FIELD MAINTENANCE PRINT SET

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6500S
FIELD MAINTENANCE PRINT SET

DIGITAL EQUIPMENT CORPORATION

PRINT SET PART NUMBER MP-02538-01 REV C1

FILE NAME: TC-6500S-0-DBUC

REV. C

NUMBER 6500S-0-DBU

SIZE CODE B TC

REVISION HISTORY			
REV.	A	B	C
ECO NUMBER	INITIAL	6500S-CTS002	6500S-CTS003
DATE		03-MAY-88	30-SEP-88

		DATE	
DRN.	JEFF CORMIER	17-APR-87	
CHK'D	D. HEALY	24-AUG-87	
DES. ENG.	G. LIDINGTON	24-AUG-97	
RESP. ENG.	G. LIDINGTON	24-AUG-87	
FIELD SERVICE	W. ANDREWS	24-AUG-87	
TOP DOC.	B-DD-6500S-0-DBU		

digital

TITLE

6500S PEDESTAL BA213

SIZE	CODE	NUMBER	REV.
B	TC	6500S-0-DBU	C

SHEET 1 OF 1

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS												
		6500S-A2	BA213 BOX, M7620-AA, 2 PS, 120V	A1	A1	A1	A1									
		6500S-A3	BA213 BOX, M7620-AA, 2 PS, 240V	A1	A1	A1	A1									
		6500S-B2	BA213 BOX, M7602-AA, 2 PS,120V W/SKINS	A1	A1	A1	A1									
		6500S-B3	BA213 BOX, M7620-AA, 2 PS,240V W/SKINS	A1	A1	A1	A1									
		6500S-C2	6500S-A2 & RACK MOUNT	A1	A1	A1	A1									
		6500S-C3	6500S-A3 & RACK MOUNT	A1	A1	A1	A1									
		6500S-D2	6500S-A2 & WALL MOUNT	A1	A1	A1	A1									
		6500S-D3	6500S-A3 & WALL MOUNT	A1	A1	A1	A1									
		6500S-E2	BA213 BOX, M7620-BA, 2 PS, 120V	A1	A1	A1	A1									
		6500S-E3	BA213 BOX, M7620-BA, 2 PS, 240V	A1	A1	A1	A1									
		6500S-F2	BA213 BOX, M7620-BA, 2 PS,120V W/SKINS	A1	A1	A1	A1									
		6500S-F3	BA213 BOX, M7620-BA, 2 PS,240V W/SKINS	A1	A1	A1	A1									
		6500S-H2	6500S-E2 & RACK MOUNT	A1	A1	A1	A1									
		6500S-H3	6500S-E3 & RACK MOUNT	A1	A1	A1	A1									
		6500S-J2	6500S-E2 & WALL MOUNT	A1	A1	A1	A1									
		6500S-J3	6500S-E3 & WALL MOUNT	A1	A1	A1	A1									
		6500S-K2	6500S-A2 W/8 MEG MEM (SBB) 120V	-	-	A1	A1									
		6500S-K3	6500S-A3 W/8 MEG MEM (SBB) 240V	-	-	A1	A1									
E-UA-6500S-0-DBU	2		6500S PEDESTAL BA213 (UA)	A	B	C	C									
K-PL-6500S-0-DBP	4		6500S PEDESTAL BA213 (PL)	A	B	C	C									
B-TC-6500S-0-DBU	1		6500S PEDESTAL BA213 (TC)	A	A	B	C									

NOTES:

REVISION HISTORY	REV.	A	B	C	C								
	ECO NO.	INITIAL	6500S-CTS001	6500S-CTS002	6500S-CTS003								
	DATE		09-FEB-88	03-MAY-88	18-OCT-88								

FILE NAME: DD-6500S-0-DBUD

DRB-126C
EN-01242-16-REVA(1986)

digital

DRN.	JEFF CORMIER	DATE 17-APR-87
CHK'D	D. HEALY	DATE 24-AUG-87
DES. ENG.	G. LIDINGTON	DATE 24-AUG-87
RESP. ENG.	G. LIDINGTON	DATE 24-AUG-87
MFG. ENG.	M. MAI	DATE 24-AUG-87

TITLE: 6500S PEDESTAL BA213

SIZE B CODE DD NUMBER 6500S-0-DBU REV. D

SHEET 1 OF 9

ML01

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																						
		MP-02538-01	PRINT SET, 6500S (MP)	REF	REF	REF	REF																			
B-GL-BA213-0-DBU	2		UL REGULATORY INFO		REF	REF	REF																			

NOTES:

REVISION HISTORY	REV.																	
	ECO NO.																	
	DATE																	

TITLE

6500S PEDESTAL BA213

DOCUMENT NUMBER			
SIZE B	CODE DD	NUMBER 6500S-0-DBU	REV. D
		SHEET 2 OF 9	

digital

CPB 126C
EN-01242-18-REVA13881

ML01

① 6500S
PEDESTAL BA213

E-UA-6500S-0-DBU
K-PL-6500S-0-DBP

SEE
SHEET
4

② BA213
CHASSIS ASSEMBLY

E-AD-7024227-0-DBU
K-PL-7024227-0-DBP

③ BA213 FRAME ASSY

E-AD-7024255-0-DBU
K-PL-7024255-0-DBP

⑨ BA213
BACKPLANE ASSY

D-AD-7023712-0-DBU
K-PL-7023712-0-DBP

⑪ ASSEMBLY,
FILTER INPUT

D-AD-7023769-0-DBU
K-PL-7023769-0-DBP

⑯ FAN ASSY

D-AD-7023998-0-DBU
K-PL-7023998-0-DBU

A

④ WELDMENT, TOP

D-1A-7023974-0-DBU
K-PL-7023974-0-DBP

⑩ OBUS
BACKPLANE

K-DD-5416791-0-0

⑫ EMI DUAL PS
FILTER BOARD

K-DD-5417079-0-0

⑤ WELDMENT PAN
BOTTOM

C-1A-7024047-0-DBU
K-PL-7024047-0-DBP

⑬ WIRING ASSY
FILTER

D-AD-7024001-0-DBU
K-PL-7024001-0-DBP

A

⑰ A.C. / OFF
SWITCH ASSY

D-AD-7023999-0-DBU
K-PL-7023999-0-DBP

⑲ S-BOX P.S.

B-DD-H7868-0-DBU

⑥ SHIPPING BRACKET
ASSY

D-1A-7024054-0-DBU
K-PL-7024054-0-DBP

⑭ JUMPER
A.C. INPUT

B-AD-7024004-0-DBU
K-PL-7024004-0-DBP

⑱ CHANNEL
A.C. WELDMENT

C-1A-7024234-0-DBU
K-PL-7024234-0-DBP

⑦ BOTTOM WELDMENT,
REAR

D-1A-7023972-0-DBU
K-PL-7023972-0-DBP

⑮ JUMPER A.C.
INPUT GROUND

B-AD-7024007-0-DBU
K-PL-7024007-0-DBP

⑧ WELDMENT,
BOTTOM FRONT

D-1A-7023973-0-DBU
K-PL-7023973-0-DBP

TITLE: 6500S PEDESTAL
BA213

SHEET 3 OF 9

SIZE B CODE DD NUMBER 6500S-0-DBU REV. D

ML01

(20)

(21)

(23)

(24)

H3600 BULKHEAD
MODULE ASSY

D-UA-7023988-0-DBU
K-PL-7023988-0-DBP

BULKHEAD FRONT
DUAL ASSY

D-AD-7023982-0-DBU
K-PL-7023982-0-DBP

B12 ACCESSORIES
KIT

K-PL-7024316-0-DBP

BASE ASSY

D-AD-7024046-0-DBU
K-PL-7024046-0-DBP

(21)

BULKHEAD FRONT
DUAL ASSY

D-AD-7023982-0-DBU
K-PL-7023982-0-DBP

(22)

H3600 CONSOLE
SLU MODULE

K-DD-5417016-0-0

TITLE: 6500S PEDESTAL BA213	SHEET 4 OF 9	SIZE B	CODE DD	NUMBER 6500S-0-DBU	REV. D

ML01

CONT
SHEET
4

(25) SHELL ENCLOSURE
ASSY

E - AD - 7024037 - 0 - DBU
K - PL - 7024037 - 0 - DBP

(26) PANEL ASSY,
FRONT

E - AD - 7024041 - 0 - DBU
K - PL - 7024041 - 0 - DBP

(27) KA650

B - DD - M7620 - 0 - 0

(28) PKG CPU BA223

A - PA - 3700906 - 0 - 0
K - PL - 3700906 - 0 - DBP

(29) BA213
WALLMOUNT KIT

K - PL - BA213 - W - DBP

(B)

(30) WALLMOUNT
HARDWARE

K - PL - 7024263 - 0 - DBP

(31) PKG BRACKET
BA213 WALL MT KIT

A - PA - 3700954 - 0 - 0
K - PL - 3700954 - 0 - DBP

(B)

(32) BA213
RACKMOUNT KIT

K - PL - BA213 - R - DBP

(33) BULKHEAD
FRONT ASSY

D - AD - 7023981 - 0 - DBU
K - PL - 7023981 - 0 - DBP

(34) PANEL
GAP FILLER ASSY

C - AD - 7024071 - 0 - DBU
K - PL - 7024071 - 0 - DBP

(35) 8 MB ECC MOS MEMORY

B - DD - MS650 - AA

(30) RACKMOUNT
HARDWARE

K - PL - 7024263 - 0 - DBP

(31) PKG BRACKET
BA213 RACK MT KIT

A - PA - 3700954 - 0 - 0
K - PL - 3700954 - 0 - DBP

| TITLE: 6500S PEDESTAL BA213 | SHEET 5 OF 9 | SIZE B | CODE DD | NUMBER 6500S - 0 - DBU | REV. D |

ML01

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP-02538-01	6500S PEDESTAL BA213 (MP)	-		K-PL-7433575-0-DBP	PAN, BOTTOM (PL)	M
	B-TC-6500S-0-DBU	6500S PEDESTAL BA213 (TC)	-		D-MD-7433973-0-DBU	SUPPORT, CENTER	M
	E-UA-6500S-0-DBU	6500S PEDESTAL BA213	E/M		D-1A-7433974-0-DBU	TRAY, A/C FILTER	M
	K-PL-6500S-0-DBP	6500S PEDESTAL BA213 (PL)	E/M		K-PL-7433974-0-DBP	TRAY, A/C FILTER (PL)	M
	A-PS-1700083-0-0	PWR CORD, 120V	E/M		C-MD-7433978-0-DBU	FOAM, BACK	M
	A-PS-1701898-0-0	CABLE ASSY 50 COND	E/M		D-MD-7433977-0-DBU	FOAM, TOP	M
	D-MD-7433854-0-DBU	FASTENER, TURN	M				
	C-MD-7435417-0-DBU	BEZEL, SWITCH	M				
	C-MD-7434425-0-DBU	NAMEPLATE MICROVAX 3500	M				
				4	C-AD-7023974-0-DBU	WELDMENT ASSEMBLY, TOP	M
					K-PL-7023974-0-DBP	WELDMENT ASSEMBLY, TOP (PL)	M
					E-1A-7433575-0-DBU	WIREFORM, TOP	M
					K-PL-7433575-0-DBP	WIREFORM, TOP (PL)	M
2	E-AD-7024227-0-DBU	ASSEMBLY, CHASSIS BA213	E/M	5	C-1A-7024047-0-DBU	PAN, WELDMENT BOTTOM	M
	K-PL-7024227-0-DBP	ASSEMBLY, CHASSIS BA213 (PL)	E/M		K-PL-7024047-0-DBP	PAN, WELDMENT BOTTOM (PL)	M
	D-MD-7433568-0-DBU	PANEL, ACCESS	M		D-MD-7433563-0-DBU	PANEL, BOTTOM	M
	A-PS-1701360-0-0	CABLE ASSY, 18AWG, W/FEMALE FAN CONNECTORS	E/M		D-1A-7433964-0-DBU	BRACKET, PANEL, ACCESS	M
	A-PS-1701417-0-0	CABLE ASSY, ROUND, 10 COND	E/M		K-PL-7433964-0-DBP	BRACKET, PANEL, ACCESS (PL)	M
3	E-AD-7024255-0-DBU	FRAME ASSEMBLY, BA213	M	6	D-1A-7024054-0-DBU	SHIPPING BRACKET ASSEMBLY	M
	K-PL-7024255-0-DBP	FRAME ASSEMBLY, BA213 (PL)	M		K-PL-7024054-0-DBP	SHIPPING BRACKET ASSEMBLY (PL)	M
	D-1A-7433558-0-DBU	PANEL, SIDE, RIGHT	M		B-MD-7433970-0-DBU	BRACKET, BRIDGE, SHIPPING	M
	K-PL-7433558-0-DBP	PANEL, SIDE, RIGHT (PL)	M		B-MD-7433965-0-DBU	CLAMP, WIREFORM	M
	D-1A-7433559-0-DBU	PANEL, SIDE, LEFT	M				
	K-PL-7433559-0-DBP	PANEL, SIDE, LEFT (PL)	M				
	E-1A-7433560-0-DBU	SUPPORT, TOP, CARD CAGE	M				
	K-PL-7433560-0-DBP	SUPPORT, TOP, CARD CAGE (PL)	M				
	E-1A-7433561-0-DBU	SUPPORT, BOTTOM, CARD CAGE	M	7	D-1A-7023972-0-DBU	BOTTOM WELDMENT, REAR	M
	K-PL-7433561-0-DBP	SUPPORT, BOTTOM, CARD CAGE (PL)	M		K-PL-7023972-0-DBP	BOTTOM WELDMENT, REAR (PL)	M
	D-MD-7433562-0-DBU	SUPPORT, CARD CAGE	M		B-MD-7433960-0-DBU	WIREFORM, BRACKET	M
	D-MD-7433564-0-DBU	CARD GUIDE, 6 SLOT	M		B-MD-7433577-0-DBU	BRACKET, SHIPPING, BOTTOM	M
	E-1A-7433569-0-DBU	ENCLOSURE, SIDE	M				
	K-PL-7433569-0-DBP	ENCLOSURE, SIDE (PL)	M				
	E-1A-7433571-0-DBU	COVER, TOP	M				
	K-PL-7433571-0-DBP	COVER, TOP (PL)	M				
	E-1A-7433575-0-DBU	PAN, BOTTOM	M	8	D-1A-7023973-0-DBU	WELDMENT, BOTTOM FRONT	M

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

digital

TITLE: 6500S PEDESTAL BA213
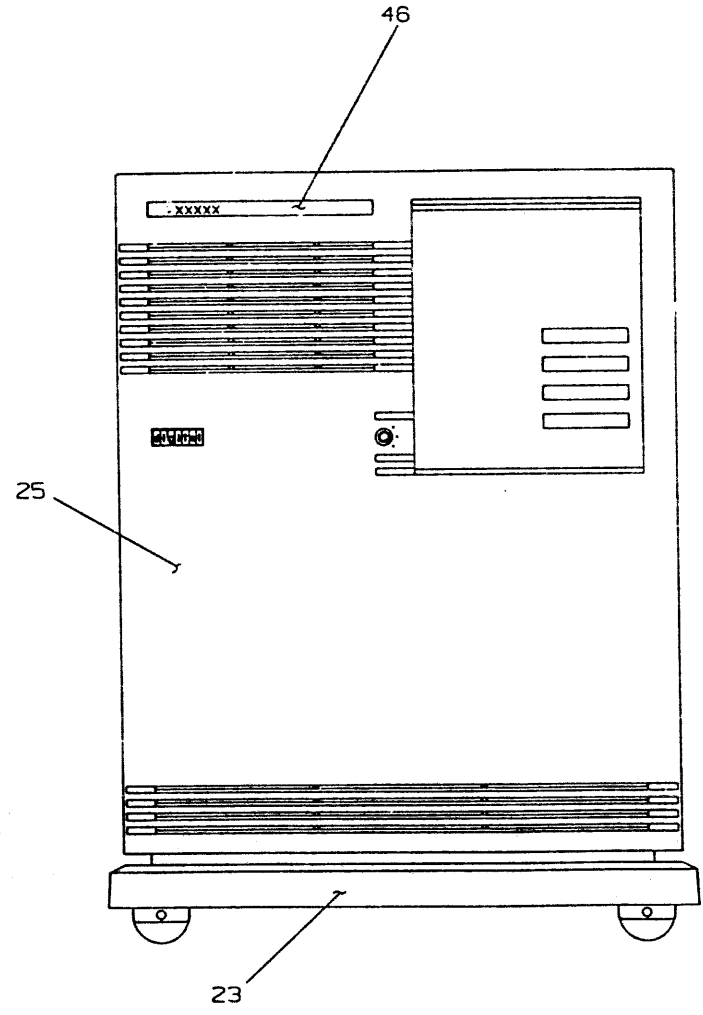
SHEET 6 OF 9 | SIZE B | CODE DD | NUMBER 6500S-0-DBU | REV. D

DRB 108A

ML01

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
	K-PL-7023973-0-DBP	WELDMENT, BOTTOM FRONT (PL)	M				
	C-MD-7433961-0-DBU	WIREFORM, BOTTOM FRONT	M				
	B-MD-7433577-0-DBU	BRACKET, SHIPPING, BOTTOM	M				
				16	D-AD-7023998-0-DBU	FAN ASSEMBLY	M
					K-PL-7023998-0-DBP	FAN ASSEMBLY (PL)	M
9	D-AD-7023712-0-DBU	BA213 BACKPLANE ASSY	E/M		D-MD-7433565-0-DBU	BRACKET, FAN	M
	K-PL-7023712-0-DBP	BA213 BACKPLANE ASSY (PL)	E/M				
	D-IA-7433566-0-DBU	PANEL, BACKPLANE SUPPORT	M				
	K-PL-7433566-0-DBP	PANEL, BACKPLANE SUPPORT (PL)	M				
	C-MD-7433980-0-DBU	INSULATOR, BACKPLANE	M	17	D-AD-7023999-0-DBU	A.C./OFF SWITCH ASSY	E/M
					K-PL-7023999-0-DBP	A.C./OFF SWITCH ASSY (PL)	E/M
					C-MD-7433966-0-DBU	BOX, SWITCH	M
					A-PS-1701469-0-0	WIRE HARNESS ASSY	E/M
10	K-DD-5417179-0-0	QBUS BACKPLANE	E/M				
				18	C-IA-7024234-0-DBU	CHANNEL WELDMENT, A/C	M
					K-PL-7024234-0-DBP	CHANNEL WELDMENT, A/C (PL)	M
11	D-AD-7023769-0-DBU	ASSY, FILTER INPUT	E/M		D-MD-7433975-0-DBU	CHANNEL, A/C RIGHT	M
	K-PL-7023769-0-DBP	ASSY, FILTER INPUT (PL)	E/M		D-IA-7433963-0-DBU	COVER, A/C RIGHT	M
	E-IA-7433962-0-DBU	SUPPORT, AC FILTER	M		K-PL-7433963-0-DBP	COVER, A/C RIGHT (PL)	M
	K-PL-7433962-0-DBP	SUPPORT, AC FILTER (PL)	M				
12	K-DD-5417179-0-0	EMI DUAL PS FILTER BOARD	E/M	19	B-DD-H7868-0-DBU	S-BOX PS	E/M
13	D-IA-7024001-0-DBU	WIRING ASSEMBLY, FILTER	E/M	20	D-UA-7023988-0-DBU	H3600 BULKHEAD MODULE ASSY	E/M
	K-PL-7024001-0-DBP	WIRING ASSEMBLY, FILTER (PL)	E/M		K-PL-7023988-0-DBP	H3600 BULKHEAD MODULE ASSY (PL)	E/M
					C-MD-7433477-0-DBU	HOLDER, BATTERY PACK	M
					A-PS-3626584-0-0	LABEL, BAUD SELECT H3600	M
					A-PS-3623593-0-0	LABEL, BLANK, PAPER, PIN FEED	M
14	D-IA-7024004-0-DBU	JUMPER, A/C INPUT	E/M				
	K-PL-7024004-0-DBP	JUMPER, A/C INPUT (PL)	E/M	21	D-AD-7023982-0-DBU	BULKHEAD FRONT DUAL ASSY	M
					K-PL-7023982-0-DBP	BULKHEAD FRONT DUAL ASSY (PL)	M
					E-IA-7433637-0-DBU	BULKHEAD, FRONT, DUAL	M
					K-PL-7433637-0-DBP	BULKHEAD, FRONT, DUAL	M
15	B-IA-7024007-0-DBU	JUMPER, A/C INPUT, GROUND	E/M				
	K-PL-7024007-0-DBP	JUMPER, A/C INPUT, GROUND (PL)	E/M				

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

DRB 108A

digital

TITLE: 6500S PEDESTAL
BA213

SHEET 7 OF 9

SIZE B   CODE DD   NUMBER 6500S-0-DBU   REV. D

MLO1

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
22	K-CD-5417016-0-0	H3600 CONSOLE SLU MODULE	E/M
23	K-PL-7024316-0-DBP	BIZ ACCESSORIES KIT (PL)	E/M
	A-PS-1700811-0-0	CABLE ASSY, 6 COND, OVAL	E/M
	A-PS-3627923-0-0	LABEL, S-BOX	M
24	D-AD-7024046-0-DBU	BASE ASSEMBLY	M
	K-PL-7024046-0-DBP	BASE ASSEMBLY (PL)	M
	E-IA-7433650-0-DBU	BASE, LOWER	M
	K-PL-7433650-0-DBP	BASE, LOWER (PL)	M
	B-MD-7434068-0-DBU	WHEEL, BASE	M
	B-MD-7434069-0-DBU	SHAFT, WHEEL	M
	C-MD-7423357-0-DBU	KEY, BUTTON	M
	C-MD-7434846-0-DBU	SUPPORT, LABEL	M
25	E-AD-7024037-0-DBU	SHELL ENCLOSURE ASSY	M
	K-PL-7024037-0-DBP	SHELL ENCLOSURE ASSY (PL)	M
	E-MD-7433646-0-DBU	COVER, TOP	M
	E-IA-7433694-0-DBU	PANEL, SIDE, LEFT	M
	K-PL-7433694-0-DBP	PANEL, SIDE, LEFT (PL)	M
	E-IA-7433647-0-DBU	PANEL, SIDE	M
	K-PL-7433647-0-DBP	PANEL, SIDE (PL)	M
	E-IA-7433651-0-DBU	PANEL, REAR	M
	K-PL-7433651-0-DBP	PANEL, REAR (PL)	M
	C-MD-7434126-0-DBU	BRACKET, CORNER	M
	C-MD-7434125-0-DBU	BRACKET, SIDE	M
	C-MD-7423357-0-DBU	KEY BUTTON	M
	B-MD-7434424-0-DBU	SLEEVE	M
26	E-AD-7024041-0-DBU	PANEL ASSY, FRONT	M
	K-PL-7024041-0-DBP	PANEL ASSY, FRONT (PL)	M
	E-MD-7433648-0-DBU	PANEL, FRONT	M
	E-MD-7434067-0-DBU	BEZEL, SWITCH	M
	E-MD-7434061-0-DBU	DOOR	M

ON FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
	C-MD-7434062-0-DBU	CHANNEL (FRONT PANEL)	M
	C-MD-7434066-0-DBU	SPRING, CHANNEL	M
	C-MD-7434123-0-DBU	BRACKET, T	M
	C-MD-7434124-0-DBU	BRACKET, L OM	M
	D-MD-7434065-0-DBU	LATCH, SLIDE	M
	D-MD-7434063-0-DBU	TUMBLER	M
	D-MD-7434064-0-DBU	LATCH, PULL	M
	C-MD-7434363-0-DBU	STOP, DOOR POSITION	M
	C-MD-7434426-0-DBU	LOGO, BA213	M
27	B-CD-M7820-0-0	BA650	E/M
28	A-PA-3700906-0-0	PKG CPU BA223	M
	K-PL-3700906-0-DBP	PKG CPU BA223 (PL)	M
29	K-PL-BA213-W-DBP	BA213 WALLMOUNT KIT (PL)	M
30	K-PL-7024263-0-DBP	BA213 MOUNTING HARDWARE (PL)	M
	D-MD-7434432-0-DBU	BRACKET, WALL MOUNT	M
31	A-PA-3700954-0-0	PKG BRACKET, BA213 MOUNTING KIT	M
	K-PL-3700954-0-DBP	PKG BRACKET, BA213 MOUNTING KIT (PL)	M
32	K-PL-BA213-R-DBP	BA213 RACKMOUNT KIT (PL)	M
33	D-AD-7023981-0-DBU	BULKHEAD FRONT ASSY	M
	K-PL-7023981-0-DBP	BULKHEAD FRONT ASSY (PL)	M
	E-MD-7433635-0-DBU	BULKHEAD FRONT	M

