[F]

DRN: F. LASPISA	DATE: 15-NOV-83	D I G I T A L
CHK'D: L. GILBERT	DATE: 15-NOV-83	TITLE PARTS LIST I/O CABLE ASSY (DIAG. JUMPER)
DES.ENG: E. KING	DATE: 15-NOV-83	DOCUMENT NUMBER
RESP.ENG.: E. KING	DATE: 15-NOV-83	SIZE: K / CODE: PL / NUMBER: BC08S-0-DBP / REV: Z
MFG.ENG.: J. DEBLASIO	DATE: 15-NOV-83	RELEASE DATE: 15-JUL-85
ASSEMBLY NUMBER: D-IA-BC08S-0-0	TOP DOCUMENT NUMBER: A-PL-DR8-EA-0	FILE NAME: BC08SZ.PLS / EDIT #: 7

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION	REVISIONS
		M8207-00	DMP11 MICROCONTROLLER	T1 T2 - T4 T5
		M8207-RA	DMP11 MICROCONTROLLER	T1 T2 T3 T4 T5
		M8207-YA	DMP11 MICROCONTROLLER	T1 T2 - T4 T5
D-UA-M8207-0-0	1		DMP11 MICROCONTROLLER	P N1 - R R
K-PL-M8207-0-0	3		DMP11 MICROCONTROLLER	R N1 - S IN
K-PL-M8207-0-DBP	3		DMP11 MICROCONTROLLER	- - - - T
D-CS-M8207-0-1	21		DMP11 MICROCONTROLLER	P M1 M1 R R
K-PC-M8207-0-DBI	-		PC DESIGN DATA BASE	E - - F F
K-PC-M8207-0-DBC	-		PC DESIGN DATA BASE	- D1 D1 - -
D-UA-M8207-0-2	2		DMP11 MICROCONTROLLER W.I.	- - A - -
K-PL-M8207-0-2	3		DMP11 MICROCONTROLLER W.I.	- - A - -
		5012845-00	ETCH BOARD	E D - F F
		5012845-01	ETCH BOARD WIRE INK	- - D - -
K-DD-5012845-0-0	1		DRAWING DIRECTORY	A A A B B

NOTES:
T1-REV EP1, ETCH BD. RE-LAYOUT.
T2-REV D ETCH, BD. WITH ECO WIRES.
T3-REV D ETCH, WITH WIRE INK FOR M8207-RA VARIATION ONLY.

REVISION HISTORY						
REV			P	P	P	R S
ECO NO	M K 0 1 3 3	M K 0 1 3 3	M K 0 1 3 3	M K 0 1 4 4	M K 0 1 5 5	
DATE	0 9 / 8 3	0 9 / 8 3	0 9 / 8 3	0 2 / 8 5	0 9 / 8 8	

DRN: B. FRASER	DATE: 13-MAR-79	d i g i t a l
CHK'D: R. KOPPENAL	DATE: 14-MAR-79	TITLE: DMP11 MICROCONTROLLER
DES.ENG.: P. ALOISI	DATE: 14-MAR-79	SHEET 1 OF 1 / EDIT: 6
RESP.ENG.: M. LAWRENCE	DATE: 19-SEP-85	DOCUMENT NUMBER / DD FILENAME: M8207S.DDF
MFG.ENG.: G. ARMBRUSTER	DATE: 14-MAR-79	SIZE: K / CODE: DD / NUMBER: M8207-0-0 / REV: S

SEE NOTE 5
SEE NOTES 6,7.
13
75
76 (QTY 2)
SEE NOTE 3
15.69 (398.53 MM) REF.
76
COMPONENT SIDE VIEW

8.4 (213.61 MM) REF

E136 SPARE, E123, E135, E122, E134, E111, E100, E121, E110, E99, E90, E84, E133, E120, E109, E98, E89, E83, E132, E119, E108, E97, E131, E118, E107, E96, E88, E82, E130, E129, E117, E106, E81, E128, E116, E105, E95, E87, E80, E127, E115, E104, E94, E86, E79, E126, E114, E103, E93, E78, E71, E125, E113, E102, E92, E124, E112, E101, E91, E85, XE77, E77, E76, E75, E74, E73, E72, E69, E68, E67, E66, E65, E64, E63, E62, E61, E60, E59, E58, E57, E56, E55, E54, E53, E52, E51, E50, E49, E48, E47, E46, E45, E44, E43, E42, E41, E40, E39, E38, E37, E36, E35, E34, E33, E32, E31, E30, E29, E28, E27, E26, E25, E24, E23, E22, E21, E20, E18, E17, E16, E15, E12, E11, E10, E9, E8, E7, E6, XE5, E5, XE4, E4, XE3, E3, XE2, E2, XE1, E1, XE14, E14, TP2, TP1, TH1, TH2, C1–C19, C20–C33, C39–C68, R1–R39, W1–W10

SEE NOTE 5
SEE NOTE 2

F E D C B A
V U T S R P N M L K J H F E D C B A

CHK	DRAWN BY	ENGINEER	CHANGE NO	DATE	REV
H	B.FRASER	M.LAWRENCE	MKØ14	7-22-84	R

CHK	DRAWN BY	ENGINEER	CHANGE NO	DATE	REV

NOTES:
1. REF DES NOT USED E19, C2, C68 & C75.
2. E13 (16 PIN IC) UNDER E14 IS USED ON YC VARIATION.
3. E87 PRE-WIRED FOR YC VARIATION.
4. THE IC PINS MAY HAVE TO SHORTENED FOR E1—E5, E14.
TO MEET DEC HEIGHT SPECIFICATION.
5. E136 IS A SPARE IC.
6. FOR YA VAR., INSERT W1, W2, W4, W6, W7, W9.

STEP E	↑ Y AXIS ___	STEP ___	TIMES
REPEAT	→ X AXIS ___	STEP ___	TIMES

NOTES CONT.:
7. FOR RA VAR.: INSERT W1—W3, W5, W8, W10.

ETCH REV. F1-P1

SIGNATURES	DATE
DRN. B.H.FRASER	7-11-84
CHK. [illegible]	7-12-84
MECH. ENG. G. Blanchette	7-19-84
PROJ. ENG. G. Blanchette	7-19-84
PROD. J. Belletrin	7-19-84
SCALE 2/1	
SHT. 1 OF 1	
NEXT HIGHER ASSY. K-DD-M8207-0	

digital

TITLE DMP11
MICROCONTROLLER

SIZE	CODE	NUMBER	REV
D	UA	M8207-0-0	R

MKO 1 WO# 302096

REV	SIZE	CODE	NUMBER
R	D	UA	M8207-0-0

AUTOMATED BY VAXKPL (V2.0)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 00 T5	RA T5	YA T5	REFERENCE DESIGNATORS
1	1	D-MD-5012845-0-0	50-12845-00		M8207	1	1	1	
2	2		10-00042-00		1000 PFD 100V +/- 5% 200PP	3	3	3	C1,C7,C11
3	3		10-10031-00		0.15 MFD 50V +/-10% M.POL	1	1	1	C3
4	4		10-00076-00		39 MFD 10V +/-10% SOL	1	1	1	C4
5	5	#NOTE 1	10-12084-01		8.0 MFD 25V +75/-10% 85	7	7	7	C5,C12-C17
6	6		10-00017-00		100 PFD 300V +/- 5% 200PP	3	3	3	C6,C8,C19
7	7		10-00026-00		680 PFD 100V +/- 5% 200PP	2	2	2	C9,C10
8	8		10-00011-00		47 PFD 100V +/- 5% 200PP	1	1	1	C18
9	9		10-02427-00		*** THIS ITEM IS NOT USED ***	-	-	-	
10	10		10-13466-11		0.22 MFD 50V +80/-20% Z5U C	25	25	25	C20-C24,C27-C33,C40-C42,C49,
								CONT	C50,C53-C60
11	11		10-12784-00		0.047MFD 50V +80/-20% Z5U C	41	41	41	C62-C67,C69-C74,C76-C104
12	12		12-09941-02		PCB,HEADER 40PIN(2X20).100CC 90D	1	1	1	J1
13	13		12-12385-04		SKT,IC 24PIN DIP GOLD SOLD	6	6	6	XE1-XE5,XE14
14	14		12-16988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	1	1	
15	15		12-09838-00		SKT,IC 16PIN DIP GOLD	1	1	1	XE77
16	16		13-00229-00		100.0 .25 W 5.0 % CF	6	6	6	R1,R22,R23,R35,R37,R41
17	17		13-00365-00		1.0 K .25 W 5.0 % CF	17	17	17	R2-R8,R12-R17,R24,R36,R39,R40
18	18		13-00271-00		220.0 .25 W 5.0 % CF	1	1	1	R9
19	19		13-01890-00		560.0 .25 W 5.0 % CF	1	1	1	R10
20	20		13-01322-00		180.0 .25 W 5.0 % CF	5	5	5	R11,R29,R32-R34
21	21		13-09419-00		19.60 K .25 W 1.0 % RN55D-F10	1	1	1	R18
22	22		13-02514-00		39.0 K .25 W 5.0 % CF	1	1	1	R19
23	23		13-01317-00		10.0 .25 W 5.0 % CF	3	3	3	R20,R21,R38
24	24				*** THIS ITEM IS NOT USED ***	-	-	-	
25	25		13-03179-00		8.20 K .25 W 5.0 % CF	2	2	2	R26,R27
26	26		13-02177-00		47.0 K .25 W 5.0 % CF	2	2	2	R25,R28
27	27		13-00309-00		390.0 .25 W 5.0 % CF	2	2	2	R30,R31
28	28		23-56F4 -00		F4-01	-	-	1	E1
29	29		21-14523-00		4K MOS RAM 55NS 18PIN	8	8	8	E6-E12,E27

REVISION HISTORY

ENG	ECO NUMBER	REV
---	MK002	D
PA	M8207-MK003	E
PA	M8207-MK005	H
PA	M8207-MK006	J
RH	M8207-MK007	K
PO	M8207-MK009	L
FB	M8207-MK010	M
ML	M8207-MK011	N
ML	M8207-MK012	P
ML	M8207-MK013	R
ML	M8207-MK014	S
RB	M8207-MK015	T

KPL MODULE FORMAT

SECTION A OF A

SECTION/VARIATION INDEX

[A]	00,RA,YA	[M]
[B]		[N]
[C]		[P]
[D]		[Q]
[E]		[R]
[F]		[S]
[H]		[T]
[J]		[V]
[K]		[W]
[L]		[Y]

DRN: J.PLANTE
DATE: 14-MAR-79

CHK'D: J.PELLETIER
DATE: 14-MAR-79

DES.ENG: P.ALOISI
DATE: 14-MAR-79

RESP.ENG.: M.LAWRENCE
DATE: 09-JAN-84

MFG.ENG: W.BROOKE
DATE: 09-JAN-84

D I G I T A L

TITLE PARTS LIST
DMP11 MICROCONTROLLER

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M8207-0-DBP	T

RELEASE DATE: 05-DEC-88
RELEASE STATUS: RELEASED

BASIC PART NUMBER: M8207

ASSEMBLY NUMBER: D-UA-M8207-0-0

TOP DOCUMENT NUMBER: K-DD-M8207-0-0

EDIT # 6

FILE NAME: M8207T.PLS

AUTOMATED BY VAXKPL (V2.0)

P A R T S L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 00 T5	RA T5	YA T5	REFERENCE DESIGNATORS
30	30		19-11579-00		/REPLACED BY 19-14987-00	10	10	10	E50,E51,E61,E62,E91-E93,E101,
								CONT	E102,E115
31	31		19-13294-00		93S16 COUNTER,SYNCH UP BIN	7	7	7	E15-E18,E24-E26
32	32		19-14214-00		LS374 FF-D OCTAL EDGE TRIG	4	4	4	E20-E23
33	33		19-12847-00		LS157 MUX 1 OF 2(QUAD)	9	9	9	E29,E31,E40,E42,E52,E63,E70,
								CONT	E79,E94
34	34		19-13671-00		74S374 FF-D,OCTAL,TR1 STATE	3	3	3	E30,E41,E54
35	35		23-202A1-00		A1-07	1	1	1	E32
36	36		19-11675-00		74S138 DECODER/DEMUX 3-8 LI	4	4	4	E33,E56,E80,E96
37	37		19-12728-00		74S251 MUX 1 OF 8 TRI-STA	8	8	8	E34-E36,E46-E48,E57,E58
38	38		19-12697-00		LS174 FF-D HEX W/CLEAR	3	3	3	E37,E43,E97
39	39		19-12696-00		LS194A SHIFT REG.,4BIT BI-D	2	2	2	E38,E49
40	40		19-13462-00		74S240 OCTAL BUFFER,INVERTI	4	4	4	E39,E88,E106,E113
41	41		23-120A1-00		A1-07	1	1	1	E44
42	42		19-10539-00		74S20 NAND GATE-DUAL 4INPU	1	1	1	E45
43	43		19-12647-00		LS257 MUX 1 OF 2 (QUAD)	2	2	2	E53,E64
44	44		19-10956-00		74S151 MUX 1 OF 8	1	1	1	E55
45	45		19-10532-00		74S00 NAND GATE-QUAD 2IN	2	2	2	E59,E108
46	46		19-10549-00		74S158 MUX 1 OF 2 (QUAD)	1	1	1	E60
47	47		23-121A1-00		A1-07	1	1	1	E65
48	48		19-10531-00		DEC 74S181 ALU-4BIT	2	2	2	E66,E74
49	49		19-10957-00		74S175 FF-D QUAD COMMON CLO	4	4	4	E67,E75,E89,E99
50	50		19-10548-00		74S157 MUX 1 OF 2 (QUAD)	3	3	3	E68,E83,E86
51	51		19-12837-00		LS123 ONE SHOT-DUAL,RETRIG	3	3	3	E69,E129,E132
52	52		19-12741-00		82S112 MEMORY READ/WRITE, 3	4	4	4	E71-E73,E78
53	53		19-12853-00		LS175 FF-D QUAD	1	1	1	E76
54	54		19-05580-00		DEC 7450 A-O-I XPNDBLE GATE-D	2	2	2	E81,E117
55	55		13-18784-01		R. NET JUMPER PRIOR. 5 - 6 SPE	1	1	1	E77
56	56		19-10544-00		74S74 FF-D DUAL,EDGE TRIGG	4	4	4	E82,E105,E109,E121
57	57		19-12661-00		74S189 MEMORY READ/WRITE	2	2	2	E84,E90
58	58		19-10537-00		74S11 AND GATE-TRIPLE 3INP	2	2	2	E95,E119
59	59		19-12845-00		LS153 MUX 1 OF 4 (DUAL)	1	1	1	E98
60	60		19-09705-00		DEC 8881 NAND GATE-QUAD 2IN O	2	2	2	E100,E114
61	61		19-12842-00		LS138 DECODER-THREE INPUT,	1	1	1	E104
62	62		19-12805-00		LS08 AND GATE-QUAD 2IN,PO	1	1	1	E103
63	63		19-10536-00		74S10 NAND GATE-TRIPLE 3IN	1	1	1	E107
64	64		19-11712-00		74S51 AND-OR GATE-INVERT D	2	2	2	E110,E118
65	65		19-10542-00		74S64 A-O-I GATE 4-2-3-2	1	1	1	E111
66	66		19-14438-00		DC 013 UNIBUS INTERRRUPT-BIP	2	2	2	E112,E124
67	67		19-12824-00		LS74 FF-D DUAL,EDGE TRIGG	2	2	2	E116,E120
68	68		19-10545-00		74S112 FF-JK DUAL,EDGE TRIG	3	3	3	E122,E134,E135
69	69		19-12395-00		DM 8136 COMPARATOR-6BIT UNIF	2	2	2	E125,E126
70	70		18-11660-05		OSCILLATOR, XTAL 33.330 MHZ	1	1	1	E123
71	71		19-12834-00		LS112 FF-JK,DUAL,EDGE TRIG	1	1	1	E130
72	72		19-09004-00		DEC 7402 NOR GATE-QUAD 2IN	1	1	1	E131
73	73		19-12389-00		74S08 AND GATE-QUAD 2IN,PO	1	1	1	E133
74	74		12-11164-04		SW,DIP 08POS/1PST 5VDC100MA F	1	1	1	E28
75	75		12-11164-06		SW,DIP 10POS/1PST 5VDC100MA F	1	1	1	E127
76	76		13-00005-03		R. NET 10.0K-13 5.0	1	1	1	E128
77	77		90-00024-01		*** THIS ITEM IS NOT USED ***	-	-	-	

DIGITAL	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
	DMP11 MICROCONTROLLER	A OF A	K	PL	M8207-0-DBP	T

AUTOMATED BY VAXKPL (V2.0)

PARTS LIST

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 00 T5	RA T5	YA T5	REFERENCE DESIGNATORS
78	78	SEE NOTE # 78	12-21142-01		TERM,TAB .250TAB	2	2	2	TP1,TP2
79	79		90-09000-00		EYELET,ROLLED 0.1210DX0.156	14	14	14	
80	80		90-09185-00		JUMPER, WIRE, INSULATED, BLACK B	10	-	-	W1-W10
			CONT			-	6	-	W1-W3,W5,W8,W10
						-	-	6	W1,W2,W4,W6,W7,W9
31	81		23-57F4 -00		F4-01	-	-	1	E2
82	82		23-58F4 -00		F4-01	-	-	1	E3
83	83		23-59F4 -00		F4-01	-	-	1	E4
84	84		23-62F4 -00		F4-01	-	-	1	E5
85	85		23-63F4 -00		F4-01	-	-	1	E14
86	86				*** THIS ITEM IS NOT USED ***	-	-	-	
87	87	#NOTE 2	12-11164-00		SW,DIP 4POS/1PST 5VDC100MA F	1	1	1	E85
88	88				*** THIS ITEM IS NOT USED ***	-	-	-	
89	89		23-127F3-00		F3-03	-	1	-	E1
90	90		23-100F3-00		F3-03	-	1	-	E2
91	91		23-101F3-00		F3-03	-	1	-	E3
92	92		23-128F3-00		F3-03	-	1	-	E4
93	93		23-103F3-00		F3-03	-	1	-	E5
94	94		23-104F3-00		F3-03	-	1	-	E14
95	95				*** THIS ITEM IS NOT USED ***	-	-	-	
96	96		37-00689-10		PKG UNIVERSAL MODULE 10 PACK	1	1	1	
97	97				*** THIS ITEM IS NOT USED ***	-	-	-	

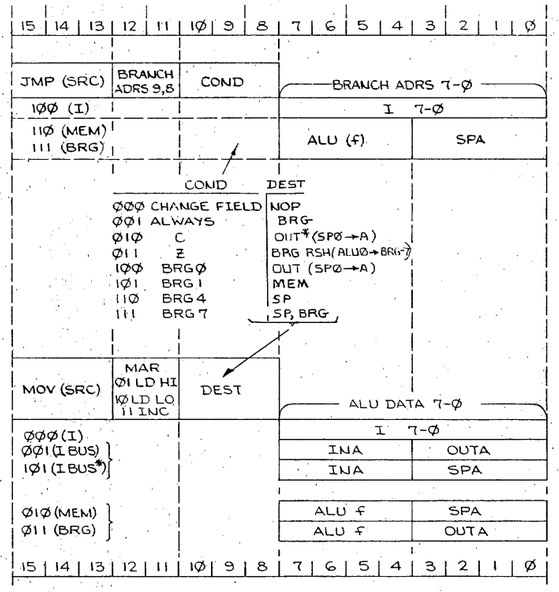
78 NOTE: 90-07112-00 MAY BE USED INSTEAD OF 12-21142-01 AT MANUFACTURERS DISCRETION.

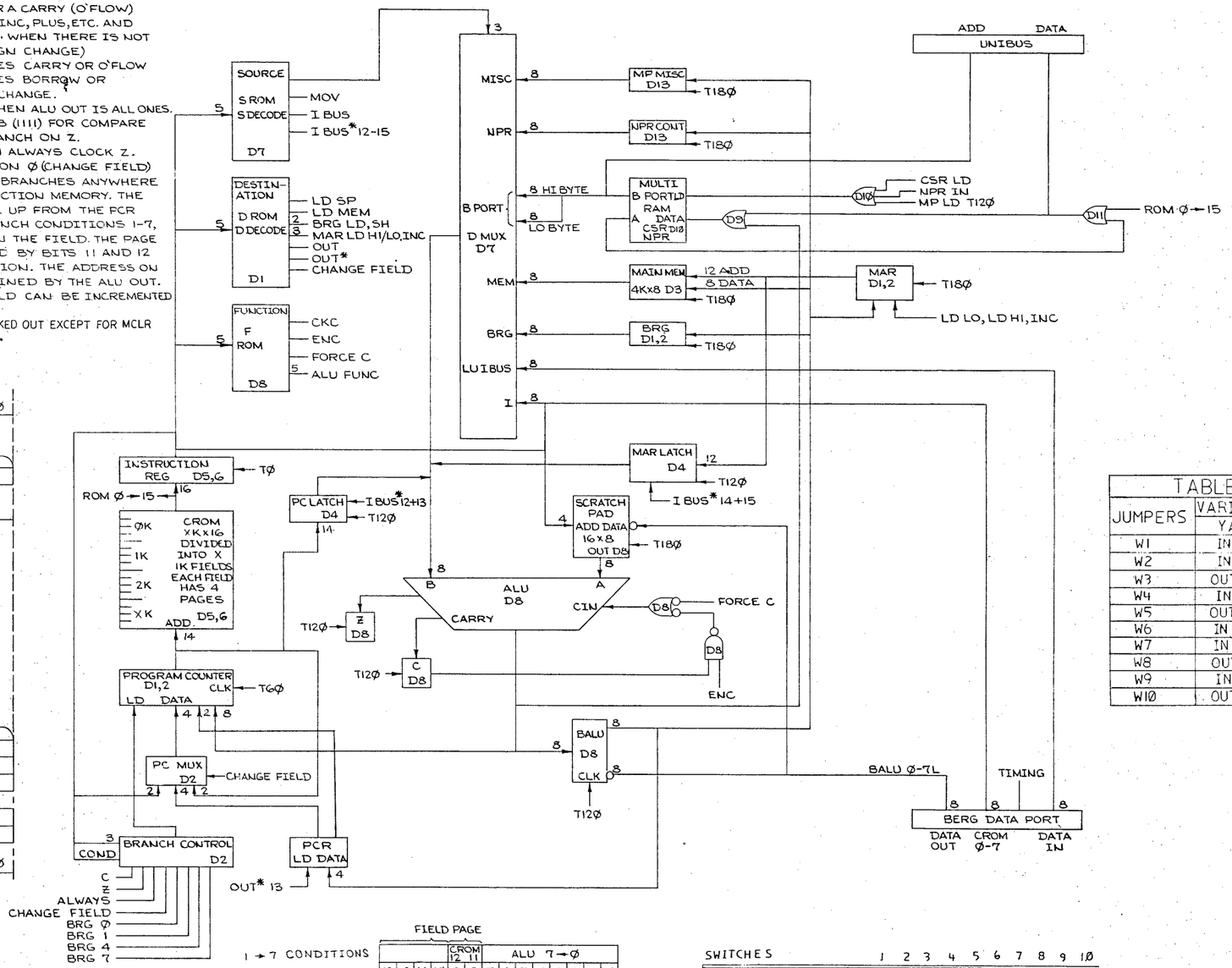
1 GEN: NOTE 1. 1004813-00 MAY BE USED INSTEAD OF 1012084-01.
2 GEN: NOTE 2. 1211164-01 MAY BE USED INSTEAD OF 1211164-00

DIGITAL	TITLE	SECTION	SIZE	CODE	DOCUMENT NUMBER	REV
	DMP11 MICROCONTROLLER	A OF A	K	PL	M8207-0-DBP	T

	ALU f	CODE	
2S COMP SUB	(A-B)	1110	MOV INST CLOCK C
1S COMP SUB	(A-B-1)	1111	
ADD	(A,B)	0000	
ADD W/C	(A,B,C)	0001	
SUB W/C	(A-B-C)	0010	
INC A	(A+1)	0011	
A PLUS C	(A,C)	0100	
2A	(A,A)	0101	
2A W/C	(A,A,C)	0110	
DEC A	(A-1)	0111	
SEL A	(A)	1000	
SEL B	(B)	1001	
A OR B	(A+B)	1010	
A AND B	(AB)	1011	
A OR B	(A+B)	1100	
A XOR B	A⊕B	1101	

NOTES
1. C WILL ASSERT FOR A CARRY (0'FLOW) DURING ANY ADD, INC, PLUS, ETC. AND FOR A SUB, DEC.... WHEN THERE IS NOT A BORROW OR (SIGN CHANGE)
   ADD: C ↑ INDICATES CARRY OR 0'FLOW
   SUB: C ↑ INDICATES BORROW OR SIGN CHANGE.
2. Z WILL ASSERT WHEN ALU OUT IS ALL ONES.
3. USE 1 S COMP SUB (1111) FOR COMPARE FOLLOWED BY BRANCH ON Z.
4. MOV INSTRUCTION ALWAYS CLOCK Z.
5. BRANCH CONDITION 0 (CHANGE FIELD) UNCONDITIONALLY BRANCHES ANYWHERE IN THE XK INSTRUCTION MEMORY. THE ADDRESS IS MADE UP FROM THE PCR AND THE ALU. BRANCH CONDITIONS 1-7, BRANCHES WITHIN THE FIELD. THE PAGE BITS ARE DEFINED BY BITS 11 AND 12 OF THE INSTRUCTION. THE ADDRESS ON THE PAGE IS DEFINED BY THE ALU OUT.
6. ANY PAGE OR FIELD CAN BE INCREMENTED INTO.
7. CSR BYTE ONE IS LOCKED OUT EXCEPT FOR MCLR WHEN SWITCH IS OFF.