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

digital

TITLE: 6500S PEDESTAL BA213

SHEET 8 OF 9

SIZE B CODE DD NUMBER 6500S-0-DBU REV. D

DRB 108A

ML01

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
34	C-AD-7024071-0-DBU	PANEL, GAP FILLER ASSY	M				
	K-PL-7024071-0-DBP	PANEL, GAP FILLER ASSY (PL)	M				
	D-MD-7434042-0-DBU	PANEL, GAP FILLER	M				
35	B-DD-MS650-AA	8 MB ECC MOS MEMORY	E/M				

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

DRB 108A

ML01

LEGEND

PART NO.	REV	VARIATION
6500S-A2	A1	NO SKINS, 120V
6500S-A3	A1	NO SKINS, 240V
6500S-B2	A1	SKINS, 120V
6500S-B3	A1	SKINS, 240V
6500S-C2	A1	NO SKINS, 120V, RACK MT
6500S-C3	A1	NO SKINS, 240V, RACK MT
6500S-D2	A1	NO SKINS, 120V, WALL MT
6500S-D3	A1	NO SKINS, 240V, WALL MT
6500S-E2	A1	NO SKINS, 120V
6500S-E3	A1	NO SKINS, 240V
6500S-F2	A1	SKINS, 120V
6500S-F3	A1	SKINS, 240V
6500S-H2	A1	NO SKINS, 120V, RACK MT
6500S-H3	A1	NO SKINS, 240V, RACK MT
6500S-J2	A1	NO SKINS, 120V, WALL MT
6500S-J3	A1	NO SKINS, 240V, WALL MT
6500S-K2	A1	6500S-A2 W/8 MEG MEM 1S88 1 120V
6500S-K3	A1	6500S-A3 W/8 MEG MEM 1S88 1 240V

46

. XXXXX

A ⊢

⊢ B

25

3
REF

24

23

A ⊢

⊢ B

SEE SHEET 2

VIEW A-A

PLOT AT .5000

FILE NAME: 6500S-O-DBUC

CAUTION: OFF SHEET PARTS LIST EXISTS
SEE K-PL-6500S-O-DBP
(MLA1838)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD)

							TITLE		
	JEFF CORNIER	05-FEB-87							
	D. HEALY	24-AUG-87		6500S PEDESTAL					
DO NOT SCALE DRAWING	G. LIDINGTON	24-AUG-87		BA213					
REMOVE BURRS AND BREAK SHARP CORNERS	G. LIDINGTON	24-AUG-87							
MATERIAL SEE PARTS LIST	M. MAI	24-AUG-87	E UA 6500S-O-DBU	C					
FINISH	B-DD-6500S-O-DBU			1/2	1 OF 2				

ML01

NOTES:

1. ITEMS 12,15,16,17,18 ARE FOR MFG USE ONLY.

1
OR
2 REF

34 (QTY 8)

VIEW D-D

SHOWN WITH SKINS REMOVED
FOR CLARITY

30

27 (QTY 10)
28 (QTY 10)

15
OR
16
OR
17
OR
18

33

5

45

35

3

44

43

SEE DETAIL "E"

4

6

36

1
OR
2

10
OR
11

7

VIEW B-B

SHOWN WITH FRONT PANEL
(ITEM 25) REMOVED

4 REF — PART OF ITEM 4

J3
J2

M7620

3 REF

DETAIL "E"
(REAR VIEW OF ITEM 4)

19
OR
20
OR
21
OR
22

26 (QTY 2)

29 (QTY 2)

23 REF

VIEW C-C

SHOWING ONLY BASE ASSY (ITEM 23)
AND RELATED ITEMS

PLOT AT .5000

PARTS LIST — 6500S PEDESTAL BA213

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	A2/A1	A3/A1	B2/A1	B3/A1	C2/A1	C3/A1	D2/A1	D3/A1	E2/A1	E3/A1
1	1	E-AD-7024227-0-DBU	70-24227-03		BA213 BOX,2 PS-120V, 12 SLOT BIZ	1	-	1	-	1	-	1	-	1	-
2	2	E-AD-7024227-0-DBU	70-24227-04		BA213 BOX,2 PS-240V, 12 SLOT BIZ	-	1	-	1	-	1	-	1	-	1
3	3	B-DD-M7620-0-0	M7620-AA		CVAX 90MB CPU MOD,2 LEVEL 64KB CAC	1	1	1	1	1	1	1	1	1	1
4	4	D-UA-7023989-0-DBU	70-23989-01		H3600 BULKHEAD MODULE ASSY	1	1	1	1	1	1	1	1	1	1
5	5	A-PS-3626383-0-0	36-26383-44		LABEL,MODULE NUMBER M7620-AA	1	1	1	1	1	1	1	1	1	1
6	6	D-AD-7023982-0-DBU	70-23982-02		BULKHEAD FRONT DIAL ASSY	1	1	1	1	1	1	1	1	1	1
7	7	SEE NOTE 1	17-00083-43		PWR CORD,TERM 16-33.T 120V	1	-	1	-	1	-	1	-	1	-
8	8	K-PL-7024316-0-DBP	70-24316-01		BIZ ACCESSORIES KIT (W/O SKIN)	1	-	1	-	1	-	1	-	1	-
9	9	K-PL-7024316-0-DBP	70-24316-02		BIZ ACCESSORIES	-	1	-	1	-	1	-	1	-	1
10	10	A-PS-3617905-0-0	36-17905-16		LABEL,WARNING EQUIP. RATING,100-12	1	-	1	-	1	-	1	-	1	-
11	11	A-PS-3617905-0-0	36-17905-17		LABEL,WARNING EQUIP. RATING,220-24	-	1	-	1	-	1	-	1	-	1
12	12	A-PS-3618460-0-0	36-18460-06		LABEL,BAR CODE BLANK .50 X4.0	1	1	1	1	1	1	1	1	1	1
13	13	A-PA-3700906-0-0	37-00906-02		PKG CPU EA223 (PAL)	4	4	4	4	4	4	4	4	4	4
14	14	A-PA-3700906-0-0	37-00906-04		PALLETIZED	1	1	1	1	1	1	1	1	1	1
15	15	SEE NOTE 2	36-27329-01		LABEL,SERIAL/MODEL 100V	A/R	-	A/R	-	A/R	-	A/R	-	A/R	-
16	16	SEE NOTE 3	36-27329-02		LABEL,SERIAL/MODEL 100V	A/R	-	A/R	-	A/R	-	A/R	-	A/R	-
17	17	SEE NOTE 2	36-27329-03		LABEL,SERIAL/MODEL 220V	-	A/R	-	A/R	-	A/R	-	A/R	-	A/R
18	18	SEE NOTE 3	36-27329-04		LABEL,SERIAL/MODEL 220V	-	A/R	-	A/R	-	A/R	-	A/R	-	A/R
19	19	SEE NOTE 2	36-27838-01		LABEL,PEDESTAL 11/83 USA,100V	-	-	A/R	-	A/R	-	A/R	-	A/R	-
20	20	SEE NOTE 3	36-27838-04		LABEL,PEDESTAL 11/83 UK, 100V	-	-	A/R	-	A/R	-	A/R	-	A/R	-
21	21	SEE NOTE 2	36-27838-02		LABEL,PEDESTAL 6500S USA,220V	-	-	A/R	-	A/R	-	A/R	-	A/R	-
22	22	SEE NOTE 3	36-27838-03		LABEL,PEDESTAL 6500S UK,220V	-	-	A/R	-	A/R	-	A/R	-	A/R	-
23	23	D-AD-7024046-0-DBU	70-24046-01		BASE ASSY	-	-	1	1	-	-	-	-	-	-
24	24	E-AD-7024037-0-DBU	70-24037-01		SHELL ENCLOSURE ASSY	-	-	1	1	-	-	-	-	-	-
25	25	E-AD-7024041-0-DBU	70-24041-01		PANEL ASSY, FRONT	-	-	1	1	-	-	-	-	-	-
26	26	D-MD-7433854-0-DBU	74-33854-01		FASTENER,TURN	-	-	1	1	-	-	-	-	-	-
27	27		90-06661-00		WASHER,FLAT SST	-	-	2	2	-	-	-	-	-	-
28	28		90-09300-08		SCREW,THD RL,PAN PHIL F/PLAS	-	-	10	10	-	-	-	-	-	-
29	29		90-09282-00		SCREW,SEMS PAN PHIL 10-32	-	-	10	10	-	-	-	-	-	-
30	30	A-PS-3627924-0-0	36-27924-01		LABEL,CAUTION S-BOX SHIPPING	1	1	2	2	1	1	1	1	1	1

REVISION HISTORY			KPL MATRIX FORMAT	SECTION A OF B	DRN: JEFF CORMIER
ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX		DATE: 14-JAN-87

ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX
---	INITIAL	A	[A] A2,A3,B2,B3,C2,C3,D2,D3,E2,E3
GL	6500S-CTS001	B	[B] F2,F3,H2,H3,J2,J3,K2,K3
RB	6500S-CTS002	C	[C]
			[D]
			[E]
			[F]
			[H]
			[J]

CHK'D: D. HEALY
DATE: 18-SEP-87

DES.ENG: G. LIDINGTON
DATE: 18-SEP-87

RESP.ENG.: G. LIDINGTON
DATE: 18-SEP-87

MFG.ENG: M. MAI
DATE: 18-SEP-87

D I G I T A L

TITLE   PARTS LIST
6500S PEDESTAL
BA213

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	6500S-0-DBP	C

RELEASE DATE: 01-JUN-88
RELEASE STATUS: RELEASED

BASIC PART NUMBER:
6500S

ASSEMBLY NUMBER:
E-UA-6500S-0-DBU

TOP DOCUMENT NUMBER:
B-DD-6500S-0-DBU

EDIT #
3

FILE NAME: MLA1838C.PLS

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	A2 A1	A3 A1	B2 A1	B3 A1	C2 A1	C3 A1	D2 A1	D3 A1	E2 A1	E3 A1
31	31	K-PL-BA213-R-DEP	BA213-RA		BA213 LARGE S-BOX RACKMOUNT KIT	-	-	-	-	1	1	-	-	-	-
32	32	K-PL-BA213-W-DEP	BA213-WA		BA213 LARGE S-BOX WALL MOUNT KIT	-	-	-	-	-	-	1	1	-	-
33	33	C-MD-7435417-0-DEU	74-35417-01		FRAME,SWITCH	-	-	1	1	-	-	1	1	-	-
34	34		90-07064-00		PLUG,BUTTON 0.375HOLE 10167STEEL	8	8	-	-	8	8	8	8	8	8
35	35	D-AD-7023981-0-DEU	70-23981-01		BULKHEAD FRONT ASSY	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
36	36	C-AD-7024071-0-DEU	70-24071-01		PANEL, GAP FILLER ASSY	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
37	37	B-DD-M7620-0-0	M7620-EA		M7620-AA W/MOD ROM CODE FOR SINGLE	-	-	-	-	-	-	-	-	-	-
38	38	A-PS-3626883-0-0	36-26883-56		LABEL,MODULE NUMBER M7620-BA	-	-	-	-	-	-	-	-	1	1
39	39	A-PS-3627354-0-0	36-27354-12		LABEL,LOGO/MODEL,6500S MICROVAX 35	-	-	-	-	-	-	-	-	1	1
40	40	A-PS-3627354-0-0	36-27354-14		LABEL,LOGO/MODEL,6500S VAXSERVER 3	-	-	-	-	1	1	1	1	-	-
41	41	K-PL-7024316-0-DEP	70-24316-03		BIZ ACCESSORY KIT (W/O SKINS) 240V	-	-	-	-	-	-	-	-	-	-
42	42	K-PL-7024316-0-DEP	70-24316-04		BIZ ACCESSORY KIT (W/O SKINS) 240V	-	1	-	-	-	1	-	1	-	1
43	43	B-DD-MS650-AA	MS650-AA		8MB RAM MEMORY ARRAY FOR KA650 (M7	-	-	-	1	-	-	-	-	-	-
44	44	A-PS-1701898-0-0	17-01898-01		CABLE ASSY,50 COND,FLAT,50(2.25)RE	-	-	-	-	-	-	-	-	-	-
45	45	A-PS-3626883-0-0	36-26883-42		LABEL,MODULE NUMBER M7621-A,	-	-	-	-	-	-	-	-	-	-
46	46	C-MD-7434425-0-DEU	74-34425-07		NAMEPLATE,MICROVAX 3500	-	-	-	-	-	-	-	-	-	-
47	47	B-DD-6500S-0-DEU	6500S-B2		KA650-AA,BA213,BA213-RA SKINS,120V	-	-	-	-	-	-	-	-	-	-
48	48	B-DD-6500S-0-DEU	6500S-B3		KA650-AA,BA213,BA213-RA SKINS,240V	-	-	-	-	-	-	-	-	-	-

```
1 GEN:  1. PLACE INSIDE ACCESSORY KIT (ITEM 8 OR 9) AT PACKAGING.
2 GEN:  2. USE THIS LABEL WHEN MFG IN USA.
3 GEN:  3. USE THIS LABEL WHEN MFG IN UK.
```

D I G I T A L	TITLE 6500S PEDESTAL BA213	SECTION A OF B	SIZE K	CODE PL	DOCUMENT NUMBER 6500S-0-DBP	REV C

AUTOMATED BY VAXKPL (V2.0)   P A R T S   L I S T

QUANTITY PER VARIATION/REVISION

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	F2 A1	F3 A1	H2 A1	H3 A1	J2 A1	J3 A1	K2 A1	K3 A1
1	1	E-AD-7024227-0-DBU	70-24227-03		BA213 BOX,2 PS-120V, 12 SLOT BIZ	1	-	1	-	1	-	-	-
2	2	E-AD-7024227-0-DBU	70-24227-04		BA213 BOX,2 PS-240V, 12 SLOT BIZ	-	1	-	1	-	1	-	-
3	3	B-DD-M7620-0-0	M7620-AA		CVAX 90NS CPU MOD,2 LEVEL 64KB CAC	-	-	-	-	-	-	-	-
4	4	D-UA-7023988-0-DBU	70-23988-01		H3600 BULKHEAD MODULE ASSY	1	1	1	1	1	1	-	-
5	5	A-PS-3626883-0-0	36-26883-44		LABEL,MODULE NUMBER M7620-AA	-	-	1	1	1	1	-	-
6	6	D-AD-7023982-0-DBU	70-23982-02		BULKHEAD FRONT DUAL ASSY	1	-	1	1	1	1	-	-
7	7	SEE NOTE 1	17-00083-43		PWR CORD,TERM 16-3&1T 120V	1	-	1	-	1	-	-	-
8	8	K-PL-7024316-0-DBP	70-24316-01		BIZ ACCESSORIES KIT (N 0 BRINS)	-	-	1	-	1	-	-	-
9	9	K-PL-7024316-0-DBP	70-24316-02		BIZ ACCESSORIES	1	-	-	-	-	-	-	-
10	10	A-PS-3617905-0-0	36-17905-16		LABEL,WARNING EQUIP. RATING,100-12	1	-	-	-	1	-	-	-
11	11	A-PS-3617905-0-0	36-17905-17		LABEL,WARNING EQUIP. RATING,220-24	-	1	-	1	-	1	-	-
12	12	A-PS-3618460-0-0	36-18460-06		LABEL,BAR CODE BLANK .50 X4.0	4	4	4	4	4	4	-	-
13	13	A-PA-3700906-0-0	37-00906-02		PKG CPU BA223 (PAL)	1	1	-	-	-	-	-	-
14	14	A-PA-3700906-0-0	37-00906-04		PALLETIZED	-	-	1	1	1	1	-	-
15	15	SEE NOTE 2	36-27329-01		LABEL,SERIAL/MODEL 100/	A/R	-	A/R	-	A/R	-	-	-
16	16	SEE NOTE 3	36-27329-02		LABEL,SERIAL/MODEL 100V	A/R	-	A/R	-	A/R	-	-	-
17	17	SEE NOTE 2	36-27329-03		LABEL,SERIAL/MODEL 220/	-	A/R	-	A/R	-	A/R	-	-
18	18	SEE NOTE 3	36-27329-04		LABEL,SERIAL/MODEL 220V	-	A/R	-	A/R	-	A/R	-	-
19	19	SEE NOTE 2	36-27838-01		LABEL,PEDESTAL 11/53 USA,100V	A/R	-	A/R	-	A/R	-	-	-
20	20	SEE NOTE 3	36-27838-04		LABEL,PEDESTAL 11/53 UK, 100V	A/R	-	A/R	-	A/R	-	-	-
21	21	SEE NOTE 2	36-27838-02		LABEL,PEDESTAL 6500S USA,220V	-	A/R	-	A/R	-	A/R	-	-
22	22	SEE NOTE 3	36-27838-03		LABEL,PEDESTAL 6500S UK,220V	-	A/R	-	A/R	-	A/R	-	-
23	23	D-AD-7024046-0-DBU	70-24046-01		BASE ASSY	1	1	-	-	-	-	-	-
24	24	E-AD-7024037-0-DBU	70-24037-01		SHELL ENCLOSURE ASSY	1	1	-	-	-	-	-	-
25	25	E-AD-7024041-0-DBU	70-24041-01		PANEL ASSY, FRONT	1	1	-	-	-	-	-	-
26	26	D-MD-7433854-0-DBU	74-33854-01		FASTENER,TURN	2	2	-	-	-	-	-	-
27	27		90-06661-00		WASHER,FLAT SST	10	10	-	-	-	-	-	-
28	28		90-09800-08		SCREW,THD RL,PAN PHIL F/PLAS	10	10	-	-	-	-	-	-
29	29		90-09282-00		SCREW,SEMS PAN PHIL 10-32	2	2	-	-	-	-	-	-
30	30	A-PS-3627924-0-0	36-27924-01		LABEL,CAUTION S-BOX SHIPPING	1	1	1	1	1	1	-	-

REVISION HISTORY			KPL MATRIX FORMAT SECTION B OF B	DRN: JEFF CORMIER

DATE: 14-JAN-87

D I G I T A L

ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX
---	INITIAL	A	[A] A2,A3,B2,B3,C2,C3,D2,D3,E2,E3
GL	6500S-CTS001	B	[B] F2,F3,H2,H3,J2,J3,K2,K3
RB	6500S-CTS002	C	[C]
			[D]
			[E]
			[F]
			[H]
			[J]

CHK'D: D. HEALY
DATE: 18-SEP-87

TITLE   PARTS LIST
6500S PEDESTAL
BA213

DES.ENG: G. LIDINGTON
DATE: 18-SEP-87

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	6500S-0-DBP	C

RESP.ENG.: G. LIDINGTON
DATE: 18-SEP-87

MFG.ENG: M. MAI
DATE: 18-SEP-87

RELEASE DATE: 01-JUN-88
RELEASE STATUS: RELEASED

BASIC PART NUMBER:
  6500S

ASSEMBLY NUMBER:
  E-UA-6500S-0-DBU

TOP DOCUMENT NUMBER:
  B-DD-6500S-0-DBU

EDIT #
  3

FILE NAME: MLA1838C.PLS

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	F2 A1	F3 A1	H2 A1	H3 A1	J2 A1	J3 A1	K2 A1	K3 A1
					QUANTITY PER VARIATION/REVISION								
31	31	K-PL-BA213-R-DBP	BA213-RA		BA213 LARGE 3-BOX RACKMOUNT KIT	–	–	1	–	–	–	–	–
32	32	K-PL-BA213-W-DBP	BA213-WA		BA213 LARGE 3-BOX WALL MOUNT KIT	–	–	–	–	1	1	–	–
33	33	C-MD-7435417-0-DEU	74-35417-01		FRAME,SWITCH	1	1	–	–	–	–	–	–
34	34		90-07064-00		PLUG,BUTTON 0.375 HOLE STEEL	–	–	3	3	3	3	–	–
35	35	D-AD-7023981-0-DEU	70-23981-01		BULKHEAD PANEL ASSY	A/R	A/R	A/R	A/R	A/R	A/R	–	–
36	36	C-AD-7024071-0-DEU	70-24071-01		PANEL, GAP FILLER ASS	A/R	A/R	A/R	A/R	A/R	A/R	–	–
37	37	B-DD-M7620-0-0	M7620-BA		M7620-AA W/MOD FOR USE FOR SINGLE	1	1	1	1	1	1	–	–
38	38	A-PS-3626833-0-0	36-26833-56		LABEL,MODULE NUMBER M7620-BA	1	1	1	1	1	1	–	–
39	39	A-PS-3627354-0-0	36-27354-12		LABEL,LOGO MODEL,BA213 MICROVAX 35	–	–	1	1	1	1	–	–
40	40	A-PS-3627354-0-0	36-27354-14		LABEL,LOGO MODEL,BA213 MICROVAX 35	–	–	1	1	1	1	–	–
41	41	K-PL-7024316-0-DBP	70-24316-03		BIZ ACCESSORY KIT W/O 3-WIRE 240V	–	–	–	1	–	–	–	–
42	42	K-PL-7024316-0-DBP	70-24316-04		BIZ ACCESSORY KIT W/0 3-WIRE 240V	–	1	–	–	–	–	–	–
43	43	B-DD-MS650-AA	MS650-AA		8ME RAM MEMORY ARRAY FOR KA650 /M7	–	–	–	–	–	–	–	–
44	44	A-PS-1701898-0-0	17-01898-01		CABLE ASSY,50 COND,FLAT,50 2.26 RE	–	–	–	–	–	–	1	1
45	45	A-PS-3626833-0-0	36-26833-42		LABEL,MODULE NUMBER M7621-A,	–	–	–	–	–	–	1	1
46	46	C-MD-7434425-0-DEU	74-34425-07		NAMEPLATE,MICROVAX 3500	–	–	–	–	–	–	1	1
47	47	B-DD-6500S-0-DEU	6500S-B2		KA650-AA,BA213,BA213-RA 3-WIRE,120V	–	–	–	–	–	–	1	–
48	48	B-DD-6500S-0-DEU	6500S-B3		KA650-AA,BA213,BA213-RA 3-WIRE,240V	–	–	–	–	–	–	–	1

```
1 GEN:   1. PLACE INSIDE ACCESSORY KIT (ITEM 8 OR 9) AT PACKAGING.
2 GEN:   2. USE THIS LABEL WHEN MFG IN USA.
3 GEN:   3. USE THIS LABEL WHEN MFG IN UK.
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D I G I T A L	TITLE 6500S PEDESTAL BA213	SECTION B OF B	SIZE	CODE	DOCUMENT NUMBER	REV
			K	PL	6500S-0-DBP	C

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION	REVISIONS
		5417016-01	H3600 CONSOLE-SLU MODULE	A1 B1 B2
D-UA-5417016-0-0	2		H3600 CONSOLE-SLU MODULE	A B C
K-PL-5417016C-0-DBP	1		H3600 CONSOLE-SLU MODULE	A B C
K-CS-5417016-0-DBX	-		H3600 SCHEMATIC DATA BASE	A B B
K-PC-5417016-0-DBJ	-		H3600 P.C. DESIGN DATA BASE	E E E
		5017015-01	ETCHED CIRCUIT BOARD	E1 E1 E1
K-DD-5017015-0-0	1		DRAWING DIRECTORY	A A A

NOTES:

REVISION HISTORY

REV		A	B	C
	EC NO	1 NIT 1	MLO 01	MKO 02
	DATE	09/18/86	07/18/87	07/18/88

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DRN: BLAISE DITOMMASO	DATE: 16-SEP-86	d i g i t a l	
CHK'D: DAVE DROZD	DATE: 16-SEP-86	TITLE H3600 CONSOLE-SLU MODULE	
DES.ENG.: WILL KERCHNER	DATE: 16-SEP-86	SHEET 1 OF 1	EDIT: 1
RESP.ENG.: WILL KERCHNER	DATE: 16-SEP-86	DOCUMENT NUMBER	
		DD FILENAME: 5417016C.DDF	
MFG.ENG.: F. CULLEN	DATE: 30-SEP-86	SIZE: K CODE: DD NUMBER 5417016-0-0	REV C

LEGEND

PART NUMBER	REVISION
54-17016-01	B2

200 REF

160 FBS
40.64 MM

SEE NOTE 7

SEE NOTE 5

SEE NOTE 6

14

SEE NOTE 3

SEE
NOTE
3+4

S2

5.70 FBS
144.78 MM

SEE NOTE 1

17

1-1

NOTES:
1. R1-R3 ARE NOT INSTALLED.
2. R2, R3 AND S1 ARE MOUNTED ON SIDE 2.
3. POSITION TERMINAL # 2 TOWARDS ETCH MARKING "2".
4. ENSURE THAT SWITCH IS CIRCUMFERENTIALLY VERTICAL TO BOARD WHEN SOLDERING.
5. POSITION SWITCH MARKING "0" TOWARDS TM2.

STEP E	+ Y AXIS	STEP	TIMES
REPEAT	→ X AXIS	STEP	TIMES

NOTES CONT :
6. DOUBLE-NOTCHED END OF E1 IS TOWARDS C1
7. LABEL TO BE PRINTED WITH ASSEMBLY PART NUMBER AND REVISION: AFFIX TO SIDE 2 IN AREA SHOWN.
8. ALL COMPONENT LEADS DIRECTLY UNDER THE CABLE (ITEM 14) MUST BE BENT OVER FLUSH TO CIRCUIT BOARD BEFORE SOLDERING.

ETCH REV.   E1

SIGNATURES		DATE	
DRN. B. CORMIER		6.2.26	
CHK D.L MAYWOOD		6.266	
MECH.ENG.			
PROJ.ENG.			
PROD.			
SCALE 2/1			
SHT. 1 OF 2			

NEXT HIGHER ASSY. K-00-5417016-0-0

digital

TITLE H3600
CONSOLE-SLU MODULE

SIZE	CODE	NUMBER	REV
D	UA	5417016-0-0	C

MKO   1   # 2341

REWORK INSTRUCTIONS

1-1 PRECUT LEADS OF W4 TO .25 LONG. MOUNT ON SIDE 2 AS SHOWN, FROM CENTER-LEAD
OF LC3 TO THE PTH OF THE ETCH THAT CONNECTS TO THE MOUNTING HOLE.

DJA 5417016-0-0 REV C

REVISION HISTORY

DATE	ECO NUMBER	REV

TITLE H3600 CONSOLE SLU MODULE

DOCUMENT NUMBER

SIZE CODE NUMBER REV
D UA 5417016-0-0 C

SCALE NONE   SHEET 2 OF 2

MKO

8   7   6   5   4   3   2   1

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 01 B2	REFERENCE DESIGNATORS
1	1	D-MD-5017015-0-0	50-17015-01		CIRCUIT DRILL AND ETCH	1	
2	2		10-14265-02		0.33 MFD 50V +80/-20% Z5U C	1	C1
3	3		11-26762-01		TRANS SUPP,BIPOLAR 500W VR=24V	3	D2,D3,D5
4	4		11-27181-01		TRANS SUPP BIPOLAR VR=1	2	D1,D4
5	5		12-16565-04		SKT,IC 14POS ELEV	1	XE1
6	6		12-19196-03		PCB HEADER 02POS(1X02).100CC 90D	1	J3
7	7		12-23338-02		SW,THBWL 1P08POS 125MA28VDC	1	S1
8	8		12-23433-01		CONN,LAN JACK 06 POS	1	J1
9	9		12-25861-01		SW,ROT 1P03POS 30VDC/200MA	1	S2
10	10		12-25863-04		SW,SLIDE SPST MAINTAINED 1A	1	S3
11	11		12-26320-01		FILTER,EMI	4	LC1-LC4
12	12		13-00250-00		150.0 .25 W 5.0 % CF	1	R2
13	13		13-00432-00		3.0 K .25 W 5.0 % CF	1	R1
14	14		17-01357-01		CABLE ASSY,30COND,FLAT,28AWG DIP	1	J2
15	15		19-12803-00		LS04 INVERTER GATE,HEX	1	E2
16	16		19-16921-00		HEXADECIMAL DISPLAY W/DECODER	1	E1
17	17		36-23593-01		LABEL,BLANK,PAPER,PIN FEED	1	
18	18		90-09185-00		JUMPER, WIRE, INSULATED, BLACK B	1	W4

REVISION HISTORY			KPL MODULE FORMAT	SECTION A OF A	DRN: B. DITOMMASO DATE: 11-SEP-86	D I G I T A L
ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX		CHK'D: D. DROZD DATE: 11-SEP-86	TITLE PARTS LIST H3600 CONSOLE-SLU MODULE
--	INITIAL	A	[A] Q1 [M]			
WK	5417016-ML001	B	[B] [N]			
RM	5417016-MK002	C	[C] [P]		DES.ENG: W. KERCHNER DATE: 11-SEP-86	
			[D] [Q]			DOCUMENT NUMBER
			[E] [R]			SIZE CODE NUMBER REV
			[F] [S]		RESP.ENG.: W. KERCHNER	
			[H] [T]		DATE: 11-SEP-86	K PL 5417016-0-DBP C
			[J] [V]			
			[K] [W]		MFG.ENG: F. CULLEN	RELEASE DATE: 14-SEP-88
			[L] [Y]		DATE: 26-SEP-86	RELEASE STATUS: RELEASED

BASIC PART NUMBER: 5417016   ASSEMBLY NUMBER: D-UA-5417016-0-0   TOP DOCUMENT NUMBER: K-DD-5417016-0-0   EDIT # 2

FILE NAME: 5417016C.PLS

H3600 CONSOLE-SLU MODULE

CPU CONN J2

RS-232-C/DEC423 CONSOLE-SLU CONNECTION

HEX DISPLAY E1

W1	W2	CPU IDENT
O	O	NORMAL(0)
O	I	AUX 1
I	O	AUX 2
I	I	AUX 3

O=OUT
I=IN

BATTERY CONN

EXTERNAL BATTERY PACK

FOR REFERENCE ONLY

3 volts

CONSOLE I/O ENABLE

CONSOLE MODE SWITCH

LOOP BACK TEST ENA

LANGUAGE INQUIRY

BAUD RATE SELECTION	
0	300
1	600
2	1200
3	2400
4	4800
5	9600
6	19200
7	38400

BAUD RATE SEL SWITCH

BCD SW S1

DRAWING
17016
17016
LAST MODIFIED=Mon Jun 29 10:46:41 1987

K GLEEZEN 3/10/86
R GLEEZEN 3/10/86
H KERCHNER 3/10/86

TITLE H3600 CONSOLE-SLU MODULE

NUMBER K-DD-5417016-0-0

SIZE K CODE C3 NUMBER 5417016-0-DBX REV. B

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION	REVISIONS
		5417079-01	EMI FILTER BOARD	A1
D-UA-5417079-0-0	1		EMI UNIT ASSEMBLY	A
B-CS-5417079-0-1	1		EMI CIRCUIT SCHEMATIC	A
K-PL-5417079-0-D8P	1		EMI PARTS LIST	A
K-PC-5417079-0-D8J	1		EMI P.C. DESIGN DATABASE	C
K-CS-5417079-0-D8X	1		EMI SCHEMATIC DATABASE	A
		5017078-01	ETCHED CIRCUIT BOARD	C1
K-DD-5017078-0-0	1		E.C.B. DRAWING DIRECTORY	A

NOTES:

REVISION HISTORY

REVISION HISTORY

REV | WHICH | ECO NO. | DATE

A | | | 9 8 6

DRN: BLAISE DITOMMASO | DATE: 05SEPT86 | d i g i t a l

CHK'D: JIM CUNNINGHAM | DATE: 05SEPT86 | TITLE

EMI FILTER BOARD

DES.ENG.: JOHN ARDUINO | DATE: 05SEPT86 | SHEET 1 OF 1 | EDIT: 1

RESP.ENG.: JOHN ARDUINO | DATE: 05SEPT86 | DOCUMENT NUMBER

DD FILENAME: 5417079A.DDF

MFG.ENG.: LEV BROWN | DATE: 05SEPT86 | SIZE: K | CODE: DD | NUMBER 5417079-0-0 | REV A

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

| A | | 8-8-6202195 | | | 2 |

700 REF
177.80 M.M.

2.60 REF
66.04 MM.

R1 R2 C2 C1 L1 C3 C5 L2 C4 L3

NOTES: THIS IS A HPWR BOARD

| STEP & | ↑ Y AXIS _____ STEP ___ TIMES |
| REPEAT | → X AXIS _____ STEP ___ TIMES |

CHK CHANGE NO REV

ETCH REV.   C1

SIGNATURES		DATE
DRN.	L. HAYWOOD	5-12-86
CHK'D.	J. CUNNINGHAM	5-12-86
MECH. ENG		
PROJ. ENG		
PROD.		

digital

TITLE EMI
FILTER BOARD

| SCALE 2/1 | SIZE | CODE | NUMBER | REV |
| SHT. 1 OF 1 | D | UA | 5417079-0-0 | A |

NEXT HIGHER ASSY. 8-DD-5417079-0-0

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

1 MS#

PARTS LIST

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 01 A1	REFERENCE DESIGNATORS
1	1	D-MD-5017078-01-0	50-17078-01		CIRCUIT DRILL & ETCH	1	
2	2		10-24317-02		0.47 MFD 250VAC +/-20% LIN	3	C1-C3
3	3		10-24375-01		2200 PFD 250VAC +/-20% LIN	2	C4,C5
4	4		12-20563-01		TER,TAB .250TAB PC MNT	4	J1-J4
5	5		13-19470-92		470.0 K 1.0 W 5.0 % M.OXIDE	1	R2
6	6		13-22505-01		VARISTOR 540VAC VOLT TRANS SUP	1	R1
7	7		16-26569-01		INDUCER,TORROID 19MH 12A	1	L1
8	8		16-26573-01		INDUCER,TORROID 12A	2	L2,L3

REVISION HISTORY			KPL MODULE FORMAT	SECTION A OF A	DRN: K.LEE DATE: 09-APR-86	D I G I T A L
ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX		CHK'D: D.DROZD DATE: 09-APR-86	TITLE PARTS LIST EMI FILTER BOARD
---	INITIAL	A	[A] 01 [M] [B] [N] [C] [P] [D] [Q] [E] [R] [F] [S] [H] [T] [J] [V] [K] [W] [L] [Y]		DES.ENG: J. ARDUINO DATE: 03-JUL-86	

	DES.ENG: J. ARDUINO DATE: 03-JUL-86	DOCUMENT NUMBER

		SIZE	CODE	NUMBER	REV
RESP.ENG.: J. ADRUINO DATE: 03-JUL-86		K	PL	5417079-0-DBP	A
MFG.ENG: L. BROWN DATE: 03-JUL-86		RELEASE DATE: 22-SEP-86 RELEASE STATUS: RELEASED			

BASIC PART NUMBER: 5417079	ASSEMBLY NUMBER: D-UA-5417079-0-0	TOP DOCUMENT NUMBER: B-DD-5417079-0-0	FILE NAME: MLA0191A.PLS	EDIT # 21

D

C

J1

L2
3 ~ 2
41MHY
J3

5 6 L1 1 2

R1
MOV
320V

R2
470K

C1
.47UF
250V

C2
.47UF
250V

C4
2200PF
250V

C3
.47UF
250V

C5
2200PF
250V

J2

8 9 O 11 12
19MHY

L3
3 ~ 2
41MHY
J4

B

DRAWING
17079
17079

LAST_MODIFIED=Fri Aug 29 15:18:53 1986

A

REVISION		
CHK	CHANGE NO.	REV

digital

DRN E. LANDRY DATE 4/16/86
CHK E. LANDRY DATE 4/16/86

ENG J. CROSS DATE 4/16/86
BOARD LOCATION
SHEET   OF 1

FIRST USED ON OPTION/MODEL

TOP DOCUMENT NUMBER
B-DD-5417079-0-0

TITLE
EMI FILTER BOARD

SIZE K CODE CS NUMBER 5417079-0-1 REV. A

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION	REVISIONS
		5416791-01	BA213 BACKPLANE	A1 A2 B2
E-UA-5416791-0-0	1		BA213 BACKPLANE	A A A
D-CS-5416791-0-1	2		BA213 BACKPLANE	A A A
K-PL-5416791-0-DBP	1		BA213 BACKPLANE	A B C D
K-PC-5416791-0-DBA			P.C. DESIGN DATA BASE	A A A
		5016790-01	ETCHED CIRCUIT BOARD	P1 P1 P1
K-DD-5016790-0-0	1		DRAWING DIRECTORY	A B B C
		5416791-02	BA213 BACKPLANE	A1 B1 B2 C2
E-UA-5416791-1-0	3		BA213 BACKPLANE	B B C
D-CS-5416791-1-1	2		BA213 BACKPLANE	B B C
K-PC-5416791-A-DBA			P.C. DESIGN DATA BASE	B B B
		5016790-01	ETCHED CIRCUIT BOARD	R1 R1 R2
K-SP-5416791-0-0	13		ENGINEERING SPECIFICATION	A A B

NOTES:
E.C.O. 5416791-CTS003 WAS CANCELLED
P1 ETCH WILL NOT SUPPORT MICROVAX MEMORY.
P1 ETCH NOT RECOMMENDED FOR UPDATES.

REVISION HISTORY

	REV	A	B	C	D
ECO		IN IT 0 1	MLOO 1	MLOO 2	CTS00 04
DATE		06/18/86	11/18/86	05/18/87	07/18/88

DRN: P.LENNON	DATE: 20-JUN-86	d i g i t a l
CHK'D: D. BARRIERE	DATE: 20-JUN-86	TITLE BA213 BACKPLANE
DES.ENG.: D.MILLER	DATE: 20-JUN-86	SHEET 1 OF 1 EDIT: 9
RESP.ENG.: D.MILLER	DATE: 20-JUN-86	DOCUMENT NUMBER
		DD FILENAME: 5416791D.DDF
MFG.ENG.: F.CULLEN	DATE: 20-JUN-86	SIZE K	CODE DD	NUMBER 5416791-0-0	REV D

VIEW A-A
24 PLACES

COMPONENT SIDE VIEW

16.00 REF.
[406.40MM]

11.90 REF.
[302.26MM]

3-5

3-6

3-7

SEE NOTE 1

3-1

3-2

A A

SEE NOTE 1

SEE NOTE 2

10 (8 PLACES)

ZX3
Z3

ZX5
Z5

ZX4
Z4

ZX2
Z2

ZX1
Z1

NOTES:
1. J43 NOT INSTALLED ON -02
2. INSTALL JUMPER ON -02 ONLY.

E UA 5416791-1-0

REWORK INSTRUCTIONS
E.C.O. 5416791-CTS004

__PART DELETES:__ (AS SHOWN)

3-1   REMOVE CONNECTOR J43 (12-09941-15).

PART ADDS: (AS SHOWN)

3-2   INSTALL J43 (12-16832-07).

__ETCH CUTS:__

3-3   SEE SHEET 3.

3-4   SEE SHEET 3.

__WIRE ADDS:__ (SIDE 2 AS SHOWN) P/N 91-05740-55

3-5   ADD WIRE BETWEEN JI-AFI AND JI3-CCI.

3-6   ADD WIRE BETWEEN JI-API AND J43-3.

3-7   ADD WIRE BETWEEN JI-AFI AND J43-10.

P A R T S   L I S T

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV 01 B2	02 C2	REFERENCE DESIGNATORS
1	1	D-MD-5016790-0-0	50-16790-01		CIRCUIT DRILL AND ETCH	1	1	
2	2		12-17535-14		*** THIS ITEM IS NOT USED ***	-	-	
3	3		12-09941-15		*** THIS ITEM IS NOT USED ***	-	-	
4	4		12-21249-04		CLIP,WIRE ROUTING W/ACRYLIC ADH	1	1	
5	5		12-27346-01		PCB HEADER 05POS(1X05).156CC 90D	1	1	J44
6	6		12-23962-01		*** THIS ITEM IS NOT USED ***	-	-	
7	7		12-26157-01		CARD EDGE,72PIN(2X36).125CC STR	24	24	J1-J24
8	8		13-23505-01		R. NET 180.0 -11 390.0 -11 2.0	5	5	Z1-Z5
9	9		36-22147-08		LABEL,BAR CODE,THERMAL 1.00 X 5	1	1	
10	10		74-33567-01		BAR, BUSS	8	8	
11	11		90-00062-01		*** THIS ITEM IS NOT USED ***	-	-	
12	12		90-09185-00		JUMPER, WIRE, INSULATED, BLACK B	-	8	W1-W8
13	13		90-00062-02		SCREW,THD RL, PAN,SERATD,F/MET	24	24	
14	14		12-16832-07		PCB,HEADER 10POS(2X05).100CC 90D	1	-	J43
15	15		91-05740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	-	
16	16		12-29473-01		CARD EDGE 56POS(2X28) STR	2	2	J39,J40
17	17		12-17535-16		SKT,IC 13PIN SIP TIN SOLD	5	5	ZX1-ZX5

1 GEN: NOTE: D-MD-5016790-1-0 IS FOR THE R1 ETCH REVISION

REVISION HISTORY	!KPL MODULE FORMAT!SECTION A OF A	!DRN: MIKE FUNARO	D I G I T A L
!ENG! ECO NUMBER !REV !	SECTION/VARIATION INDEX	!DATE: 28-MAY-86	
!DM !INITIAL !A	![A] 01,02 [M]	!CHK'D: DICK BARRIERE	!TITLE. PARTS LIST
!DM !5416791-ML001 !B	![B] [N]	!DATE: 28-MAY-86	! BA213 BACKPLANE
!AD !5416791-ML002 !C	![C] [P]	!DES.ENG: DICK MILLER	
!JS !5416791-CTS004 !D	![D] [Q]	!DATE: 30-JUN-86	!____DOCUMENT NUMBER____
	![E] [R]		!SIZE!CODE! NUMBER ! REV
	![F] [S]	!RESP.ENG.: DICK MILLER	
	![H] [T]	!DATE: 30-JUN-86	! K ! PL ! 5416791-0-DBP ! D
	![J] [V]		
	![K] [W]	!MFG.ENG: FRANCIS CULLEN	! RELEASE DATE: 17-OCT-88
	![L] [Y]	!DATE: 30-JUN-86	! RELEASE STATUS: RELEASED
	!BASIC PART NUMBER:	!ASSEMBLY NUMBER:	!TOP DOCUMENT NUMBER: !EDIT #
	!5416791	!E-UA-5416791-0-0	!B-DD-5416791-0-0 ! 7
	!FILE NAME: ML998D.PLS		

BA213 Backplane schematic / wiring diagram

8   6   5   4   3   2   1

D   C   B   A

TYPICAL CONNECTION
R1 THRU R5

1 2 3 4 5 6 7 8 9 10 11 12

390 390 390 390 390 390 390 390 390 390 390 390
180 180 180 180 180 180 180 180 180 180 180 180

13

J43
1 2 3 4 5 6 7 8 9 10

BHALT L
GND
BPOK H
SPARE
BDCOK H
SRUN L

NOTE:
1. W10 THRU W13 INSTALLED ON -02
2. W1 THRU W8 INSTALLED ON -02 ONLY
3. J43 NOT INSTALLED ON -02

J44
1 FAN A+
2 KEY
3 FAN A-
4 FAN B+
5 FAN B-

W1 W3 W4 W5 W6 W7 W8