1→7 CONDITIONS

FIELD PAGE

			CROM 12 11				ALU 7→Ø							
13	12	11	10	9	8	7	6	5	4	3	2	1	Ø
PCR 13→8						ALU 7→Ø							

CHANGE FIELD Ø CONDITION

TABLE I

JUMPERS	VARIATIONS YA	RA
W1	IN	IN
W2	IN	IN
W3	OUT	IN
W4	IN	OUT
W5	OUT	IN
W6	IN	OUT
W7	IN	OUT
W8	OUT	IN
W9	IN	OUT
W10	OUT	IN

SWITCHES

		1	2	3	4	5	6	7	8	9	10	
E127	CSR ADDRESS	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	(760170)
E28	VECTOR ADDRESS	OFF	OFF	OFF	ON	ON	OFF					(300)
	RUN							ON				
	CSR DISABLE								OFF			
E85	CSR1 LOCK	ON	NOTE 7									

REVISIONS			
CHK	CHANGE NO	REV	
JF	M8207-MK001	D	P.ALOISI 13-JUL-79
JF	M8207-MK002	E	H.Sommers 15-OCT-79
JF	M8207-MK003	F	P.ALOISI 18-JAN-80
JF	M8207-MK004	H	H.Sommers 28-APR-80
JF	M8207-MK005	J	P.ALOISI 30-JAN-80
JF	M8207-MK006	K	H.Sommers 9-JUL-80
JF	M8207-MK007	L	P.ALOISI 21-May-81
JF	M8207-MK009	M	H.Sommers 22-Jun-82
JF	M8207-MK012	N	P.O'NEIL 6-MAR-82
JF	M8207-MK013	P	M.LAWRENCE 19-JAN-83
JF	M8207-MK014	R	M.LAWRENCE 18-JUL-84

DRN. Steve Garrity	13 JUNE 78	FIRST USED ON DMP11-AD
CHK'D J. Fallon	13 JUNE 78	digital
ENG. Paul D'Arezzo	13 JUNE 78	TITLE DMP11 MICROCONTROLLER
PROJ. ENG. Paul D'Arezzo	13 JUNE 78	
PROD. Mike Conn	13 JUNE 78	
NEXT HIGHER ASSY.		
K-DD-M8207-0		SIZE D CODE CS NUMBER M8207-0-1 REV. R
SCALE		
SHEET 1 OF 2		DIST.

DEC FORM NO. DRD 102-0

MKO

UNIBUS CONTROL & STATUS REGISTERS

(SEE NOTE-1)

15	14	13	12	11	1Ø	9	8	7	6	5	4	3	2	1	Ø	CSR ADDRESS
RUN	MCLR		STEP LU	LU LOOP	ROM O	ROM I	STEP UP	CSR BYTE Ø								76XXXØ
CSR BYTE 3								CSR BYTE 2								76XXX2
CSR BYTE 5								CSR BYTE 4								76XXX4
CSR BYTE 7								CSR BYTE 6								76XXX6

ROM I/O

	CRAM ADDRESS (M82Ø6 ONLY) — 4
ROM O=Ø ROM I=Ø CSR 7+6(W/R) ROMO=1 ROM I=Ø CROM DATA ROM O=1 ROM I=1 MAINTENANCE INSTRUCTION(W/R) M82Ø7(R) M82Ø6(WR)	6

CRAM WRITE (M82Ø6 ONLY) (ROMØ=1 ROMI=Ø)

(M82Ø6 ONLY) CRAM ADDRESS (ROM O = 1)	4
← CRAM DATA ⊕ CRAM WRITE →	6

UP & LU CONTROL & STATUS REGISTERS

UNIBUS CSR'S

OUT*/I BUS* 7	6	5	4	3	2	1	Ø	
CSR BYTE Ø								Ø
RUN	MCLR		STEP LU	LU LOOP	ROM O	ROM I	STEP UP	1
CSR BYTE 2								2
CSR BYTE 3								3
CSR BYTE 4								4
CSR BYTE 5								5
CSR BYTE 6								6
CSR BYTE 7								7

UP NPR CONTROL

BYTE XFER (CO)	MAR 1Ø	MAR 8	OUT NPR (C1)	IN BA 17	IN BA 16	NOT LAST XFER	NPR RQ	1Ø

UP MISC

BUS RQ	VECTOR XX4	R/W	PGM CLK	OUT BA 17	OUT BA 16	AC LO	NON EX MEM	11

PROGRAM COUNTER

PC 7 ← Ø			12
Z	C	*PC13 ← 8	13

(SEE NOTE 2)

MEMORY ADDRESS REGISTER

MAR 7 ← Ø			14
LURDY		MAR 12 ← 8	15

UNDEFINED

	16
YC EXTENDED UNIBUS ADDRESS	17

UP NPR DATA & BA REGISTER (SEE NOTE-3)

OUT/I BUS 7	6	5	4	3	2	1	Ø	UP DEVICE ADDRESS (OCTAL)
IN DATA LB								Ø
IN DATA HB								1
OUT DATA LB								2
OUT DATA HB								3
IN BA 7:Ø								4
IN BA 15:8								5
OUT BA 7:Ø								6
OUT BA 15:8								7

LU DEVICE REGISTERS SEE NOTE-4)

TRANSMIT DATA SILO								W 1Ø
RECEIVER DATA SILO								R
OC	OACT	SW	ORDY	TGAH SW	TABORT SW	TEOM SW	TSOM UNDR	11
IC	RACT	LULP	IRDY	OVRR	RAB	E BLK	BCC	12
POLL	DTR	SELFR	HDX	MAINT	MAINTZ	SELSB		13
RING	DTR	RTS	HDX	MODRDY	CS	STBY	CARR	
READY	TXENA	DISSI	RDAX	WAX	ENAX	AX2	AX1	14
SW PACK/EXTENDED LOW BYTE								15
SW PACK/EXTENDED HIGH BYTE								16
CRC		IDLE	SECA	STRIP	RDALL	IERROR	DDCMP	17
SIGQ	SIGR	SI	OCOR	IC.IR	TESTM	ECS	DDCMP	
RECEIVER DATA USYRT								AXØ-15 (READ ONLY)
RERR	BITS ASSEMBLED			ROR	RAB	RECV	RSOM	AXØ-16 (READ ONLY)
TRANSMIT DATA USYRT								AX1-15
TERR	NOT USED			TXGA	TXAB	TEOM	TSOM	AX1-16
BCP SYNC CHARACTER/BOP SEC ADDRESS								AX2-15
APA	DDCMP	STRIP	SECA	IDLE	CRC TYPE			AX2-16 (READ ONLY)
422	XYE	ENCLK	V35	INT		Ø	TEST	AX3-15
TX CHARACTER LGTH		EXA	EXCC	REC CHARACTER LGTH				AX3-16

NOTES

1. UNIBUS CSR'S ARE IN THE MULTIPORT RAM. BYTE 1 HAS A HARDWARE STATUS REGISTER THAT IS ADDRESSABLE ONLY FROM THE UNIBUS. IF THE UP ADDRESSES BYTE 1, IT WILL ONLY WRITE INTO THE RAM. ALL THE OTHER CSR BYTES ARE DEFINED BY THE MICROCODE EXCEPT IN MAINTENANCE MODE.
2. I BUS* 12-15 REFLECT THE PROGRAM COUNTER FOR THE INSTRUCTION BEING EXECUTED AND THE MEMORY ADDRESS REGISTER FOR THE PREVIOUS INSTRUCTION.
   OUT* 13 IS THE PCR WHICH IS A SHADOW REGISTER. THE CONTENTS OF THE PCR WILL BE TRANSFERED TO THE PC ONLY ON A BRANCH (CHANGE FIELD).
3. NPR DATA AND BA REGISTER ARE RAM, HOWEVER ADDRESS ASSIGNMENTS ARE HARDWIRED AND CANNOT BE REDEFINED.
4. OPTIONAL : THE BIT ASSIGNMENTS ARE ONLY VALID WITH THE M82Ø3 LINE UNIT.

REVISIONS	CHANGE NO.	CHK.	REV.

MACKPAGE P1555

DEC FORM NO. DRD 102-0

DRN. Steve Canty	7-JUNE-78	FIRST USED ON	DMP11-AD digital
CHK'D J. Kalinski	7-JUN-78		
ENG. Paul Wilmot	13 June 78	TITLE	DMP11 MICROCONTROLLER
PROJ. ENG. Paul Wilmot	13 June 78		
PROJ Bob Armstrong	14 March 79		
NEXT HIGHER ASSY. K-DD-M82Ø7-Ø		SIZE D	CODE CS
SCALE 1/1		NUMBER M82Ø7-Ø-1	REV. R
SHEET 2 OF 2		DIST.	

MK

D8 BALU Ø(1) H
D8 BALU 1(1) H
D8 BALU 2(1) H
D8 BALU 3(1) H

232Ø2A1 E32 D ROM
D6 CROM ØH
D6 CROM 9H
D6 CROM 1ØH
D6 CROM 11H
D6 CROM 12H
R1 1ØØ
D16 CLEAR L
D14 T12Ø L
D8 BRANCH FIELD H
7 SP
6 MEM
5 SO
4 SI
3 MAR INC
2 LD MAR HI
1 LD MAR LO
DI SO H
DI SI H
DI MAR INC H
DI LD MAR HI L
DI LD MAR LO L

93516 E26
DØ RØ 14 — DI MAR ØH
D1 R1 13 — DI MAR 1H
D2 R2 12 — DI MAR 2H
D3 R3 11 — DI MAR 3H
LD
CLR
CLK
CNT EN CO 15 — DI MAR CO Ø→3H
CRY EN
MAR Ø→3
+3VA

74LS194 E49
D3 R3 12 — DI BRG ØH
D2 R2 13 — DI BRG 1H
D1 R1 14 — DI BRG 2H
DØ RØ 15 — DI BRG 3H
BRG Ø→4
CLR
DSR
DSL
SO
SI CLK 11
D2 BRG 4H

93516 E15
D8 ALU ØH — DØ RØ 14 — DI PC ØH
D8 ALU 1H — D1 R1 13 — DI PC 1H
D8 ALU 2H — D2 R2 12 — DI PC 2H
D8 ALU 3H — D3 R3 11 — DI PC 3H
PC Ø→4
D2 BRANCH L — LD
CLR
D14 PC CLK H — CLK
+3VA
R4 1K +5V
CNT EN CO 15 — DI PC CO Ø→3H
CRY EN

745138 E56 D DECODE
SELA DØ 15 NOP
SELB D1 14 BRG
SELC D2 13 OUT*
D3 12 BRG SHR
D4 11 OUT
D5 1Ø MEM
D6 9 SP
D7 7 SP BRG
EN
D7 MOV INST H
DI OUT* L
74SØØ E59

745157 E68
+3VB
D8 CLK C H
+3VB
B3 A3 B2 A2 B1 A1 BØ AØ
f3 — DI CLK IBR H
f2 — D7 READ LU H
f1 — DI CLOCK C H
fØ — DI CLOCK Z H
STB SØ
74524Ø E88
R38 1Ø
DI CLK MAR BRG L

745158 E6Ø
B3 A3 B2 A2 B1 A1 BØ AØ
f3 — DI OBW L
f2 — DI IBR L
f1 — DI WRITE MEM L
fØ — DI WRITE SP L
STB SØ
DI WRITE OUT H

SPARES
E113 5240
E1ØØ 8881
E1ØØ 8881
E1ØØ 8881

BRG Ø→3, MAR Ø→3, PC Ø→3, D ROM, REG CLKS

DRN. Steve Garrity	7 JUN 78	FIRST USED ON DMP11-AD digital
CHK'D	7JUN78	TITLE DMP11 MICROCONTROLLER (D1)
ENG.		
PROJ. ENG.		
PROD		
NEXT HIGHER ASSY. K-DD-M8207-Ø		SIZE D CODE CS NUMBER M8207-Ø-1 REV. R
SCALE		
SHEET 3 OF 21		DIST. MKO

REVISIONS | REV. | CHANGE NO. | CHK

DEC FORM NO. FRD 102-0

SIZE D CODE CS NUMBER M8207-Ø-1 REV. R

D8 BALU 4(1) H
D8 BALU 5(1) H
D8 BALU 6(1) H
D8 BALU 7(1) H

93516 E25 MAR4→7
DI LD MAR LO L
DI CLK MAR BRG L
DI MAR INC H
DI MAR CØ→3 H
D2 MAR 4H
D2 MAR 5H
D2 MAR 6H
D2 MAR 7H

74LS194 E38 BRG 4→7
DI SO H
DI SI H
D2 BRG 4H
D2 BRG 5H
D2 BRG 6H
D2 BRG 7H

DI6 CLEAR L

D7 BRANCH INST L
74S151 E55 STB
DI BRG 1 H
DI BRG Ø H
D8 Z(1) H
D8 C(1) H
+3VB
D2 BRANCH H
D2 BRANCH L
D6 CROM 10H
D6 CROM 9H
D6 CROM 8H

D8 ALU 4H
D8 ALU 5H
D8 ALU 6H
D8 ALU 7H
93516 E16 PC4→7
DI PC CO Ø→3 H
D2 PC 4H
D2 PC 5H
D2 PC 6H
D2 PC 7H

D8 BALU Ø(1) H
D8 BALU 1(1) H
D8 BALU 2(1) H
D8 BALU 3(1) H
93516 E24 MAR 8→11
DI LD MAR HI L
DI MAR INC H
D2 MAR 8H
D2 MAR 9H
D2 MAR 10H
D2 MAR 11H
D2 MAR 12H

DI3 PCR 12 H
DI3 PCR 13 H
93516 E18 PC 12→13
D2 PC 12 H
D2 PC 13 H

74LS157 E31
DI3 PCR 8H
D6 CROM 11H
DI3 PCR 9H
D6 CROM 12H
DI3 PCR 10H
DI3 PCR 11H
STB SO
74S20 E45
D2 BRANCH H
DI BRANCH FIELD H

93516 E17 PC 8→11
D2 PC 8H
D2 PC 9H
D2 PC 10H
D2 PC 11H
DI4 PC CLK H

W3 SEE TABLE 1.
W4 SEE TABLE 1.
74S00 E59
D2 CROM EN 2→3K L
D2 CROM EN Ø→1K L
W5 SEE TABLE 1.
74S02 E59
DI6 CROMIN L
D2 CROM EN 4→5K L
W6 SEE TABLE 1.

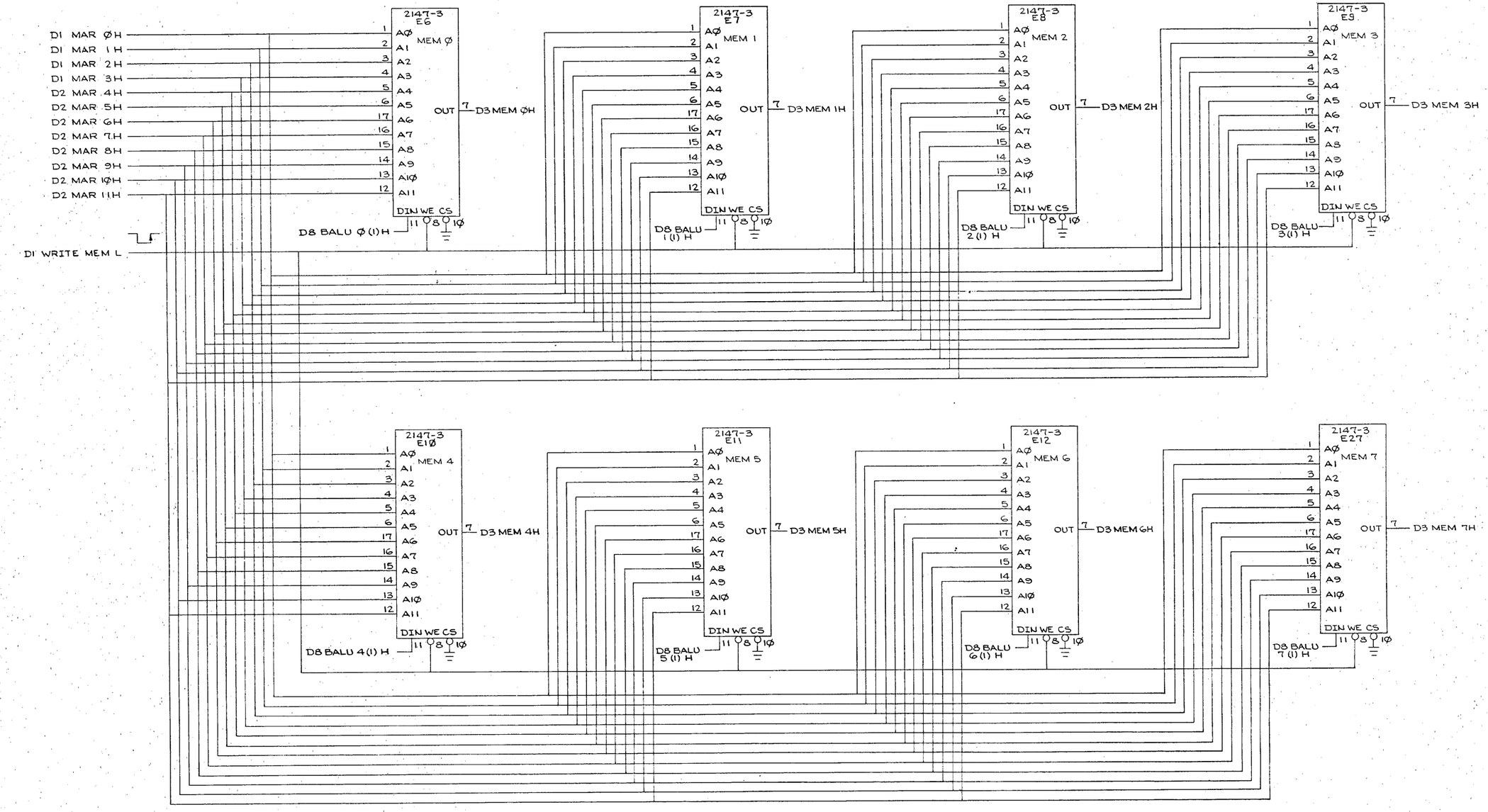
BRG 4→7, MAR 4→11, PC 4→13

DRN. Steve Garrity	'78	FIRST USED ON	DMPII-AD
CHK'D		TITLE	DMPII MICROCONTROLLER (D2)
ENG.			
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
K-DD-M8207-Ø		SIZE D / CODE CS / NUMBER M8207-Ø-1 / REV. R	
SCALE			
SHEET 4 OF 21		DIST.	

digital

REVISIONS | REV. | CHANGE NO. | CHK

MKO



MAIN MEMORY Ø-7

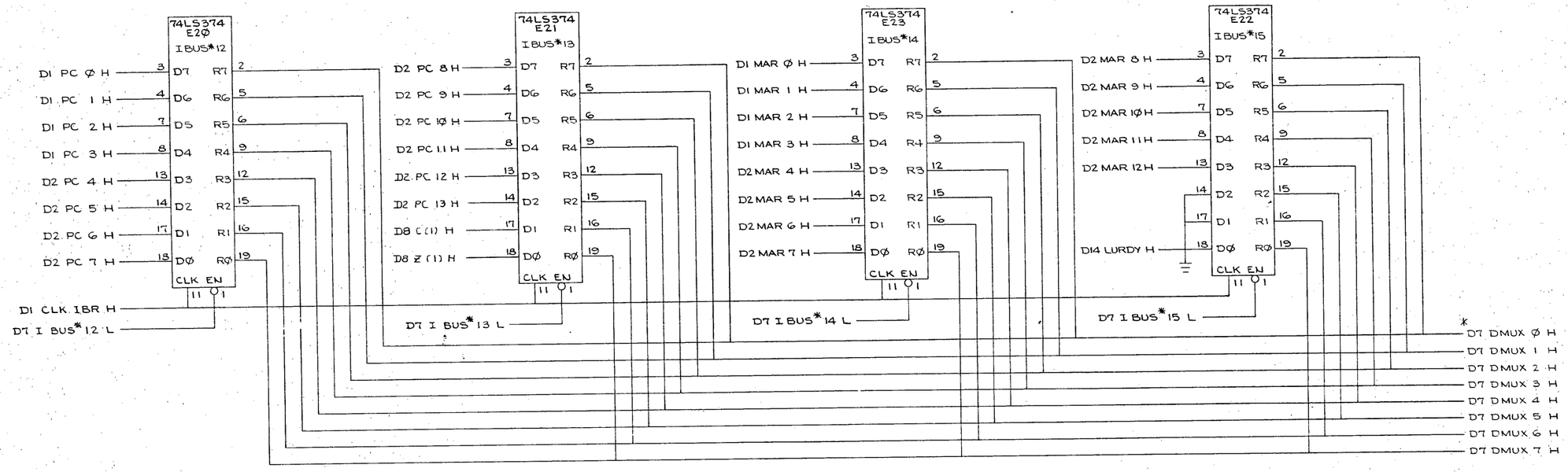
DRN. Steve Gerety	13JUN78	FIRST USED ON DMP11-AD digital
CHK'D	15JUN78	TITLE DMP11 MICROCONTROLLER (D3)
ENG. Ron Dittner / Vanwhy		
PROJ. ENG. Pat Gilly / Vanwhy		
PROD. Glen Walters	17Mar79	
NEXT HIGHER ASSY.		
K-DD-M8207-Ø		SIZE D CODE CS NUMBER M8207-Ø-1 REV. R
SCALE		
SHEET 5 OF 21		DIST.

REVISIONS: REV. | CHANGE NO. | CHK

MARKSPACE P1485

DEC FORM NO. ORD 102-0

MKO



* DMUX SIGNALS ARE TRI STATE

IBUS* REGISTER 12-15

DRN. Steve Garrity	TOLERANCES	FIRST USED ON	digital
CHK'D		DMP11-AD	
ENG. Rabbi Abrus		TITLE	DMP11 MICROCONTROLLER (D4)
PROJ. ENG.			
PROD			
NEXT HIGHER ASSY.			
K-DD-M8207-Ø		SIZE D / CODE CS / NUMBER M8207-Ø-1 / REV. R	
SCALE			
SHEET 6 OF 21		DIST.	