INSTALL ON -02 ONLY

W2
INSTALL ON -02 ONLY

BDCOK H
BEVENT L
BPOK H

J39

+5A   GND   +12A

J40

+5B   GND   +12B

TITLE
BA21? BACKPLANE

DOCUMENT NUMBER
D CS 5416791-1-1 C
SCALE   SHEET 2 OF 2

8   7   6   5   4   3   2   1

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION	REVISIONS
		M7620-AA	KA650-AA	A1 C1 D1 E1
		M7620-BA	KA650-BA	C1 D1 E1
D-UA-M7620-0-0	5		KA650 UNIT ASSEMBLY	A B B B
K-CS-M7620-0-1	1		KA650 SYS FUNCTIONAL DRAWING TREE	A A A A
K-CS-M7620-0-2	1		KA650 SYS FUNCT. TOP LEVEL VIEW	A A A A
K-CS-M7620-0-3	1		KA650 SYS FUNCT. TOP LEVEL VIEW	A A A A
K-CS-M7620-0-4	1		KA650 SYS FUNCT. CPU/FPA SUBSYSTEM	A A A A
K-CS-M7620-0-5	1		KA650 SYS FUNCT. MEM CONTROLLER	A A A A
K-CS-M7620-0-6	1		KA650 SYS FUNCT. Q22-BUS INTERFACE	A A A A
K-CS-M7620-0-7	1		KA650 SYS FUNCT. ADDRESS LATCH	A A A A
K-CS-M7620-0-8	1		KA650 SYS FUNCT. CDAL/BCDAL BUFFER	A A A A
K-CS-M7620-0-9	1		KA650 SYS FUNCT. 2ND LEVEL CACHE	A A A A
K-CS-M7620-0-10	1		KA650 SYS FUNCT. DATA STORE	A A A A
K-CS-M7620-0-11	1		KA650 SYS FUNCT. TAG STORE	A A A A
K-CS-M7620-0-12	1		KA650 SYS FUNCT. CNTRL STATE MACH.	A A A A
K-CS-M7620-0-13	1		KA650 SYS FUNCT. CACHESTB STATE	A A A A
K-CS-M7620-0-14	1		KA650 SYS FUNCT. DSCONTINUE STATE	A A A A
K-CS-M7620-0-15	1		KA650 SYS FUNCT. CONTROL FLOW DIAG	A A A A

NOTES:

REVISIONS

REV		A	B	C	D
REVISION HISTORY	ECO NO.	I N I T 1 0	M L O S 1 0	C T S O 0 2	C T S O 0 3
	DATE	0 4 / 8 7	0 2 / 8 8	0 8 / 8 8	0 8 / 8 8

DRN: B. CORMIER	DATE: 04/22/87		d i g i t a l
CHK'D: J. CUNNINGHAM	DATE: 04/22/87	TITLE	KA650
DES.ENG.: C. DEVANE	DATE: 04/22/87	SHEET 1 OF 3	EDIT: 17
RESP.ENG.: D. FIELDS	DATE: 04/22/87	DOCUMENT NUMBER	
		DD FILENAME: M7620_1.DDF	
MFG.ENG.: T. CAVANAUGH	DATE: 07/15/87	SIZE: K CODE: DD NUMBER: M7620-0-0	REV D

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION					REVISIONS
K-CS-M7620-0-16	1		KA650 SYS FUNCT. CONTROL FLOW DIAG	A	A	A	A	
K-CS-M7620-0-17	1		KA650 SYS FUNCT. CONTROL FLOW DIAG	A	A	A	A	
K-CS-M7620-0-18	1		KA650 SYS FUNCT. CONTRL STATE DIAG	A	A	A	A	
K-CS-M7620-0-19	1		KA650 SYS FUNCT. CONTRL STATE DIAG	A	A	A	A	
K-CS-M7620-0-20	1		KA650 SYS FUNCT. CONTRL STATE DIAG	A	A	A	A	
K-CS-M7620-0-21	1		KA650 SYS FUNCT. CACHE CNTRL REG.	A	A	A	A	
K-CS-M7620-0-22	1		KA650 SYS FUNCT. CLOCK SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-23	1		KA650 SYS FUNCT. SYS SUPPORT FUNCT	A	A	A	A	
K-CS-M7620-0-24	1		KA650 SYS FUNCT. BOOT/DIAGNOSTIC	A	A	A	A	
K-CS-M7620-0-25	1		CPU/FPA SUBSYSTEM CLOCK SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-26	1		MEMORY CONTROLLER SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-27	1		Q22-BUS INTERFACE SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-28	1		ADDRESS LATCH SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-29	1		CDAL TO BCDAL BUFFER SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-30	1		DATA STORE RAMS CACHE SUBSYSTEM	A	A	A	A	
K-CS-M7620-0-31	1		DATA STORE TRANSCEIVERS CACHE	A	A	A	A	
K-CS-M7620-0-32	1		TAG STORE 2ND LEVEL CACHE SUBSYS.	A	A	A	A	
K-CS-M7620-0-33	1		CONTROL STAGE MACHINE CACHE SUBSYS	A	A	A	A	
K-CS-M7620-0-34	1		CACHE CONTROL REG. 2ND LEVEL CACHE	A	A	A	A	
K-CS-M7620-0-35	1		SYSTEM SUPPORT FUNCTIONS	A	A	A	A	
K-CS-M7620-0-36	1		BATTERY CIRCUITS RS232 INTERFACE	A	B	B	B	
K-CS-M7620-0-37	1		BOOT AND DIAGNOSTIC ROMS	A	A	A	A	
K-CS-M7620-0-38	1		BYPASS CAPACITORS	A	B	B	B	
K-CS-M7620-0-39	1		KA650 PAL CODE PAL 1	A	A	A	A	
K-CS-M7620-0-40	1		KA650 PAL CODE PAL 2	A	A	A	A	
K-CS-M7620-0-41	1		KA650 PAL CODE PAL 3	A	A	A	A	
K-CS-M7620-0-42	1		KA650 PAL CODE PAL 4	A	A	A	A	
K-CS-M7620-0-43	1		KA650 PAL CODE PAL 5	A	A	A	A	
K-CS-M7620-0-44	1		KA650 PAL CODE PAL 6	A	A	A	A	
K-CS-M7620-0-45	1		KA650 PAL CODE PAL 7	A	A	A	A	
K-CS-M7620-0-46	1		CPU, FPU FOOTPRINT	A	A	A	A	
K-CS-M7620-0-47	1		CMCTL FOOTPRINT	A	A	A	A	
K-CS-M7620-0-48	1		CQBIC FOOTPRINT	A	A	A	A	
K-CS-M7620-0-49	1		SSC, CLK FOOTPRINT	A	A	A	A	
K-CS-M7620-0-50	1		SSC, CLK FOOTPRINT	A	A	A	A	
K-PL-M7620-0-DBP	3		KA650 PARTS LIST	A	B	C	D	
K-CS-M7620-0-DBX	1		VALID SCHEMATIC DATA BASE	A	B	B	B	
K-PC-M7620-0-DBJ	1		P. C. DATA BASE	K	K	K	K	
K-CS-M7620-C-DBX	1		EXTERNAL CUST. SCHEMATIC DATA BASE				A	
K-CS-M7620-C-1	1		KA650 SYS FUNCTIONAL DRAWING TREE				A	
K-CS-M7620-C-2	1		KA650 SYS FUNCT. TOP LEVEL VIEW				A	
K-CS-M7620-C-3	1		KA650 SYS FUNCT. TOP LEVEL VIEW				A	
K-CS-M7620-C-4	1		KA650 SYS FUNCT. CPU/FPA SUBSYSTEM				A	
K-CS-M7620-C-5	1		KA650 SYS FUNCT. MEM CONTROLLER				A	
K-CS-M7620-C-6	1		KA650 SYS FUNCT. Q22-BUS INTERFACE				A	
K-CS-M7620-C-7	1		KA650 SYS FUNCT. ADDRESS LATCH				A	
K-CS-M7620-C-8	1		KA650 SYS FUNCT. CDAL/BCDAL BUFFER				A	
K-CS-M7620-C-9	1		KA650 SYS FUNCT. 2ND LEVEL CACHE				A	
K-CS-M7620-C-10	1		KA650 SYS FUNCT. DATA STORE				A	
K-CS-M7620-C-11	1		KA650 SYS FUNCT. TAG STORE				A	
K-CS-M7620-C-12	1		KA650 SYS FUNCT. CNTRL STATE MACH.				A	
K-CS-M7620-C-13	1		KA650 SYS FUNCT. CACHESTB STATE				A	
K-CS-M7620-C-14	1		KA650 SYS FUNCT. DSCONTINUE STATE				A	
K-CS-M7620-C-15	1		KA650 SYS FUNCT. CONTROL FLOW DIAG				A	

									TITLE			SIZE	CODE	DOCUMENT NUMBER	REV
d	i	g	i	t	a	l				SHEET 2 OF 3					D
									KA650		K	DD	M7620-0-0	

DRAWING NO.	NO.SHTS	PART NO.	DESCRIPTION	REVISIONS
K-CS-M7620-C-16	1		KA650 SYS FUNCT. CONTROL FLOW DIAG	A
K-CS-M7620-C-17	1		KA650 SYS FUNCT. CONTROL FLOW DIAG	A
K-CS-M7620-C-18	1		KA650 SYS FUNCT. CONTRL STATE DIAG	A
K-CS-M7620-C-19	1		KA650 SYS FUNCT. CLOCK SUBSYSTEM	A
K-CS-M7620-C-20	1		KA650 SYS FUNCT. SYS SUPPORT FUNCT	A
K-CS-M7620-C-21	1		KA650 SYS FUNCT. BOOT/DIAGNOSTIC	A
K-CS-M7620-C-22	1		CPU/FPA SUBSYSTEM CLOCK SUBSYSTEM	A
K-CS-M7620-C-23	1		MEMORY CONTROLLER SUBSYSTEM	A
K-CS-M7620-C-24	1		Q22-BUS INTERFACE SUBSYSTEM	A
K-CS-M7620-C-25	1		ADDRESS LATCH SUBSYSTEM	A
K-CS-M7620-C-26	1		CDAL TO BCDAL BUFFER SUBSYSTEM	A
K-CS-M7620-C-27	1		DATA STORE RAMS CACHE SUBSYSTEM	A
K-CS-M7620-C-28	1		DATA STORE TRANSCEIVERS CACHE	A
K-CS-M7620-C-29	1		TAG STORE 2ND LEVEL CACHE SUBSYS	A
K-CS-M7620-C-30	1		CONTROL STAGE MACHINE CACHE SUBSYS	A
K-CS-M7620-C-31	1		CACHE CONTROL REG. 2ND LEVEL CACHE	A
K-CS-M7620-C-32	1		SYSTEM SUPPORT FUNCTIONS	A
K-CS-M7620-C-33	1		BATTERY CIRCUITS RS232 INTERFACE	A
K-CS-M7620-C-34	1		BOOT AND DIAGNOSTIC ROMS	A
K-CS-M7620-C-35	1		BYPASS CAPACITORS	A
K-CS-M7620-C-36	1		CPU, FPU FOOTPRINT	A
K-CS-M7620-C-37	1		CMCTL FOOTPRINT	A
K-CS-M7620-C-38	1		CQBIC FOOTPRINT	A
K-CS-M7620-C-39	1		SSC, CLK FOOTPRINT	A
K-CS-M7620-C-40	1		SSC, CLK FOOTPRINT	A
		5017073-01	ETCHED CIRCUIT BOARD	K1 K1 K1 K1
K-DD-5017073-0-0	1		DRAWING DIRECTORY	A B B B

	TITLE		SIZE	CODE	DOCUMENT NUMBER	REV
d i g i t a l		KA650	SHEET 3 OF 3	K	DD	M7620-0-0	D

COMPONENT SIDE VIEW

REWORK INSTRUCTION (ECO# M7620-ML001)
COMPONENT ADDS SIDE 1 (AS SHOWN)
O-1 ADD (P/N 1117166-00) D9 PIN 1 TO R5 PIN 2
AND D9 PIN 2 TO R5 PIN 1.

17

91
(4 PLS)

10436 REF
265.07 MM

8410 REF
213.61 MM

O-1

J3
J2
J1

E74 E71 E68 E64 E61 E58 E55 E52 E49 E46 E43 E41 E38 E35 E31 E28 E23 E17 E13 E8 E5 E4 E3
E73 E70 E67 E63 E60 E57 E54 E51 E48 E45 E42 E40 E37 E34 E30 E27 E21 E16 E12 E7 E6
E72 E69 E66 E62 E59 E56 E53 E50 E47 E39 E33 E26 E28 E30 E25 E19 E15 E11 E10 E2

E36 E29

E65
E44
E32
E1

C79
C16
C82
C71
C6

Y1
Y2

PIN#2   PIN#2   PIN#2   PIN#2

VUTSRPNMLKJHFEDCBA   VUTSRPNMLKJHFEDCBA   VUTSRPNMLKJHFEDCBA   VUTSRPNMLKJHFEDCBA
D   C   B   A

NOTES:
1. R1,R22,R47,W2,W3,W4 AND C2 ARE NOT
   INSTALLED.

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

CHANGE NO REV

SIGNATURES   DATE
DRN. R. KIMBALL
CHK'D.
MECH. ENG.
PROJ. ENG.
PROD.

digital

TITLE
KA650

SCALE 2/1
SHT. 1 OF 5

SIZE D CODE UA   NUMBER 10436-0-0   REV B

ETCH REV. K1

NEXT HIGHER ASSY. K-00-10436-0-0

1 MS# 275646

VIEW FROM SIDE 1

digital

5017073 01 K1   L1   M7620

SIZE CODE
D UA M7620-0-0   REV B

REVISION HISTORY
DATE | ECO NUMBER | REV.

TITLE
KA650

DOCUMENT NUMBER
SIZE CODE | NUMBER | REV
D UA | M7620-0-0 | B
SCALE 2/1 | SHEET 2 OF 5

L2

5017073 01 K1

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE
KA650

DOCUMENT NUMBER			
SIZE CODE	NUMBER		REV
D UA	M7620-0-0		B
SCALE 2/1		SHEET 3 OF 5	

SIZE CODE D UA NUMBER M7620 -0-0 REV B

L5

501787∃ 01 K1

M7620-0-0

REVISION HISTORY
DATE | ECO NUMBER | REV.

TITLE
KA650

SIZE CODE D UA | DOCUMENT NUMBER M7620 -0-0 | REV B
SCALE 2/1 | SHEET 4 OF 5

5017073 01 K1 L6

LPWR

KA650

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AA E1	BA E1	REFERENCE DESIGNATORS
1	1	K-DD-5017073-0-0	50-17073-01	A	CIRCUIT DRILL AND ETCH BOARD	1	1	
2	2		10-01610-00		0.010MFD 50V +80/-20% Z5U C	13	13	C13,C15,C24,C26,C27,C34,C36, CONT C42,C54,C58,C65,C69,C73
3	3		10-10274-02		1.0 MFD 50V +80/-20% Z5U C	1	1	C5
4	4		10-10279-01		0.47 MFD 25V +/-20% Z5U C	5	5	C3,C9,C10,C17,C18
5	5		10-13466-05		56 PFD 50V +/- 5% NPO C	1	1	C11
6	6		10-13466-07		220 PFD 50V +/- 5% NPO C	1	1	C20
7	7	SEE NOTE 4	10-14265-02		0.33 MFD 50V +80/-20% Z5U C	55	55	C1,C4,C7,C8,C12,C14,C19, CONT C22-C23,C25,C28-C33,C35, CONT C37-C41,C43-C53,C55-C57, CONT C59-C64,C66-C68,C72,C74-C81
8	8		10-17472-00		10 MFD 35V +75/-10% ALU	2	2	C6,C16
9	9		10-20446-05		22 MFD 16V +50/-20% ALU	2	2	C70,C71
10	10		10-20446-07		100 MFD 16V +50/-20% ALU	1	1	C82
11	11		11-03441-00		VZ= 8.2 5% 400 MW 1N756A	1	1	D3
12	12		11-05275-00		PIV= 60 IO=300 MA -15NS	3	3	D4-D6
13	13		11-14117-00		PIV= 40 IO= 75 A -4NS 1N4152	2	2	D1,D2
14	14		11-14136-02		LED 6.7MA 5V .2MCD GREEN	1	1	D7
15	15		11-20964-01		LED ASSY 4 RED 5V 8MA	1	1	D8
16	16		12-10929-02		FUSE PICO 1.0 A 125V AXIAL LEA	2	2	F1,F2
17	17		12-13113-03		HANDLE,MODULE	1	1	
18	18		12-13506-04		PCB HEADER 09PIN(2X05).100CC 90D	1	1	J1
19	19		12-13506-10		PCB HEADER 20PIN(2X10).100CC 90D	1	1	J2
20	20		12-21545-03		PCB HEADER 50PIN(2X25).100CC 90D	1	1	J3
21	21		12-15006-17		SKT,IC 28PIN DIP TIN SOLD	2	2	XE26,XE33
22	22		13-00197-00		33.0 .25 W 5.0 % CF	2	2	R50,R51
23	23		13-00202-00		47.0 .25 W 5.0 % CF	59	59	R2,R10,R13,R14,R30-R32,R36-R38, CONT R40,R42,R43,R45,R46,R48,R52, CONT R53,R55-R60,R65-R70,R72-R99, CONT R102

REVISION HISTORY			KPL MODULE FORMAT	SECTION A OF A	DRN: J. CUNNINGHAM DATE: 11-FEB-87	D I G I T A L
ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX		CHK'D: B. DITOMMASO DATE: 23-MAR-87	TITLE PARTS LIST KA650
---	INITIAL	A	[A] AA,BA [M]			
CD	M7620-ML001	B	[B] [N]		DES.ENG: C. DEVANE	
JK	M7620-CTS002	C	[C] [P]		DATE: 23-MAR-87	DOCUMENT NUMBER
JK	M7620-CTS003	D	[D] [Q]			SIZE CODE NUMBER REV
			[E] [R]		RESP.ENG.: C. DEVANE	
			[F] [S]		DATE: 17-SEP-87	K PL M7620-0-DBP D
			[H] [T]			
			[J] [V]			
			[K] [W]		MFG.ENG: K. RYAN	RELEASE DATE: 16-AUG-88
			[L] [Y]		DATE: 17-SEP-87	RELEASE STATUS: RELEASED

BASIC PART NUMBER: M7620
ASSEMBLY NUMBER: D-UA-M7620-0-0
TOP DOCUMENT NUMBER: K-DD-M7620-0-0
EDIT # 6

FILE NAME: MLA0178D.PLS

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION		QTY PER VAR/REV AA E1	BA E1	REFERENCE DESIGNATORS
24	24		13-00219-00	68.0	.25 W 5.0 %	CF	2	2	R33,R34
25	25		13-00271-00	220.0	.25 W 5.0 %	CF	9	9	R18-R20,R61,R62,R71,R100,R103, CONT R104
26	26		13-00365-00	1.0 K	.25 W 5.0 %	CF	4	4	R1,R12,R21,R29
27	27		13-00447-00	4.70 K	.25 W 5.0 %	CF	3	3	R7,R27,R28
28	28		13-00479-00	10.0 K	.25 W 5.0 %	CF	4	4	R4,R15-R17
29	29		13-01317-00	10.0	.25 W 5.0 %	CF	1	1	R49
30	30		13-01522-00	27.0	.25 W 5.0 %	CF	4	4	R39,R54,R63,R64
31	31		13-01808-00	22.0 K	.25 W 5.0 %	CF	1	1	R25
32	32		13-01969-00	22.0	.25 W 5.0 %	CF	2	2	R41,R101
33	33		13-02377-00	39.0	.25 W 5.0 %	CF	1	1	R9
34	34		13-02751-00	30.0	.25 W 5.0 %	CF	1	1	R44
35	35		13-04837-00	24.0 K	.25 W 5.0 %	CF	1	1	R6
36	36		13-05128-00	5.62 K	.25 W 1.0 % RN55D-F10		1	1	R8
37	37		13-13469-00	240.0	.25 W 5.0 %	CF	3	3	R3,R5,R26
38	38		13-16395-00	R. NET	4.7K- 9 2.0		7	7	Z3,Z4,Z6-Z10
39	39		13-16395-02	R. NET	1.0K- 9 2.0		2	2	Z5,Z13
40	40		13-18110-00	R. NET 330.0 -11 680.0 -11 5.0			4	4	Z1,Z2,Z11,Z12
41	41		13-18247-00	510.0	.25 W 5.0 %	CF	1	1	R35
42	42		13-19610-01	750.0 K	.25 W 0.1 % RN55E-B 2		1	1	R24
43	43		13-19645-01	487.0 K	.25 W 0.1 % RN55E-B 2		1	1	R23
44	44		15-10705-00	XA 05	NPN 500MW SI 60 50 P		1	1	Q1
45	45		18-28789-01		OSCILLATOR, XTAL 44.4444 MHZ		1	1	Y3
46	46		18-28789-02		OSCILLATOR, XTAL 40.00 MHZ		1	1	Y2
47	47		18-28790-02		OSCILLATOR, XTAL 25.6 KHZ		1	1	Y1
48	48		19-13777-B0	LS240	BURNED-IN DRIVER,LIN		2	2	E13,E17
49	49		19-14140-B1	211P	BURNED-IN VOLT COMPR		1	1	E6
50	50		19-14451-B0	LS393	BURNED-IN COUNTER,BI		1	1	E5
51	51		19-15415-B0	9636	BURNED-IN DRIVER,DUA		1	1	E8
52	52		19-16028-B1	9643	BURNED-IN DRIVER,TTL		1	1	E4
53	53		19-18868-BC	LS26	NAND GATE,2-IN,HIGH		1	1	E7
54	54		19-19542-B1	9639	RECEIVER,LINE,DUAL,P		1	1	E3
55	55		19-19684-01	*** THIS ITEM IS NOT USED ***			-	-	
56	56		19-20441-B1	74F245	TRANSCEIVER,BI-DIREC		4	4	E9,E15,E18,E19
57	57		19-20442-B1	74F374	FF-D,OCTAL,TRI-STATE		1	1	E41
58	58		19-20572-B1	74F244	BUFFER/LINE DRIVER,O		4	4	E11,E25,E42,E54
59	59		19-21008-B1	74F240	BUFFER/LINE DRIVER,O		2	2	E20,E45
60	60		19-21010-B1	74F373	OCTAL TRANSPARENT LA		4	4	E24,E29,E36,E56
61	61		19-21305-B1	74F00	NAND GATE,QUAD,2-IN,		1	1	E37
62	62		19-21306-B1	74F02	NOR GATE,QUAD,2-IN,B		1	1	E21
63	63		19-21307-B1	74F04	HEX INVERTER,BURNED		1	1	E16
64	64		19-21313-B1	74F64	AND OR INVERT GATE,4		2	2	E12,E27
65	65		19-21314-B1	74F74	FF-D,DUAL,BURNED-IN		2	2	E30,E34
66	66		19-21315-B1	74F86	EXCLUSIVE OR GATE,QU		2	2	E46,E53
67	67		19-21323-B1	74F174	FF-D,HEX,BURNED-IN		2	2	E10,E43
68	68		19-21330-B1	74F257	MUX,QUAD,2-IN,BURNED		1	1	E47
69	69		19-21332-B2	74F280A	PARITY GEN/CHECK,9-B		2	2	E40,E50
70	70		19-21417-B1	74F521	COMPARATOR,IDENTITY,		2	2	E48,E51
71	71		19-22481-B1	74F544	OCTAL REG TRANSCEIVE		5	5	E59,E62,E66,E69,E72
72	72		21-18054-07	16K MOS RAM 35NS S			4	4	E57,E58,E60,E61

D I G I T A L	TITLE	KA650	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
				K	PL	M7620-0-DBP	D

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VAR/REV AA E1	BA E1	REFEPENCE DESIGNATORS
73	73		21-24673-01		DC509 CVAX CLOCK CHIP	1	1	E39
74	74	SEE NOTE 1	21-24674-09		*** THIS ITEM IS NOT USED ***	-	-	
75	75		21-24942-01		*** THIS ITEM IS NOT USED ***	-	-	
76	76		21-25091-01		DC357 MEMORY CONTROLLER CVAX	1	1	E44
77	77		21-25972-01		BUS CONTROLLER INTER	1	1	E1
78	78		21-26266-04		RAM,STATIC 16KX4 35N	11	11	E49,E52,E55,E63,E64,E67,E68, CONT E70,E71,E73,E74
79	79	SEE NOTE 2	21-26604-02		DC513 CFPA CMOS FPU 90NS	1	1	E65
80	80		23-55E7 -00		*** THIS ITEM IS NOT USED ***	-	-	
81	81		23-56E7 -00		*** THIS ITEM IS NOT USED ***	-	-	
82	82		23-379J5-00		J5-07 PAL	1	1	E23
83	83		23-37E7 -00		*** THIS ITEM IS NOT USED ***	-	-	
84	84		23-380J5-00		J5-07 PAL	1	1	E28
85	85		23-381J5-00		J5-07 PAL	1	1	E31
86	86		23-382J5-00		J5-07 PAL	1	1	E35
87	87		23-383J5-00		J5-07 PAL	1	1	E38
88	88		23-384J5-00		J5-07 PAL	1	1	E22
89	89		23-385J5-00		J5-07 PAL	1	1	E14
90	90		23-38E7 -00		*** THIS ITEM IS NOT USED ***	-	-	
91	91		90-00024-01		EYELET,ROLLED 0.1210DX0.192	4	4	
92	92		90-09185-00		JUMPER, WIRE, INSULATED, BLACK B	2	2	W1,W5
93	93		99-07004-06		CARTON,DIE CUT,B,200PSI W/ARTWOR	1	1	
94	94		99-07025-06		BAG,ANTISTATIC BUBBLE	1	1	
95	95		99-07092-04		BAG,TRANSLUCENT,ESD PROTECTIVE	1	1	
96	96		19-19684-B1		385BZ PREC VOLT REF PRECON	1	1	Q2
97	97		21-24942-02		*** THIS ITEM IS NOT USED ***	-	-	
98	98		23-70E7 -00		E7-01,E7-04 U	-	1	E33
99	99		23-71E7 -00		E7-01,E7-04 U	-	1	E26
100	100		23-68E7 -00		E701,E7-04 U	1	-	E33
101	101		23-69E7 -00		E7-01,E7-04 U	1	-	E26
102	102		11-17166-00		PIV= 20 IO= 1.00A DO-35	1	1	D9
103	103		21-24674-11		*** THIS ITEM IS NOT USED ***	-	-	
104	104		21-24942-03	A	DC511 MICROVAX SYSTEM SUPPORT CH	1	1	E2
105	106		21-24674-13		DC341 CVAX 90 NS W/ POLYX INSTR	1	1	E32

1 GEN: THE -10 VARIATION OF PART# 21-24674-09 MAY BE USED IN PLACE OF THE -09 VARIATION ON THE M7620-AA AND -BA MODULES.
2 GEN: THE -03 AND -04 VARIATIONS OF PART# 21-26604-02 MAY BE USED IN PLACE OF THE -02 VARIATION ON THE M7620-AA AND -BA MODULES
3 GEN: THE -12 VARIATION OF PART #21-24674- , MAY BE USED IN PLACE OF THE -11 VARIATION.
4 GEN: 10-29563-01 MAY BE USED IN PLACE OF ITEM #7, 10-14265-02.

D I G I T A L	TITLE	KA650	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
				K	PL	M7620-0-DBP	0

KA650 SYSTEM
FUNCTIONAL

DRAWING TREE

SEE PAGE 1

KA650 SYSTEM
FUNCTIONAL

TOP LEVEL VIEW

SEE PAGE 2

KA650 SYSTEM
FUNCTIONAL

TOP LEVEL VIEW
WITH DETAIL

SEE PAGE 3

KA650 SYSTEM FUNCTIONAL CPU AND FPA SUBSYSTEM SEE PAGE 4	KA650 SYSTEM FUNCTIONAL MEMORY CONTROLLER SUBSYSTEM SEE PAGE 5	KA650 SYSTEM FUNCTIONAL Q22-BUS INTERFACE SUBSYSTEM SEE PAGE 6	KA650 SYSTEM FUNCTIONAL ADDRESS LATCH SUSBSYSTEM SEE PAGE 7	KA650 SYSTEM FUNCTIONAL CDAL TO BCDAL BUFFER SUBSYSTEM SEE PAGE 8	KA650 SYSTEM FUNCTIONAL SECOND LEVEL CACHE SUBSYSTEM SEE PAGE 9	KA650 SYSTEM FUNCTIONAL CLOCK SUBSYSTEM SEE PAGE 19	KA650 SYSTEM FUNCTIONAL SYSTEM SUPPORT FUNCTIONS SEE PAGE 20	KA650 SYSTEM FUNCTIONAL BOOT AND DIAGNOSTIC ROMS SEE PAGE 21
SCHEMATIC P 22	SCHEMATIC P 23	SCHEMATIC P 24	SCHEMATIC P 25	SCHEMATIC P 26		SCHEMATIC P 22	SCHEMATIC P 32	SCHEMATIC P 34
							SCHEMATIC P 33	

LSI
FOOTPRINTS

SCHEMATIC P 36
SCHEMATIC P 37
SCHEMATIC P 38
SCHEMATIC P 39

SIGNAL
GLOSSARY

SCHEMATIC P 40

DECOUPLING
CAPACITORS

SCHEMATIC P 35

KA650 SYSTEM
FUNCTIONAL

DATA STORE

SEE PAGE 10

SCHEMATIC P 27
SCHEMATIC P 28

KA650 SYSTEM
FUNCTIONAL

TAG STORE

SEE PAGE 11

SCHEMATIC P 29

KA650 SYSTEM
FUNCTIONAL

CACHE CONTROL
REGISTER

SEE PAGE 18

SCHEMATIC P 31

KA650 SYSTEM
FUNCTIONAL

CONTROL
STATE MACHINE

SEE PAGE 12

SCHEMATIC P 30

KA650 SYSTEM
FUNCTIONAL

CACHESTB
STATE MACHINE

SEE PAGE 13

KA650 SYSTEM
FUNCTIONAL

DSCONTINUE
STATE MACHINE

SEE PAGE 14

KA650 SYSTEM
FUNCTIONAL

CACHE CONTROL
FLOW DIAGRAM

SEE PAGE 15
SEE PAGE 16
SEE PAGE 17

REVISIONS

TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 13:42:59 1987

digital

| DRN. C.DEVANE | 11-DEC-87 | ENG. C.DEVANE | 11-DEC-87 |

C.DEVANE 22-SEP-87

TITLE: KA650 SYSTEM FUNCTIONAL
DRAWING TREE

TOP DOCUMENT NUMBER: K-DD-M7620-C-0

SIZE K CODE CS NUMBER M7620 -C -1 REV. A

KA650 SYSTEM FUNCTIONAL TOP LEVEL VIEW

BOOT AND DIAGNOSTIC ROMS
SEE PAGE 21

SYSTEM SUPPORT FUNCTIONS
INCLUDES:
DC511 - SSC
SEE PAGE 20

2ND LEVEL CACHE SUBSYSTEM
SEE PAGE 9

CDAL TO BCDAL BUFFER SUBSYSTEM
SEE PAGE 8

ADDRESS LATCH SUBSYSTEM
SEE PAGE 7

CPU AND FPA SUBSYSTEM
WITH 1ST LEVEL CACHE
INCLUDES:
DC341 - CVAX CPU
DC513 - CVAX FPA
SEE PAGE 4

Q22-BUS INTERFACE SUBSYSTEM
INCLUDES:
DC527 - CQBIC
SEE PAGE 6

MEMORY CONTROLLER SUBSYSTEM
INCLUDES:
DC557 - CMCTL
SEE PAGE 5

CLOCK SUBSYSTEM
INCLUDES:
DC509 - CCLK
SEE PAGE 19

J3, CD FINGERS

A<31:2> H
A3 L

BCDAL<31:00> H

CSDP<3:0> L
CDPE L

CDAL<31:00> H

J2, J1

AB FINGERS

KA650 SYSTEM FUNCTIONAL TOP LEVEL VIEW WITH DETAIL

BOOT AND DIAGNOSTIC ROMS
SEE PAGE 21

SYSTEM SUPPORT FUNCTIONS
INCLUDES:
DC511 - SSC
SEE PAGE 20

2ND LEVEL CACHE SUBSYSTEM
SEE PAGE 9

ADDRESS LATCH SUBSYSTEM
SEE PAGE 7

TO BCCAL BUFFER SUBSYSTEM
SEE PAGE 8

CPU AND FPA SUBSYSTEM
WITH 1ST LEVEL CACHE
INCLUDES:
DC341 - CVAX CPU
DC513 - CVAX FPA
SEE PAGE 4

Q22-BUS INTERFACE SUBSYSTEM
INCLUDES:
DC527 - COBIC
SEE PAGE 6

MEMORY CONTROLLER SUBSYSTEM
INCLUDES:
DC357 - CMCTL
SEE PAGE 5

CLOCK SUBSYSTEM
INCLUDES:
DC509 - CCL
SEE PAGE 18

NOTES:
ALL SIGNALS PASSING BETWEEN FUNCTIONAL BLOCKS APPEAR ON THIS PAGE, EITHER EXPLICITLY OR IN A BUS. EXPLICIT SIGNAL NAMES SHOW THEIR ASSERTION LEVEL. BUS NAMES DO NOT SHOW AN ASSERTION LEVEL.

J3, CD FINGERS

PAGE 3 OF 40

TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 13:51:08 1987

digital

DRAWN: D.BARIA 11-DEC-87
CHK: C.DEVANE 22-SEP-87
ENG: C.DEVANE 11-DEC-87

TITLE: KA650 SYSTEM FUNCTIONAL TOP LEVEL VIEW WITH DETAIL

TOP DOCUMENT NUMBER: K-DD-M7620-C-0

SIZE: K   CODE: CS   NUMBER: M7620 -C -3   REV: A

CDAL<31:0> H

32

5   CSCR<3:0> H   CDPE L

CVAX CPU
INCLUDES FIRST LEVEL CACHE

UNDCCAS L
UNDCDS L
UNDCHPL L
CRDY L
CERR L
CDBE L
CBM<3:0> L
CDMR L
UNDCDMG L

CMCLKA H
CMCLKB H
CRESET H

BUS CONTROL

CLOCKS

CCRD L
CCPUHALT L
CMEMERR L
CPWRFL L
CINTTIM L
CIRQ<3:0> L

CACHEERR H
CMCTLCPD L

<E22 - PAL16L8B>

CCCTL L

INTERRUPTS

<E32 - DC341>
SEE PAGE 22

CCPDAT<5:0> H
CCPSTA<1:0> H

CFPA
FLOATING POINT ACCELERATOR

CDAL<31:0> H

CAS1 L
CRDY L
CERR L
CDMG L

CMCLKA H
CMCLKB H
CRESET H

<E65 - DC513>
SEE PAGE 22

PAGE 4 OF 40

CDAL<31:0> H

CSDP<3:0> L , CDPE L

BUS CONTROL

INTERRUPTS

CLOCKS

32

5

CHS1 L
CCS L
CDP L
CDPD L
CDM<3:0> L
CDMG

CMCTLRD L
CMEMERR L

CMCLK4 H
CADPB H
CDCSET L

NLMP L

CMCTL

FUNCTIONS:

* CONTROLS UP TO 64 MB DYNAMIC RAM

* PERFORMS ECC GENERATION AND CHECKING

* CONTROLS MAIN MEMORY FAST TEST MODE

* SUPPORTS BYTE,WORD,LW,QW,HW,OW TRANSFERS

<E44 - DC357>

MEMORY
DATA

MEMORY
ADDRESS

CAS
RAS

WE   SE

39

10

8

MEMORY CONNECTOR (J3)

CD FINGERS

1
XADDR<21:20> H
1

2

<E45 - 74F240>

SEE PAGE 23

PAGE 5 OF 40

+5V

CDPE L
CSDP3 H

HALT111 L
INED0 L
IOPRESET L
AUX L

BPOW H, BDCOK H
SPUN L

CSDP<3:0> H   CDPE L

CDAL<31:0> H

COBIC

UNDCAS L
UNDCDS L
UNDCMP L
STSPDY L
STSERR L
CBM<3:0> L
CDMR L
CDMG L

BUS CONTROL

CMEMERR L
CPWRFL L
CIPO<3:0> L

INTERRUPTS

FUNCTIONS:

* CONTROLS 022 BUS MASTERSHIP (IF CONFIGURED AS ARBITER)

* PERMITS CPU ACCESS TO 022-BUS

* INTERFACES 022-BUS 16 BIT DATAPATH TO
  CDAL BUS 32 BIT DATA PATH

* TRANSLATES BETWEEN QBUS 22B ADDRESSES AND
  CDAL 30 BIT ADDRESSES

* MANAGES 8K LW SCATTER-GATHER MAP IN
  MAIN MEMORY

* CACHES 16 ENTRIES OF SCATTER-GATHER MAP

(E1 - DC527)
SEE PAGE 24

NLMR L
NCQBR L
SYSRESET L
TB40M H
CCCTL L

44

AB
FINGERS

TO
022-BUS

022-BUS

SEE PAGE 24

K CS-M7620-C-6

CS M7620-C-7   A   2

LATCH

CSDP<2:0> H

CYCSTS<2:0> H

A<31:2> H

CDAL<31:2> H

BCDAL3 H

<E12 - 74F64>

SECGW H   A3 L

<E45 - 74F240>

HOLDADDR L   HOLD

HOLDADDR H   HOLD   A3 H

SECLW H   A2 H

<E24,29,36,56,12 - 74F373,F64>   <E46 - 74F86>

BUS CONTROL

CAS2 L

CLOCK   CDMG L

ACLKC H   CLRREG L

<E23 - PAL16L8B>

NOTE: CLRREG L (USED BY SECOND LEVEL CACHE CONTROL LOGIC)

IS ELECTRICALLY IDENTICAL TO HOLDADDR H
SEE PAGE 9

LATCH

CWR L

LCWR L

HOLD

SEE PAGE 25

<E22 - PAL16L8B>

REVISION/DRAWING
CHK CHANGE TO REV
TITLE=MAYFAIRC
LAST MODIFIED=Fri Dec 11 14:01:09 1987

digital

D.BARTA   11-DEC-87
C.DEVANE   22-SEP-87

ENG. C.DEVANE   11-DEC-87

TITLE: KA650 SYSTEM FUNCTIONAL
ADDRESS LATCH SUBSYSTEM

FIRST USED ON OPTION/MODEL

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE CODE   NUMBER
K CS   M7620 -C -7

REV.
A

CDAL<31:0> H

BCDAL<31:0> H

BUS CONTROL

CAS2 L

BCDS H

NCQBR L

NLMR L

LCWR L

A<29> H

CYCSTS<2:0> H

DECODE LOGIC
CONTAINED IN PAL

READSSC L

ENBSSC L

DIR

OE

WHEN READSSC L IS
ASSERTED DATA FLOWS
FROM A TO B.

<E9,15,18,19 - 74F245>

IAKEO L

DECODE LOGIC
CONTAINED IN PAL

<E14 - PAL16L8B>

REVISION

TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 14:03:11 1987

digital

D.BARTA 11-DEC-87
C.DEVANE 22-SEP-87

C.DEVANE 11-DEC-87

TITLE: KA650 SYSTEM FUNCTIONAL
CDAL TO BCDAL BUFFER SUBSYSTEM

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE CODE   NUMBER   REV.
K CS   M7620 -C -8   A

BCDAL<23:0> H

BUS CONTROL

CERR L
CDMG L
ACLKC2 H
LCWP L

CLOCK

BCDAL<23:8> H

16

OECCP L
ENBCACHE L
DIAGMODE L
ENBUUP L

BCDAL<7:0> H

8

TAG STORE

SEE PAGE 11

A<25:4> H
A 3 L

23

TAGEPROP L
MATCH<1:0> L

UPDAT L
WRTAG<2:1> L
CSTAG L

CACHE CONTROL
REGISTER

SEE PAGE 13

LCWR L
BCDS H
ADSO L
SYSRESET L
CACHEERR H

BUS CONTROL

INTERRUPT

TAGEPROP L
MATCH<1:0> L

CACHEERRSTB L

DATA STORE

ENBUUP H

UPDAT L
WRTAG<2:1> L
CSTAG L

CONTROL STATE
MACHINE

CYCSTS<2:0> H
A<31:26> H
LCWR L
CDMG L
CDS2 L
CERR L
CRDY L
BCDS H
CBM<3:0> L
CAS2 L
ACLKA H
ACLKB H
CLRREG L

BUS CONTROL

CLOCK

A<15:4,2> H
A3 L

13

UPDAT L
ENBXMIT L
CSDAT<3:0> L

SEE PAGE 10

SEE PAGE 12

CSDP<3:0> H
CDPE L

CDAL<31:0> H

ACLKC2 H

BCDS H

CDBE L

CLOCK
BUS CONTROL

SECLW H

SECOW H

A<31:4,2>, A3 L

A<15:4,2>, A3 L

WRDAT L

CSDAT<3:0> L

DATA STORE PARITY
16K X 4
STATIC RAM

ADDRESS

WE

CS   D O

SEE PAGE 27
<E57,58,61 - 216?>

DATA STORE
16K X 32
STATIC RAM
(64KB)

ADDRESS

WE

CS   D O   SEE PAGE 27

<E63,E4,6?,68,70,71,73,74 - 4362>

+5V

PULLUPS FOR WRITING
WRONG PARITY

+5V

ENBWWP H
WRDAT L   OE

LATCH
OPEN

BCDS H
ENBXMIT L

WRDAT L   OE

LATCH
OPEN

BCDS H
ENBXMIT L

ACLKC2 H
WRDAT L   LATCH
OPEN

LATCH
OE

CDBE L
ENBXMIT L

ACLKC2 H
WRDAT L   OPEN   LATCH

LATCH
OE

CDBE L
ENBXMIT L

CSDP<3:0> H

SEE PAGE 28
<E59 - 74F544>

CDPE L

CDAL<31:00> H

SEE PAGE 28
<E62,66,69,72 - 74F544>

TAG COMPARATOR

H<25:16> H

PREDICTIVE PARITY TREE

PREDPAR L

FOP COMPARISON TO VALID BIT
FOP COMPARISON TO PARITY BIT

COMPARATOR

A<25:16> H

<E50,53 - 74F280,F86>

ENBWUP L

<E53 - 74F86>

CERR L

LATCH

ACLKC2 H

OPEN

WRDAT L

SEE DETAIL FOR IMPLEMENT- ATION

BCERR H

A

B

0

A

1

SEL

B

<E53 - 74F86>

MATCH<1:0> L

ENBCACHE L

<E48,51 - F521>

ERROR CHECKING PARITY TREE

TAGERROR L

<E40,46 - F280,F86>

DIAGMODE H

CDMG L

<E57 - 74F00>

LCWR L

<E47 - 74F257>

A<25:16> H

OE

WRTAG2 L

<E47,54 - 74F257,F244>

TAGDATA<11:0> H

BCDAL<23:8> H

OE

OECCR L

<E42,25 - F244>

CACHE CONTROL REGISTER
DIAGNOSTIC WINDOW

A<31:4,2> H, A3 L

A<15:4> H, A<3> L

ADDR

D/O

TAG STORE

8K X 12
STATIC RAM

WRTAG1 L

WE

CSTAG L

CS

<E49,52,55 - 4362>

ACTUAL IMPLEMENTATION OF BCERR H LATCH <E59 - 74F544>   SEE PAGE 28

ACLKC2 H

WRDAT L

D   Q

OPEN

CERR L

CDBE L

ENBXMIT L

OE

ENBWUP H

WRDAT L

OE

BCDS H

ENBXMIT L

Q   D

OPEN

BCERR H

SEE PAGE 29

REVISION
CHANGE NOTICE

TITLE=MAYFAIRC

LAST_MODIFIED=Fri Dec 11 14:09:48 1987

digital

DRN. D.BARTA   DATE 11-DEC-87
ENG. C.DEVANE   DATE 11-DEC-87
CHK. C.DEVANE   DATE 22-SEP-87

TITLE: KA650 SYSTEM FUNCTIONAL
SECOND LEVEL CACHE SUBSYSTEM
TAG STORE

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE K   CODE CS   NUMBER M7620 -C -11   REV. A

ENBCACHEPDY L

CRDY L
ENBXMIT L

CAS2 L
ACLKB H

CACHESTB H
CACHESTBDLY H
CACHESTBDLYDLY L
CACHESTBDLYPLS

CACHESTB
LOGIC

SEE PAGE 13

CACHEPPSTBD L
CACHEPPSTB L

COMBO LOGIC
CONTAINED
IN PALS

UPDATD L
UPDAT L

BCDS H
CRDY L
CERR L
ACLKB H
CAS2 L
ACLKA H

DSCONTINUE
LOGIC

DSCONTINUE L

UPTAGD L
UPTAG<2:1> L

SEE PAGE 14

CBM<3:0> L

BCM<3:0> L

ACLKB H

+5V

CLRREG L

<E10,43 - 74F174>

TRIZCACHE L

CSDATD<3:0> L
CSDAT<3:0> L

CYCSTS<2:0> H
A<31,29,26> H
LCWR L
CDMG L
TRIZCACHE L

CYCLE TYPE
ENCODING

SEE TABLE
BELOW

CYCTYP<2:0>

CSTAGD L
CSTAG L

<E31 - PAL16L8B>

SECOND LEVEL CACHE CYCLE TYPE ENCODING
X = DON'T CARE

MATCH<1:0> L
TAGERROR L
CYCSTS<2:0> H
LCWR L
A<31:28> H
CDMG L
ENBCACHE L

SECLWD L
SECLW H

MISS H
MISSDLY H
SECLW H
CSTAG L
SECOW H
SECOWDLY H
SECOWDLYPLS H

SECOWDLY H

SECOWD L

SECOW H

SECOW L

SECOWDLYPLS H

<E21 - 74F02>

MISSD L

MISS H

MISSDLY H

ACLKB H
CLRREG L

SEE PAGE 30

SEE PAGES
15-17

<E23,28,31,35,38 - PAL16L8B>

<E30,34,10,43,41 - 74F74,F174,F374>

CDMG L	A<29:26> H	A<31:30> H	CWR L	CYCSTS<2:0>	CYCTYP<2:0>	mnemonic
H	LLLL	LH	H	LLL	LLL	c-LW-rd
H	LLLL	LH	H	LLH	LLL	c-LW-rd
H	LLLL	LH	H	HHL	LLL	c-LW-rd
H	LLLL	HL	H	LLL	HLL	c-OW-rd
H	LLLL	HL	H	LLH	HLL	c-OW-rd
H	LLLL	HL	H	HHL	HLL	c-OW-rd
H	LHLL	LH	H	LLL	LHL	f-LW-rd
H	LHLL	LH	H	LLH	LHL	f-LW-rd
H	LHLL	LH	H	HHH	LHL	f-LW-rd
H	LHLL	HL	H	LLL	HHL	f-OW-rd
H	LHLL	HL	H	LLH	HHL	f-OW-rd
H	LHLL	HL	H	HHH	HHL	f-OW-rd
H	LLLL	LH	L	HLH	LLH	c-LW-wr
H	LHLL	LH	L	HLH	LHH	f-LW-wr
L	LLLL	xx	L	xxx	HLH	DMA-wr
ALL OTHERS					HHH	

CAS2 L   CACHESTB H   CACHESTBDLY H   ⟨E16 - 74F04⟩   CACHESTBDLYDLY L

⟨E30 - 74F74⟩   ⟨E41 - 74F374⟩   ⟨E41 - 74F374⟩   CACHESTBDLYPLS

ACLKB H   ⟨E37 - 74F00⟩

CACHESTB
CACHESTBDLY
CACHESTBDLYPLS
CACHESTBDLYDLY

XXX.X

CLOCK PHASE   3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
ACLKB H

CAS2 L

CACHESTB H

CACHESTBDLY H

CACHESTBDLYDLY L

CACHESTBDLYPLS L

100/0   111/0

CAS2 L

-CAS2 L   000/0

CAS2 L

-CAS2 L

010/1   110/1   CAS2 L

-CAS2 L

NOTES:

1. CVAX ASSERTS CAS2 L DURING P1, NEGATES CAS2 L DURING P2

2. DURING DMA, CAS2 L IS ASYNCHRONOUS TO ACLKB H;
   CACHESTB H SHOULD NOT BE USED DURING DMA DUE TO METASTABILITY HAZARD

CS M7620-C-13

CLOCK PHASE 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4

ACLKA H

ACLKB H

BCDS H

CDS2 L

CRDY L · CERR L

DSCONTINUE L

BCDS H
CRDY L
CERR L
ACLKB H

CDS2 L
ACLKA H

DSCONTINUE L

CDS2 L
CRDY L
CERR L

DSCONTINUE

SYNCHRONOUSLY ASSERTS WITH CDS2
SYNCHRONOUSLY NEGATES WITH CRDY + CERR

BCDS * ACLKB * -CRDY * -CERR

(0) → (1)

-CDS2
+ ACLKB * CRDY
+ ACLKB * CERR

REVISION
CHK CHANGE NO. DRAWING

TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 14:29:41 1987

| | DRN. D.BAPTA | DATE 11-DEC-87 | ENG. C.DEVANE | DATE 11-DEC-87 |
| digital | CHK C.DEVANE | DATE 22-SEP-87 | | |

TITLE: KA650 SYSTEM FUNCTIONAL
SECOND LEVEL CACHE SUBSYSTEM
DSCONTINUE STATE MACHINE

USR#:
FIRST USED ON OPTION/MODEL:

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE CODE: K CS   NUMBER M7620 -C -14   REV. A

START

DMA — YES / NO

MAIN MEMORY SPACE — NO / YES

MAIN MEMORY SPACE — NO / YES

CACHE DIAGNOSITC SPACE — NO / YES

WRITE — NO / YES

WRITE — NO / YES

WRITE — NO / YES

QUADWORD — NO / YES

QUADWORD — NO / YES

f_LW_rd
SEE PAGE 17

f_QW_rd
SEE PAGE 17

f_LW_wr
SEE PAGE 17

c_LW_rd
SEE PAGE 16

c_QW_rd
SEE PAGE 16

c_LW_wr
SEE PAGE 16

DMA__wr
SEE PAGE 17

SEE PAGE 30

NOTE: THIS DRAWING DOES NOT SHOW TIMING.

PAGE 15 OF 40

K CS M7620-C-15 A

NOTE: THIS DRAWING DOES NOT SHOW TIMING.

SEE PAGE 30

REVISION: DRAWING
CHK CHANGE NO REV
TITLE=MAYFAIRC
LAST MODIFIED Fri Dec 11 14:33:58 1987

digital	DFN. D.BARTA	DATE 11-DEC-87	ENG. C.DEVANE	DATE 11-DEC-87	TITLE: KA650 SYSTEM FUNCTIONAL
	CHK C.DEVANE	22-SEP-87	ENG'D LOCATION:		SECOND LEVEL CACHE SUBSYSTEM
USPA:			SHEET	OF	CACHE CONTROL FLOW DIAGRAM P.3
FIRST USED ON OPTION/MODEL:		TGP DOCUMENT NUMBER: K-DD-M7620-C-0			SIZE K CODE CS NUMBER M7620 -C -16 REV. A

f_LW_rd

ENBXMIT
ENBCACHEPDY
CRDY

f_QW_rd

ENBXMIT
ENBCACHEPDY
CRDY

INC ADDRESS
SECLW

f_LW_wr

ENBCACHEPDY
-ENBXMIT
WRITE INTO