REVISIONS | REV. | CHANGE NO. | CHK

DEC FORM NO. DRD 102-D

MKO

745374 MAINTENANCE REGISTER E54

D11 D7 H
D11 D6 H
D11 D5 H
D11 D4 H
D11 D3 H
D11 D2 H
D11 D1 H
D11 D0 H
D16 LD WORD 6 L
D16 CROM IN L

23XXXFX E3 CROM Ø→7 Ø→1K

D1 PC Ø H
D1 PC 1 H
D1 PC 2 H
D1 PC 3 H
D2 PC 4 H
D2 PC 5 H
D2 PC 6 H
D2 PC 7 H
D2 PC 8 H
D2 PC 9 H
D2 PC 1Ø H — W7 — SEE TABLE 1. — +5VA
D2 CROM EN 4→5K L
D2 CROM EN Ø→1K L

23XXXFX E4 CROM Ø→7 2→3K

D2 CROM EN 2→3K L

23XXXFX E5 CROM Ø→7 4→5K

745175 E75 INSTRUCTION REG

D5 CROM 7 H
D5 CROM 7 L
D5 CROM 6 H
D5 CROM 6 L
D5 CROM 5 H
D5 CROM 5 L
D5 CROM 4 H
D5 CROM 4 L

D5 ROM 7 H
D5 ROM 6 H
D5 ROM 5 H
D5 ROM 4 H
D5 ROM 3 H
D5 ROM 2 H
D5 ROM 1 H
D5 ROM Ø H

745175 INSTRUCTION REG E67

D5 CROM 3 H
D5 CROM 3 L
D5 CROM 2 H
D5 CROM 2 L
D5 CROM 1 H
D5 CROM 1 L
D5 CROM Ø H
D5 CROM Ø L

D16 CLEAR L
D14 TØ H
R35 1ØØ
C8 1ØØ PF

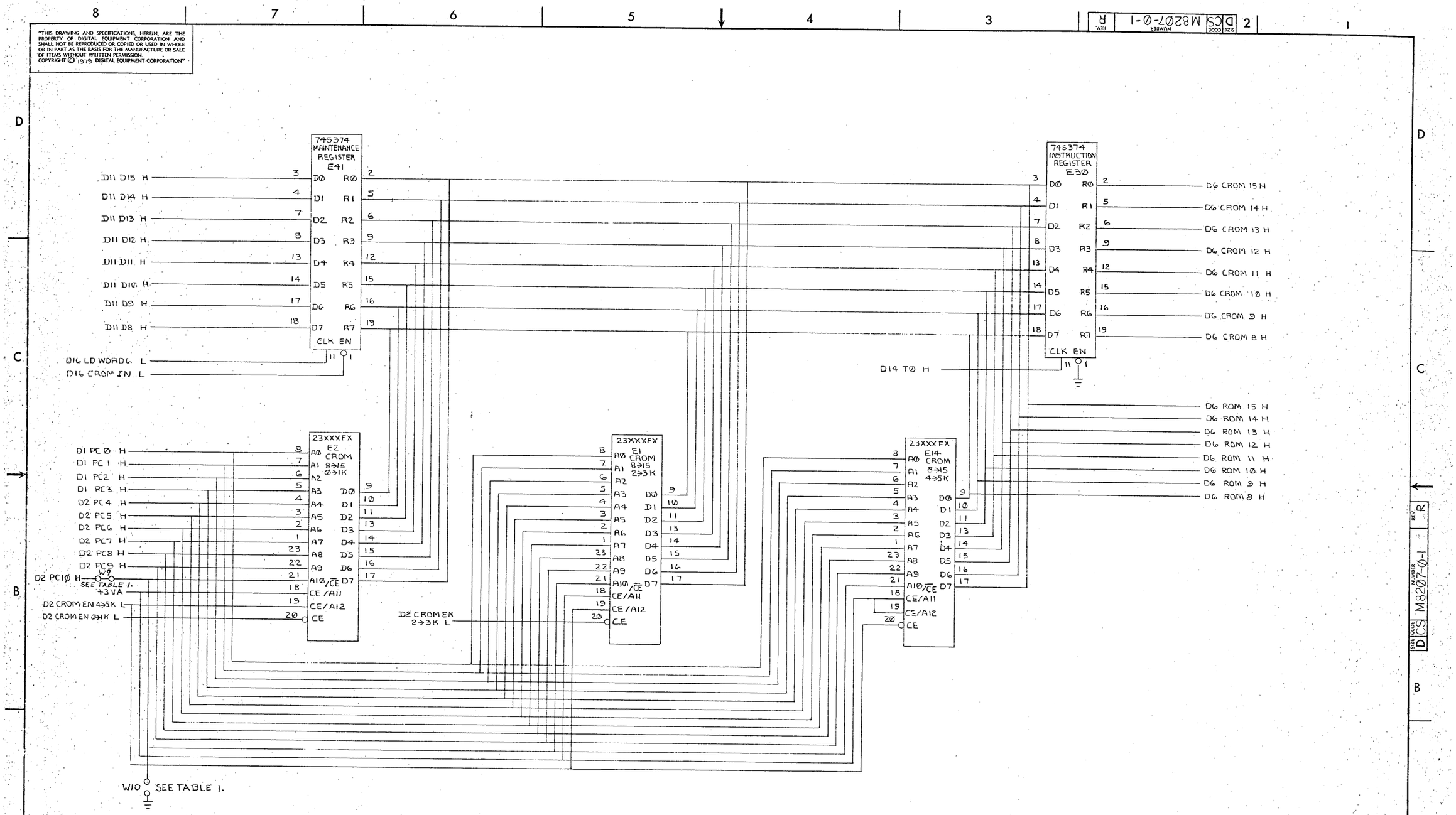
SEE TABLE 1. W8

(CROM + IR + MAINTENANCE Ø→7)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE DMP11 MICROCONTROLLER (D5)				
SIZE D	CODE CS	NUMBER M8207-Ø-1	REV. R	
SCALE —/—	SHEET 7 OF 21	DIST. MKO		

DEC FORM NO. DRD 130



REVISIONS		
CHK	CHANGE NO.	REV.

(CROM + IR + MAINTENANCE 8–15)

TITLE			SIZE	CODE	NUMBER	REV.
DMP11 MICROCONTROLLER	(D6)		D	CS	M8207-0-1	R
SCALE —	SHEET 8	OF 21	DIST.			

DEC FORM NO. DRD 124

MK

74S251

S	1Ø	11	
H	H	H	UP MISC
H	H	L	NPR CNTL
H	L	H	B PORT ODD
H	L	L	B PORT EVEN
L	H	H	BRG
L	H	L	MEM
L	L	H	LUIBUS
L	L	L	I

STB

D13 NON EX MEM H — D7
D13 NPR RQ H — D6
DIØ B PORT 8 H — D5
DIØ B PORT Ø H — D4
DI BRG Ø H — D3
D3 MEM Ø H — D2
D16 LUIBUS Ø H — D1
D5 CROM Ø H — DØ

74S251 E47 DMUXØ

Y — 5 — *D7 DMUXØ H
W — 6
C B A — S 1Ø 11

STB

D13 OAC H — D7
D13 NOT LAST XFER H — D6
DIØ B PORT 9 H — D5
DIØ B PORT 1 H — D4
DI BRG 1 H — D3
D3 MEM 1 H — D2
D16 LUIBUS 1 H — D1
D5 CROM 1 H — DØ

74S251 E57 DMUX 1

Y — 5 — *D7 DMUX 1 H
W — 6
C B A — S 1Ø 11

STB

D13 OUT A16 H — D7
D13 IN A16 H — D6
DIØ B PORT 1Ø H — D5
DIØ B PORT 2 H — D4
DI BRG 2 H — D3
D3 MEM 2 H — D2
D16 LUIBUS 2 H — D1
D5 CROM 2 H — DØ

74S251 E35 DMUX 2

Y — 5 — *D7 DMUX 2 H
W — 6
C B A — S 1Ø 11

STB

D13 OUT A17 H — D7
D13 IN A17 H — D6
DIØ B PORT 11 H — D5
DIØ B PORT 3 H — D4
DI BRG 3 H — D3
D3 MEM 3 H — D2
D16 LUIBUS 3 H — D1
D5 CROM 3 H — DØ

74S251 E34 DMUX 3

Y — 5 — *D7 DMUX 3 H
W — 6
C B A — S 1Ø 11

STB

D13 TIMER L — D7
D13 OUT NPR (CI) H — D6
DIØ B PORT 12 H — D5
DIØ B PORT 4 H — D4
D2 BRG 4 H — D3
D3 MEM 4 H — D2
D16 LUIBUS 4 H — D1
D5 CROM 4 H — DØ

74S251 E46 DMUX 4

Y — 5 — *D7 DMUX 4 H
W — 6
C B A — S 1Ø 11

STB

D13 R/W H — D7
D2 MAR 8 H — D6
DIØ B PORT 13 H — D5
DIØ B PORT 5 H — D4
D2 BRG 5 H — D3
D3 MEM 5 H — D2
D16 LUIBUS 5 H — D1
D5 CROM 5 H — DØ

74S251 E48 DMUX 5

Y — 5 — *D7 DMUX 5 H
W — 6
C B A — S 1Ø 11

STB

D13 VECTOR XX 4 H — D7
D2 MAR 1Ø H — D6
DIØ B PORT 14 H — D5
DIØ B PORT 6 H — D4
D2 BRG 6 H — D3
D3 MEM 6 H — D2
D16 LUIBUS 6 H — D1
D5 CROM 6 H — DØ

74S251 E58 DMUX 6

Y — 5 — *D7 DMUX 6 H
W — 6
C B A — S 1Ø 11

STB

D13 BR RQ H — D7
D13 BYTE (CØ) H — D6
DIØ B PORT 15 H — D5
DIØ B PORT 7 H — D4
D2 BRG 7 H — D3
D3 MEM 7 H — D2
D16 LUIBUS 7 H — D1
D5 CROM 7 H — DØ

74S251 E36 DMUX 7

Y — 5 — *D7 DMUX 7 H
W — 6
C B A — S 1Ø 11

D6 CROM 15 H
D6 CROM 14 H
D6 CROM 13 H
D5 CROM 7 H
D5 CROM 4 H

23128ØA1 E44 S ROM

A4 A3 A2 A1 AØ — D8 D7 D6 D5 D4 D3 D2 D1 — D7 MOV INST H — D7 READ LU H
CE

74S138 E96

SELA SELB SELC — DØ D1 D2 D3 D4 D5 D6 D7
15 MOV I
14 MOV I BUS L
13 MOV MEM
12 MOV BRG
11 JMP I
1Ø MOV I*BUS
9 JMP MEM
7 JMP BRG

+3VC — EN

D5 CROM 5 H
D5 CROM G H

74S138 E33

SELA SELB SELC — DØ D1 D2 D3 D4 D5 D6 D7
D7 I BUS*12 L
D7 I BUS*13 L
D7 I BUS*14 L
D7 I BUS*15 L

EN

74SØ E45

D7 MOV I BUS L
D7 MP READ H
D7 BRANCH INST L

74S51 E11Ø
74S11 E95

*DMUX SIGNALS ARE TRISTATE

DMUX, S ROM, S DECODE

DRN. Steve Garrity	13 JUN 78	FIRST USED ON: DMP11-AD
CHK'D	13 JUN 78	TITLE: DMP11 MICROCONTROLLER (D7)
ENG.		
PROJ. ENG.		
PROD		
NEXT HIGHER ASSY.	K-DD-M8207-Ø	SIZE D | CODE CS | NUMBER M8207-Ø-1 | REV. R
SCALE	1/1	
SHEET	9 OF 21	DIST.

REVISIONS | REV. | CHANGE NO. | CHK

MKO

DEC FORM NO. SMD 102-0

D1 WRITE SP L
D8 BALU 7 (1) L
D8 BALU 6 (1) L
D8 BALU 5 (1) L
D8 BALU 4 (1) L
745189 E90 SP4→7
D7 DMUX 7 H
D7 DMUX 6 H
D7 DMUX 5 H
D7 DMUX 4 H
D8 BALU 3 (1) L
D8 BALU 2 (1) L
D8 BALU 1 (1) L
D8 BALU Ø (1) L
745189 E84 SPØ→3
D7 DMUX 3 H
D7 DMUX 2 H
D7 DMUX 1 H
D7 DMUX Ø H
745157 E83
D5 CROM Ø H
D5 CROM 1 H
D5 CROM 2 H
D5 CROM 3 H
STE SØ
SP ADRS
D1 WRITE OUT H
+5V
R1Ø 560Ω
D1Ø CLEAR L
745181 E66 ALU4→7
745181 E74 ALUØ→3
D5 CROM 4 H
D5 CROM 5 H
D5 CROM 6 H
D5 CROM 7 H
D6 CROM 14 H
23121A1 E65 F ROM
CE
D8 CLK C H
+3VB
D1 CLOCK Z H
74S74 E82 Z
D8 Z (1) H
D1 CLOCK C H
74S74 E82 C
D8 C (1) H
D8 ALU 7 H
D8 ALU 6 H
D8 ALU 5 H
D8 ALU 4 H
D8 ALU 3 H
D8 ALU 2 H
D8 ALU 1 H
D8 ALU Ø H
74S175 E89 BALU4→7
74S175 E99 BALUØ→3
CLR CLK
D14 T12Ø H
D8 BALU 7 (1) H
D8 BALU 7 (1) L
D8 BALU 6 (1) H
D8 BALU 6 (1) L
D8 BALU 5 (1) H
D8 BALU 5 (1) L
D8 BALU 4 (1) H
D8 BALU 4 (1) L
D8 BALU 3 (1) H
D8 BALU 3 (1) L
D8 BALU 2 (1) H
D8 BALU 2 (1) L
D8 BALU 1 (1) H
D8 BALU 1 (1) L
D8 BALU Ø (1) H
D8 BALU Ø (1) L
74S0Ø E81

ALU, BALU, SP, C, Z, FROM

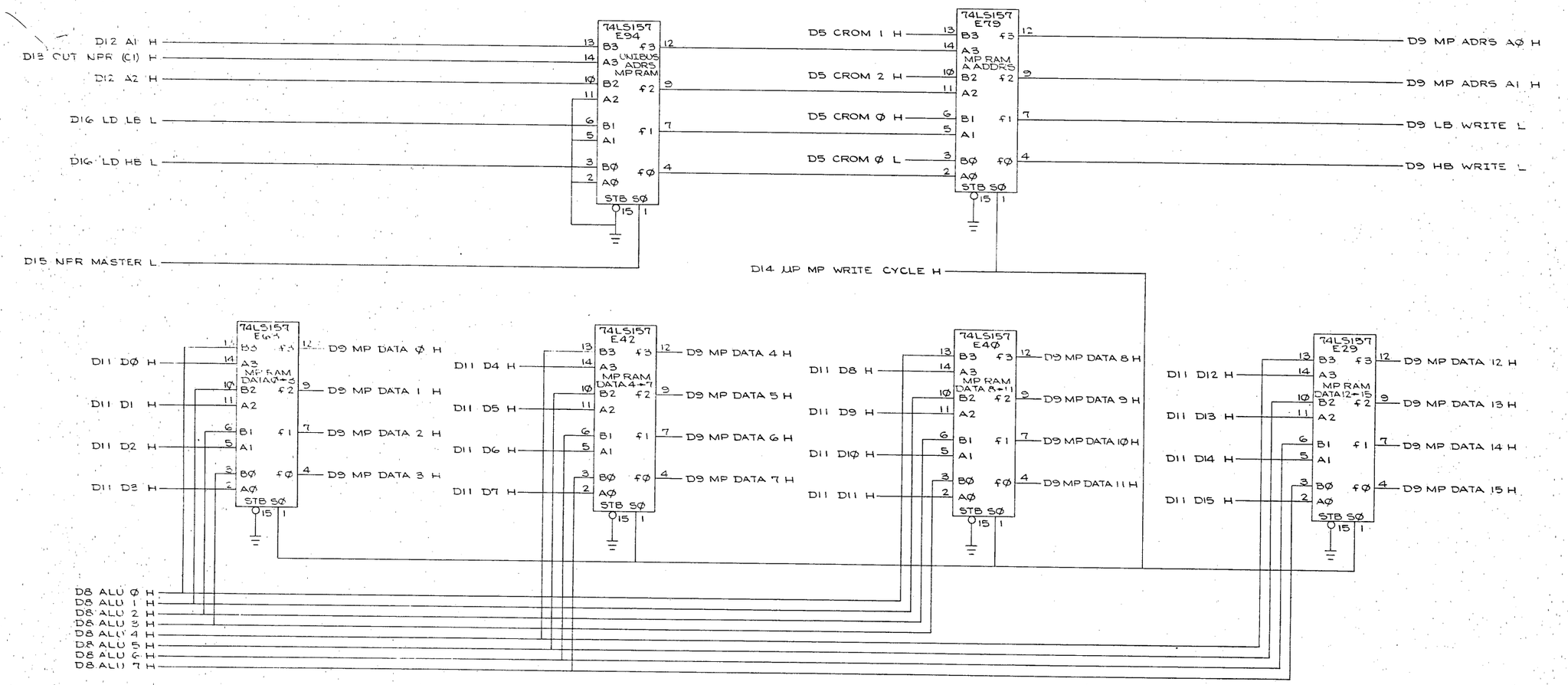
DRN. Steve Garrity 13 JUNE 78	FIRST USED ON	DMP11-AD digital
CHK'D	TITLE	DMP11 MICROCONTROLLER (D8)
ENG. Rod Wallace 13 JUNE 78		
PROJ. ENG. Bill Wray 13 JUNE 78		
PROD. Wm. Mott 13 JUNE 78		
NEXT HIGHER ASSY. K-DD-M8207-Ø	SIZE D CODE CS NUMBER M8207-Ø-1 REV. R	
SCALE	DIST.	
SHEET 1Ø OF 21		

REVISIONS: REV. | CHANGE NO. | CHK

MAKEPEACE P1993

DEC FORM NO. DBD 102-0

MKO



REVISIONS		
CHK	CHANGE NO.	REV.

MANPAGE P-1555

DEC FORM NO. DND 102-0

VIP RAM ADRS + DATA

DRN. Steve Garrity	JUNE-78	FIRST USED ON: DMP11-AD
CHK'D	78	TITLE: DMP11 MICROCONTROLLER (D9)
ENG.	78	
PROJ. ENG.	78	
PROD.	78	
NEXT HIGHER ASSY.		
K-DD-M8207-Ø		SIZE D | CODE CS | NUMBER M8207-Ø-1 | REV. R
SCALE		
SHEET 1 OF 2		DIST.

MKO

D15 NPR LD MULTIPORT L
D14 UP LD MULTIPORT L
D16 CSR LD MULTIPORT L
74S10 E107

D9 LB WRITE L
D9 HB WRITE L

82S112 E72 MP RAM Ø→3
82S112 E73 MP RAM 4→7
82S112 E78 MP RAM 8→11
82S112 E71 MP RAM 12→15

D9 MP DATA Ø H
D9 MP DATA 1 H
D9 MP DATA 2 H
D9 MP DATA 3 H
D9 MP DATA 4 H
D9 MP DATA 5 H
D9 MP DATA 6 H
D9 MP DATA 7 H
D9 MP DATA 8 H
D9 MP DATA 9 H
D9 MP DATA 10 H
D9 MP DATA 11 H
D9 MP DATA 12 H
D9 MP DATA 13 H
D9 MP DATA 14 H
D9 MP DATA 15 H

DIØ APORT Ø H … DIØ APORT 15 H
DIØ BPORT Ø H … DIØ BPORT 15 H

D14UP MP WRITE CYCLE H
DI OUT * L
D14UP MP WRITE CYCLE L
DI5 G NPR MASTER H
74S00 E81

D9 MP ADRS A1 H
D9 MP ADRS AØ H

D6 CROM 15 H
D5 CROM 6 H
+3VB
D5 CROM 5 H
DI3 OUT NPR (C1) H
74S157 E86 MP RAM BADRS
R11 180Ω
C1 1000 PF
STB SØ
DIØ BPORT BUSY L
DIG UNIBUS WRITE L

HIGH OR ODD BYTE / LOW OR EVEN BYTE

	HIGH OR ODD BYTE	LOW OR EVEN BYTE	
OUT/IBUS	1	Ø	IN DATA
	3	2	OUT DATA
	5	4	IN ADRS
	7	6	OUT ADRS
OUT*/IBUS*	1	Ø	CSR Ø
	3	2	CSR 2
	5	4	CSR 4
	7	6	CSR 6

NPR

825112 MP RAM ADRS

6	5	4	
18	19	20	
			WRITE APORT
			READ BPORT
Ø	Ø	Ø	
Ø	Ø	1	
Ø	1	Ø	
Ø	1	1	
1	Ø	Ø	
1	Ø	1	
1	1	Ø	
1	1	1	

Ø,2,4,6 WORD SELECT
Ø = OUT/IBUS
1 = OUT*/IBUS*

MULTIPORT RAM

DRN. Steve Garrity	JUNE 78	FIRST USED ON: DMP11-AD
CHK'D	78	TITLE: DMP11 MICROCONTROLLER (DIØ)
ENG.		
PROJ. ENG.		
PROD		
NEXT HIGHER ASSY.	K-DD-M8207-Ø	
SCALE		SIZE D · CODE CS · NUMBER M8207-Ø-1 · REV. R
SHEET 12 OF 21		DIST.

digital

REVISIONS: REV. | CHANGE NO. | CHK

DEC FORM NO. DRD 102-D

MKØ

D5 ROM 0 H
DI0 APORT 0 H
D5 ROM 1 H
DI0 APORT 1 H
DI3 VECTOR XX4 H
74LS157 E62 STB S0
D5 ROM 2 H
DI0 APORT 2 H
D5 ROM 3 H
DI0 APORT 3 H
D5 ROM 4 H
DI0 APORT 4 H
D5 ROM 5 H
DI0 APORT 5 H
74LS257 E60 STB S0
D15 BR MASTER H
D5 ROM 6 H
DI0 APORT 6 H
D5 ROM 7 H
DI0 APORT 7 H
D6 ROM 8 H
DI0 APORT 8 H
D6 ROM 9 H
DI0 APORT 9 H
74LS257 E59 STB S0
U12 A1 H
U12 A2 H
DIG CROM OUT H
74S11 E95
D6 ROM 10 H
DI0 APORT 10 H
D6 ROM 11 H
DI0 APORT 11 H
74LS157 E57 STB S0
D6 ROM 12 H
DI0 APORT 12 H
D6 ROM 13 H
DI0 APORT 13 H
D6 ROM 14 H
DI0 APORT 14 H
D6 ROM 15 H
DI0 APORT 15 H
74LS157 E70 STB S0
74S240 E113
74S240 E39
74S240 E39
74S240 E39
74S240 E39
74S240 E39
74S240 E39
74S240 E39
74S240 E35
74S240 E39
R12 1K
R13 1K
R14 1K
R15 1K
R16 1K
R17 1K
+5V
+3VA
E28
74LS08 E103
D15 BR MASTER L
DIG DATA → BUS L
8641 E61 DATA BUS 0→3
8641 E62 DATA BUS 4→7
8641 E51 DATA BUS 8→11
8641 E50 DATA BUS 12→15
CS2 DATA BUS 0 L
CR2 DATA BUS 1 L
CU2 DATA BUS 2 L
CT2 DATA BUS 3 L
CN2 DATA BUS 4 L
CP2 DATA BUS 5 L
CV2 DATA BUS 6 L
CM2 DATA BUS 7 L
CL2 DATA BUS 8 L
CK2 DATA BUS 9 L
CJ2 DATA BUS 10 L
CH1 DATA BUS 11 L
CH2 DATA BUS 12 L
CF2 DATA BUS 13 L
CE2 DATA BUS 14 L
CD2 DATA BUS 15 L
DI1 D0 H
DI1 D1 H
DI1 D2 H
DI1 D3 H
DI1 D4 H
DI1 D5 H
DI1 D6 H
DI1 D7 H
DI1 D8 H
DI1 D9 H
DI1 D10 H
DI1 D11 H
DI1 D12 H
DI1 D13 H
DI1 D14 H
DI1 D15 H

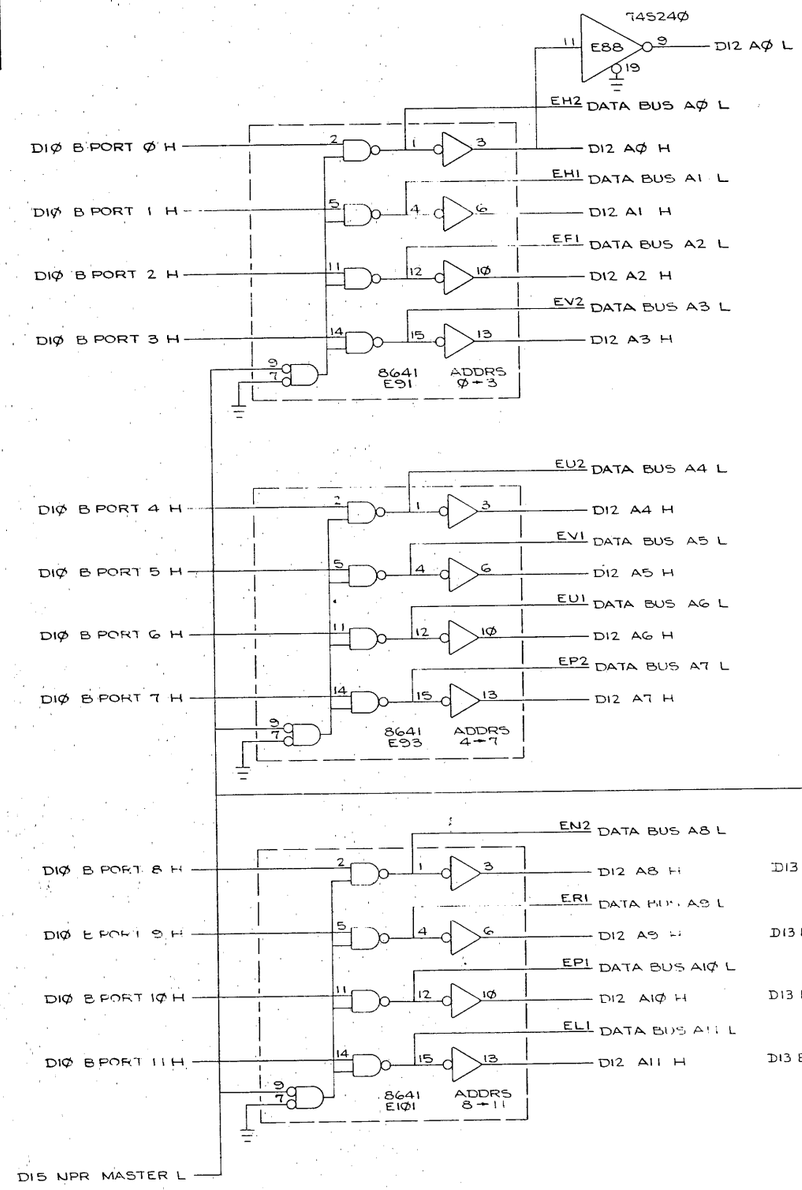
REVISIONS | REV. | CHANGE NO. | CHK

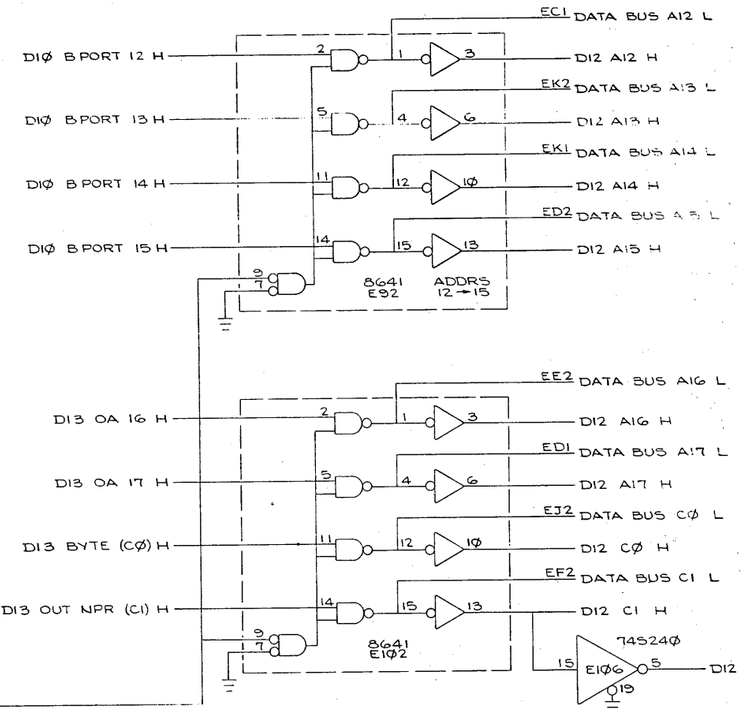
UNIBUS DATA INTERFACE

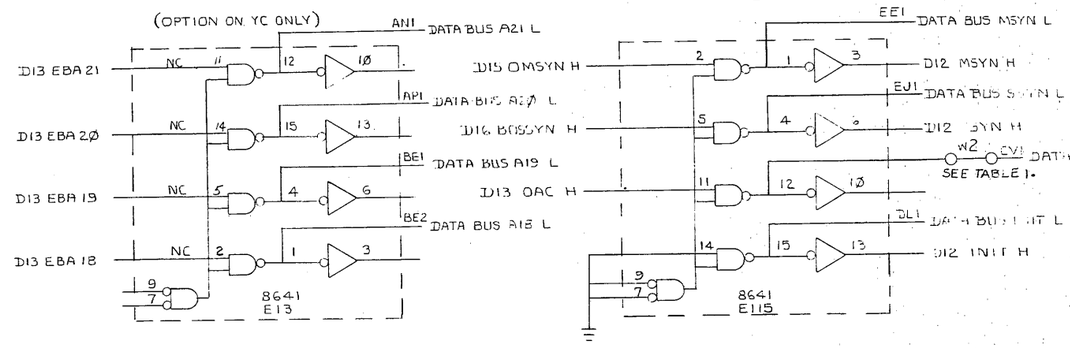
DRN. Steve Garrity	9 JUNE 78	FIRST USED ON	DMP 11-AD digital A
CHK'D	9 Jun 78	TITLE	DMP11 MICROCONTROLLER (D11)
ENG.			
PROJ. ENG.			
PROD			
NEXT HIGHER ASSY.			
K-DD-M8207-0		SIZE D CODE CS NUMBER M8207-0-1 REV. R	
SCALE		DIST.	
SHEET 3 OF 2			

MKO

DEC FORM NO.







REV.	REVISIONS	CHANGE NO.	CHK

MANUFACT PLANS

DLC FORM NO. FMD 102-D

DRN. Steve Garrity	15 June 78	FIRST USED ON DMP 11-AD digital
CHK'D		TITLE DMP11 MICROCONTROLLER (D12)
ENG.		
PROJ. ENG.		
PROD.		
NEXT HIGHER ASSY. K-DD-M8207-Ø		SIZE D CODE CS NUMBER M8207-Ø-1 REV. R
SCALE		DIST.
SHEET 14 OF 21		MKO

UNIBUS ADRS INTERFACE

SIZE D CODE CS NUMBER M8207-Ø-1 REV. R

74LS174 EXTENDED ADDRESS E87

OPTION "YC" ONLY
OUT*17

D0 RØ(I) → D13 EBA 21
D1 R1(I) → D13 EBA 2Ø
D2 R2(I) → D13 EBA 19
D3 R3(I) → D13 EBA 18
D4 R4(I)
D5 R5(I)
CLR CLK

74LS174 E37 PCR

DØ RØ(I) → D13 PCR 13 H
D1 R1(I) → D13 PCR 12 H
D2 R2(I) → D13 PCR 11 H
D3 R3(I) → D13 PCR 1Ø H
D4 R4(I) → D13 PCR 9 H
D5 R5(I) → D13 PCR 8 H
CLR CLK

74LS138 E80

D5 CROM Ø H → SEL A
D5 CROM 1 H → SEL B
D5 CROM 2 H → SEL C
EN ← D1 OUT* L
D1 OBW L → R9 220 → C18 47PF → D5 CROM 3 H
DØ D1 D2 D3 D4 D5 D6 D7

74LS174 E97 REG 1Ø

D8 BALU 1 (I) H → D1 R1(I) → D13 NOT LAST XFER H
D8 BALU 2 (I) H → D2 R2(I) → D13 IN AIG H
D8 BALU 3 (I) H → D3 R3(I) → D13 IN AI7 H
D8 BALU 4 (I) H → D4 R4(I) → D13 OUT NPR(C1) H
D5 R5(I) → D13 BYTE (CØ) H
DØ RØ(I)
CLR CLK

D8 BALU 7 (I) H

74524Ø E88 → 74SØØ E1Ø8 → 74574
D13 BR RQ H
D13 BR RQ L
D15 BR MASTER L
D13 OAC L → 74LS08 E1Ø3
74524Ø E88 → 74SØØ E1Ø8 → 74574
D13 NPR RQ H
D13 NPR RQ L
D15 NPR DONE H
D16 G INIT L
D15 TIME OUT L → 74LS74
D8 BALU Ø (I) H
D13 NON EX MEM H
D16 CLEAR L

74LS175 E76 REG 11

D8 BALU 5 (I) H → D3 R3(I) → D13 OUT AIG H
R3(Ø)
D8 BALU 6 (I) H → D2 R2(I) → D13 OUT AI7 H
R2(Ø)
D1 R1(I) → D13 R/W H
R1(Ø) → D13 R/W L
DØ RØ(I) → D13 VECTOR XX4 H
RØ(Ø)
CLR CLK

C3 .15µF R18 19.6K +5V
C2 OPTIONAL
74LS123 E69
D13 TIMER L
1 MIL SEC
+3VB

C4 39µF R19 39K +5V
D13 OAC H
D13 OAC L
500 MICROSEC
74LS123 E69
+3VB R5 1K +C5 1Ø µF +5V

8881 E1ØØ → TP1 TO M93Ø1
TAB TP2
FOR DOWN LINE LOADING OR BOOTING

STB1 STBØ E93

A1 B1 C1 D1 → 74LS153 1Ø → D13 OA16 H
AØ BØ CØ DØ → 74LS153 7 → D13 OA17 H
SØ S1
R40 1K +5V

PROGRAMS COUNTER REGISTERS, NPR CONTROL, MP MISC REGISTER

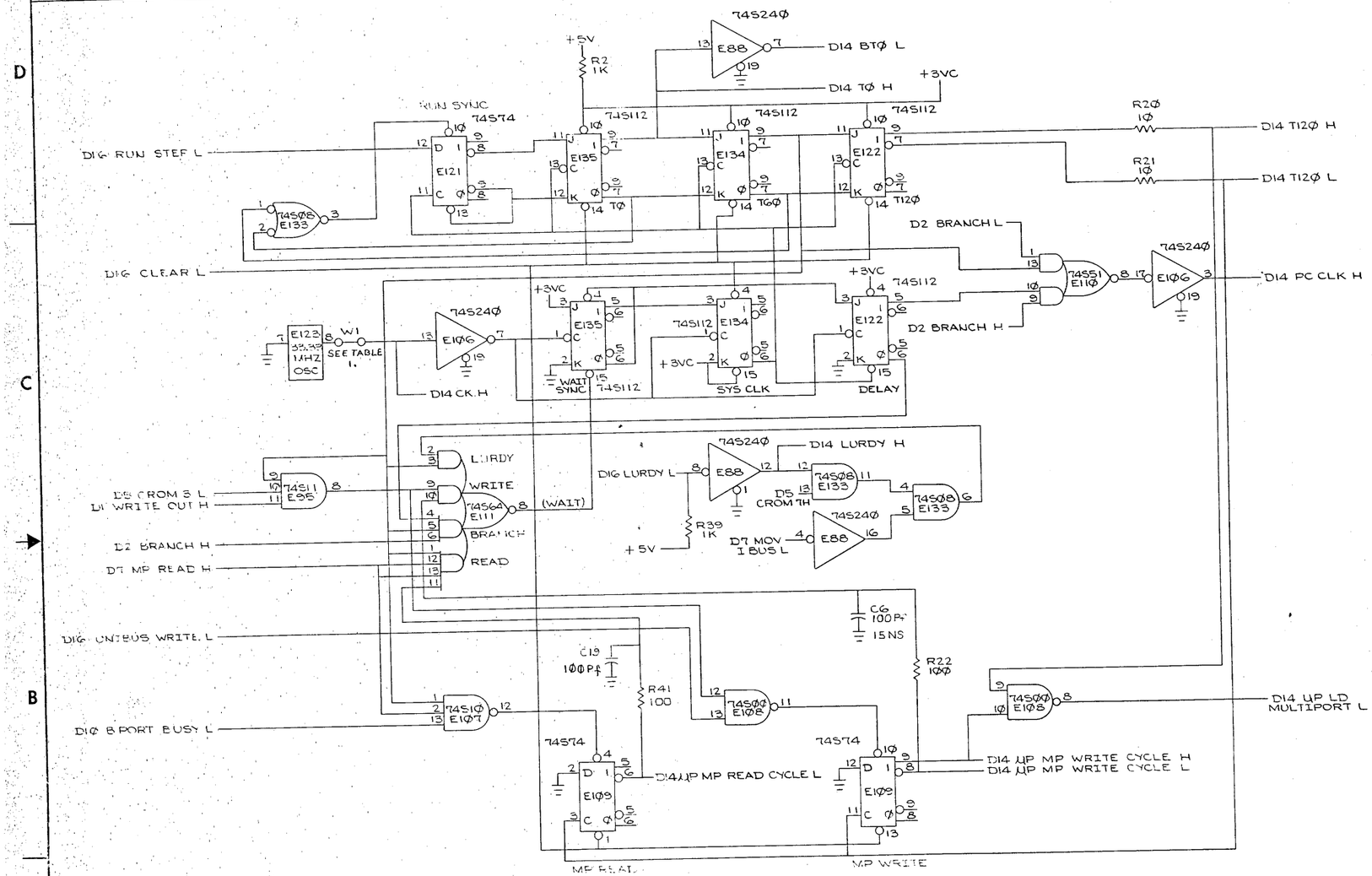
DRN. Steve Garrity	13 JUNE 78	FIRST USED ON	DMP 11-AD digital
CHK'D		TITLE	DMP11 MICROCONTROLLER (D13)
ENG.			
PROJ. ENG.			
PROD			
NEXT HIGHER ASSY.	K-DD-M8207-Ø	SIZE D	CODE CS
SCALE		NUMBER	M8207-Ø-1
SHEET 5 OF 21		DIST.	REV. R

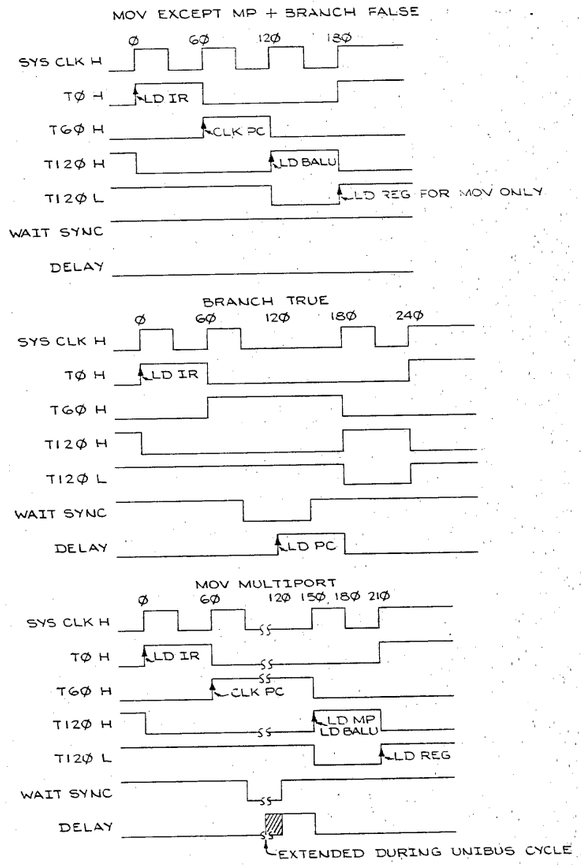
REVISIONS | REV. | CHANGE NO. | CHK

MAKEPAGE P/1688

DEC FORM NO. ORD 102-0

MKO





SYSTEM CLOCK

DRN. Steve Garrity	16 JUNE-78	FIRST USED ON	DMP11-AD digital
CHK'D		TITLE	DMP11 MICROCONTROLLER (DI4)
ENG. Paul D. Thomas			
PROJ. ENG. Paul Dixon Manager			
PROD			
NEXT HIGHER ASSY.			
K-DD-M8207-Ø		SIZE D CODE CS NUMBER M8207-Ø-1 REV R	
SCALE			
SHEET 16 OF 21		DIST.	
MKO			

REVISIONS: REV. | CHANGE NO. | CHK

MAINTENANCE P-1693

DEC FORM NO. DRD 102-D

+5V
R25 47K
74LS123
DI5 NPR MASTER H
DI3 NPR RQ L
START 370 NS
E129
+3VD

+5V
R26 8.2K
74LS123
CK1 75NS
E129
+3VD

DI3 NPR RQ H

+3VD
E130
74LS112
OM SYN

NPR DONE
74LS74
E116
DI5 NPR DONE H
DI5 OMSYN H

74S24Ø
E113

74ØØ2
E131

+5V
R27 8.2K
74LS123
CK 2 75NS
E132
+3VD

DI3 OUT NPR (C1) H
74ØØ2 E131
+3VD
E130
74LS112
DI5 NPR LD MULTIPORT L
+3VD
R3 1K
+5V

+5V
R28 47K
C7 1ØØØ PF
74LS123
M SYN TIMER 18 NS
E132

74ØØ2 E131
74SØ E117
+3VC
74LS74
E120
TIMEOUT
DI5 TIMEOUT L

74S24Ø
E113
DI2 S SYN H

DCØ13 E112 BR
BUSY
STEAL GRANT
REQ OUT
SSYN
BSACK
INTR MASTER DONE
REQ IN
SACK
BG IN
BG OUT
CLR
CLREN
DI5 BR MASTER L
DI3 BR RQ L
+5V
R29 18Ø
R3Ø 39Ø
DIG G INIT H
74S24Ø
E113
DI5 BR MASTER H
+5V
R34 18Ø

12Ø9838 X E77
PRIORITY SOCKET
540877-00 E77
BUS BG IN H
BUS BG OUT H
BUS BG4 OUT H
BUS BG4 IN H
BUS BG5 OUT H
BUS BG5 IN H
BUS BG6 OUT H
DV2
DT2
DS2
DR2
DP2
DN2
16 DD2 BUS BR7 L
15 DE2 BUS BR6 L
14 DF2 BUS BR5 L
13 DH2 BUS BR4 L
12 BUS BR L
11 DK2 BUS BG7 IN H
1Ø DL2 BUS BG7 OUT H
9 DM2 BUS BG6 IN H

8881 E114
1 FMI BUS INTR L

FD1 BUS BUSY L
FJ1 BUS NPR L
FT2 BUS SACK L

DCØ13 E124 NPR BUSY
STEAL GRANT
REQ OUT
SSYN
BSACK
INTR MASTER DONE
REQ IN
SACK
BG IN
BG OUT
CLR
CLREN
+3VD
DI3 NPR RQ L
BUS NPG IN H
CA1
R31 39Ø
R32 18Ø
+5V
DI3 NPR RQ H
DI3 NOT LAST XFER H
74ØØ2 E131
CB1 BUS NPG OUT
R33 18Ø
+5V

DI4 UP MP READ CYCLE L
74S08 E133
DI5 G NPR MASTER H
74S24Ø
E113
DI5 NPR MASTER H
DI5 NPR MASTER L

INTERRUPT + NPR CONTROL

DRN. Steve Garrity	JUNE-78	FIRST USED ON: DMP11AD
CHK'D	JUN 78	TITLE: DMP11 MICROCONTROLLER (D15)
ENG.		
PROJ. ENG.		
PROD		
NEXT HIGHER ASSY.	K-DD-M8207-Ø	SIZE D | CODE CS | NUMBER M8207-Ø-1 | REV. R
SCALE		
SHEET 17 OF 21		DIST.

MKO

REVISIONS | REV. | CHANGE NO. | CHK

DEC FORM NO. DRD 102-0

+5V
E127 A3
E128 10K
DI2 A 3 H
8136 E126
DI2 A 4 H
DI2 A 5 H
DI2 A 6 H
DI2 A 7 H
DI2 A 8 H
STB
OUT

+5V
E127 A9
E128 10K
DI2 A 13 H
8136 E125
+3VD
DI2 A 9 H
DI2 A 10 H
DI2 A 11 H
DI2 A 12 H
DI2 A 14 H
+3VD
STB
SW8
E28

+5V
AA2, BA2, CA2
DA2, EA2, FA2
C12 — C17
8 µF 20V
C62-C67, C69-C74
.047 µF 100V
C20-C24, C27-C33, C40-C42, C49, C50, C53-C60.
.22 µF, 100V.
GND
AC2, AT1, BC2, BT1, CC2, CT1,
DC2, DT1, EC2, ET1, FC2, FT1

DI3 OUT NPR (C1) H
DI5 G NPR MASTER H
DI2 C1 L
74S51 E118
DIG DATA→BUS L
DI3 NPR RQ H
DI4 UP MP READ CYCLE L
74S51 E118
DIG UNIBUS WRITE L
R36 1K
+3VC
DI2 A15 H
74S11 E119
74S74 E121
DI2 MSYN H
DI2 A16 H
DI2 A17 H
74S11 E119
DI4 CK H
74S240
R37 100
C9 680 Pf
100NS
DIG BOSSYN H
DI4 UP MP WRITE CYCLE L
DI4 UP MP READ CYCLE L
74S11 E119
R23 100
C10 680 Pf
50NS
74S10 E107
DIG CSR LD MULTIPORT L
DI2 C1 H
74LS08 E103
DI2 A0 L
DI2 C0 H
DIG LD HBL
DI2 A1 H
DI2 A2 H
DI2 A0 H
DIG LD LBL
74LS138 E104
DIG LD WORD GL
74LS174 E43 CSR0
R24 1K
E28 SW7 RUN INH 1 BIT
DI1 DI5 H
DI1 DI2 H
DI1 DI1 H
DI1 DI0 H
DI1 D9 H
DIG RUN H
DIG STEP LU H
DIG LU LOOP H
DIG CROM OUT H
DIG CROM IN L
CLR CLK
E85 BYTE LOCK
DI3 OAC L
DI1 DI4 H
DI1 D8 H
DIG RUN STEP L
DIG G INIT H
DIG G INIT L
DIG CLEAR L
DI2 INIT H
C11 1000 Pf
R6 1K
R7 1K
R8 1K
74S10 E117
8881 E114
74LS74 E116

J1
DS CROM Ø L
DS CROM 1 L
DS CROM 2 L
DS CROM 3 L
DS CROM 4 L
DS CROM 5 L
DS CROM 6 L
DS CROM 7 L
DI4 BTØ L
DIG LUBIN L
DI IBR L
DI ØB A L
DI OUT* L
D8 BALU Ø (1) L
D8 BALU 1 (1) L
D8 BALU 2 (1) L
D8 BALU 3 (1) L
D8 BALU 4 (1) L
D8 BALU 5 (1) L
D8 BALU 6 (1) L
D8 BALU 7 (1) L
DIG LUIBUS Ø H
DIG LUIBUS 1 H
DIG LUIBUS 2 H
DIG LUIBUS 3 H
DIG LUIBUS 4 H
DIG LUIBUS 5 H
DIG LUIBUS 6 H
DIG LUIBUS 7 H
DIG CLEAR H
DIG LU LOOP H
DIG STEP LU H
DIG RUN H

UNIBUS CSR CONTROL CSRØ, I/O PORT

DRN. Steve Garrity 7 June 78		FIRST USED ON DMP 11-AD	digital
CHK'D Fitzgerald 27 Nov 78		TITLE DMP11 MICROCONTROLLER (D16)	
ENG. Paul Stolowitz 7 Nov 78			
PROJ. ENG. Paul Stolowitz 7 Nov 78			
PROD. Paul Stolowitz 7 Nov 78			
NEXT HIGHER ASSY.			
K-DD-M8207-0	SIZE D	CODE CS	NUMBER M8207-Ø-1 REV. R
SCALE			
SHEET 18 OF 21	DIST.		