DATA STORE

DIAGNOSTIC
MODE

NO

INVALIDATE
TAG STORE

YES

ALLOCATE
TAG STORE

DMA__wr

MATCH

YES

NO

INVALIDATE
CACHE BLOCK

CONDITIONAL
CACHEERRSTB
IF TAGERROR

HEXWORD
OR
OCTAWORD

NO (LONGWORD OR
QUADWORD)

YES

INC ADDRESS
SECQW

MATCH

YES

NO

INVALIDATE
CACHE BLOCK

CONDITIONAL
CACHEERRSTB
IF TAGERROR

START

NOTENOTENOTENOTE: THIS DRAWING DOES NOT SHOW TIMING.

REVISION DRAWING
CHK CHANGE NO. REV
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 14:35:38 1987

digital

DRN. D.BARTA DATE 11-DEC-87
CHK C.DEVANE DATE 22-SEP-87
ENG. C.DEVANE DATE 11-DEC-87
BOARD LOCATION:
SHEET 1 OF 1
USRAI
FIRST USED ON OPTION/MODEL:
TOP DOCUMENT NUMBER: K-DD-M7620-C-0

TITLE: KA650 SYSTEM FUNCTIONAL SECOND LEVEL CACHE SUBSYSTEM CACHE CONTROL FLOW DIAGRAM P.3

SIZE K CODE CS NUMBER M7620 -C -17 REV. A

REGISTER

BCDAL<5,4,1,0> H

CACHEERRSTB L
LCWR L
BCDS H
ADS0 L

WRITE

CLEAR

SYSRESET L

<E22 - PAL16L8B>

+5V

W1
W3

CACHEERR L
ENBCACHE L

ENBWWP L
DIAGMODE L

BCDAL<7:0> H

OE

LCWR L
BCDS H
ADS0 L

OECCR L

<E22 - PAL16L8B>

DIAGMODE H

ENBWWP H

ENBWWP L
CACHERR H

1. CACHEERR
SET BY CACHEERRSTB
CLEARED BY SYSRESET OR WRITING A 1

CACHEERRSTB

(0) ⟷ (1)

SYSRESET + (LCWR * BCDS * ADS0 * BCDAL5)

2. ENBCACHE
READ/WRITE
CLEARED BY SYSRESET, CACHEERR, OR DIAGMODE

LCWR * BCDS * ADS0 * BCDAL4

(0) ⟷ (1)

SYSRESET + CACHEERR + DIAGMODE +
LCWR * BCDS * ADS0 * -BCDAL4

3. DIAGMODE
READ/WRITE
CLEARED BY SYSRESET

LCWR * BCDS * ADS0 * BCDAL0

(0) ⟷ (1)

SYSRESET + (LCWR * BCDS * ADS0 * -BCDAL0)

4. ENBWWP
READ/WRITE
CLEARED BY SYSRESET

LCWR * BCDS * ADS0 * BCDAL1

(0) ⟷ (1)

SYSRESET + (LCWR * BCDS * ADS0 * -BCDAL1)

SEE PAGE 31

PAGE 18 OF 40

DRAWING
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 14:39:59 1987

REVISION
CHK | CHANGE NO | REV

digital

DRN: D.BARTA 11-DEC-87
CHK'D: C.DEVANE 22-SEP-87
ENG: C.DEVANE 11-DEC-87

TITLE: KA650 SYSTEM FUNCTIONAL
SECOND LEVEL CACHE SUBSYSTEM
CACHE CONTROL REGISTER

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE K CODE CS NUMBER M7620 -C -18 REV. A

FIRST USED ON OPTION/MODEL:

40MHZ OR 44.44MHZ

XTAL
OSC
Y3

XTAL
OSC
Y2

40MHZ

JUMPER (W4)

BUS CONTROL

CRDY L
CERR L
CDS1 L
CDMG L

SYSRESET L

CCLK

SYNCHRONIZATION SECTION

CLOCK SOURCE SECTION

〈E39 - DC509〉

STSRDY L
SYSERR L

CRESET L

UNDCMCLKA H
UNDCMCLK.B H
UNDACLKA H
UNDACLKB H
UNDACLKC H

CLOCKS

TB40M H

〈E37 - 74F00〉

NOTES:
1. IF Y3 IS 40MHZ, THEN Y2 IS DELETED AND W4 IS INSTALLED
2. IF Y3 IS NOT 40MHZ THEN Y2 IS INSTALLED AND W4 IS DELETED

SEE PAGE 22

REVISION
CHK CHANGE NO REV
DRAWING
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 14:42:38 1987

digital

DRN. D.BAPTA 11-DEC-87
CHK. C.DEVANE 22-SEP-87
ENG. C.DEVANE 11-DEC-87

USRAi
FIRST USED ON OPTION/MODEL:

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

BOARD LOCATION:
SHEET   1   OF   1

TITLE: KA650 SYSTEM FUNCTIONAL
CLOCK SUBSYSTEM

SIZE CODE   NUMBER   REV.
K   CS   M7620 -C -19   A

KA650 SYSTEM FUNCTIONAL
SYSTEM SUPPORT FUNCTIONS

PAGE 20 OF 40

ROM CONTROL

+5V

ADDR0 H   W2

A16 H   W5

A<15:2> H

W5	W2	CONFIGURATION		
NOT INSTALLED	NOT INSTALLED	2 27256 EPROMS	64KB TOTAL	
NOT INSTALLED	INSTALLED	1 27512 EPROM	64KB TOTAL	
INSTALLED	NOT INSTALLED	2 27512 EPROMS	128KB TOTAL	
INSTALLED	INSTALLED	ILLEGAL		

MSB

ADDRESS

MSB

ADDRESS

PROM 0
LOW BYTE

PROM 1
HIGH BYTE

ADDR1 H

LSB

<E33 - 27512>

OE   DATA

LSB

<E26 - 27512>

OE   DATA

ENBROM L

8

8

BCDAL<7:0> H

BCDAL<15:8> H

16   BCDAL<15:0> H

SEE PAGE 34

REVISION
CHK CHANGE NO REV DRAWING

TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 17:01:22 1987

digital

| DRN. D.BARTA | DATE 11-DEC-87 | ENG. C.DEVANE | DATE 11-DEC-87 |
| CHK C.DEVANE | 22-SEP-87 | | |

TITLE: KA650 SYSTEM FUNCTIONAL
BOOT AND DIAGNOSTIC ROMS

USRA:
FIRST USED ON OPTION/MODEL:

TOP DOCUMENT NUMBER:
SHEET 1 OF 1

K-DD-M7620-C-0

| SIZE | CODE | NUMBER | REV. |
| K | CS | M7620 -C -21 | A |

CS M7620-C-21

CLOCK
SEE PAGE 39
FOR CCLK FOOTPRINT

FOR 90 NS OPERATION REMOVE W4
FOR 100 NS OPERATION REMOVE Y3

+5V

E39
CCLK
DC509

+5V

OSC
Y3
44.4444 MHZ

OSC
Y2
40.0 MHZ

CVAX
CPU
DC341
E32

CPU

SEE PAGE 36
FOR CPU FOOTPRINT

E45

CDS1 L — BCDS H
SOFTGND1 L

+5V

CFPA
DC513
E65

FPA

SEE PAGE 36
FOR CPU FOOTPRINT

KA650 CIRCUIT SCHEMATICS
PAGE 22 OF 40

digital

REVISION DRAWING
CHK CHANGE NO REV
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 17:04:05 1987

DRN: R.Leozer DATE: 11-DEC-87 ENG: C. DEVANE 11-DEC-87
C.DEVANE 22-SEP-87
TOP DOCUMENT NUMBER: K-DD-M7620-C-0

TITLE: CPU AND FPA SUBSYSTEM
CLOCK SUBSYSTEM

SIZE: K CODE: CS NUMBER: M7620 -C -22 REV: A

CMCTL
DC353
E44

(47 ohm)

SEE PAGE 32
FOR CMCTL FOOTPRINT

+5V

J3

COBIC
DC527
E1

CDAL31 H 115
CDAL30 H 114
CDAL29 H 113
CDAL28 H 112
CDAL27 H 111
CDAL26 H 110
CDAL25 H 109
CDAL24 H 108
CDAL23 H 107
CDAL22 H 104
CDAL21 H 103
CDAL20 H 102
CDAL19 H 101
CDAL18 H 100
CDAL17 H 99
CDAL16 H 97
CDAL15 H 96
CDAL14 H 95
CDAL13 H 94
CDAL12 H 93
CDAL11 H 90
CDAL10 H 89
CDAL9 H 89
CDAL8 H 88
CDAL7 H 87
CDAL6 H 86
CDAL5 H 85
CDAL4 H 84
CDAL3 H 82
CDAL2 H 81
CDAL1 H 80
CDAL0 H 79

C DAL

BDAL21 L   35   BCDAL21 L   [EE1]   [EF1]
            40   BCDAL20 L   [EC1]   [ED1]
            19   BDAL19 L   [ED1]   [ED1]
            41   BDAL18 L   [HL1]   [HD1]
            44   BDAL17 L   [MC1]   [MC1]
            18   BDAL16 L   [HV2]
            15   BDAL15 L   [EU2]   [ET2]
            14   BCDAL14 L   [ES2]   [EP2]
            13   BCDAL13 L   [EP2]   [EP2]
            21   BCDAL12 L   [EM2]   [EL2]
            22   BCDAL11 L   [EK2]   [EJ2]
            BCDAL10 L   [EJ2]
            9   BDAL9 L   [EF2]   [EV2]
            BDAL8 L   [EV2]
            BCDAL7 L   [GH2]   [GE2]
            BCDAL6 L   [GE2]   [GP2]
            BCDAL5 L   [GP2]   [AF2]
            BCDAL4 L   [BN1]   [AR2]
            BCDAL3 L   [AR2]   [ART]
            BCDAL2 L   [ART]   [AT2]
            BCDAL1 L   [AT2]   [AN1]
            BDAL0 L   [AN1]   [AN2]

BSTRICB   55   BSTNC L   [GU2]
BDIN   56   BDIN L   [GH2]
BDOUT   59   BDOUT L   [GE2]
BBS7   54   BBS7 L   [GP2]
BWTBT   58   BWTBT L   [AP2]   [BN1]
BSACK   60   BSACK L   [BN1]   [AF2]
BRPLY   57   BRPLY L   [AF2]   [AT2]
BREF   61   BREF L   [ART]   [AT2]
BINIT   53   BINIT L   [AT2]   [AN1]
BDMR   47   BDMGO L   [AN1]
BDMG   52   BDMGI L   [AN2]   [AS2]
BIAK   BIAKO L   [AN2]

BDMGI L   48
BIAK L   50
BIRQ7   21
BIRQ6   27
BIRQ5   24
BIRQ4   23
BHALT L   66
EXTCAP   69
BDCOK H   65
BPOK   64

[AM2] [AR2]   BDMGI L
[AB1] [BP1]   BIAK L
[AB1]   BIRQ7
[AH1]   BIRQ6
[AL2]   BIRQ5
[AP1]   BIRQ4
              BHALT L
[BB1] [BA1]   BDCOK H
              BPOK

C5
C5 SETS LENGTH OF RESET   1UF
                          35V

SIP RES
SPK13
Z2
BDCOK H
BDAL1 L
BDIN L
BINIT L
BDMGO L
BDMGI L
BREF L
BBS7 L
BHALT L
BDMR L
R1 P2
330-680
+5V   2%

SIP RES
SPK13
Z12
BDAL15 L
BDAL9 L
[BRT]
BDAL18 L
BIRQ7 L
BSACK L
BDAL6 L
BDAL7 L
R1 R2
330/680
+5V   2%

SIP RES
SPK13
Z11
BDAL8 L
BDAL6 L
BDAL4 L
BDAL3 L
BRST L
BDAL20 L
BDAL19 L
EPCK H
R1 P2
330 680
+5V   2%

SIP RES
SPK13
Z1
BIAK L
BIRQ4 L
BWTBT L
BDIN L
BRPLY L
BDOUT L
BDAL17 L
BDAL16 L
BIRQ5 L
BIRQ6 L
R1 R2
330/680
+5V   2%

A5   7   UNDCAS L
D5   8   UNDCDS L
LP   6   UNDCUR L
BM3   2   CBM3 L
BM2   3   CBM2 L
BM1   4   CBM1 L
BM0   CBM0 L
CSDP2   120 UNDCCSDP2 H
CSDP1   121 UNDCCSDP1 H
CSDP0   122 UNDCCSDP0 H
SYSPD   11   SYSPD1 L
SYSERR   10   SYSERR L
MEMERR   5   CMEMERR L
IRQ3   124 CIRQ3 L
IRQ2   125 CIRQ2 L
IRQ1   126 CIRQ1 L
IRQ0   127 CIRQ0 L
PURF   128 CPUPF L
         14   PCCTL L
CDMG L   123 CDMG CCTL
IAKEO L 122 IAKI DMRO   UNDCDMR L   R102 47   CDMR L
         16   HALTIN L
HALTIN   HALTIN L
NOBICRO 131 NCOBR L
RINIO   130
IORESET L 117 SYSRESET
NLMR L   10   IORESET   SYSRESET L
AUX L   118 NLMR   R14 47
         TB40M H 76 AUX
         66   TB40M
         74   VBIAS
                  CTEST

+5V

SPK10
Z3
4.7K
10

R8 SETS QBUS RECIEVER
SWITCHING POINT
R8
5.62K
1%

+5V
CCCTL L   R28   4.7K
NCOBR L   R27   4.7K
UNDCDMR L R26   4.7K
UNDCCSDP3 R35   510

+5V
                SPK10   SPK10   SPK10
                Z13   Z10   Z10
CDPE L   1K   4.7K   4.7K
HALTIN L
CAS2 L

UNDCAS L   R9   39   CAS2 L
UNDCDS L   R13 47   CDS2 L

SRUN L   [AF1]
SEE PAGE 33

+5V   [AA2]
                 [BV1]
                 [BA2]

+12V   [AD2]

                 [BJ1]
                 [AM1]
                 [AT1]
                 [AC2]
                 [BJ1]
                 [BM1]
                 [AT1]
                 [BL2]

SEE PAGE 38
FOR COBIC PINOUT

KA650 CIRCUIT SCHEMATIC
PAGE 24 OF 40

TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 17:08:36 1987

8 BIT LATCH 74F373 E29

CDAL31 H	18 D7 R7 19	A31 H
CDAL30 H	17 D6 R6 16	A30 H
CDAL29 H	14 D5 R5 15	A29 H
CDAL28 H	13 D4 R4 12	A28 H
CDAL27 H	8 D3 R3 9	A27 H
CDAL26 H	7 D2 R2 6	A26 H
CDAL25 H	4 D1 R1 5	A25 H
CDAL24 H	3 D0 R0 2	A24 H
	11 HOLD / 1 ENB	

8 BIT LATCH 74F373 E24

CDAL15 H	18 D7 R7 19	A15 H
CDAL14 H	17 D6 R6 16	A14 H
CDAL13 H	14 D5 R5 15	A13 H
CDAL12 H	13 D4 R4 12	A12 H
CDAL11 H	8 D3 R3 9	A11 H
CDAL10 H	7 D2 R2 6	A10 H
CDAL9 H	4 D1 R1 5	A9 H
CDAL8 H	3 D0 R0 2	A8 H
	11 HOLD / 1 ENB	

HOLDADDR L and HOLDADDR H
ARE GENERATED IN E23.
SEE PAGE 27.

+5V

SPK10 E13 1K   SPK10 E10 4.7K

SECOH H
BCDAL3 H
HOLDADDR L
CDAL3 H
HOLDADDR H

E24 E13

A3 L

E45 1B 74 F240

A3 H

R52 47

8 BIT LATCH 74F373 E56

CDAL23 H	18 D7 R7 19	A23 H
CDAL22 H	17 D6 R6 16	A22 H
CDAL21 H	14 D5 R5 15	A21 H
CDAL20 H	13 D4 R4 12	A20 H
CDAL19 H	8 D3 R3 9	A19 H
CDAL18 H	7 D2 R2 6	A18 H
CDAL17 H	4 D1 R1 5	A17 H
CDAL16 H	3 D0 R0 2	A16 H
HOLDADDR L	11 HOLD / 1 ENB	

R31 47

8 BIT LATCH 74F373 E36

CDAL7 H	18 D7 P7 19	A7 H
CDAL6 H	17 D6 R6 16	A6 H
CDAL5 H	14 D5 R5 15	A5 H
CDAL4 H	13 D4 R4 12	A4 H
CDAL2 H	8 D3 R3 9	
CCSDP2 H	7 D2 R2 6	CYCSTS2 H
CCSDP1 H	4 D1 R1 5	CYCSTS1 H
CCSDP0 H	3 D0 R0 2	CYCSTS0 H
	11 HOLD / 1 ENB	

SECLW H   12 74 E86 E16 13   11   A2 H

REVISION
CHK CHANGE NO DRAWING
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 17:10:31 1987

digital

| DRN. R.Leazer | DATE 11-DEC-87 | ENG. C.DEVANE | DATE 11-DEC-87 |
| CHK C.DEVANE | 22-SEP-87 | | |

TITLE: ADDRESS LATCH SUBSYSTEM

FIRST USED ON OPTION/MODEL

TOP DOCUMENT NUMBER: K-DD-M7620-C-0

SIZE K CODE CS NUMBER M7620 -C -25 REV. A

+5V

SPK10 29 4.7K
SPK10 29 4.7K
SPK10 29 4.7K
SPK10 29 4.7K
SPK10 29 4.7K

SIP RES SPK10 28
COM 4.7K

BCDAL17 H
BCDAL16 H

OCTAL BUS TRNCVR 74F245 E19

CDAL31 H	9	B7 A7	11	BCDAL31 H
CDAL30 H	8	B6 A6	12	BCDAL30 H
CDAL29 H	7	B5 A5	13	BCDAL29 H
CDAL28 H	6	B4 A4	14	BCDAL28 H
CDAL27 H	5	B3 A3	15	BCDAL27 H
CDAL26 H	4	B2 A2	16	BCDAL26 H
CDAL25 H	3	B1 A1	17	BCDAL25 H
CDAL24 H	2	B0 A0	18	BCDAL24 H
	1	DIR		
	19	EN		

OCTAL BUS TRNCVR 74F245 E18

CDAL15 H	9	B7 A7	11	BCDAL15 H
CDAL14 H	8	B6 A6	12	BCDAL14 H
CDAL13 H	7	B5 A5	13	BCDAL13 H
CDAL12 H	6	B4 A4	14	BCDAL12 H
CDAL11 H	5	B3 A3	15	BCDAL11 H
CDAL10 H	4	B2 A2	16	BCDAL10 H
CDAL9 H	3	B1 A1	17	BCDAL9 H
CDAL8 H	2	B0 A0	18	BCDAL8 H
	1	DIR		
	19	EN		

E14 PAL 16L8

16	SSCERR L
15	ENBXMIT L
14	NCOBR L
13	TRP2CACHE L
12	NLMR L
9	TAKEO L
8	CTCSTS0 H
7	CTCSTS1 H
6	CTCSTS2 H
5	ADS1 L
4	A29 H
3	LCUR L
2	BCDS H
1	CAS2 L

19	O4	OEBDR L
18	O3	READSSC L
13	O2	SYSERR L
12	O1	ENBSSC L

SIP RES SPK10 27
+5V
COM 4.7K

SIP RES SPK10 24
+5V
COM 4.7K

OCTAL BUS TRNCVR 74F245 E9

CDAL23 H	9	B7 A7	11	BCDAL23 H
CDAL22 H	8	B6 A6	12	BCDAL22 H
CDAL21 H	7	B5 A5	13	BCDAL21 H
CDAL20 H	6	B4 A4	14	BCDAL20 H
CDAL19 H	5	B3 A3	15	BCDAL19 H
CDAL18 H	4	B2 A2	16	BCDAL18 H
CDAL17 H	3	B1 A1	17	BCDAL17 H
CDAL16 H	2	B0 A0	18	BCDAL16 H
READSSC L	1	DIR		
ENBSSC L	19	EN		

OCTAL BUS TRNCVR 74F245 E15

CDAL7 H	9	B7 A7	11	BCDAL7 H
CDAL6 H	8	B6 A6	12	BCDAL6 H
CDAL5 H	7	B5 A5	13	BCDAL5 H
CDAL4 H	6	B4 A4	14	BCDAL4 H
CDAL3 H	5	B3 A3	15	BCDAL3 H
CDAL2 H	4	B2 A2	16	BCDAL2 H
CDAL1 H	3	B1 A1	17	BCDAL1 H
CDAL0 H	2	B0 A0	18	BCDAL0 H
	1	DIR		
	19	EN		

REVISION
CHK CHANGE NO REV

DRAWING
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 17:12:22 1987

digital

DRN	R.Leazer	11-DEC-87
ENG	C.DEVANE	11-DEC-87
CHK	C.DEVANE	22-SEP-87

TITLE: CDAL TO BCDAL BUFFER SUBSYSTEM

USPA:
FIRST USED ON OPTION/MODEL:

TOP DOCUMENT NUMBER: K-DD-M7620-C-0

BOARD LOCATION:
SHEET OF

| SIZE | CODE | NUMBER | REV. |
| K | CS | M7620 -C -26 | A |

OCTAL TRNSCVR 74F544 E72

CDAL31 H	3	B7 A7	22	CACHED31 H
CDAL30 H	4	B6 A6	21	CACHED30 H
CDAL29 H	5	B5 A5	20	CACHED29 H
CDAL28 H	6	B4 A4	19	CACHED28 H
CDAL27 H	7	B3 A3	18	CACHED27 H
CDAL26 H	8	B2 A2	17	CACHED26 H
CDAL25 H	9	B1 A1	16	CACHED25 H
CDAL24 H	10	B0 A0	15	CACHED24 H

WRDAT L 11 ENAB
ACLKC2 H 14 CLKAB
ENBRCVO L 13 ENOAB
ENBXMIT L 23 ENBA
BCDS H 2 CLKBA
CDBE L 1 ENOBA

OCTAL TRNSCVR 74F544 E66

CDAL15 H	3	B7 A7	22	CACHED15 H
CDAL14 H	4	B6 A6	21	CACHED14 H
CDAL13 H	5	B5 A5	20	CACHED13 H
CDAL12 H	6	B4 A4	19	CACHED12 H
CDAL11 H	7	B3 A3	18	CACHED11 H
CDAL10 H	8	B2 A2	17	CACHED10 H
CDAL9 H	9	B1 A1	16	CACHED9 H
CDAL8 H	10	B0 A0	15	CACHED8 H

WRDAT L 11 ENAB
ACLKC2 H 14 CLKAB
ENBRCVO L 13 ENOAB
ENBXMIT L 23 ENBA
BCDS H 2 CLKBA
CDBE L 1 ENOBA

+5V
SPX10
25
4.7K

OCTAL TRNSCVR 74F544 E59

+5V
SPX10 SPX10
213 213
1K 1K

	3	B7 A7	22	
	4	B6 A6	21	
CDPE L	5	B5 A5	20	DPE H
CEPP L	6	B4 A4	19	LCERR H
CCSDP3 H	7	B3 A3	18	CACSDP3 H
CCSDP2 H	8	B2 A2	17	CACSDP2 H
CCSDP1 H	9	B1 A1	16	CACSDP1 H
CCSDP0 H	10	B0 A0	15	CACSDP0 H

R71
220

WRDAT L 11 ENAB
ACLKC2 H 14 CLKAB
ENBLUP H 13 ENOAB
ENBXMIT L 23 ENBA
BCDS H 2 CLKBA
CDBE L 1 ENOBA

ENBRCVO L
R99
47

OCTAL TRNSCVR 74F544 E69

CDAL23 H	3	B7 A7	22	CACHED23 H
CDAL22 H	4	B6 A6	21	CACHED22 H
CDAL21 H	5	B5 A5	20	CACHED21 H
CDAL20 H	6	B4 A4	19	CACHED20 H
CDAL19 H	7	B3 A3	18	CACHED19 H
CDAL18 H	8	B2 A2	17	CACHED18 H
CDAL17 H	9	B1 A1	16	CACHED17 H
CDAL16 H	10	B0 A0	15	CACHED16 H

WRDAT L 11 ENAB
ACLKC2 H 14 CLKAB
ENBRCVO L 13 ENOAB
ENBXMIT L 23 ENBA
BCDS H 2 CLKBA
CDBE L 1 ENOBA

OCTAL TRNSCVR 74F544 E62

CDAL7 H	3	B7 A7	22	CACHED7 H
CDAL6 H	4	B6 A6	21	CACHED6 H
CDAL5 H	5	B5 A5	20	CACHED5 H
CDAL4 H	6	B4 A4	19	CACHED4 H
CDAL3 H	7	B3 A3	18	CACHED3 H
CDAL2 H	8	B2 A2	17	CACHED2 H
CDAL1 H	9	B1 A1	16	CACHED1 H
CDAL0 H	10	B0 A0	15	CACHED0 H

WRDAT L 11 ENAB
ACLKC2 H 14 CLKAB
ENBRCVO L 13 ENOAB
ENBXMIT L 23 ENBA
BCDS H 2 CLKBA
CDBE L 1 ENOBA

TAG STORE RAMS

16KX4 4362 E55 — TAGDATA11 H, TAGDATA10 H, TAGDATA9 H, TAGDATA8 H
16KX4 4362 E49 — TAGDATA7 H, TAGDATA6 H, TAGDATA5 H, TAGDATA4 H
16KX4 4362 E52 — TAGDATA3 H, TAGDATA2 H, TAGDATA1 H, TAGDATA0 H

A15 H, A14 H, A13 H, A12 H, A11 H, A10 H, A9 H, A8 H, A7 H, A6 H, A5 H, A4 H, A3 L

CSTAG L, WRTAG1 L

TAG COMPARATOR

8 BIT COMP 74F521 E48 — A=B — MATCH0 L
TAGDATA0 H, A16 H, TAGDATA1 H, A17 H, TAGDATA2 H, A18 H, TAGDATA3 H, A19 H

8 BIT COMP 74F521 E51 — A=B — MATCH1 L
TAGDATA4 H, A20 H, TAGDATA5 H, A21 H, TAGDATA6 H, A22 H, TAGDATA7 H, A23 H, TAGDATA8 H, A24 H, TAGDATA9 H, A25 H, TAGDATA10 H, PREDPAR L, ETAGCACHE L

PREDPAR H, ENBWUP L — 74F86 E53
4X2 MUX 74F257 E47
TAGDATA11 H (TAG PARITY BIT)
LCEPR H