REVISIONS | REV. | CHANGE NO. | CHK

MKO

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BERG
DI BRG Ø H	1	1					1										
BRG 1 H	1	1					1										
BRG 2 H	1						1										
BRG 3 H	1						1										
CLOCK C H	1							1									
CLK MAR BRG L	3	3															
CLOCK Z H	2							1									
IBR L	1															1	J
MAR INCH	2	2															
LD MAR HIL	1	1															
LD MAR LØ L	2	1															
MAR Ø H	1		8	1													
MAR 1 H	1		8	1													
MAR 2 H	1		8	1													
MAR 3 H	1		8	1													
MAR CO Ø→3 H	1	1															
OBW L	1												1			1	TT
OUT* L	2								1				1			1	X
PC Ø H	1				1	3	3										
PC 1 H	1				1	3	3										
PC 2 H	1				1	3	3										
PC 3 H	1				1	3	3										
PC CO Ø→3 H	1	1															
WRITE MEM L	1		8														
WRITE OUT H	2							1					1				
WRITE SP L	1							2									
SO H	2	1															
SI H	2	1															
CLK IBR H	1			4													
BRANCH FIELD H	1	4															
D2 BRANCH H		2										2					
BRANCH L	1	3										1					
BRG 4 H	1	2					1										
BRG 5 H		1					1										
BRG 6 H		1					1										
BRG 7 H		2					1										
CROM EN Ø+1K L		1				1	1										
CROM EN 2+3K L		2				1	1										
MAR 4 H		1	8	1													
MAR 5 H		1	8	1													
MAR 6 H		1	8	1													
MAR 7 H		1	8	1													
MAR 8 H		1	8	1				1									
MAR 9 H		1	8	1													
MAR 10 H		1	8	1				1									
MAR 11 H		1	8	1													
MAR 12 H		1		1													
PC 4 H		1		1	3	3											
PC 5 H		1		1	3	3											
PC 6 H		1		1	3	3											
PC 7 H		1		1	3	3											
PC 8 H		1		1	3	3											
PC 9 H		1		1	3	3											
PC 10 H		2		1	3	3											
PC 11 H		3		1													
PC 12 H		2		1													
PC 13 H		1		1													
CROM EN 4+5K L		1				3	3										

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BERG
D3 MEM Ø H			1				1										
MEM 1 H			1				1										
MEM 2 H			1				1										
MEM 3 H			1				1										
MEM 4 H			1				1										
MEM 5 H			1				1										
MEM 6 H			1				1										
MEM 7 H			1				1										
D5 CROM Ø H				1		1	1					1					
CROM Ø L				1				1								1	PP
CROM 1 H				1		1	1					1					
CROM 1 L				1												1	UU
CROM 2 H				1		1	1					1					
CROM 2 L				1												1	SS
CROM 3 H				1		1	1					1					
CROM 3 L				1							1					1	RR
CROM 4 H				1		3	1										
CROM 4 L				1												1	Y
CROM 5 H				1		2	1		1								
CROM 5 L				1												1	AA
CROM 6 H				1		2	1		1								
CROM 6 L				1												1	CC
CROM 7 H				1		5	1										
CROM 7 L				1												1	H
(8 LINES) ROM Ø→7 H				4							1						
D6 CROM 8 H	2	1					1										
CROM 9 H	2	1					1										
CROM 10 H	2	1					1										
CROM 11 H	1	1					1										
CROM 12 H	1	1					1										
CROM 13 H							1	2									
CROM 14 H							1	2	1								
CROM 15 H							1	2		1							
(8 LINES) ROM 8→15 H							4			1							
D7 DMUX Ø H					4			1	1								
DMUX 1 H					4			1	1								
DMUX 2 H					4			1	1								
DMUX 3 H					4			1	1								
DMUX 4 H					4			1	1								
DMUX 5 H					4			1	1								
DMUX 6 H					4			1	1								
DMUX 7 H					4			1	1								
MOV INST H	3							1									
MP READ H								1							3		
BRANCH INST L		1						1									
READ LU H	1							1									
IBUS* 12 L						1		2									
13 L						1		2									
14 L						1		2									
15 L						1		2									
MOVIBUS L								2							1		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BERG
D8 ALU Ø H	1							2	2								
ALU 1 H	1							2	2								
ALU 2 H	1							2	2								
ALU 3 H	1							2	2								
ALU 4 H		1						2	2								
ALU 5 H		1						2	2								
ALU 6 H		1						2	2								
ALU 7 H		1						2	2								
BALU Ø (1) H	2	2	1					1					4				
BALU Ø (1) L								2								1	DD
BALU 1 (1) H	2	1	1					1					4				
BALU 1 (1) L								2								1	BB
BALU 2 (1) H	2	1	1					1					4				
BALU 2 (1) L								2								1	VV
BALU 3 (1) H	2	1	1					1					4				
BALU 3 (1) L								2								1	FF
BALU 4 (1) H		2	1					1					4				
BALU 4 (1) L								2								1	LL
BALU 5 (1) H		2	1					1					3				
BALU 5 (1) L								2								1	KK
BALU 6 (1) H		2	1					1					1				
BALU 6 (1) L								2								1	JJ
BALU 7 (1) H		2	1					1					2				
BALU 7 (1) L								2								1	MM
C (1) H		1		1				2									
CLK C H	1							1									
Z (1) H		1		1				1									
D9 HB WRITE L									1	2							
LB WRITE L									1	2							
MP ADRS AØ H									1	4							
MP ADRS A 1 H									1	4							
MP DATA Ø H									1	1							
MP DATA 1 H									1	1							
MP DATA 2 H									1	1							
MP DATA 3 H									1	1							
MP DATA 4 H									1	1							
MP DATA 5 H									1	1							
MP DATA 6 H									1	1							
MP DATA 7 H									1	1							
MP DATA 8 H									1	1							
MP DATA 9 H									1	1							
MP DATA 10 H									1	1							
MP DATA 11 H									1	1							
MP DATA 12 H									1	1							
MP DATA 13 H									1	1							
MP DATA 14 H									1	1							
MP DATA 15 H									1	1							
DIØ APORT Ø H											1	1					
APORT 1 H											1	1					
APORT 2 H											1	1					
APORT 3 H											1	1					
APORT 4 H											1	1					
APORT 5 H											1	1					
APORT 6 H											1	1					

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DIØ APORT 7 H										1	1					
APORT 8 H											1	1				
APORT 9 H											1	1				
APORT 10 H											1	1				
APORT 11 H											1	1				
APORT 12 H											1					
APORT 13 H											1	1				
APORT 14 H											1	1				
APORT 15 H											1	1				
BPORT Ø H							1				1		1			
BPORT 1 H							1				1		1			
BPORT 2 H							1				1		1			
BPORT 3 H							1				1		1			
BPORT 4 H							1				1		1			
BPORT 5 H							1				1		1			
BPORT 6 H							1				1		1			
BPORT 7 H							1				1		1			
BPORT 8 H							1				1		1			
BPORT 9 H							1				1		1			
BPORT 10 H							1				1		1			
BPORT 11 H							1				1		1			
BPORT 12 H							1				1		1			
BPORT 13 H							1				1		1			
BPORT 14 H							1				1		1			
BPORT 15 H							1				1		1			
BPORT BUSY L											1				1	

BUS

DI1	DØ H						1				1	1					
	D1 H						1				1	1					
	D2 H						1				1	1					
	D3 H						1				1	1					
	D4 H						1				1	1					
	D6 H						1				1	1					
	D7 H						1				1	1					
	D8 H							1			1	1				1	
	D9 H							1			1	1				1	
	DIØ H							1			1	1				1	
	DI1 H							1			1	1				1	
	DI2 H							1			1	1				1	
	DI3 H							1			1	1					
	DI4 H							1			1	1				1	
	DI5 H							1			1	1				1	
DATA BUS Ø L												2					CS2
DATA BUS 1 L												2					CR2
DATA BUS 2 L												2					CU2
DATA BUS 3 L												2					CT2
DATA BUS 4 L												2					CN2
DATA BUS 5 L												2					CP2
DATA BUS 6 L												2					CV2
DATA BUS 7 L												2					CM2
DATA BUS 8 L												2					CL2
DATA BUS 9 L												2					CK2
DATA BUS 10 L												2					CJ2
DATA BUS 11 L												2					CH1
DATA BUS 12 L												2					CH2
DATA BUS 13 L												2					CF2
DATA BUS 14 L												2					CE2

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMP11 MICROCONTROLLER	D	CS	M8207-Ø-1	R
SCALE —	SHEET 19 OF 21	DIST.		

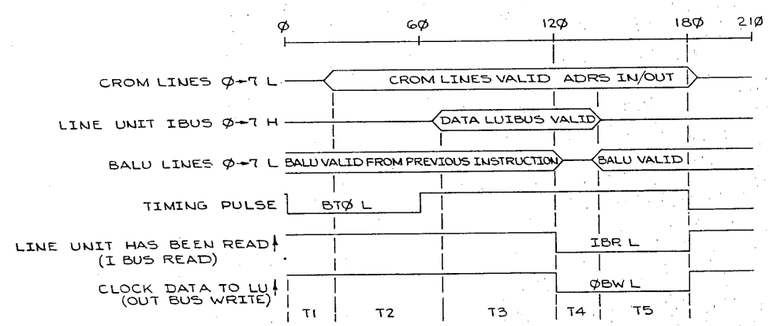
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BUS
DI1 DATA BUS 15 L												2					CD2
DI2 AØ H												2				1	
AØ L												1				1	
A1 H									1		1	1				1	
A2 H									1		1	1				1	
A3 H												1				1	
A4 H												1				1	
A5 H												1				1	
A6 H												1				1	
A7 H												1				1	
A8 H												1				1	
A9 H												1				1	
AIØ H												1				1	
AI1 H												1				1	
AI2 H												1				1	
AI3 H												1				1	
AI4 H												1				1	
AI5 H												1				1	
AI6 H												1				1	
AI7 H												1				1	
CØ H												1				2	
C1 H												1				1	
C1 L												1				2	
DATA BUS AØ L												2					EH2
DATA BUS A1 L												2					EH1
DATA BUS A2 L												2					EF1
DATA BUS A3 L												2					EV2
DATA BUS A4 L												2					EU2
DATA BUS A5 L												2					EV1
DATA BUS A6 L												2					EU1
DATA BUS A7 L												2					EP2
DATA BUS A8 L												2					EN2
DATA BUS A9 L												2					ER1
DATA BUS AIØ L												2					EP1
DATA BUS AI1 L												2					EL1
DATA BUS AI2 L												2					EC1
DATA BUS AI3 L												2					EK2
DATA BUS AI4 L												2					EK1
DATA BUS AI5 L												2					ED2
DATA BUS AI6 L												2					EE2
DATA BUS AI7 L												2					ED1
DATA BUS AC L												2					CV1
DATA BUS CØ L												2					EJ2
DATA BUS C1 L												2					EF2
DATA BUS MSYN L												2					EE1
DATA BUS SSYN L												2					EJ1
INIT H												1			4		
MSYN H												1			1		
SSYN H												1		2			
DI3 PCR 8 H	1												1				
PCR 9 H	1												1				
PCR IØ H	1												1				
PCR 11 H	1												1				
BR RQ H							1						1				
BR RQ L													1	1			
BYTE (CØ) H							1					1	1		1		
IN AI6 H							1						2				

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BERG
DI3 IN AI7 H							1						2				
NON EX MEM H							1						1				
NOT LAST XFER H							1						1		2		
NPR RQ H							1						1		6	1	
NPR RQ L													1		2		
OA 16 H											1		1				
OA 17 H											1		1				
OAC H							1				1		3				
OAC L													1			1	
OUT A16 H							1						2				
OUT A17 H							1						2				
OUT NPR (C1) H							1		1	1		1	2		2	1	
TIMER L							1						1				
VECTOR XX4 H							1				1		1				
R/W H							1						1				
R/W L													1				
DI4 BTØ L														1		1	V
CK H														2		1	
µP MP READ CYCLE L														2	1	1	
µP MP WRITE CYCLE H									5	1				2			
µP MP WRITE CYCLE L										1				2		2	
PC CLK H	1	3												1			
TØ H					2	1								3			
T12Ø H								2						2			
T12Ø L	2													3			
µP LD MULTIPORT L											1			1			
LURDY H				1										2			
																	BUS
DI5 BUS BG4 IN H															1		DS2
BUS BG4 OUT H															1		DT2
BUS BG5 IN H															1		DP2
BUS BG5 OUT H															1		DR2
BUS BG6 IN H															1		DM2
BUS BG6 OUT H															1		DN2
BUS BG7 IN H															1		DK2
BUS BG7 OUT H															1		DL2
BUS BR4 L															1		DH2
BUS BR5 L															1		DF2
BUS BR6 L															1		DE2
BUS BR7 L															1		DD2
BUS BUSY L															4		FD1
BUS NPG IN H															3		CA1
BUS NPG OUT															2		CB1
BUS INTR L															1		FM1
BUS NPR L															2		FJ1
BUS SACK L															2		FT2
BR MASTER H										.	5				4		
BR MASTER L											9	1			2		
G NPR MASTER H										1					1	2	
NPR MASTER L									1			5			2		
NPR DONE H													1		2		
NPR LD MULTIPORT L										1					1		
OMSYN H												1			6		
TIME OUT L													1		1		
BUS BG OUT H															3		DV2
NPR MASTER H															3		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BERG
DI6 CLEAR L	3	6			2			4						6	6		E
CROM IN L		3			1	1		1								1	
CROM OUT H											1					1	
CSR LD MULTIPORT L										1						1	
BOSSYN H												1				2	
DATA→BUS L											1					1	
G INIT L													1			3	
LD HB L										1						2	
LD LB L										1						1	
LD WORD G L					1	1	1									1	
LUIBUS Ø H								1								1	D
LUIBUS 1 H								1								1	F
LUIBUS 2 H								1								1	S
LUIBUS 3 H								1								1	U
LUIBUS 4 H								1								1	NN
LUIBUS 5 H								1								1	HH
LUIBUS 6 H								1								1	EE
LUIBUS 7 H								1								1	W
LU LOOP H																2	A
RUN H																4	C
RUN STEP L															1	1	
STEP LU H																2	B
UNIBUS WRITE L											2				1	1	
G INIT H															1	1	
LURDY L														2		1	Z

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	BUS
DI2 DATA BUS INIT L														2			DL1
DATA BUS AI8 L														2			BE2
DATA BUS AI9 L														2			BE1
DATA BUS A20 L														2			AP1
DATA BUS A21 L														2			AN1
DI3 EBA 18															1	1	
EBA 19															1	1	
EBA 20															1	1	
EBA 21															1	1	
~~ENABLE EXTENDED~~															1	3	

BUS TIMING THRU BERG



T1=2ØNS MAX
T2=5ØNS MAX
T3=5ØNS MIN FROM T12Ø
T4=2ØNS MIN FROM T12Ø FOR LUIBUS LINES
T5=4ØNS MIN FROM T18Ø FOR BALU LINES

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMP11 MICROCONTROLLER	D	CS	M82Ø7-Ø-1	R
SCALE — SHEET 2Ø OF 21	DIST.			

DEC FORM NO. DRD 138

PROM/ROM ADRS INPUT PINS					D ROM								S ROM								F ROM								
14	13	12	11	10	9	7	6	5	4	3	2	1	9	7	6	5	4	3	2	1	9	7	6	5	4	3	2	1	
0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	SEL B (B)
0	0	0	0	1	0	0	0	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	0	0	1	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0	1	1	
0	0	1	0	1	0	0	1	0	0	0	1	1	1	0	1	1	0	0	0	1	0	0	0	0	1	0	1	1	
0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	1	0	0	0	0	1	0	1	1	
0	0	1	1	1	0	1	0	1	1	0	1	1	0	0	1	1	0	0	0	1	0	0	0	0	1	0	1	1	
0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	0	0	1	0	0	0	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	0	1	1	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	1	0	1	0	0	1	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	1	1	0	0	1	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	
0	1	1	1	1	0	1	0	1	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	
1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	ADD (A,B)
1	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	1	0	ADD W/C (A,B,C)
1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	SUB W/C (A-B-C)
1	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	INC A (A+1)
1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	1	0	0	0	0	0	0	A PLUS C (A,C)
1	0	1	0	1	0	0	1	0	0	0	1	0	1	0	1	1	0	1	0	0	1	0	0	0	0	1	1	0	2A (A,A)
1	0	1	1	0	0	1	0	0	0	0	1	0	1	1	0	1	0	1	0	0	1	1	0	0	0	1	1	0	2A W/C (A,A,C)
1	0	1	1	1	0	1	0	1	1	0	1	0	1	1	1	1	0	1	0	0	1	0	0	1	1	1	1	0	DEC A (A-1)
1	1	0	0	0	1	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	1	1	1	1	SEL A (A)
1	1	0	0	1	0	0	0	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	1	SEL B (B)
1	1	0	1	0	0	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	0	1	1	1	A OR $\overline{B}$ $(A+\overline{B})$
1	1	0	1	1	0	0	0	1	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	1	0	1	1	A AND B (A B)
1	1	1	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	1	1	1	1	A OR B (A+B)
1	1	1	0	1	0	0	1	0	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	1	1	0	1	A XOR B $(A \oplus B)$
1	1	1	1	0	0	1	0	0	0	1	1	1	0	1	1	0	1	0	0	0	1	0	1	0	1	1	0	0	2'S COMP SUB (A-B)
1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	0	1	0	0	0	1	0	0	0	1	1	0	0	1'S COMP SUB (A-B-1)

CROM BITS					
D ROM	12	11	10	9	8
S ROM	15	14	13	7	4
F ROM	14	7	6	5	4

D ROM outputs:
LD SP H
LD MEM H
BRG {SO, SI}
INC MAR H
LD MAR HI L
LD MAR LO L

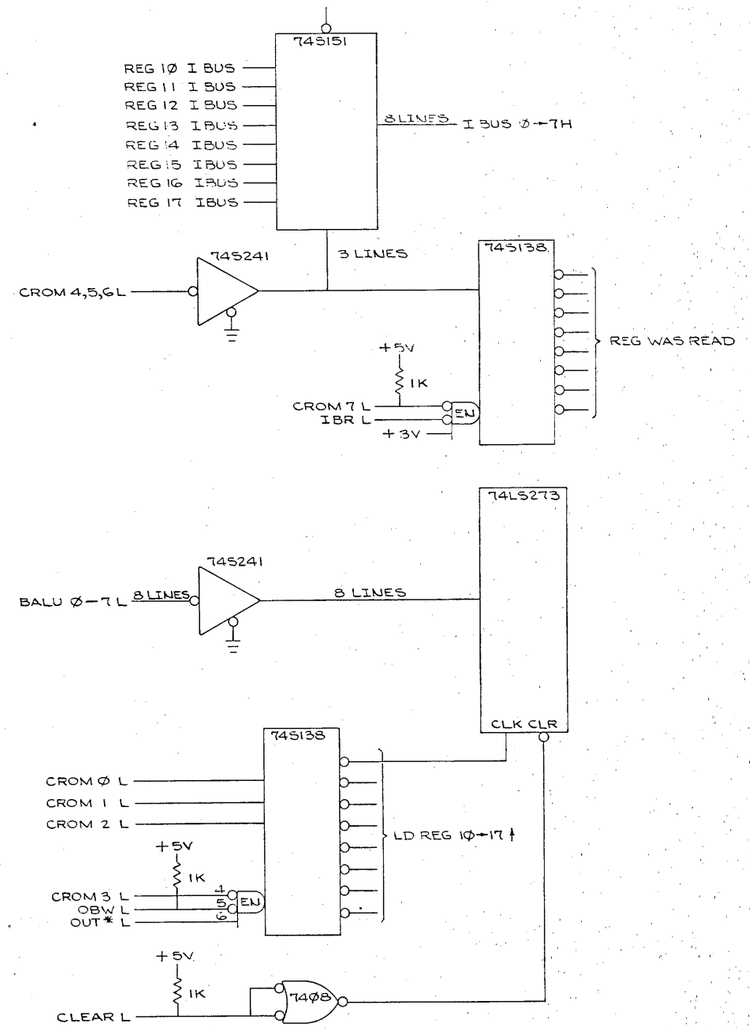
S ROM outputs:
DMUX SRC
READ* H
READ LU H

F ROM outputs:
CK C H
EN C H
FORCE C H
S0 L
S1 L
S2 L
S3 L
M

SO	SI	
1	1	LOAD BRG
0	1	SHIFT BRG 7→0
1	0	NOT PROGRAMMED
0	0	HOLD

PINS 9	10	11	DMUX SRC
0	0	0	I
0	0	1	LUIBUS
0	1	0	MEM
0	1	1	BRG
1	0	0	BPORT EVEN BYTE
1	0	1	BPORT ODD BYTE
1	1	0	NPR CNTL
1	1	1	MP MISC

RECOMMENDED BERG INTERFACE



DO NOT USE LS CHIPS FOR RECEIVERS.

DRN. Steve Ganity	7TH JUNE-78	FIRST USED ON DMP 11-AD	digital
CHK'D J Falkowski	9 JUN 78	TITLE DMP11 MICROCONTROLLER	
ENG. Paul D'Alessio	7 march 78		
PROJ. ENG. Paul D'Alessio	13 march 78		
PROD.			
NEXT HIGHER ASSY. K-DD-M8207-0		SIZE D	CODE CS
SCALE		NUMBER M8207-0-1	REV. R
SHEET 2 OF 2		DIST.	

DRAWING DIRECTORY

ITEM	DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	TYPE	REVISIONS		
1	PRODUCT REV		M8203-00	MULTIDROP LINE UNIT	-	T1	T2	T3
2	D-UA-M8203-0-0	1		MULTIDROP LINE UNIT	-	T	-	-
3	K-PL-M8203-0-0	4		MULTIDROP LINE UNIT (DBP)	-	T	-	-
4	D-CS-M8203-0-1	15		MULTIDROP LINE UNIT	-	T	T	T
5	K-PC-M8203-0-DBC			PC DESIGN DATA BASE	-	P	N	N
6	D-UA-M8203-0-2	2		MULTIDROP LINE UNIT WITH WIRE INK	-	-	A	-
7	K-PL-M8203-0-2	4		MULTIDROP LINE UNIT (DBP) WITH WIRE INK	-	-	A	-
8	D-UA-M8203-0-3	2		MULTIDROP LINE UNIT WITH HARDWIRE	-	-	-	A
9	K-PL-M8203-0-3	4		MULTIDROP LINE UNIT (DBP) WITH HARDWIRE	-	-	-	A
10	K-DD-5013292-0	1		DRAWING DIRECTORY ETCH BOARD	-	A	A	A
					DD REV	P	P	P

NOTES: 1. T1 = REV H-P2 ETCH BOARD RELAYOUT
2. T2 = REV F-P2 ETCH BOARD WITH WIRE INK
3. T3 = REV F-P2 ETCH BOARD, HARDWIRE

REVISION HISTORY

ENG	ECO NUMBER	REV
--	M8203-MK014	P

CONT. REVISION HISTORY

ENG	ECO NUMBER	REV

MADE BY: A. KRAWIECKI
DATE: 09 DEC 83

CHECKED BY: J. FALKOWSKI
DATE: 09 DEC 83 J Falkowski

DESIGN ENGINEER: R. BLANCHETTE
DATE: 09 DEC 83 R Blanchette

RESPONSIBLE ENG: M. LAWRENCE
DATE: 09 DEC 83 M Lawrence RPB

PRODUCTION ENG: W. BROOKE
DATE: 09 DEC 83 S Pelletier RPB

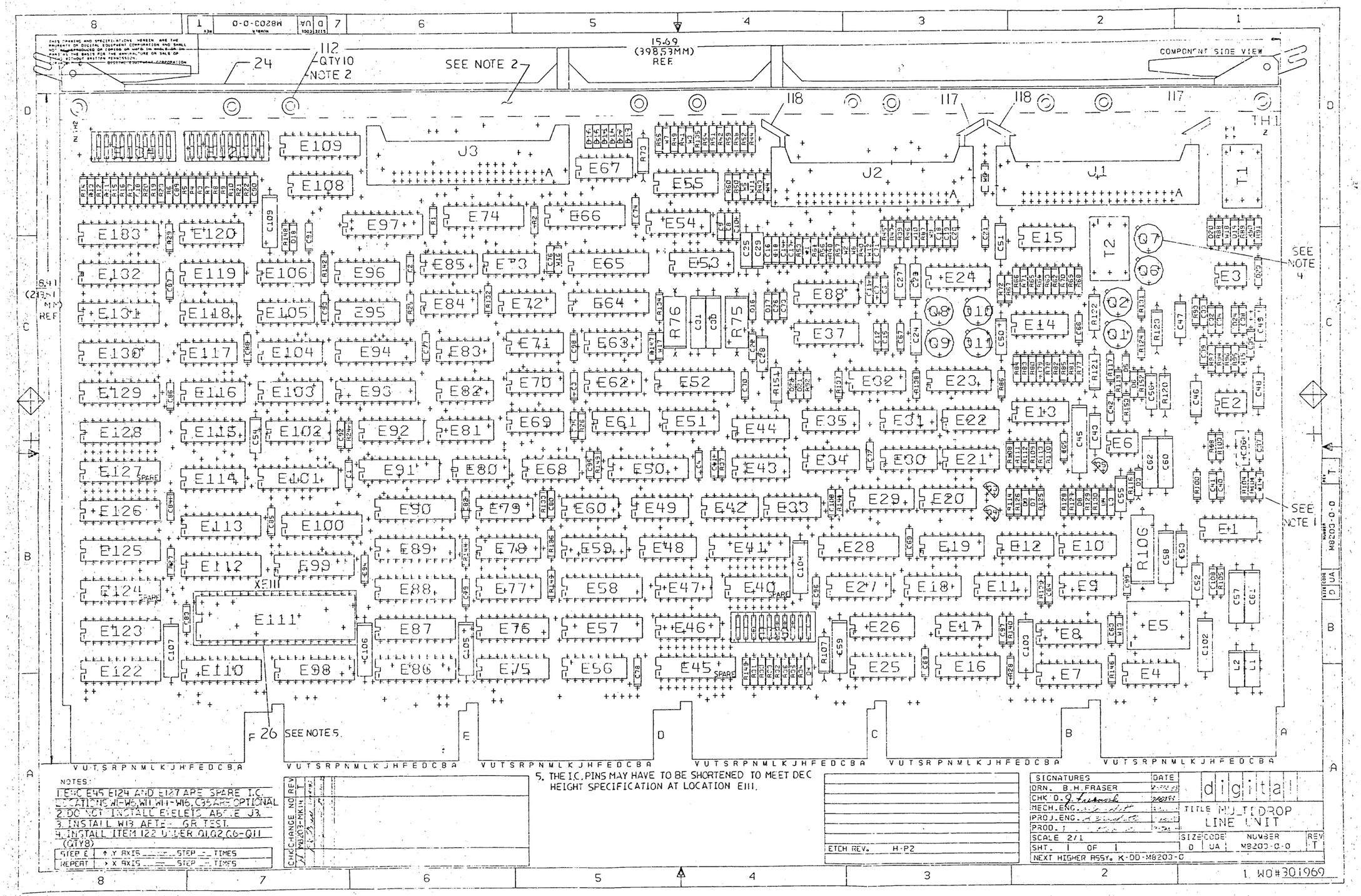
d i g i t a l

TITLE DRAWING DIRECTORY

MULTIDROP LINE UNIT

SIZE	CODE	DOCUMENT NUMBER	REV.
K	DD	M8203-0	P

SHEET 1 OF1 MK



NOTES:
1. E45 E124 AND E127 ARE SPARE I.C. LOCATIONS W1-W6, W11, W14-W16, C35 ARE OPTIONAL
2. DO NOT INSTALL E1 ELEMENTS ABOVE J3.
3. INSTALL W13 AFTER QA TEST.
4. INSTALL ITEM 122 UNDER Q1, Q2, C6-Q11 (QTY 8)

STEP E	↑ Y AXIS ___	STEP ___ TIMES
REPEAT	→ X AXIS ___	STEP ___ TIMES

CHK	CHANGE NO	REV
	M2203-MK14	

5. THE I.C. PINS MAY HAVE TO BE SHORTENED TO MEET DEC HEIGHT SPECIFICATION AT LOCATION E111.

ETCH REV. H-P2

SIGNATURES	DATE
DRN. B.H.FRASER	
CHK D. Gutowski	
MECH. ENG.	
PROJ. ENG.	
PROD.	

digital

TITLE MULTIDROP LINE UNIT

SCALE 2/1	SIZE	CODE	NUMBER	REV
SHT. 1 OF 1	D	UA	M8203-0-0	T

NEXT HIGHER ASSY. K-DD-M8203-G

1. WO# 301969

AUTOMATED BY PRTLST.3L(36) — P A R T S L I S T — SHEET A1 OF A4

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013292-0-0	5013292-00	DRILL AND ETCH BOARD	1	
2	2		1013466-06	100.0 MMF 50V 5% CER	2	C1,C37
3	3		1013466-18	330.0 MMF 50V 5% CER	1	C2
4	4		1013466-28	1000.0 MMF 50V 5% CER	1	C3
5	5		1013466-30	560.0 MMF 50V 5% CER	1	C4
6	6		1013466-05	56.0 MMF 50V 5% CER	11	C11-C21
7	7		1012784-00	.047 MFD 50V +80-20% CER	41	C22,C26,C63-C100,C108
8	8		1013466-11	.22 MFD 50V +80-20% Z5U CER	18	C23-C25,C27-C29,C43,C46-C56
9	9		1017472-00	10 MFD 35V +50-10% AL EL	15	C30,C31,C57-C62,C102-C107,C109
10	10		1013466-37	1200.0 MMF 50V 5% NPO CER	3	C32,C33,C34
11	11		1013466-01	10.0 MMF 50V 5% CER	2	C35,C39
12	12	BLANK		*** THIS ITEM IS NOT USED ***	-	
13	13		1013466-07	220.0 MMF 50V 5% CER	1	C38
14	14		1013466-24	47.0 MMF 50V 5% CER	2	C40,C41
15	15		1000075-00	25 MFD 25V +75-10% AL EL	1	C45
16	16		1013466-12	2200.0 MMF 50V 10% X7R CER	5	C6-C10
17	17		1100114-00	PIV= 25 IO=135 MA	10	D5-D8,D18-D21,D23,D24
18	18		1109943-00	VZ= 5.1 5% 1 W 1N4733A	1	D3
19	19		1109502-00	VZ= 12.0 10% 1 W 1N4742	1	D4
20	20		1104860-00	VZ= 3.3 5% 400 MW 1N746A	1	D9
21	21		1114136-00	LED 16MA 5V	6	D10-D15
22	22		1102421-00	VZ= 6.2 5% 400 MW 1N753A	2	D16,D17
23	23		1209941-02	PCB,HEADER 40PIN(2X20),100CC 90D	3	J1-J3
24	24		1216988-02	HANDLE,MODULE,HEX TWO EJECTORS	1	
25	25		1211164-06	SW,DIP 10POS/1PST 5VDC100MA F	3	E39,E121,E134
26	26		1215006-08	SKT,IC 40PIN DIP TIN SOLD	1	XE111
27	27		1300365-00	1.0 K .25 W 5.0 % CF	51	R1-R23,R27-R36,R92,R98,R103, CONT R132-R143,R146-R148
28	28		1300271-00	220.0 .25 W 5.0 % CF	10	R24-R26,R37,R39-R44
29	29		1303179-00	*** THIS ITEM IS NOT USED ***	-	

REVISION HISTORY			BASIC PART NO: M8203
ENG	ECO NUMBER	REV	SECTION A OF A
PA	M8203-MK003A/3B	H	SECTION,VARIATION INDEX
RH	M8203-MK004	J	[A] 00
RH	M8203-MK005	K	[B]
PH	M8203-MK006	L	[C]
FB	M8203-MK007	M	[D]
FB	M8203--MK008	N	[E]
FB	M8203-MK009	P	[F]
ML	M8203-MK012	R	[H]
BB	M8203-MK013	S	[J]
ML	M8203-MK014	T	[K]
			[L]
			[M]
			[N]

DRN: A. KRAWIECKI	DATE: 09-DEC-83		D	I	G	I	T	A	L	
CHK'D: J. FALKOWSKI	DATE: 3 JAN-84 09-DEC-83	TITLE PARTS LIST								
DES.ENG: R. BLANCHETTE	DATE: 3 JAN-84 09-DEC-83	MULTIDROP LINE UNIT								
RESP.ENG.: R. BLANCHETTE	DATE: 3-JAN-84 09-DEC-83	DOCUMENT NUMBER								
MFG.ENG.: J. PELLETIER	DATE: 3-JAN-84 09-DEC-83	SIZE	CODE	NUMBER	REV					
		K	PL	M8203-0-0	T					
ASSEMBLY NUMBER: D-UA-M8203-0-0	TOP DOCUMENT NUMBER: *K-DD-M8203-0	FILE NAME: MK0480.PLS	EDIT #: 37							

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
30	30		1300447-00	4.70 K .25 W 5.0 % CF	9	R56-R61,R87,R104,R105
31	31	BLANK		*** THIS ITEM IS NOT USED ***	-	
32	32		1300432-00	3.0 K .25 W 5.0 % CF	3	R68,R69,R114
33	33		1300247-00	120.0 .25 W 5.0 % CF	6	R70-R72,R144,R145,R149
34	34		1300228-00	100.0 .50 W 5.0 % CF	1	R73
35	35		1300255-00	150.0 1.0 W 5.0 % CC	2	R75,R76
36	36		1313598-00	32.40 K .25 W 1.0 % RN55D-F10	4	R88,R91,R110,R111
37	37		1300347-00	680.0 .50 W 5.0 % CF	1	R151
38	38		1313842-00	48.70 K .25 W 1.0 % RN55D-F10	2	R93,R94
39	39		1302886-00	10.0 K .25 W 1.0 % RN55C-F 5	7	R95,R96,R108,R113,R117,R89,R90
40	40		1309418-00	24.30 K .25 W 1.0 % RN55D-F10	1	R97
41	41		130 250-00	150.0 .25 W 5.0 % CF	2	R100,R101
42	42		1302308-00	68.0 2.0 W 5.0 % CC	1	R106
43	43		1302378-00	51.0 .50 W 5.0 % CF	1	R107
44	44		1313077-00	12.80 K .25 W .10% RN55E-B 2	2	R109,R112
45	45		1300426-00	2.70 K .25 W 5.0 % CF	1	R116
46	46		1300479-00	10.0 K .25 W 5.0 % CF	2	R125,R130
47	47		1302389-00	4.30 K .25 W 5.0 % CF	2	R119,R124
48	48		1311522-00	200.0 .25 W 5.0 % CF	2	R152,R153
49	49		1300168-00	10.0 .50 W 5.0 % CF	4	R120-R123
50	50		1300444-00	3.90 K .25 W 5.0 % CF	1	R126
51	51		1300496-00	15.0 K .25 W 5.0 % CF	2	R127,R129
52	52		1300391-00	1.50 K .25 W 5.0 % CF	1	R128
53	53		1302466-00	100.0 K .25 W 5.0 % CF	1	R131
54	54		1515018-00	2N 2905A PNP 600MW SI 40 100	1	Q2
55	55		1501881-00	DEC2219 NPN 3WC SI 30100	1	Q1
56	56		1509338-00	DEC6531B NPN 310MW SI 40 90 P	2	Q3,Q4
57	57		1503409-00	DEC6534D PNP 310MW SI 40 90	1	Q5
58	58		1516150-00	VN 35AK FET 50MW	6	Q6-Q11
59	59		1602723-00	1000 UH 10% 125MA	2	L1,L2
60	60		1612946-01	33.0 UM 10% Q MIN=45@2.5MHZ	2	L3,L4
61	61		1616045-00	XFMR,PULSE,RATIO 1:1,1500PV	1	T2
62	62		1616303-00	PULSE XFMR,RATIO 1:1:1	1	T1
63	63		1811660-00	OSCILLATOR, XTAL 20.000 MHZ	1	E5
64	64		1914214-00	LS374 FF-D OCTAL EDGE TRIG	13	E86,E88,E109,E122,E123,E125,
					CONT	E126,E128-E133
65	65		1913462-00	74S240 OCTAL BUFFER,INVERTI	2	E74,E97
66	66		1911675-00	74S138 DECODER/DEMUX 3-8 LI	3	E59,E108,E119
67	67		1912863-00	LS273 FF-D OCTAL W/CLEAR	6	E58,E66,E87,E90,E91,E94
68	68		1912697-00	LS174 FF-D HEX W/CLEAR	2	E92,E96
69	69		1910534-00	74S04 INVERTER GATE-HEX 1I	1	E17
70	70		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	7	E4,E62,E63,E68,E80,E84,E118
71	71		1912849-00	LS161 COUNTER,SYNCHR,4BIT	1	E27
72	72		1913294-00	93S16 COUNTER,SYNCH UP BIN	3	E7,E8,E16
73	73		1910956-00	74S151 MUX 1 OF 8	1	E26
74	74		1912847-00	LS157 MUX 1 OF 2(QUAD)	2	E46,E95
75	75		1910548-00	74S157 MUX 1 OF 2 (QUAD)	1	E120
76	76		1915193-00	LS244 DRIVER,LINE,OCTAL,T	9	E64,E65,E89,E98,E99,E101,E110,

D	I	G	I	T	A	L	TITLE	SIZE	CODE	DOCUMENT NUMBER	REV
							MULTIDROP LINE UNIT	K	PL	M8203-0-0	T
							SECTION A OF A				

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
					CONT	E112,E113
77	77		1912816-00	LS32 OR GATE-QUAD 2IN,POS	4	E20,E51,E81,E83
78	78		1913777-00	LS240 DRIVER,LINE,OCTAL,T	4	E28,E50,E52,E93
79	79		1915125-00	3691 DRIVER,QUAD,EIA RS-	2	E37,E53
80	80		1912742-00	75112 DRIVER,DUAL LINE	1	E13
81	81		1915851-00	26LS31 DRIVER,QUAD,EIA RS	1	E23
82	82		1915694-00	3692 DRIVER,QUAD,EIA RS-4	1	E24
83	83		1915123-02	26LS32-2 RECEIVER,LINE,12K T	3	E38,E54,E55
84	84		1914091-00	3603 RECEIVER,LINE,DUAL	3	E1,E14,E15
85	85		1910550-00	74S174 FF-D HEX	2	E77,E78
86	86		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	7	E9,E10,E18,E35,E47,E61,E11
87	87		191[illegible]741-00	7406 INVERTER GATE-HEX 1I	1	E67
88	88		1912805-00	LS08 AND GATE-QUAD 2IN,PO	6	E31,E33,E60,E72,E79,E82
89	89		1912808-00	LS11 AND GATE-TRIPLE 3IN	3	E69,E105,E117
90	90		1912821-00	LS54 A-O-I GATE,3-2-2-3IN	1	E85
91	91		1910536-00	74S10 NAND GATE-TRIPLE 3IN	2	E48,E106
92	92		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E73
93	93		1910537-00	74S11 AND GATE-TRIPLE 3INP	1	E49
94	94		1910011-00	DEC 7486 X-OR GATE-QUAD 2INPU	1	E43
95	95		1911712-00	74S51 AND-OR GATE-INVERT D	2	E32,E44
96	96	BLANK		*** THIS ITEM IS NOT USED ***	-	
97	97		1912850-00	LS164 SHIFT REG. 8BIT SERI	3	E21,E30,E42
98	98		1910735-02	318 OP AMP	3	E2,E6,E3
99	99		1910532-00	74S00 NAND GATE-QUAD 2IN	2	E12,E34
100	100		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	2	E19,E25
101	101		1912803-00	LS04 INVERTER GATE,HEX	1	E22
102	102		1912853-00	LS175 FF-D QUAD	1	E29
103	103		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	2	E70,E71
104	104		2111188-01	3341-01 64X4 FIFO MEMORY	6	E102-E104,E114-E116
105	105		2112517-01	RECIEVER/TRANSMITTER	1	E111
106	106		2304381-00	B1-01	1	E41
107	107		2303881-00	B1-01	1	E100
108	108		23036F1-00	F1-01	1	E76
109	109		23037F1-00	F1-01	1	E75
110	110		2304281-00	B1-01	1	E57
111	111		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	8	W7-W10,W12,W13,W17,W18
112	112		9009000-00	EYELET,ROLLED 0.121ODX0.156	10	
113	113		1013466-31	15.0 MMF 50V 5% CER	1	C42
114	114		1301890-00	560.0 .25 W 5.0 % CF	2	R85,R86
115	115		1101938-00	VZ= 2.4 5% 400 MW 1N4370A	1	D22
116	116		1301422-00	7.50 K .25 W 5.0 % CF	11	R45-R55
117	117		1209941-03	PCB,HEADER LATCH	2	
118	118		1209941-04	PCB,HEADER LATCH	2	
119	119		1316115-00	35.70 .25 W 1.0 % RN55D-F10	4	R81-R84
120	120		1316736-00	374.0 .25 W 1.0 % RN55D-F10	4	R77-R80
121	121		1312928-00	51.0 .25 W 5.0 % CF	6	R62-R67
122	122	BLANK	9007201-00	*** THIS ITEM IS NOT USED ***	-	
123	123		1914082-00	74S163 COUNTER,SYNCH UP/DOW	1	E56

D	I	G	I	T	A	L	TITLE	SECTION A OF A
							MULTIDROP LINE UNIT	

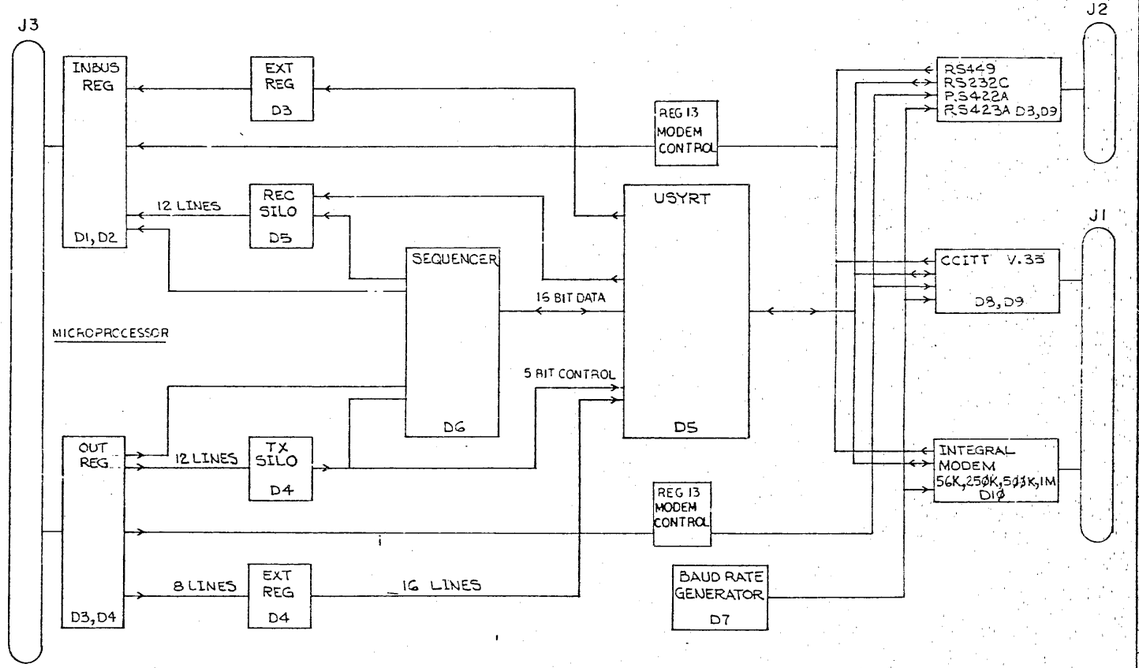
SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M8203-0-0	T

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
124	124 BLANK	9105740-55	*** THIS ITEM IS NOT USED ***	-	

DIGITAL	TITLE	SIZE	CODE	DOCUMENT NUMBER	REV
	MULTIDROP LINE UNIT SECTION A OF A	K	PL	M8203-0-0	T

WRITE OUT REG	7	6	5	4	3	2	1	Ø
1Ø	TRANSMIT DATA SILO							
11	OC				GOAH	ABORT	EOM	SOM
12	IC	BPCLL	LULP					
13	POLL	DTR	SEL FREQ	HDX	MAINT 1	MAINT 2	SEL STBY	
14		TXU ENA ***	DISSI	RDAX	WAX	ENAX	AX2	AX1
15	LOW BYTE EXT REG							
16	HI BYTE EXT REG							
17	CRC TYPE		IDLE	SECA	STRIP	RDALL	ILERR	DDCMP
AXØ-15	NOT USED							
AXØ-16	NOT USED							
AX1-15	TRANSMIT DATA USYRT							
AX1-16					TXGA	TXAB	TEOM	TSOM
AX2-15	SYNC CHARACTER							
AX2-16	NOT USED							
AX3-15	422	XYZ		V.35	INT	CR32 ** EN	Ø	TEST
AX3-16	TX CH LENGTH			TX CLEN	RX CLEN	REC CH LENGTH		

READ IBUS REG	7	6	5	4	3	2	1	Ø
	RECEIVER DATA SILO							
	OC	OACT	SW	ORDY	SW	SW	SW	UNDR
	IC	IACT	LULP	IRDY	OVRR	RAB	EBLK	BCC
	RING	DTR	RS	HDX	MJDR	CS	STBY	CARR
	RDY	TXU ENA ***	DISSI	RDAX	WAX	ENAX	AX2	AX1
	SWITCH PACK (X) / LOW BYTE EXT							
	SWITCH PACK (Y) / HI BYTE EXT							
	SIG Q	SIG R	SI	OCOR	ICIR	TEST MODE	ECS	DDCMP
	RECEIVER DATA USYRT							
	RERR	EITS ASSEMB		ROR	RAB	REOM	RSOM	
	TRANSMIT DATA USYRT							
	TERR			TXGA	TXAB	TEOM	TSOM	
	SYNC CHARACTER							
	APA	DDCMP STRIP		SECA	IDLE	CRC TYPE		
	422	XYZ	CR32 ** DCC	V.35	INT	CR32 ** EN	Ø	TEST
	TX CH LENGTH			TX CLEN	RX CLEN	REC CH LENGTH		



NOTES:

1. AX REGISTERS ARE INDIRECTLY ADDRESSED BY USING AX1+AX2 FOR ADDRESS, WAX FOR WRITE, RDAX FOR READ, REGISTERS 15 + 16 FOR DATA, ENAX GOING TO A ONE TO START THE OPERATION AND RDY TO TELL WHEN THE OPERATION IS COMPLETE.
2. BIT MAP AS SEEN BY THE DMR11 AND DMP11 MICRO PROCESSOR.
3. DELETED.
4. ** OPTIONAL WHEN CRC32 CHIP IS INSTALLED.
5. *** BIT 6 OF REG 14 IS DEFINED DIFFERENTLY DEPENDING ON THE STATE OF BITS:
   BIT 5=Ø BIT 6 WILL LOCK ATS ON.
   BIT 5=1 BIT 6 WITH ENABLE USYRT TRANSMITTER.

REVISIONS				
CHK	CHANGE NO.	REV.		
	M8203-MK0001	E	H. Devonshire	14-JAN-80
	M8203-MK0002	F	P. ALOISI	17-JAN-80
	M8203-MK0003	G	P. ALOISI	17-JAN-80
	M8203-MK0033	H	P. ALOISI	01-JAN-80
	M8203-MK0004	J	P. ALOISI	11-MAR-81
	M8203-MK0005	K	R. HARRINGTON	11-MAR-81
	M8203-MK0006	L	R. HARRINGTON	21-AUG-81
	M8203-MK0007	M	R. HARRINGTON	29-OCT-81
	M8203-MK0008	N	F. BACKES	23-JAN-82
	M8203-MK0009	P	F. BACKES	23-APR-82
	M8203-MK0012	R	N. LAWRENCE	26-OCT-82
	M8203-MK0013	S	B. BERGERON	7-JAN-83
	M8203-MK0014	T	B. BERGERON	3-JAN-83

DRN.		12-3-78	FIRST USED ON: DMP11-AD
CHK'D.			digital
ENG.			TITLE: MULTI DROP LINE UNIT
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
K-DD-M8203-B			SIZE D CODE CS NUMBER M8203-Ø-1 REV. T
SCALE	NONE		
SHEET	1 OF 15		DIST.

M8203-Ø-1 REV T
SIZE D CODE CS

M8203 OPTIONS:

SWITCHES:

REGISTER 15 BITS Ø-7 E134 1-8.
REGISTER 16 BITS Ø-7 E121 1-8.
REGISTER 11
REGISTER 11 BIT 1 E121 1Ø
BIT 2 E121 9
BIT 3 E134 9
BIT 5 E134 1Ø

E39 SELECTS THE DATA RATE WITH SWITCHES 8,9,1Ø.

SW 8	9	10	DATA RATE
ON	ON	ON	1 MBPS
OFF	ON	ON	500 KBPS
ON	OFF	ON	250 KBPS
OFF	OFF	ON	56 KBPS
ON	ON	OFF	19.2 KBPS
OFF	ON	OFF	9.6 KBPS
ON	OFF	OFF	4.8 KBPS
OFF	OFF	OFF	2.4 KBPS

E39 SWITCH 5 SELECTS V.35 INTERFACE.
E39 SWITCH 6 SELECTS THE OPTICS IF AVAILABLE.
E39 SWITCH 7 SELECTS RS422.
* CRC 32 CHIP CAN BE INSTALLED IN E124.

JUMPERS:

W1		CAN BE USED FOR A RESISTOR OR CAPACITOR FOR THE "CLEAR TO SEND" RECEIVER.
W2		CAN BE USED FOR A RESISTOR OR CAPACITOR FOR THE "DATA MODE" RECEIVER.
W3		CAN BE USED FOR A RESISTOR OR CAPACITOR FOR THE "RECEIVER DATA" RECEIVER.
W4		CAN BE USED AS A RESISTOR OR CAPACITOR FOR THE "RECEIVER CLOCK" RECEIVER.
W5		CAN BE USED FOR A RESISTOR OR CAPACIOR FOR THE "RECEIVER READY" READY.
W6		CAN BE USED FOR RESISTOR OR CAPACITOR FOR THE "TRANSMITTER CLOCK" RECEIVER.
W7	BC25C ONLY PIN 9 BERG Y	IS NORMALLY IN BUT CAN BE REMOVED TO DISABLE 'SIGNAL RATE' ON SOME MODEMS THAT USE THIS SIGNAL AS A TEST CLOCK.
W8	BC25C ONLY PIN 16 BERG U	'DATA MODE' – JUMPER 'NORMALLY IN" CAN BE USED WHEN PROBLEMS OCCUR WITH SOME MODEMS.
W9		'NULL CLK' MAY CAUSE PROBLEMS WITH SOME MODEMS. REMOVE JUMPER FOR THESE APPLICATIONS.
W1Ø	BC25 ONLY PIN 10, BERG W	'TERMINAL READY' – IS CONNECTED TO A TEST VOLTAGE ON SOME MODEMS.
W11		INSTALL THIS JUMPER WHEN THE MODEM USED DOES NOT PROVIDE THE 'CARRIER SIGNAL'. THE CLOCKING OUT CIRCUIT WILL NOT WORK. THIS MAY CAUSE PROBLEMS WITH THE MICROCODE.