TAGDATA10 H (TAG VALID BIT)
TAGDATA1 H
A17 H
DIAGMODE H, CDMG L — 74F00 E32
TAGDATA0 H
A16 H
LCUP L, WRTAG2 L

PREDICTIVE PARITY TREE

A25 H, A24 H — 74F280 E50 — PREDPAR L, PREDPAR L
A16 H, A17 H, A18 H, A19 H, A20 H, A21 H, A22 H, A23 H

TAG BUFFER

OCTAL DRIVER 74F244 E54
A25 H — TAGDATA9 H
A24 H — TAGDATA8 H
A23 H — TAGDATA7 H
A22 H — TAGDATA6 H
WRTAG2 L
A21 H — TAGDATA5 H
A20 H — TAGDATA4 H
A19 H — TAGDATA3 H
A18 H — TAGDATA2 H
WRTAG2 L

ERROR CHECKING PARITY TREE

TAGDATA11 H, TAGDATA10 H — 74F86 E46
TAGDATA9 H, TAGDATA8 H
TAGDATA7 H, TAGDATA6 H
PAR GEN 74F280 E40 — TAGEPROR L
TAGDATA0 H, TAGDATA1 H, TAGDATA2 H, TAGDATA3 H, TAGDATA4 H, TAGDATA5 H

CACHE CONTROL REGISTER DIAGNOSTIC WINDOW

OCTAL DRIVER 74F244 E25
TAGEPROP L — A7 Y7 — BCDAL23 H
PREDPAP L — A6 Y6 — BCDAL22 H
MATCH1 L — A5 Y5 — BCDAL21 H
MATCH0 L — A4 Y4 — BCDAL20 H
EN2
TAGDATA11 H — A3 Y3 — BCDAL19 H
TAGDATA10 H — A2 Y2 — BCDAL18 H
TAGDATA9 H — A1 Y1 — BCDAL17 H
TAGDATA8 H — A0 Y0 — BCDAL16 H
EN1

OCTAL DRIVER 74F244 E42
TAGDATA7 H — A7 Y7 — BCDAL15 H
TAGDATA6 H — A6 Y6 — BCDAL14 H
TAGDATA5 H — A5 Y5 — BCDAL13 H
TAGDATA4 H — A4 Y4 — BCDAL12 H
EN2
TAGDATA3 H — A3 Y3 — BCDAL11 H
TAGDATA2 H — A2 Y2 — BCDAL10 H
TAGDATA1 H — A1 Y1 — BCDAL9 H
TAGDATA0 H — A0 Y0 — BCDAL8 H
OECCR L — EN1

REVISION
CHK CHANGE NO. ENG.
TITLE=MAYFAIRC
LAST MODIFIED=Fri Dec 11 17:20:43 1987

digital
DRN. R.Leazer DATE 11-DEC-87
CHK. C.DEVANE
ENG. C.DEVANE 11-DEC-87
22-SEP-87

PAL 16L8 E23 PAL1
O6 19 CLRREG L
O5 18 CSDAT02 L
O4 17 CSDAT01 L
O3 16 CSDAT0 L
O2 15 CSDAT03 L
O1 12 HOLDADDR L

ACLKC H 14 12
CAS2 L 13 11
BCBM0 L 11 10
BCBM1 L 9 9
BCBM2 L 7 8
BCBM3 L 6 7
LCUP L 5 6
CDAG L 4 5
CACHESTB H 3 4
DSCONTINUE L 2 3
MISSDLY L 1 1
MISS H

CLRREG L ◇ === HOLDADDR H

PAL 16L8 E28 PAL2
O3 19 WRTAGD L
O2 18 SECLU L
O1 12 UPDATE L

CSTAG L 12
TRI2CACHE L 16 15
ENBCACHE L 15 14
SECLU H 13
CYCTYP2 L 11 12
CYCTYP1 L 10
CYCTYP0 L 9
MATCH1 L 8 9
MATCH0 L 7 8
CACHESTBDLY H 6 7
SECOWDLY H 5 6
CACHESTB H 4 5
DSCONTINUE L 3 4
MISSDLY L 2 3
MISS H 1 1

PAL 16L8 E35 PAL4
O2 19 CACHEERPSTBD L
O1 12 CSTAG L

A28 H 18
TAGERROR L 17 16
ENBCACHE L 16 15
CACHESTBDLYPLS L 15 14
SECOWDLYPLS H 14 13
CYCTYP1 L 13 12
CYCTYP0 L 11
MATCH1 L 9 10
MATCH0 L 8 9
LCUP L 7 8
CDAG L 6 7
CACHESTB H 5 6
DSCONTINUE L 4 5
MISSDLY L 3 4
MISS H 1 1

PAL 16L8 E31 PAL3
O4 19 CYCTYP2 L
O3 18 CYCTYP1 L
O2 17 CYCTYP0 L
O1 12 ENBXHIT L

TRI2CACHE L 16 15
CYCSTS2 L 15 14
CYCSTS1 L 14 13
CYCSTS0 L 13 12
A26 H 12 11
A27 H 11 10
A28 H 9 9
A29 H 8 8
LCUP L 7 7
CDAG L 6 6
CACHESTB H 5 5
CACHESTBDLYDLY L 4 4
MISSDLY L 3 3
A31 H 1 1

PAL 16L8 E38 PAL5
O4 19 SECOWD L
O3 18 ENBCACHERDY L
O2 17 CPDT L
O1 12 MISSD L

A30 H 16
CACHESTBDLYPLS L 15 14
SECLU H 14 13
CYCTYP2 L 13 12
CYCTYP1 L 12 11
CYCTYP0 L 9 10
MATCH1 L 8 9
MATCH0 L 7 8
SECOW H 6 7
SECOWDLY H 5 6
A31 H 4 5
DSCONTINUE L 3 4
MISSDLY L 2 3
MISS H 1 1

SPK10 25
+5V 1K 4
CAS2 L 2 PR D 5
74 E30
ACLKB H 3 CLR 6 CACHESTB H

SPK10 25
+5V 1K 5
CLR

SPK10 25
+5V 1K 6
13
SECLU L 12 PR D 9
74 E54
ACLKB H 11 CLR 8 SECLU H
CLRREG L 10

SPK10 25
+5V 1K 1
SECOWD L 2 PR D 5 SECOW L
74 E54
ACLKB H 3 CLR 6 SECOW L
CLRREG L 4

SPK10 25
+5V 1K 3
13
MISSD L 12 PR D 9
74 E24
ACLKB H 11 CLR 8 MISS H
CLRREG L 10

BCDS H 1
ACLKB H 13
CRDY L 3
CERR L 11
ACLKA H 2
R32 3
47 18
74 E27
10 8 DSCONTINUE L

CDS2 L 9 74
8 E21 10

8D FLOP 74F374 E41
2 D7 R7 6
4 D6 P6 5
D5 P5 3 WRTAG2 L
D4 P4 9 CACHESTBDLY H
D3 R3 12
CACHEERPSTBD L 14 D2 P2 15 CACHESTBDLYPLS L
WRTAGD L 17 D1 R1 16 CACHESTBDLYDLY L
WRDATD L 18 D0 R0 19
P48 EN
47 CLK
ACLKB H

WRTAGD L 2 D5
CACHESTB H D4
CACHESTBDLYPLS L
CACHEERPSTB L
WRTAG1 L
WRDAT L

6D FLOP 74F174 E43
CBM0 L 14 D5 R5 15 BCBM0 L
CBM1 L 13 D4 R4 12 BCBM1 L
CBM2 L 11 D3 R3 10 BCBM2 L
SECOW L 2 74 E02
SECOWDLY H 3 1 SECOWPLS H 6 D2 R2 7 SECOWDLYPLS H
SECOW H 4 D1 R1 SECOWDLY H
MISS H 3 D0 R0 2 MISSDLY H
CLRREG L 1 CLR
ACLKB H CLK

6D FLOP 74F174 E10
CBM3 L 14 D5 R5 15 BCBM3 L
CSTAGD L 13 D4 R4 12 CSTAG L
CSDATD3 L 11 D3 R3 10 CSDAT3 L
CSDATD2 L 6 D2 R2 7 CSDAT2 L
CSDATD1 L 4 D1 R1 5 CSDAT1 L
CSDATD0 L 3 D0 R0 2 CSDAT0 L
CLRREG L 1 PR
ACLKB2 H CLK

CS M7620-C-30 A

CACHE CONTROL REGISTER

(SEE PAGES 32, 33)

TRI2CACHE L

SYSTEM SUPPORT CHIP

E2

µVAX
SSC
DC511

AUX L

OCTAL
DRIVER
74LS240
E13

OCTAL
DRIVER
74F244
E11

ENBHALT H

ENBHALT L 17 A7 Y7 3
CONSOLEBITRATE2 L 15 A6 Y6 5
CONSOLEBITRATE1 L 13 A5 Y5 7
CONSOLEBITRATE0 L 11 A4 Y4 9
  19 EN2
CPUCODE1 L 8 A3 Y3 12
CPUCODE0 L 6 A2 Y2 14
BOOTDIAGCODE1 L 4 A1 Y1 16
BOOTDIAGCODE0 L 2 A0 Y0 18
SOFTGND L 1 EN1

A7 Y7 BCDAL7 H
A6 Y6 BCDAL6 H
A5 Y5 BCDAL5 H
A4 Y4 BCDAL4 H
19 EN2
A3 Y3 BCDAL3 H
A2 Y2 BCDAL2 H
A1 Y1 BCDAL1 H
A0 Y0 BCDAL0 H
OEBDR L 1 EN1

DAL31 BCDAL31 H
DAL30 BCDAL30 H
DAL29 BCDAL29 H
DAL28 BCDAL28 H
DAL27 BCDAL27 H
DAL26 BCDAL26 H
DAL25 BCDAL25 H
DAL24 BCDAL24 H
DAL23 BCDAL23 H
DAL22 BCDAL22 H
DAL21 BCDAL21 H
DAL20 BCDAL20 H
DAL19 BCDAL19 H
DAL18 BCDAL18 H
DAL17 BCDAL17 H
DAL16 BCDAL16 H
DAL15 BCDAL15 H
DAL14 BCDAL14 H
DAL13 BCDAL13 H
DAL11 BCDAL11 H
DAL10 BCDAL10 H
DAL09 BCDAL9 H
DAL08 BCDAL8 H
DAL07 BCDAL7 H
DAL06 BCDAL6 H
DAL05 BCDAL5 H
DAL04 BCDAL4 H
DAL03 BCDAL3 H
DAL02 BCDAL2 H
DAL01 BCDAL1 H
DAL00 BCDAL0 H

DELETE R11 AND R22 TO USE
16 BIT WIDE BOOT ROMS.
(E33, E26)

DELETE R12 AND R21 TO USE
8 BIT WIDE BOOT ROM.
(E33)

+5V

R30
47

SOFTGND L

+5V

D8
LED
DISPLAY

SPK10
26
4.7K

SYSRESET L 12 E17 74 LS240 3
LEDCODE3 H 6 E17 74 LS240 14
LEDCODE2 H 6 E17 74 LS240 14
LEDCODE1 H 4 E17 74 LS240 16
LEDCODE0 H 2 E17 74 LS240 18
SOFTGND L

J2

CPUCODE0 L
CPUCODE1 L

VBAT H

BOOTDIAGCODE0 L
BOOTDIAGCODE1 L
ENBHALT L

CONSOLEBITRATE0 L
CONSOLEBITRATE1 L
CONSOLEBITRATE2 L

+5V
F2
1A

CBM3 L 54 CBM3
CBM2 55 CBM2
CBM1 56 CBM1
CBM0 57 CBM0
CAS2 58 CAS2
CAS0 59 CAS0
CS2 84 CS2
CLR L 79 CLR

EPS 80 EPS
IRQ 68 IRQ C1P00 L
IAKEO 67 IAKEO IAKEO L

CTCSTS2 H 81 CS2
CTCSTS1 H 82 CS1
CTCSTS0 H 83 CS0

RDY 78 RDY SYSRDY L
ERR 77 ERR CINTTIM L
INTCLK0 65 INTCLK0
IORESET 66 IORESET IORESET L

+5V

R12 R22
1K 1K

R11 R21
1K 1K

+5V

CTD1 H 44 CTD1
CTD0 H 46 CTD0

HALTIN L 53 HALTI
ENBHALT H 40 HALTO HALTO
RUN0
SECCON

AD1 71 AD1 ADDR1 H
AD0 AD0 ADDR0 H
WID1 52 WID1
WID0 53 WID0
EN0 72 EN0 ENBROM L

D1 CT 43 CTD0 H
D1 CS 45 CTD0 H

ADS1 62 ADS1 ADS1 L
ADS0 61 ADS0 ADS0 L
OPT3 OPT3 LEDCODE3 H
OPT2 OPT2 LEDCODE2 H
OPT1 OPT1 LEDCODE1 H
OPT0 OPT0 LEDCODE0 H

BLO L 51 CSLO
TB40M H 73 TB40
TB25K H 69 TB25
TB40M H 74 CLK1
RESET H 26 RESET

VDD1 H 3 VDD1
VDD1 H VDD1
VSS 5:0

+5V

SPK10
25
1K

SSCERR L

SEE PAGE 39
FOR CQBIC FOOTPRINT

KA650 CIRCUIT SCHEMATICS
PAGE 32 OF 40

REVISION
CHK CHANGE NO. ENG

TITLE=MAYFAIRC
LAST MODIFIED=Fri Dec 11 17:55:10 1987

digital

DRN. R.Leazer DATE 11-DEC-87
CHK C.DEVANE 22-SEP-87
ENG C.DEVANE DATE 11-DEC-87

BOARD LOCATION

TITLE:
SYSTEM SUPPORT FUNCTIONS

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE K CODE CS NUMBER M7620-C-32 REV. A

FIRST USED ON OPTION/MODEL:

BATTERY CHARGE

+12V   R2 47
R3 240
D1 1N4152
D2 1N4152
Q1 A05

+5V

VBAT H   R5 240

MODULE IS LAID OUT
TO ACCEPT EITHER 14 OR 16
PIN OSCILLATOR FOR Y1

OSC Y1
9
16 VCC
GND
25.6KHZ

P1 1K   TB25K H

VDD1 H

R16 10K   R4 10K   C2 .33UF   C14 .33UF

BPOK H   4 /74 LS26 E7   6   RESET H
SYSRESET L   5

BDCOK H   1 /74 LS26 E7   3

SEE PAGE 26
BTRYBAD H   12 /74 LS26 E7   11   BLO L
BDCOK H   13

BATTERY SENSE

+5V   R17 10K
D2 1B LM385
VBAT H   P24 750K .1%
P23 487V .1%

C20 220PF 100V
C16 10UF 35V

+5V
6 5 LM211 E6 7
8 1

BTRYBAD H

SEE PAGE 29

-12V CHARGE PUMP

+5V
SPK10 210 4.7K

4-BIT BIN CTR 74LS393 E5
R3-B 8
R2-B 9
R1-B 10
R0-B 11
CLKB 13
CLRB 12
R3-A 6
R2-A 5
R1-A 4
R0-A 3
CLKA 1
CLRA 2

ACLKC H   13
SOFTGND L   12

+12V
/74 E37 6
4 5

9643 E4
7 C10 .47UF 50V

D4 D672   D3 1N756A 8.2V

+12V
9643 E4
C9 .47UF 50V

D5 D672
D6 D672

C18 47UF 50V   C17 47UF 50V   -12V

+5V
SPK10 26 4.7K

E17 /74 LS240
RUN L   11   9
SOFTGND L   10

E7 /74 LS26   SRUN L

CONSOLE SERIAL LINE INTERFACE

+5V

2K10 25 1K
LINE DRIVER 9636 E8
CTDO H   2   3
R25 22K   +12V +12 -12V -12

TXD L
DTR H

J1
1
2
3
4
5
6
7   RXD H
8   RXD L
9
10

+12V   F1 1A

R7 4.7K

R18 220
C11 56PF 100V
R19 220
R6 24K
-12V

9639 E3   6 3   CTDI H

REVISION DRAWING
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 18:00:36 1987

digital
DRN. R.Leazer   11-DEC-87
CHK C.DEVANE   22-SEP-87
TITLE: SYSTEM SUPPORT FUNCTIONS
BATTERY CIRCUITS
RS232 INTERFACE

TOP DOCUMENT NUMBER
K-DD-M7620-C-0

SIZE K   CODE CS   NUMBER M7620-C-33   REV. A

BOOT AND DIAGNOSTIC PROMS

W5	W2	E26	E33	TOTAL
OUT	OUT	27256	27256	64KB
OUT	IN	EMPTY	27512	64KB
IN	OUT	27512	27512	128KB

64K x 8
UVPROM
27512
E33

64K x 8
UVPROM
27512
E26

+5V
R47
1K
W5
A16 H
ADDR0 H
W2

R46
47
ENGROM L

REVISION DRAWING
CHK CHANGE NOTE REV
TITLE=MAYFAIRC
LAST_MODIFIED=Fri Dec 11 18:25:58 1987

digital

DRN R.Leazer 11-DEC-87
CHK C.DEVANE 22-SEP-87
ENG C.DEVANE 11-DEC-87

TITLE:
BOOT AND DIAGNOSTIC ROMS

TOP DOCUMENT NUMBER:
K-DD-M7620-C-0

SIZE K CODE CS NUMBER M7620 -C -34 REV. A

FIRST USED ON OPTION/MODEL:

CPU
E32

FPU
E65

NOTE: use grid 02.5; when editing.

SIGNAL NAME SORT

PIN NUMBER SORT

CMCTL
E44

COMPONENT SIDE VIEW (ETCH LAYER 1)

NOTE: use grid 02 5; when editing.

REVISION DRAWING		
CHK CHANGE NO REV		
TITLE=MAYFAIRC		
LAST MODIFIED=Fri Dec 11 18:46:19 1987		

digital

DRN R.LEAZER 11-DEC-87
CHK C.DEVANE

ENG C.DEVANE 11-DEC-87
22-SEP-87

TITLE: CMCTL FOOTPRINT

FIRST USED ON OPTION/MODEL

TOP DOCUMENT NUMBER
K-DD-M7620-C-0

SIZE CODE NUMBER REV.
K CS M7620 -C -37 A

CS M7620-C-37 A

SIGNAL NAME SORT

PIN NUMBER SORT

COBIC
E1

COMPONENT SIDE VIEW (ETCH LAYER 1)

NOTE: use grid 02 5; when editing.

REVISION DRAWING		
CHK CHANGE NO REV		
TITLE=MAYFAIRC		
LAST MODIFIED=Fri Dec 11 18:47:29 1987		

digital
R.LEAZER 11-DEC-87 C.DEVANE 11-DEC-87
C.DEVANE 22-SEP-87

TITLE: COBIC FOOTPRINT

FIRST USED ON OPTION/MODEL:
TOP DOCUMENT NUMBER: K-DD-M7620-C-0

SIZE CODE NUMBER REV.
K CS M7620 -C -38 A

SSC
E2

CLK
E39

NOTE: use grid 02 5; when editing.

REVISION DRAWING
CHK CHANGE NOTE:
TITLE=MATFAIRC
LAST MODIFIED=Thu Sep 22 11:37:16 1988

digital

| ENG. R.LEAZER | DATE 11-DEC-87 | ENG. C.DEVANE | DATE 11-DEC-87 | TITLE: |
| CHK. C.DEVANE | DATE 22-SEP-87 | BOARD LOCATION: | | SSC, CLK FOOTPRINT |

USAR:
FIRST USED ON OPTION/MODEL:
TOP DOCUMENT NUMBER: K-DD-M7620-C-0

| SIZE K | CODE CS | NUMBER M7620 -C -39 | REV. A |

A<31:2> - Address: address lines latched from CDAL<31:2>.
ACLKA - Auxilliary Clock A: logically identical to MCLKA.
ACLKB - Auxilliary Clock B: logically identical to MCLKB.
ACLKC - Auxilliary Clock C: half frequency clock, high during P1 and P2.
ADDR<1:0> - rom ADDress: address lines from SSC used to unpack the ROM.
ADS0 - Address Decode Strobe: decode from SSC used to select Cache Control Regis
ADS1 - Address Decode Strobe: decode from SSC used to select Boot and Diagnostic
        Register.
AUX - AUXilliary: derived from CPUCODE<1:0> and asserted when processor is not a
        arbiter.
BCDAL<31:0> - Buffered Cvax Data/Address Lines: used for transactions in I/O pag
BCDS - Buffered Cvax Data Strobe: asserted to transfer data on CDAL-BCDAL bus.
LCERR - Latched Cvax ERRor: latched version of CERR L used for VALID bit generat
        second level cache.
BDCOK - Bus DC OK: 022 bus signal asserted by power supply to indicate at least
        reserve DC power.
BLO - Battery LOw: asserted at power-up when battery voltage is too low.
BOOTDIAGCODE<1:0> - BOOT/DIAGnostic CODE: code set by switch on FCC cutout, can
        from Boot/Diagnostic Register.
BPOK - Bus Power OK: 022 bus signal asserted by power supply to indicate at leas
        reserve DC power.
CACHEERR - CACHE ERRor: asserted when the second level cache tag store detects a
        error, can be read from Cache Control Register.
CACHEERRSTB - CACHE ERRor STrobe: asserted by second level cache control logic t
        CACHEERR.
CACHESTB - CACHE STrobe: output of first rank of address strobe synchronizer in
        control logic.
CACHESTBDLY - CACHE STrobe DeLaY: output of second rank of address strobe synchr
        cache control logic.
CACHESTBDLYDLY - CACHE STrobe DeLaY DeLaY: output of third rank of address strob
        synchronizer in cache control logic.
CACHESTBDLYPLS - CACHE STrobe DeLaY PulSe: asserts simultaneously with CACHESTBD
        is only one clock tick wide.
CAS - Cvax Address Strobe: assertion indicates a valid address on CDAL<31:2>.
CBM<3:0> - Cvax Byte Mask: asserted to select bytes of addressed longword.
CCCTL - Cvax Cache ConTroL: asserted by CVAX to invalidate entries in the first
        cache.
CCPDAT<5:0> - Cvax Co-Processor DATa lines: used for communication between CVAX
        CFPA.
CCPSTA<1:0> - Cvax Co-Processor STAtus lines: used for communication between CVA
        CFPA.
CCPUHALT - Cvax CPU HALT: when asserted forces processor to begin executing code
        address 20040000 (hex).
CCRD - Cvax Correctable Read Data interrupt: the OR of CMCTLCRD and CACHEERR.
CDAL<31:0> - Cvax Data/Address Lines: main processor bus.
CDBE - Cvax Data Buffer Enable: when asserted together with ENBXMIT L, enables c
        onto the CDAL bus.
CDMG - Cvax DMa Grant: asserted by CVAX to grant mastership of the CDAL bus to C
CDMR - Cvax DMa Request: asserted by COBIC to request mastership of the CDALbus.
CDPE - Cvax Data Parity Enable: asserted when CCSDP<3:0> contain valid parity fo
        on CDAL<31:0>.
CDS - Cvax Data Strobe: asserted to transfer data on the CDAL bus.
CERR - Cvax ERRor: asserted by CDAL slave to abort or (when together with CRDY)
        a CDAL bus cycle.
CFPA - Cvax Floating Point Accelerator chip.
CINTTIM - Cvax INTerval TImer interrupt: asserted by the SSC once every 10 ms.
CIRQ<3:0> - Cvax Interrupt ReQuest: asserted by COBIC or SSC.
CLRREG - CLeaR REGisters: asserted to initialize state and output registers in t
        control logic. Same signal as HOLDADDR H.
CMCAS<3:0> - CMctl Column Address Strobe: used by dynamic RAMs in main memory.
CMCLKA - Cvax Mos Clock A: 22.2 MHz clock to CVAX.
CMCLKB - Cvax Mos Clock B: 22.2 MHz clock to CVAX.
CMCLKA - Cvax Mos Clock A: clock to CVAX, CFPA, CMCTL. High during P1 and P3.
CMCLKB - Cvax Mos Clock B: 180 degrees out-of-phase fromo CMLLKA.
CMCTL - Cvax Mos Clock B: clock to CVAX, CFPA, CMCTL. High during P2 and P4.
CMCTL - Cvax Memory ConTroller chip.
CMCTLCRD - CMCTL Correctable Read Data interrupt: CRD interrupt from CMCTL.
CMEMERR - Cvax MEMory ERRor: interrupt asserted by CMCTL and COBIC.
CMRAS<3:0> - CMctl Row Address Strobe: used by dynamic RAMs in main memory.
CMSE - CMctl Signature Enable: used by memory boards to gate identification info
        onto MD bus.
CMWE - CMctl Write Enable: write signal used by dynamic RAMs in main memory.
CONSOLEBITRATE<2:0> - code set by switch in FCC cutout, can be read from Boot/Dia
        Register.
CPUCODE<1:0> - code recieved from FCC cutout, can be read from Boot/Diagnostic Re