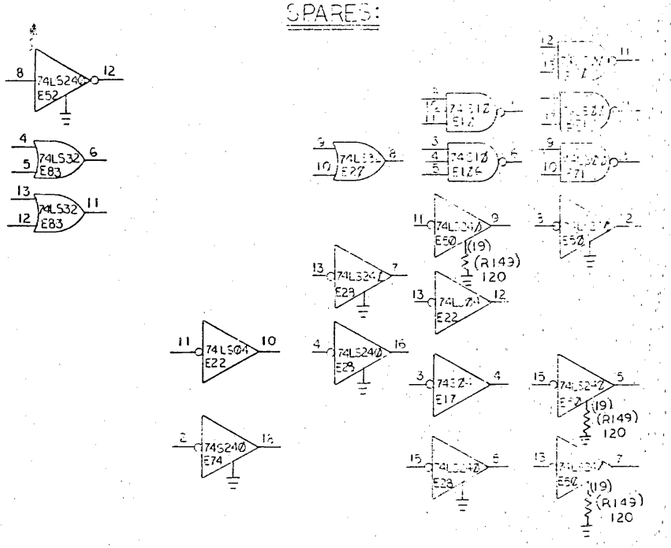
JUMPERS: (CONT'D).

W12	BC05C ONLY PIN 25, BERG C	'TERMINAL IN SERVICE', THIS MAY CAUSE PROBLEMS WITH SOME MODEMS.
W14 & W15		THESE JUMPERS ARE USED TO REDUCE THE BANDPASS OF THE RECEIVER FILTER ON THE INTEGRAL MODEM. (USE FOR 56 KBPS ONLY).
W13		INSTALL AFTER GR TEST.
W16		THIS JUMPER IS USED ONLY IF THE MODEM HAS A DELAY LONGER THAN FOUR BIT TIMES FOR NEGATING CLEAR TO SEND AFTER REQUEST TO SEND IS NEGATED. IF THE JUMPER IS NOT CHANGED A LOSS OF THE FIRST SYNC CHARACTER IS POSSIBLE CAUSING RANDOM LOSS OF MESSAGES, WHICH WILL CAUSE MORE RETRANSMISSIONS AND SOFT ERRORS.
W17		THIS JUMPER IS USED FOR MODEMS HAVING CONTINUOUS CARRIER, (NOT CONTROLLED BY REQUEST TO SEND FROM THE OTHER END).
W18		NOT TO BE REMOVED.

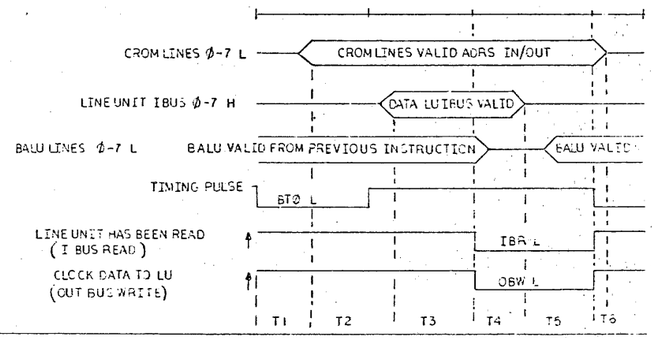
LEDS:

THERE ARE 6 LEDS ON THE M8203 TO AID THE FIELD MAINTENANCE OF THE M8203. THESE LEDS INDICATE STATUS OF THE MODEM THAT IS BEING USED WITH THE M8203 OR THE INTEGRAL MODEM IF IT IS SELECTED.
D10 SIGNAL QUALITY (NOT USED WITH THE INTEGRAL MODEM).
D11 CARRIER (INDICATE THE RECEIVER IS IN SYNC).
D12 RECEIVER DATA.
D13 TRANSMIT DATA.
D14 REQUEST TO SEND.
D15 BEEN POLLED. (THIS IS FROM THE MICROPROCESSOR AND IS DEFINED BY THE OPTION MANUAL).

SPARES:



J3 MICRO CONTROLLER TIMING



T1 + T2 = 6ØNS MAXIMUM
T2 = 5ØNS MAXIMUM
T3 = NA
T4 = NA
T5 = 25NS MAXIMUM
T6 = 16NS MAXIMUM

BTØL ↓ TO DATA VALID LU IBUS
CROM LINES VALID TO DATA VALID LU IBUS
BALU VALID TO OBW L ↑
OBW L ↑ TO CROMLINES INVALID

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT	D	CS	M8203-Ø-1	T
SCALE —	SHEET 2 OF 15	DIST.		

J3

DI CROM Ø L
DI CROM 1 L
DI CROM 2 L
DI CROM 3 L
DI CROM 4 L
DI CROM 5 L
DI CROM 6 L
DI CROM 7 L
DI OBW L
DI OUT * L
DI LU LOOP H
DI STEP LU H
DI CLEAR L
NOT USED
DI BALU 7 L
DI BALU 6 L
DI BALU 5 L
DI BALU 4 L
DI BALU 3 L
DI BALU 2 L
DI BALU 1 L
DI BALU Ø L
N.C.

74S138 E119 — IBUS DECODE
DI ENI 16 L
DI ENI 15 L
DI ENI 11 L
+3V_A
R2 1K
+5V

DI BTØ L
DI BCLEAR H
DI CLEAR L
DI RUN H
DI IBR L
R1 1K
+5V
74S24Ø E74
DI BCLEAR L
DI RUN L
DI IBR H

+5V
R29 1K
+3V_A

UNIBUS JUMPERS
DK2 DL2 DM2 DN2 DP2 DR2 DS2 DT2
BR
CA1 CB1
NPG

I REGISTER AX3-15 — 74LS374
D7 422 H
D7 EIA H
D5 CRC 32 BCC
D7 V.35 H
D7 INT H
D4 EN CRC 32 H
D7 Ø H
D4 MM H
D2 SEL 15 L

I REGISTER 17 — 74LS374
D8 SIG R H
D8 SIG Q H
D5 TX DATA H
D3 OCOR H
D5 ICIR H
D8 TEST MODE H
D7 MAINT CLK
D4 DDCMP H

I REGISTER 14 — 74LS374
D6 READY
D4 TXU ENA H
D4 DISSI H
D4 RDAX H
D4 WAX H
D4 EN AX H
D4 AX 2 H
D4 AX 1 H

I REGISTER 13 — 74LS374
D8 RING H
D9 DTR H
D5 RTS H
D9 HDX H
D8 MOD RDY H
D8 CS H
D8 STBYI H
D8 CARRIER H

I REGISTER 12 — 74LS374
D4 IC H
D5 INACT H
D4 LULP H
D3 IN RDY H
D5 OVER RUN H
D5 ABORT H
D5 END BLK H
D5 BCC H

I REGISTER 10 — 74LS374
D5 SILO 7 H
D5 SILO 6 H
D5 SILO 5 H
D5 SILO 4 H
D5 SILO 3 H
D5 SILO 2 H
D5 SILO 1 H
D5 SILO Ø H
DI BTØ H
DI SELØ L

DI LUIBUS 7 H
DI LUIBUS 6 H
DI LUIBUS 5 H
DI LUIBUS 4 H
DI LUIBUS 3 H
DI LUIBUS 2 H
DI LUIBUS 1 H
DI LUIBUS Ø H

MAINTENANCE LEDS

D8 SIG Q H — 74Ø6 E67 — DIØ — SIGNAL QUALITY
D8 CARRIER H — 74Ø6 E67 — DI1 — REC CARRIER
D8 RC DATA H — 74Ø6 E67 — DI2 — REC DATA
D5 TX DATA H — 74Ø6 E67 — DI3 — TXDATA
D5 RTS H — 74Ø6 E67 — DI4 — REQ. TO SEND
D4 B POLL — 74Ø6 E67 — DI5 — BEEN POLLED

◇ TRISTATE BUS

(INBUS REGISTERS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: MULTI DROP LINE UNIT DI		SIZE: D	CODE: CS	NUMBER: M8203-D-I
SCALE: —	SHEET: 3 OF 13	DIST.		REV: T

MK

DI LUIBUS 7 H
DI LUIBUS 6 H
DI LUIBUS 5 H
DI LUIBUS 4 H
DI LUIBUS 3 H
DI LUIBUS 2 H
DI LUIBUS 1 H
DI LUIBUS Ø H

+5V
R3 1K
R4 1K
R5 1K
R6 1K
R7 1K
R8 1K
R9 1K
R1Ø 1K
R11 1K
R12 1K
R13 1K
R14 1K
R15 1K
R16 1K
R17 1K
R18 1K
R19 1K
R2Ø 1K
R21 1K
R22 1K

SW Y E121
SW X E134
SW Y E121

I REGISTER 16
74LS374 E109
D3 R3(1)
D4 R4(1)
D2 R2(1)
D5 R5(1)
D1 R1(1)
D6 R6(1)
DØ RØ(1)
D7 R7(1)
CLK OC

I REGISTER 15
74LS374 E133
D4 R4(1)
D3 R3(1)
D5 R5(1)
D2 R2(1)
D6 R6(1)
D1 R1(1)
D7 R7(1)
DØ RØ(1)
CLK OC

I REGISTER 11
74LS374 E132
D3 OC H
D5 OUT ACT H
D3 OUT RDY H
D5 UNDER RUN H
D3 R3(1)
D4 R4(1)
D2 R2(1)
D5 R5(1)
D1 R1(1)
D6 R6(1)
DØ RØ(1)
D7 R7(1)
CLK OC

I REGISTER AX15
74LS374 E122
D5 DOP 15 H
D5 DOP 14 H
D5 DOP 13 H
D5 DOP 12 H
D5 DOP 11 H
D5 DOP 10 H
D5 DOP 9 H
D5 DOP 8 H
D3 R3(1)
D4 R4(1)
D2 R2(1)
D5 R5(1)
D1 R1(1)
D6 R6(1)
DØ RØ(1)
D7 R7(1)
CLK OC

DI BTØ H
DI ENI 11 L

74S157 E120
DI ENI 16 L
+3V_A
DI ENI 15 L
D4 EN AX H
A3 B3 A2 B2 A1 B1 AØ BØ
f3 f2 f1 fØ
SØ STB

D4 AX 2 H
D4 AX 1 H
74LSØ8 E79
74LS24Ø E93 (19)

D3 LD 15
74LS32 E81
D2 LDX L
D2 SEL 15 L
DØ LD AX

+5V
1Ø µf
C102-C107 1Ø µf
C63-C127 .047 µf
C128 .047 µf

AA2, BA2
CA2, DA2
EA2, FA2
AC2, ATI
BC2, BTI
CC2, CTI
DC2, DTI
EC2, ETI
FC2, FTI

REVISIONS		
CHK	CHANGE NO.	REV.

(INBUS REGISTERS)

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D2	D	CS	M8203-Ø-1	T
SCALE	SHEET 4 OF 15	DIST.	MK	

74S138 E108
DI CROM 2 L
DI CROM 1 L
DI CROM 0 L
+5V
R23 1K
DI OBW L
DI CROM 3 L
DI OUT* L
OUT REGISTER SELECT
D3 LD 17
D3 LD 16
D3 LD 15
D3 LD 14
D3 LD 13
D3 LD 12

D3 BALU 7 H
D3 BALU 6 H
D3 BALU 5 H
D3 BALU 4 H
D3 BALU 3 H
D3 BALU 2 H
D3 BALU 1 H
D3 BALU 0 H

0 REGISTER 11
74L3174 E92
D3 CC H

C REGISTER 10
74LS273 E94

TRANSMIT SILO
3341-1 SILO STATUS E102
3341-1 SILO 4-7 E104
3341-1 SILO 0-3 E103
-12V SILO
D3 EOM H
D3 SOM H

DATA/STATUS TO THE USYRT
74LS244 E89
74LS244 E131
D3 DIP 15 H
D3 DIP 14 H
D3 DIP 13 H
D3 DIP 12 H
D3 DIP 11 H
D3 DIP 10 H
D3 DIP 9 H
D3 DIP 8 H
D3 DIP 7 H
D3 DIP 6 H
D3 DIP 5 H
D3 DIP 4 H
D3 DIP 3 H
D3 DIP 2 H
D3 DIP 1 H
D3 DIP 0 H

74S240
DI BALU 7 L
DI BALU 6 L
DI BALU 5 L
DI BALU 4 L
DI BALU 3 L
DI BALU 2 L
DI BALU 1 L
DI BALU 0 L

74LS11
D3 OCOR H
D5 TX BMT H
D8 HDX RD
D6 TX BUF L
D4 DISSI L
74LS74
SHIFT OUT
SHIFT IN
D3 LOAD H
D3 CTX ENA H

+3VD
R24 220
C1 100PF
D6 OCP L
74LS08
74LS240
D6 CLTXENA H
D3 SOM H
D3 OCOR H
KRTS 74LS74
D3 KRTS H
74LS00
D5 OUT ACT L

+3VB
E47
74S74

74LS374 E68
74LS00
74LS374 E95
D5 TX BMT H
D5 O RDY H
D5 SIN RDY H
D4 TXU ENA L
D4 TXU ENA H
D4 DISSI L
D3 OUT RDY H
D3 IN RDY H
D3 TXENA L
D3 RTS LOCK H
DISSI MUX

REVISIONS		
CHK	CHANGE NO.	REV.

(TRANSMIT SILO)

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D3	D	CS	M8203-0-1	T
SCALE	SHEET 5 OF 15	DIST.		

O REGISTER 12
74LS174 E96
D5 R5(1) — D4 IC H
D4 R4(1) — D4 LULP H
D3 R3(1) — D4 B POLL
D2 R2(1)
D1 R1(1)
DØ RØ(1)
CLR CLK
D6 ICP L
D3 LD 12

O REGISTER 17
74LS273 E91
D2 R2
D8 R8
D1 R1
D3 R3
D4 R4
D6 R6
D7 R7 — D4 IERR H
D5 R5
CLR CLK
D6 CLR L
D3 LD 17
D6 INIT L

74LSØ8 E6Ø
74LS24Ø E93 (19)
74LS24Ø E93 (1) — D4 DDCMP H
74LS574 E68
D4 LD MODE H
DG EN MODE L
DG CLR L
74LSØ8 E6Ø

MCODE ROM 23Ø38B1 E1ØØ
DG INIT L
A1 D1
A3 D3
A5 D5
A2 D2
A6 D6
A1 D1
A7 D7
AØ DØ
CE CE

O REGISTER AX 16
74LS374 E85
D1 R1(1) — D3 DIP 15 H
D7 R7(1) — D3 DIP 14 H
DØ RØ(1) — D3 DIP 13 H
D2 R2(1) — D3 DIP 12 H
D3 R3(1) — D3 DIP 11 H
D5 R5(1) — D3 DIP 1Ø H
D6 R6(1) — D3 DIP 9 H
D4 R4(1) — D3 DIP 8 H
CLK EN
D3 LD 16

D3 BALU 7 H
D3 BALU 6 H
D3 BALU 5 H
D3 BALU 4 H
D3 BALU 3 H
D3 BALU 2 H
D3 BALU 1 H
D3 BALU Ø H

74LS24Ø E93 — D4 TXUENA L
74LS24Ø E93 — D4 DISSI L

O REGISTER AX 3-15
74LS273 E87
D7 R7 — D4 M422 H
D1 R1 — D4 MXYZ H
D8 R8
D6 R6 — D4 MV.35 H
D5 R5 — D4 MINT H
D3 R3 — D4 EN CRC 32 H
D2 R2 — D4 MO H
D4 R4 — D4 MM H
CLR CLK
DG CLR L
D2 LDX L

O REGISTER 14
74LS273 E90
D7 R7 — D4 TXUENA H
D1 R1 — D4 DISSI H
D8 R8 — D4 RDAX H
D6 R6 — D4 WAX H
D5 R5 — D4 ENAX H
D3 R3 — D4 AX 2 H
D2 R2 — D4 AX 1 H
D4 R4 — D4 AX 1 H
CLR CLK
D3 LD 14

O REGISTER AX 15
74LS374 E83
D1 R1(1) — D3 DIP 7 H
D7 R7(1) — D3 DIP 6 H
DØ RØ(1) — D3 DIP 5 H
D2 R2(1) — D3 DIP 4 H
D3 R3(1) — D3 DIP 3 H
D5 R5(1) — D3 DIP 2 H
D6 R6(1) — D3 DIP 1 H
D4 R4(1) — D3 DIP ØH
EN CLK
DG EN AX L
D3 LD 15

(EXTENDED REG AND MODE)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D4	D	CS	M82Ø3-Ø-1	T
SCALE —	SHEET 6 OF 12	DIST.		

DEC FORM NO. DRD 124

(BI DIRECTIONAL TRI-STATE BUS)

USYRT TRANSMITTER ENABLE

USYRT DATA IN BUFFER

USYRT DATA OUT BUFFER

RECEIVER SILO DATA

RECEIVER SILO STATUS

CLEAR TO SEND

SHIFT IN

SHIFT OUT

OVERRUN

-12V SILO

USYRT AND REC SILO

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: MULTI DROP LINE UNIT D5	SIZE: D	CODE: CS	NUMBER: MS202-0-1	REV: T
SCALE:	SHEET 7 OF 15	DIST. MK		

FUNCTION LATCH

74S174 E78
D4 WAX H
D4 RDAX H
D4 AX 2 H
D4 AX 1 H
D7 MSTR CLK
74LSØØ E7Ø
+3V$_D$
D3 BALU 2 H
74LS74 E63
D3 LD 14
R26 22Ø
C3 1ØØØPF
D6 LAX L
D6 EN AX L
D6 CLR L
74S11 E49
74LS74 E63
DG READY

PRIORITY CONTROL

23Ø36F1 E76
DG BYTE H
74S1Ø E48
74LS1Ø8 E48
74LSØ8 E6Ø
74LS1Ø E48
74LS24Ø E5Ø (1)
DG W/R L

74S138 E99
D0 DG EN MODE L
D1 DG LAX L
D2 DG INIT L
D3 DG TX BUF L
D4
D5 DG EN AX L
D6
D7
+3V$_G$ EN
SEL C
SEL B
SEL A

SEQUENCER PRIORITY
DONE ON CLEAR
1. INIT
2. D/I C
3. LD MODE
4. READ DATA
5. LOAD EDM
6. LOAD XMIT DATA
7. READ EXTENDED REGISTER
8. WRITE EXTENDED REGISTER

TIMING CONTROL
23Ø4231 E57
LOAD CLOCKS
74LS273 E58
DG CLTXENA H
DI BCLEAR H
74LS32 E2Ø
DG LDDVR
DG DPNE H
DG LD SILO
DG LD AX
74LS24Ø
R145 120

SEQUENCER COUNTER
E56
74S163
DI B CLEAR L
R143 1K
+5V
E5Ø (1)
74LS24Ø
74LSØ2 E73
DG CLR H
74LSØ8 E32

74S574
E47
CLEAR
DG CLR L
DG CLR H
DI BCLEAR L

FUNCTION LATCH
74S174 E77 FUNC
D3 LOAD H
D5 READ H
D3 EOM H
D4 LD MODE H
CLK CLR

23Ø37F1 E75
DG W/R H
DG A2 H
DG A1 H
DG AØ H

D7 MSTR CLK
74S11 E49

D5 OUT ACT L
74LSØ8 E72
74LS32 E51
7438 E43
D4 IC H
D3 OC H
E61 74S74
DG OCP H
DG OCP L
OUT CLEAR
DG ICP H
DG ICP L
IN CLEAR
+3V$_D$

74S 24Ø E74 (1)
74S 24Ø E75 (1)
+5V
R135 1K
R136 1K
R137 1K
R138 1K
+3V$_F$
+3V$_G$
+3V$_H$
+3V$_I$

R149 120

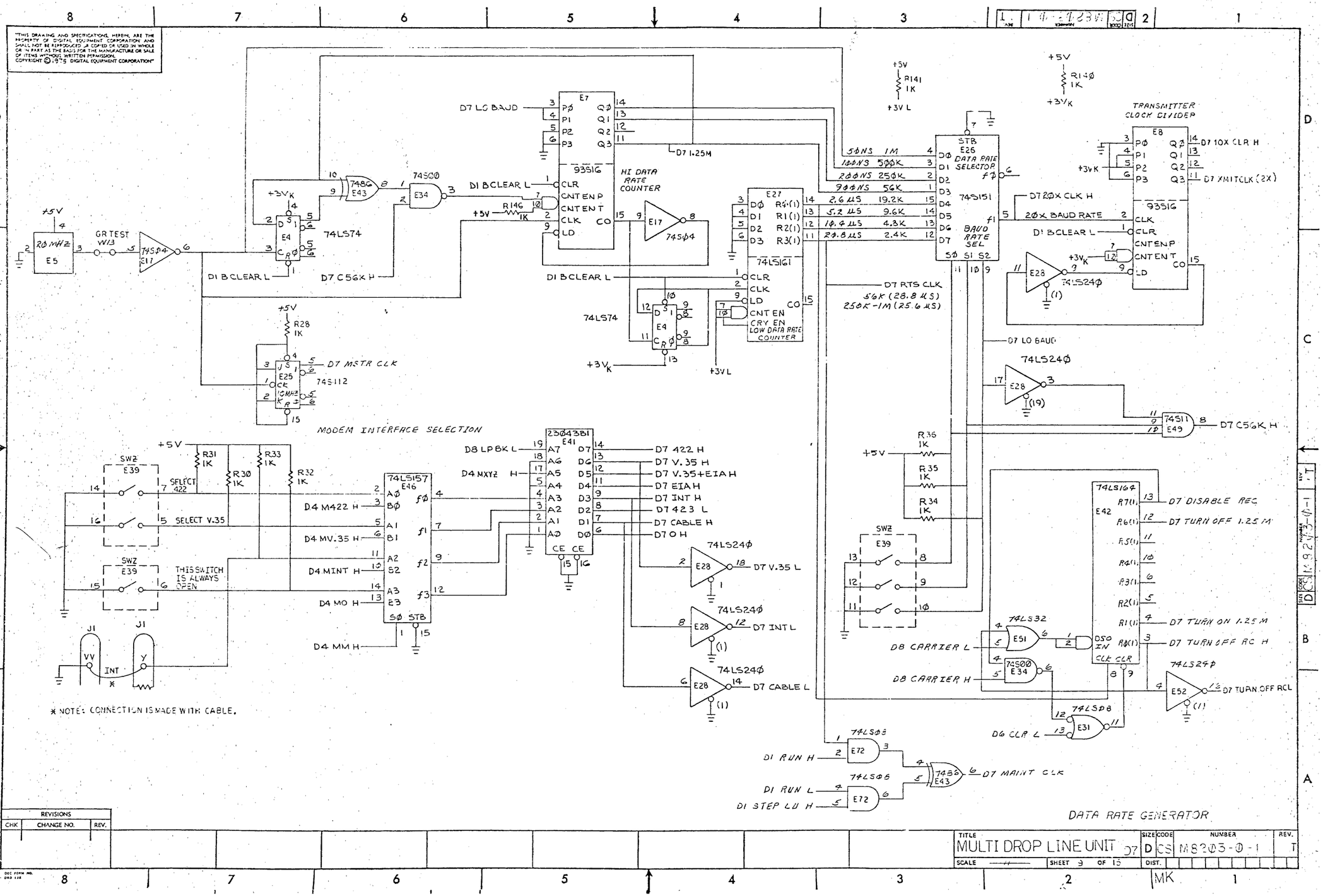
REVISIONS		
CHK	CHANGE NO.	REV.

(SEQUENCER)

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT DG	D	CS	M8203-0-1	T
SCALE	SHEET 8 OF 15		DIST.	

DEC FORM NO. 6RD 128

MK



DATA RATE GENERATOR

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D7	D	CS	MS2Ø3-Ø-1	T
SCALE —H— SHEET 9 OF 15	DIST.			

DEC FORM NO. DRD 158

D7 TURN OFF 1.25 M
D7 TURN ON 1.25 M
R37 22Ø
C4 56ØPF
74LS24Ø E6Ø
74LS86 E43
D8 CARRIER L
D7 TURN OFF RC L
D7 TURN OFF RC H
74LS112 E25
D9 HDX H
D5 CTS L
74LS1Ø8 E6Ø
74LS1Ø7 E7Ø
+5V
R147 1K
W17
D8 HDX RD
D8 TX HDX
74LS24Ø E52
74LS1Ø3 E33
D7 1.25 M
74LS51 E44
74LS24Ø E52
D8 RC CLK
D7 TURN OFF RC H
74LS32 E51
D8 RC DATA
D8 CARRIER H
74LS24Ø E52
D8 CARRIER L
D8 TX CLK
D8 CS H
D8 TEST MODE H
D8 RING H
D8 MOD RDY H
D4 ILRR H
D5 TX DATA H
74LS32 E33
D7 MAINTCLK
74LS24Ø E52
MAINT
74LS244 E65
D5 RTS H
+3V_E
D4 LU LP H
D1 LU LOOP H
74LSØ2 E73
D8 LPBK L
EIA/V.35 RECEIVER
J1 T
J2 T PP E
R39 22Ø
W1
R56 4.7K
R45 7.5K -24/1ØV
C6 .ØØ22μf
R46 7.5K -24/1ØV
R47 7.5K -24/1ØV
C7 .ØØ22μf
26LS32 E38
CS
TM
RING
J1 Z
J2 Z
R4Ø 22Ø
W2
DATA MODE
J2 U
W8
R48 7.5K -24/1ØV
R57 4.7K
J2 B
(REC COMMON)
J1 VV
J2 UU VV
+5V
R134 1K
+3V_E
INTEGRAL
74LS244 E64
D1Ø RI DATA
D1Ø RI CLK
D1Ø I CARRIER
D11 IT CLK
D11 ICS
+3V_E
D7 INT L
D7 V.35 + EIA H
+3V_H
26LS32 E38
EIA RECEIVER
J2 S J SS R N TT
-24/1ØV
R49 7.5K
W3
R41 22Ø
R58 4.7K
R59 4.7K
W4
R42 22Ø
R5Ø 7.5K -24/1ØV
R43 22Ø
W5
R51 7.5K -24/1ØV
R6Ø 4.7K
R44 22Ø
R52 7.5K -24/1ØV
W6
R61 4.7K
W11 +5V
R CLK
REC RDY
T CLK
D7 EIA H
+3V_F
26LS32 E55
R DATA
V.35 RECEIVER
J1 S SS H BB CC TT
D7 V.35 L
+3V_I
3ØØ3 E15
R62 51
R63 51
R7Ø 12Ø
R DATA
3ØØ3 E14
R64 51
R65 51
R71 12Ø
R CLK
R68 3K
R69 3K
3ØØ3 E15
REC RDY
3ØØ3 E14
R66 51
R67 51
R72 12Ø
T CLK
-5V
R151 -15V 68Ø 1/2W
D22 1N4370 2.4V
R73 1ØØ 1/2W
+5V
R92 1K
+7/1ØV
D21 D664
EIA RECEIVER
J2 M MM Y CC
-24/1ØV
R53 7.5K
C8 .ØØ22μf
D8 STBY I H
STBY I
+7/1ØV
R54 7.5K
C9 .ØØ22μf
D8 SIG Q H
SIG Q
R55 7.5K
W7
C1Ø .ØØ22μf
D8 SIG R H
SIG R
26LS32 E54
+3V_F

(MODEM INTERFACE RECEIVERS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D8	D	CS	M8205-0-1	T
SCALE	SHEET 1Ø OF 15	DIST.		

DWG FSKM NO. DMD 838

EIA TRANSMITTERS

D7 422 H — 26LS30 E37 (2, 16, 15, 4)

+3V H

DI RUN H — 26LS30 E37 (6, 12, 11, (4)) — C12 56Pf — WI2 — TER IN SER

26LS30 E53 (2, 16, 15, (4)) — C13 56Pf — SEL FREQ

26LS30 E53 (3, 13, 14, 4) — C14 56Pf — POLL

26LS30 E37 (7, 9, 10, (4)) — C15 56Pf — MAINT 1

26LS30 E37 (6, 12, 11, (4)) — C16 56Pf — MAINT 2

26LS30 E53 (7, 9, 10, (4)) — C17 56Pf — SEL STBY

+3V H — +3V F

J2: P, C, RR, HH, K, FF, CC, A

O REGISTER 13

74LS273 E66 (CLK CLR)

D3 BALU 7 H — D8 — R8 — D9 DTR H

D3 BALU 6 H — D7 — R7

D3 BALU 5 H — D6 — R6

D3 BALU 4 H — D5 — R5 — D9 HDX H

D3 BALU 3 H — D4 — R4

D3 BALU 2 H — D3 — R3

D3 BALU 1 H — D2 — R2

D3 BALU Ø H — D1 — R1

D3 LD 13

D13 DG64 — R148 1K — +5V — C109 10µf

R75 150Ω C82 1W — −15V — −6V

C30 10µf — D16 IN753A — C22 .047µf — C23 .22µf — C24 .22µf — C25 .22µf

R76 150Ω C01 1W — +15V — +6V

C31 10µf — D17 IN753A — C26 .047µf — C27 .22µf — C28 .22µf — C29 .22µf

D5 TX DATA H — 74S240 E52 (13, 7, (19)) — D9 TX DATA L

V.35 TRANSMITTER

D7 V.35 H — D11 NULL CLK

75112 E13 (5, 8, 9, 4, 10, 13, 12, 11, 1, 2, 3)

-5V, +5V

R77 374 1% SEND DATA

R78 374 1% — R81 35.7 1% — R82 35.7 1% — R85 560

R79 374 1% NULL CLK

R80 374 1% — R83 35.7 1% — R84 35.7 1% — R86 560

J1: AA, KK, PP, EE

EIA TRANSMITTERS

D7 422 H — 26LS31 E23 (4, 12) — +3V I

26LS31 E23 (1, 2, 3) — Q8 VN35AK — SEND DATA — J2 H, K

26LS31 E23 (15, 14, 13) — Q9 VN35AK — NULL CLK — J2 L, EE

26LS31 E23 (7, 6, 5) — Q10 VN35AK — RTS — J2 V, AA

26LS31 E23 (9, 10, 11) — Q11 VN35AK — WI10 — TER RDY — J2 DD, W

C18 56Pf — 26LS29 E21 (2, 16, 15, 4) — SEND DATA — J2 F

C19 56Pf — 26LS29 E24 (3, 13, 14, (4)) — W9 — R87 4.7K — NULL CLK — J2 L

C20 56Pf — 26LS29 E24 (6, 12, 11, (4)) — RTS — J2 V

C21 56Pf — 26LS29 E24 (7, 9, 10, (4)) — TER RDY — J2 DD

D5 RTS H

D7 423 L

J1: V, DD, A, B, C

NOTE:
1. 26LS30 AND 26LS29 USE ±5V
   26LS29 AND 26LS30
   +5V PIN 1
   −5V PIN 8
   GND PIN 5
2. PINS F, L, V, AND DD OF J2 ARE SHOWN TWICE ON THIS PAGE

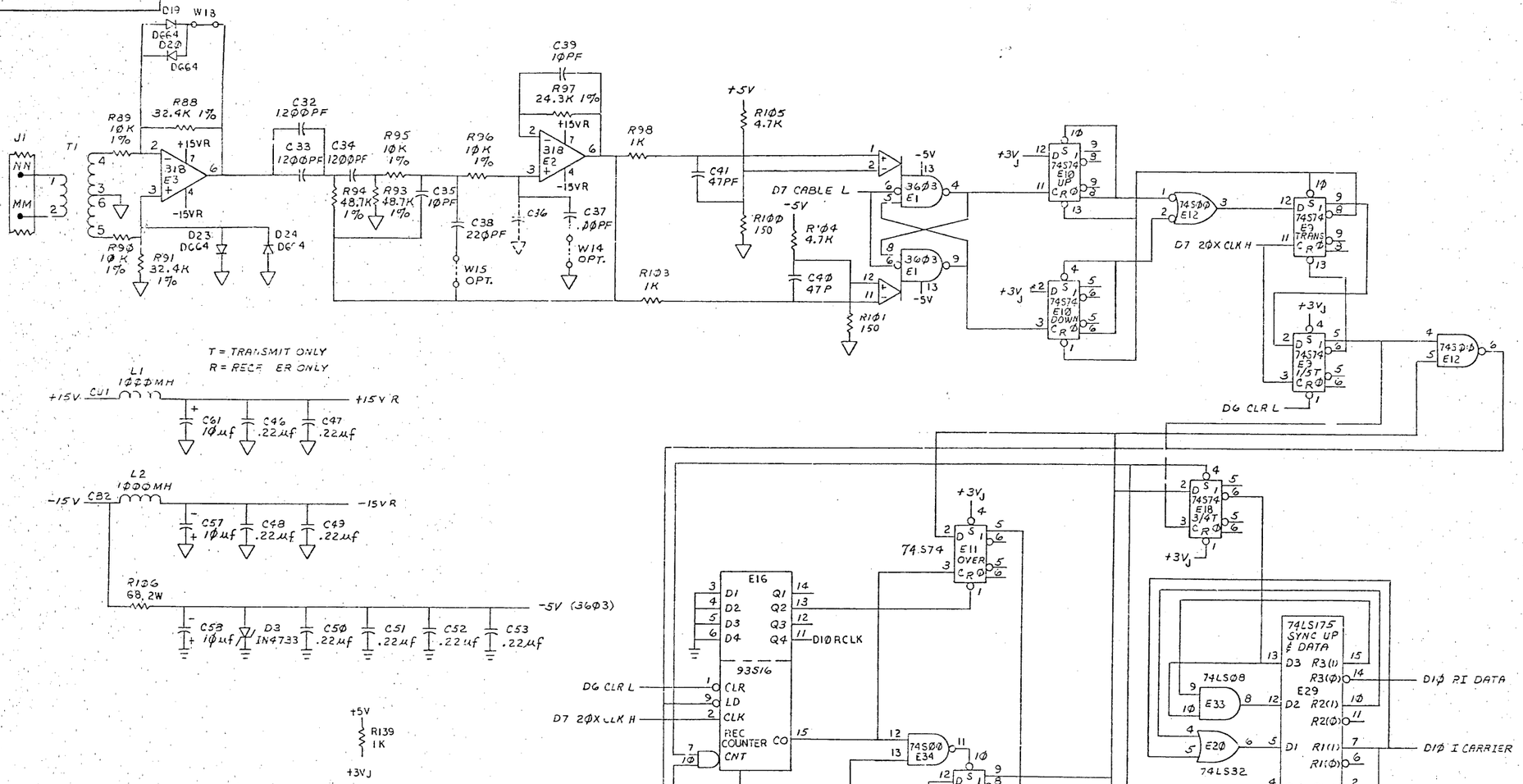
26LS30 = 3&91
26LS29 = 3&92

REVISIONS		
CHK	CHANGE NO.	REV.

(MODEM INTERFACE DRIVERS)

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT 99	D	CS	M8203-0-1	T
SCALE	SHEET 11 OF 15	DIST.		

M8203-0-1 REV T STATE CODE DCS

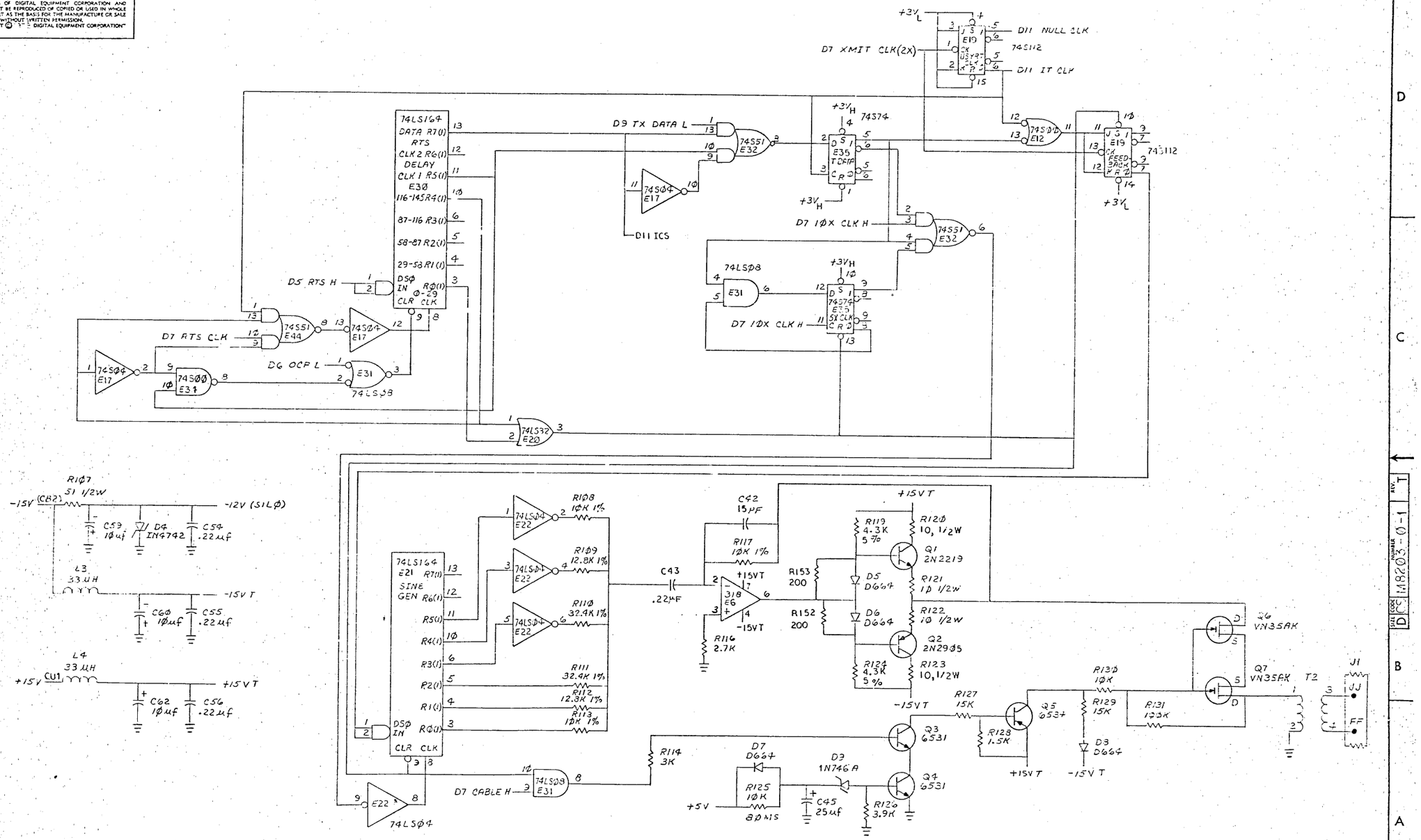


(INTEGRAL MODEM RECEIVER)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT DIØ	D	CS	M8203-Ø-1	T
SCALE —/— SHEET 12 OF 15	DIST.			

MK



REVISIONS		
CHK	CHANGE NO.	REV.

INTEGRAL MODEM TRANSMITTER

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT DII	D	CS	M8203-0-1	T
SCALE	SHEET 13 OF 15	DIST.		

DEC FORM NO. DRD 128

MK

D1	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
BALU Ø L	1		1								
BALU 1 L	1		1								
BALU 2 L	1		1								
BALU 3 L	1		1								
BALU 4 L	1		1								
BALU 5 L	1		1								
BALU 6 L	1		1								
BALU 7 L	1		1								
B CLEAR L	1					2	5				
BTØ H	7	3									
BTØ L	2										
CROM Ø L	1		1								
CROM 1 L	1		1								
CROM 2 L	1		1								
CROM 3 L	1		1								
CROM 4 L	2										
CROM 5 L	2										
CROM 6 L	2										
CROM 7 L	2										
CLEAR L	3										
ENI 11 L	1	1									
ENI 15 L	1	2									
ENI 16 L	1	2									
IBR H	1				1						
IBR L	3										
LU LOOP H	1				1		1				
LUIBUS Ø H	7	5									
LUIBUS 1 H	7	5									
LUIBUS 2 H	7	5									
LUIBUS 3 H	7	5									
LUIBUS 4 H	7	5									
LUIBUS 5 H	7	5									
LUIBUS 6 H	7	5									
LUIBUS 7 H	7	5									
OBW L	1		2								
OUT * L	1		1								
RUN H	2					1		1			
RUN L	1				1	1					
SEL Ø L	2				1						
STEP LU H	1				1		1				
+3VA	2	4									
B CLEAR H	2					1					

D2	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
LDX L		1		1							
SEL 15 L	1	1									
D3											
BALU Ø H			3	5					1		
BALU 1 H			3	5					1		
BALU 2 H			3	5		1			1		
BALU 3 H			3	5					1		
BALU 4 H			2	5					1		
BALU 5 H			2	6					1		
BALU 6 H			2	6					1		
BALU 7 H			3	6					1		
CTX ENA H			3		1						
DIP Ø H			1	1	1						
DIP 1 H			1	1	1						
DIP 2 H			1	1	1						
DIP 3 H			1	1	1						
DIP 4 H			1	1	1						
DIP 5 H			1	1	1						
DIP 6 H			1	1	1						
DIP 7 H			1	1	1						
DIP 8 H			1	2	1						
DIP 9 H			1	2	1						
DIP 10 H			1	2	1						
DIP 11 H			1	2	1						
DIP 12 H			1	2	1						
DIP 13 H			1	2	1						
DIP 14 H			1	2	1						
DIP 15 H			1	2	1						
EOM H			2			1					
IN RDY H	1		1								
KRTS H			3		1						
LD 12			1	1							
LD 13			1						1		
LD 14			1	1		1					
LD 15		1	1	1							
LD 16			1	1							
LD 17			1	2							
LOAD H			2			1					
OC H		1	1		2	2					
OCOR H	1		4		2						
OUT RDY H		1	1								
RTS LOCK H			1		1						
SOM H			3								
TX ENA L			1		1						

D4	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
AX 1 H	1	1		1		1					
AX 2 H	1	1		1		1					
B POLL	1			1							
DDCMP H	1			2							
DISSI H	1			2							
DISSI L			2	1	1						
EN AX H	1	1		1							
EN CRC 32 H	1			1	2						
IC H	1			1		2					
IERR H				1			1				
LD MODE H				1		1					
LU LP H	1			1	1		1				
M422 H				1			1				
MINT H				1			1				
M 1 H	1			1			1				
M 0 H				1			1				
MV .35 H				1			1				
MXYZ H				1			1				
RDAX H	1			1		1					
WAX H	1			1		1					
TX UENA H	1		1	2							
TX UENA L			1	1							
D5											
ABORT H	1				1						
BCC H	1				1						
CRC 32 BCC	1				1						
DOP Ø H		1		2							
DOP 1 H		1		2							
DOP 2 H		1		2							
DOP 3 H		1		2							
DOP 4 H		1		2							
DOP 5 H		1		2							
DOP 6 H		1		2							
DOP 7 H		1		2							
DOP 8 H		1		1							
DOP 9 H		1		2							
DOP 10 H		1		2							
DOP 11 H		1		2							
DOP 12 H		1		1							
DOP 13 H		1		1							
DOP 14 H		1		1							
DOP 15 H		1		2							
CTS L				2			1				
END BLK H	1			1							
ICIR H	1			3							
+3VD			3	3	2						
+3VB			1	2							

D5 CONT.	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
IN ACT H	1				1						
ORDY H			1		2						
OUTACT H		1			3						
OUTACT L			1		3	1					
OVERRUN	1				1						
READ H					1	1					
RTS H	2				2			2	2	1	2
SILO Ø H	1				1						
SILO 1 H	1				1						
SILO 2 H	1				1						
SILO 3 H	1				1						
SILO 4 H	1				1						
SILO 5 H	1				1						
SILO 6 H	1				1						
SILO 7 H	1				1						
SIN RDY H			1		1						
TX DATA H	2				1			1	2		
TX BMT H			2		2						
UNDERRUN H		1			1						
D6 +3VC					2						
A0 H					1	1					
A1 H					1	1					
A2 H					1	1					
BYTE H					1	1					
CLR H					1	3					
CLR L				4		5	1			5	
DPNE H					1	1					
ENAX L				2		2					
EN MODE L				2		1					
ICP H					1	2					
ICP L				1	7	1					
INIT L				3		1					
LAX L						2					
LDAX		2				1					
LDOVR					1	1					
LD SILO					1	1					
OCP H					1	1					
OCP L			6		3	1					1
READY	1					1					
TX BUF L			5			1					
W/R H					1	4					
W/R L					4	1					
CLTX ENA H			1		1	1					
+3VH						1		1	1		3
+3VI						1		4	5		
+3VG						6					
+3VF						1		2	1		

REVISIONS			
CHK	CHANGE NO.	REV.	

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT	D	CS	M8203-0-1	T
SCALE ——	SHEET 14 OF 15	DIST.		

D7	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
1.25M					1		4	1			
422 H	1						1		2		
423 L							1		1		
CABLE H							2				1
CABLE L							1			1	
CSGK H							2				
DISABLE REC							2				
EIA H	1						1	1			
+3VK							7				
INT H	1						2				
INT L					1		1	2			
LO BAUD							5				
MAINT CLK	1						1	2			
MSTR CLK						4	1				
							4				
2 3X CLK H							2			3	1
RTS CLK							3				1
TURN OFF 1.25M							1	1			
TURN OFF RC L							1	1			
TURN OFF RC H							3	1			
TURN ON 1.25M							1	1			
V.35 H	1						2		1		
V.35 L							1	2			
V.35 + EIA H							1	1			
XMIT CLK							1				2
0 H	1						1				
+3VL							4				5
10X CLK H							1				2
D8											
CARRIER H	2						1	6			
CARRIER L							1	2			
CS H	1				1			3			
MDX RD			1					1			
LP BE L							1	3			
MOD RDY H	1				1			3			
RC CLK					3			1			
RC DATA	1				3			1			
RING H	1							3			
SIG Q H	2							1			
SIG R H	1							1			
STBY I H	1							1			
TEST MODE H	1							3			
TX CLK					3			4			
+3VE								7			
+7/10V								4			
-24/10V								11			

D9	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
DTR H	1								3		
MDX H	1							1	1	1	
TX DATA L									3		1
D10											
I CARRIER								1		3	
+3VJ										7	
RT CLK								1		1	
RI DATA								1		1	
TX MDX								1		2	
R CLK										2	
D11											
ICS								1			3
ITCLK								1			4
NULL CLK									3		1

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT	D	CS	M8203-0-1	T
SCALE	SHEET 15 OF 15		DIST.	

M8203-0-1 REV T
SIZE D CODE CS

SIZE	CODE	NUMBER	REV
B	DD	H3254Ø	B

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS
		H3254-00		A B
D-DD-H3254-Ø	1		M82Ø3 TEST CONNECTOR J1	* A B
D-UA-H3254-Ø-Ø	1		M82Ø3 TEST CONNECTOR J1	* A B
D-PL-H3254-Ø-Ø	1		M82Ø3 TEST CONNECTOR J1	* A B
D-MD-5013900-0-0	2		DRILL AND ETCH DRAWING	* A A
		5013900	ETCH BOARD	A B B
K-PC-H3254-Ø-DBG			P C DESIGN DATA BASE	REF B B
D-EC-5013900-0-0	1		ETCH CUT DRAWING	A A
D-CS-H3254-0-1	1		M8203 TEST CONNECTOR J1	A A

NOTES:

REVISION HISTORY				
REV.	*	A	B	
ECO NO.	INIT	MKØØ1	MKØØ2	
DATE	3/79	9/80	5/82	

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USED ON OPTION/MODEL	
DMP11-AD	
DMR11	

DRN.		DATE	27-MAR-81
CHKD		DATE	27-MAR-81
DES. ENG.	R HARRINGTON	DATE	3/27/81
RESP. ENG.	P COLLETTE	DATE	3/27/81
MFG. ENG.	BILL BROOK	DATE	3/27/81

TITLE: M82Ø3 TEST CONNECTOR J1

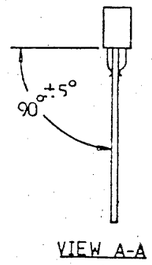
DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
B	DD	H3254-Ø	B

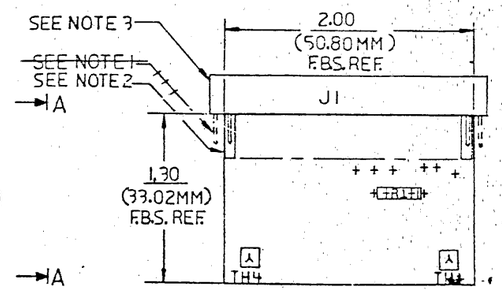
SHEET 1 OF 1

MK

COMPONENT SIDE VIEW



VIEW A-A



2AC20

NOTES:

1. ~~NETWORK CONNECTOR TO REMOVE FOUR (4) PINS - TWO (2) AT EACH END OF THE CONNECTOR PRIOR TO ASSEMBLY TO THE BOARD.~~
2. OUTER FINGERS MAY BE CUT IN SHEARING PROCESS.

STEP E	+ Y AXIS 1.3	STEP 7	TIMES
REPEAT	+ X AXIS 2.0	STEP 7	TIMES

CHK	CHANGE NO	REV
	ORIGINATED	
	H3254-MK1	A
WD	H3254-MK2	B
	T. Brannen	4/1/81
	F. BACKES	
	D. L.	4/15/81

NOTES CONT:

3. SOLDER J1 TO PC BOARD.

ETCH REV. B-P2

SIGNATURES	DATE
DRN Roy Brown	3/31/81
CHK'D. J. Backes	4/15/81
MECH. ENG. P. COLLETTE	3/31/81
PROJ. ENG. P. COLLETTE	3/31/81
PROD. BILL BROOK BB	4/15/81

digital

TITLE M8203
TEST CONNECTOR J1

SCALE 2/1
SHT. 1 OF 1

SIZE	CODE	NUMBER	REV
D	UA	H3254-0-0	B

NEXT HIGHER ASSY. B-DD-H3254-0

MK 1 WO# 301566