CPWRFL - Cvax POWeR Fail: interrupt asserted by COBIC.
COBIC - CVAX Q22 Bus Interface Chip.
CRDY - Cvax ReaDY: asserted to terminate or (when asserted together with CERR)
        CDAL bus cycle.
CRESET - Cvax RESET: Synchronized version of SYSRESET.
CSDAT<3:0> - Chip Select DATa store: chip select lines for second level cachedat
        RAM chips, one line for each byte.
CCSDP<3:0> - Cvax Cycle Status/Data Parity: during data portion of bus cycle CCS
        contains parity for the data on CDAL<7:0>. CCSDP<7> contains parity for
        CDAL<15:8>, etc. During address portion of CDAL bus cycle, CCSDP<2:0
        with CWR L indicate the type of bus transaction according to the tabl
        COBIC uses codes 7 (write) and F (read) for all transactions.

CWR	CCSDP<2:0> (HEX)			
L	LLL	0	reserved	
L	LLH	1	reserved	
L	LHL	2	external IPR write	
L	LHH	3	reserved	
L	HLL	4	reserved	
L	HLH	5	write unlock	
L	HHL	6	reserved	
L	HHH	7	write (no unlock)	
H	LLL	8	request D-stream read	
H	LLH	9	reserved	
H	LHL	A	external IPR read	
H	LHH	B	interrupt acknowledge	
H	HLL	C	request I-stream read	
H	HLH	D	demand D-stream read lock	
H	HHL	E	demand D-stream read	
H	HHH	F	demand D-stream read modify intent	

CSTAG - Chip Select TAG store: chip select lines for second level cache tag stor
        chips.
CTDI - Console Terminal Data Input: input to console serial line unit.
CTDO - Console Terminal Data Output: output from console serial line unit.
CVAX - Cmos VAX.
CWR - Cvax WRite: determines whether the current bus cycle is a read or write.
C<CSTS<2:0> - CYCle STatuS: latched from CCSDP<2:0>.
C<TTP<2:0> - CYCle TYPe: second level cache encoding of bus cycle type.
DIAGMODE - DIAGnostic MODE: control bit in cache control register.
DMD<38:0> - Damped Memory Data bus: data path of interconnect between CMCTL and
        memory.
DSCONTINUE - Data Strobe CONTINUE: tells second level cache when to latch data d
        allocation.
DTR - Data Terminal Ready: Signal available for use by RS232 console device.
ENBCACHE - ENaBle CACHE: control bit in cache control register.
ENBCACHEFDT - ENaBle CACHE FDT: enables second level cache's CFDY tristate outpu
        only inside PAL4, nowhere else on board.
ENBHALT - ENaBle HALT: when negated prevents console break or control/P from hal
        CVAX.
ENBROM - ENaBle ROM: asserted by SSC during ROM unpacking.
ENBSSC - ENaBle SSC: enables BCDAL bus transcievers.
ENBWLP - ENaBle Write Wrong Parity: bit in cache control register.
ENBXMIT - ENaBle transXMIT: enables second level cache transcievers to drive o
        transcievers di ve from BCDAL to CDAL.
HALTIN - HALT Input: Asserted by COBIC to halt CVAX (arbitrated by SSC).
HOLDADDR - HOLD ADDRess: closes address latch.
IAEO - Interrupt Acknowledge Enable Output: asserted by SSC to allow COBIC to r
        interrupt acknowledge cycle.
IORESET - Input/Output RESET: asserted by SSC in response to a write to IPR 55.
IPR - Internal Processor Register.
LCWR - Latched Cvax WRite: latched (de-glitched) version of CWR.
LEDCODE<3:0> - LED CODE: drives diagnostic LEDs.
MA<9:0> - Memory Address: multiplexed address from CMCTL for use by memory board
MATCH<1:0> - MATCH: asserted by second level cache tag store to indicate a cache
MD<38:0> - Memory Data bus: data path of interconnect between CMCTL and main mem
MISS: asserted during second level cache miss, except during DMA when it is ass
        during a cache hit.
NCOBR - Not COBIC Reference: asserted when a bus cycle address is not for the CO
NLMR - Not Local Memory Reference: asserted when a bus cycle address is not for
        CMCTL.
OEBDR - Output Enable Boot/Diagnostic Register: enables boot/diagnostic register
        reading.
OECCR - Output Enable Cache Control Register: enables cache control register for
PREDPAR - PREDictive PARity: output of parity tree used to speed up tag checks.
READSSC - READ SSC: controls direction of BCDAL transcievers. When asserted, th
        transcievers di ve from BCDAL to CDAL.
RESET - asserted to reset the SSC chip.
RUN: asserted by SSC when CVAX is not executing out of halt protected ROM space.
SECLW - SECond LongWord: asserted by the second level cache to toggle A2 H durin
        second half of a CVAX quddword read.
SECQW - SECond QuadWord: asserted by the second level cache to assert A3 during
        second half of a hexword or octaword DMA write.
SSC - System Support Chip.
STSERR - STSystem ERRor: asynchronous error, asserted to abort or (when asserted t
        with SYSRDY L) retry a CDAL bus cycle.
SYSRDY - SYStem ReaDY: asynchronous ready, asserted to terminate or (when assert
        together with STSERR L) retry a CDAL bus cycle.
SYSRESET - SYStem RESET: asserted by COBIC to reset the entire board. Length of
        is set by timing capacitor C1. Synchronized by CCLK to form CRESET L
TAGDATA<11:0> - data bus inside the second level cache tag store. TAGDATA<10> is
        valid bit, TAGDATA<11> is the parity bit.
TAGERROR - output of second level cache parity checking tree.
TB25K - Time Base 25.6Khz: 25.6 kHz time base for time-of-year clock.
TB40M - Time Base 40Mhz: 40MHz time base for timers, console serial line, etc.,
        as SSC bus interface, and COBIC.
TRI2CACHE: tristates PAL outputs when asserted.
VBAT - Voltage<BATtery>: connection to external battery.
VBIAS - Voltage<BIAS>: voltage to set internal bias in COBIC Obus transcievers.
VDD1 - Voltage<Drain> internal: battery-backed power supply for second level cach
        data store RAM chips.
WRDAT - WRite DATa store: write line for second level cache data store RAM chips
WRTAG - WRite TAG store: write line for second level cache tag store RAM chips.
XADDR<21:20> - eXtended ADDress: extra address lines used by 8MB memory boards.

LEGEND

PART NO.	REV	VARIATION
DV350TI-A2	A1	SEE PARTS LIST
DV350TI-A3	A1	SEE PARTS LIST
DV350TI-A4	A1	SEE PARTS LIST
DV350TI-A5	A1	SEE PARTS LIST
DV350TI-AA	A1	SEE PARTS LIST
DV350TI-AE	A1	SEE PARTS LIST

NOTES:

1. MODULE PLACEMENT/CONFIGURATION SHOWN IS FOR BASE (KERNAL) SYSTEM ONLY. ACTUAL MODULE PLACEMENT IS DEPENDENT ON CUSTOMER CONFIGURATION.

2. UNLESS OTHERWISE INDICATED, ROUTING OF CABLES, LOCATION OF AND NUMBER OF CABLE CLAMPS IS LEFT UP TO MFG DISCRETION.

3. DEPENDENT ON CUSTOMER CONFIGURATION IF SLOTS 6-12 HAVE LESS THAN 6.5 AMP LOAD THEN A M9060-YA MUST BE INSTALLED IN SLOT 12.

4. TQK70 CONTROLLER SHOULD BE LOCATED IN THE LOWEST SLOT NUMBER AVAILABLE AND THE KDA50-SA CONT. WOULD BE LOCATED IN THE NEXT AVAILABLE SLOT. (EXAMPLE: WITH SLOTS 1-4 TAKEN UP THE TQK70 CONTROLLER WOULD GO IN SLOT 5 AND THE KDA50-SA IN SLOT 6 AND 7.)

5. IN TRANSITION BETWEEN FLUSH AND RECESSED HANDLES A FILLER PANEL (7024071-01) MUST BE USED (SEE SHEET 3)

6. ALL UNUSED SLOTS AND MODULES WITHOUT S-BOX TYPE HANDLES MUST BE COVERED WITH A SINGLE WIDTH BLANK MODULE COVER.

7. DISTRIBUTION BRACKET IS MOUNTED IN HOLES A1 & A4 WITHIN REAR OF CPU CABINET.

DIST. PANEL
PART OF KDA50-SA
ITEM #9

VIEW WITH FRONT PANEL REMOVED

RA70   OPEN   TK70

MicroVax 3500

20

5 OR 6

FRONT PANEL
PART OF KDA50-SA
ITEM #9

VIEW WITH FRONT DOOR REMOVED

PLOT AT .5000

FILE NAME: DV350TI-0-DBUC

CAUTION: OFF SHEET PARTS LIST EXISTS
SEE K-PL-DV350TI-0-DBP
(MLA1945)

DRAWN PAUL GACHE 29-JUL-87
CHK'D D. HEALY 30-OCT-87
G. LIDINGTON 30-OCT-87
G. LIDINGTON 30-OCT-87
W. MAI 30-OCT-87

DO NOT SCALE DRAWING
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL SEE PARTS LIST

TITLE
MICROVAX 3500
STD PED SYSTEM
(VMS)

E-UA-DV350TI-0-DBU

DOCUMENT NUMBER
E | UA | DV350TI-0-DBU | C

SHEET 1/2   1 OF 3

MLO1

1701503-01

RA70

	POWER
	CONTROL PANEL
	PORT B
	PORT A

TK70

1700847-06

1701363-01

SLOT 12 11 10 9 8 7 6 5 4 3 2 1

TO BACKPLANE

| M7165 KDA50 | M7164 KDA50 | M7559 DELQA | M7516 DELQA | M7621 MS650 | M7621 MS650 | M7620-AA KA650-AA |

1700951-03

SEE NOTE 3
SHEET 1

TO ENET

SEE NOTES 1,4,5,6
SHEET 1

19

3 2 1 0

	A-B	C-D
SLOT 1	Q-BUS (1)	C D
2	Q-BUS (2)	C D
3	Q-BUS (3)	C D
4	Q-BUS (4)	C D
5	Q-BUS (5)	C D
6	Q-BUS (6)	C D
7	Q-BUS (7)	C D
8	Q-BUS (8)	C D
9	Q-BUS (9)	C D
10	Q-BUS (10)	C D
11	Q-BUS (11)	C D
SLOT 12	Q-BUS (12)	C D

BACKPLANE
MODULE SIDE

PLOT AT .5000

BLANK   FLUSH   FLUSH   70-24071-01

BLANK

RECESSED   RECESSED   RECESSED   VIEW C-C   VIEW D-D

POSSIBLE MODULE CONFIGURATIONS REQUIRING
FILLER GAP PANEL ASSEMBLY (DEC PART NUMBER 70-24071)

PLOT AT .5000

REVISION HISTORY

DATE	ECO HISTORY	REV

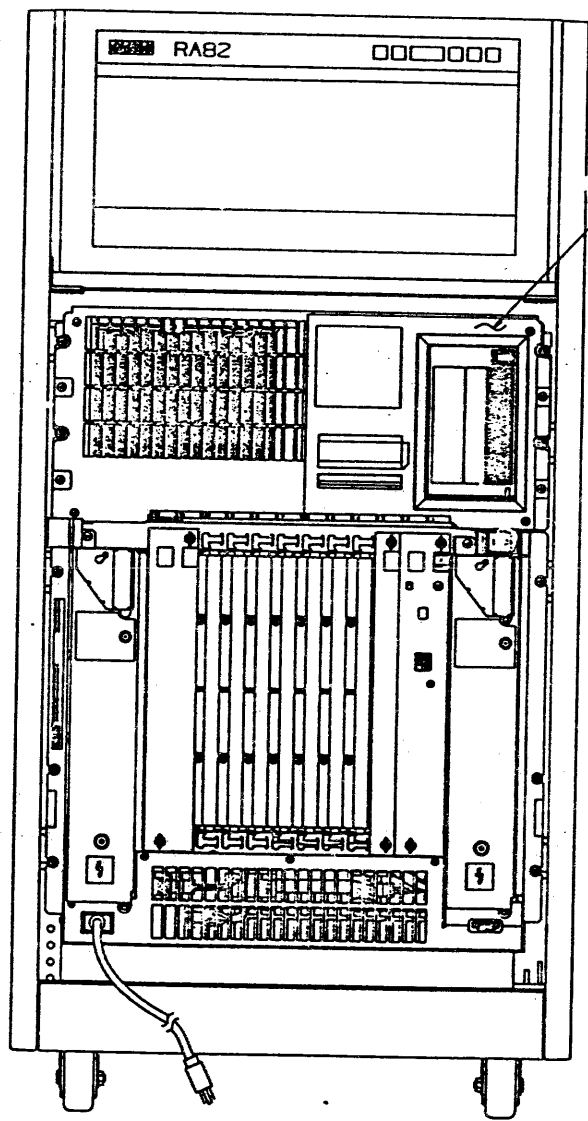| PART NO.	REV	VARIATION
DV360TI-A2	A1	SEE PARTS LIST
DV360TI-A3	A1	SEE PARTS LIST
DV360TI-A4	A1	SEE PARTS LIST
DV360TI-A5	A1	SEE PARTS LIST
DV360TI-AA	A1	SEE PARTS LIST
DV360TI-AE	A1	SEE PARTS LIST

NOTES:

1. MODULE PLACEMENT/CONFIGURATION SHOWN IS FOR BASE (KERNAL) SYSTEM ONLY. ACTUAL MODULE PLACEMENT IS DEPENDENT ON CUSTOMER CONFIGURATION.

2. UNLESS OTHERWISE INDICATED, ROUTING OF CABLES, LOCATION OF AND NUMBER OF CABLE CLAMPS IS LEFT UP TO MFG DISCRETION.

3. DEPENDENT ON CUSTOMER CONFIGURATION IF SLOTS 6-12 HAVE LESS THAN 6.5 AMP LOAD THEN A M9060-YA MUST BE INSTALLED IN SLOT 12.

4. TOK70 CONTROLLER SHOULD BE LOCATED IN THE LOWEST SLOT NUMBER AVAILABLE AND THE KDA50-SA CONT. WOULD BE LOCATED IN THE NEXT AVAILABLE SLOT. (EXAMPLE: WITH SLOTS 1-4 TAKEN UP THE TOK70 CONTROLLER WOULD GO IN SLOT 5 AND THE KDA50-SA IN SLOT 6 AND 7.)

5. IN TRANSITION BETWEEN FLUSH AND RECESSED HANDLES A FILLER PANEL (7024071-01) MUST BE USED (SEE SHEET 3)

6. ALL UNUSED SLOTS AND MODULES WITHOUT S-BOX TYPE HANDLES MUST BE COVERED WITH A SINGLE WIDTH BLANK MODULE COVER.

7. DISTRIBUTION BRACKET IS MOUNTED IN HOLES A1 & A4 WITHIN REAR OF CPU CABINET.

DIST. PANEL
PART OF KDA50-SA
ITEM #10

VIEW WITH FRONT PANEL REMOVED

RA82

RA82

10
16
OR
17
31
32
33
36

22

FRONT PANEL
PART OF
KDA50-SA
ITEM #10

MicroVax 3600

5
OR
6

VIEW WITH FRONT DOOR REMOVED

PLOT AT: .500
FILE NAME: DV360TI-0-DBUC

CAUTION: OFF SHEET PARTS LIST EXISTS
REFER TO K-PL-DV360TI-0-DBP
(MLA1951)

TITLE
MICROVAX 3600
STD CAB SYS (VMS)

DOCUMENT NUMBER
DV360TI-0-DBU

ML01

RA82

DIST ASSY

3
2
1
0

TK70

17-01363-01

17-00951-03

SLOT
12 11 10 9 8 7 6 5 4 3 2 1

SLOT

M7165
M7164
M7259 TO550
M7516
M7621
M7621
M7620-AA
KA650-AA

KDA50
KDA50
74350?-01?
DELQA
MS650
MS650

SEE NOTES 1,4,5,6 SHEET 1

SEE NOTE 3 SHEET 1

21

24

SEE NOTE 7 SHEET 1

23
35
36

	A-B	C-D
SLOT 1	Q-BUS (1)	C D
2	Q-BUS (2)	C D
3	Q-BUS (3)	C D
4	Q-BUS (4)	C D
5	Q-BUS (5)	C D
6	Q-BUS (6)	C D
7	Q-BUS (7)	C D
8	Q-BUS (8)	C D
9	Q-BUS (9)	C D
10	Q-BUS (10)	C D
11	Q-BUS (11)	C D
SLOT 12	Q-BUS (12)	C D

BACKPLANE MODULE SIDE

PLOT AT .5000

REVISION HISTORY
DATE | ECO HISTORY | REV

TITLE MICROVAX 3600 STD CAB SYS (VMS)

DOCUMENT NUMBER
E UA DV360T1-0-DBU C
SCALE 1/2 SHEET 2 OF 3
ML01

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

BLANK

FLUSH

FLUSH

70-24071-01

D

C

C

D

C

C

D

C

C

D

C

C

BLANK

RECESSED

RECESSED

RECESSED

VIEW C-C

VIEW D-D

POSSIBLE MODULE CONFIGURATIONS REQUIRING
FILLER GAP PANEL ASSEMBLY (DEC PART NUMBER 70-24071)

PLOT AT .5000

LEGEND

PART NO.	REV	VARIATION
DV360T2-A2	A1	SEE PARTS LIST
DV360T2-A3	A1	SEE PARTS LIST
DV360T2-A4	A1	SEE PARTS LIST
DV360T2-A5	A1	SEE PARTS LIST
DV360T2-AA	A1	SEE PARTS LIST
DV360T2-AE	A1	SEE PARTS LIST

NOTES:

1. MODULE PLACEMENT/CONFIGURATION SHOWN IS
   FOR BASE (KERNAL) SYSTEM ONLY.
   ACTUAL MODULE PLACEMENT IS DEPENDENT ON
   CUSTOMER CONFIGURATION.

2. UNLESS OTHERWISE INDICATED, ROUTING OF
   CABLES, LOCATION OF AND NUMBER OF CABLE
   CLAMPS IS LEFT UP TO MFG DISCRETION.

3. DEPENDENT ON CUSTOMER CONFIGURATION IF
   SLOTS 6-12 HAVE LESS THAN 6.5 AMP LOAD
   THEN A M9060-YA MUST BE INSTALLED IN
   SLOT 12.

4. TOK70 CONTROLLER SHOULD BE LOCATED IN
   THE LOWEST SLOT NUMBER AVAILABLE AND THE
   KDA50-SA CONT. WOULD BE LOCATED IN THE
   NEXT AVAILABLE SLOT. (EXAMPLE: WITH SLOTS
   1-4 TAKEN UP THE TOK70 CONTROLLER WOULD
   GO IN SLOT 5 AND THE KDA50-SA IN SLOTS
   6 AND 7.)

5. IN TRANSITION BETWEEN FLUSH AND RECESSED
   HANDLES A FILLER PANEL (70240/1-01) MUST
   BE USED (SEE SHEET 4)

6. ALL UNUSED SLOTS AND MODULES WITHOUT S-BOX
   TYPE HANDLES MUST BE COVERED WITH A SINGLE
   WIDTH BLANK MODULE COVER.

7. DISTRIBUTION BRACKET IS MOUNTED IN HOLES
   A1 & A4 WITHIN REAR OF CPU CABINET.

RA82

MicroVax 3600

TUBI PLUS

RA82

9
17
OR
18
36
37
38
41

26

5
OR
6

22
OR
23

17
OR
18

PLOT AT .5000

FILE NAME: DV360T2-0-DBUC

CAUTION: OFF SHEET PARTS LIST EXIST
SEE K-PL-DV360T2-0-DBP
(MLA1953)

MICROVAX 3600
EXP CAB SYS
(VMS)

DV360T2-0-DBU

ML01

RA82

FRONT PANEL
PART OF KDA50-SA
ITEM #10

DIST. PANEL
PART OF KDA50-SA
ITEM #10

VIEW WITH FRONT PANEL REMOVED

VIEW WITH FRONT DOOR REMOVED

PLOT AT .5000

RA82

1701363-01

TK70

TU81E

BC17Y-20

RA82

SLOT
3
2
1
0

SLOT
12 11 10 9 8 7 6 5 4 3 2 1

	A-B	C-D
SLOT 1	Q-BUS (1)	C D
2	Q-BUS (2)	C D
3	Q-BUS (3)	C D
4	Q-BUS (4)	C D
5	Q-BUS (5)	C D
6	Q-BUS (6)	C D
7	Q-BUS (7)	C D
8	Q-BUS (8)	C D
9	Q-BUS (9)	C D
10	Q-BUS (10)	C D
11	Q-BUS (11)	C D
SLOT 12	Q-BUS (12)	C D

BACKPLANE
MODULE SIDE

M7165 KDA50
M7164 KDA50
M7559 / KDE50 / 17325967-01
M7740 KLESI
M7516 DELQA
M7621 MS650
M7621 MS650
M7621 MS650
M7621 MS650
M7620-AA KA650-AA

SEE
NOTES
1,4,5,6
SHEET 1

1700951-03

SEE NOTE 3
SHEET 1

TO ENET

27
40
41

25

SEE NOTE 7
SHEET 1

28

29

PLOT AT .5000

REVISION HISTORY
DATE ECO HISTORY REV

TITLE MICROVAX 3600
EXP CAB SYSTEM
(VMS)

DOCUMENT NUMBER
DV3S0T2-0-DBU REV C
SCALE 1/2 SHEET 3 of 4

ML01

BLANK

FLUSH

FLUSH

70-24071-01

RECESSED

RECESSED

RECESSED

BLANK

VIEW C-C

VIEW D-D

POSSIBLE MODULE CONFIGURATIONS REQUIRING
FILLER GAP PANEL ASSEMBLY (DEC PART NUMBER 70-24071)

PLOT AT .5000

LEGEND

PART NO.	REV	VARIATION
DV360SI-A2	A1	SEE PARTS LIST
DV360SI-A3	A1	SEE PARTS LIST
DV360SI-A4	A1	SEE PARTS LIST
DV360SI-A5	A1	SEE PARTS LIST
DV360SI-AA	A1	SEE PARTS LIST
DV360SI-AE	A1	SEE PARTS LIST

NOTES:

1. MODULE PLACEMENT/CONFIGURATION SHOWN IS FOR BASE (KERNAL) SYSTEM ONLY. ACTUAL MODULE PLACEMENT IS DEPENDENT ON CUSTOMER CONFIGURATION.

2. UNLESS OTHERWISE INDICATED, ROUTING OF CABLES, LOCATION OF AND NUMBER OF CABLE CLAMPS IS LEFT UP TO MFG DISCRETION.

3. DEPENDENT ON CUSTOMER CONFIGURATION IF SLOTS 6-12 HAVE LESS THAN 6.5 AMP LOAD THEN A M9060-YA MUST BE INSTALLED IN SLOT 12.

4. TOK70 CONTROLLER SHOULD BE LOCATED IN THE LOWEST SLOT NUMBER AVAILABLE AND THE KDA50-SA CONT. WOULD BE LOCATED IN THE NEXT AVAILABLE SLOT. (EXAMPLE: WITH SLOTS 1-4 TAKEN UP THE TOK70 CONTROLLER WOULD GO IN SLOT 5 AND THE KDA50-SA IN SLOT 6 AND 7.)

5. IN TRANSITION BETWEEN FLUSH AND RECESSED HANDLES A FILLER PANEL (702-071-01) MUST BE USED (SEE SHEET 3)

6. ALL UNUSED SLOTS AND MODULES WITHOUT S-BOX TYPE HANDLES MUST BE COVERED WITH A SINGLE WIDTH BLANK MODULE COVER.

7. DISTRIBUTION BRACKET IS MOUNTED IN HOLES A1 & A4 WITHIN REAR OF CPU CABINET.

DIST. PANEL
PART OF KDA50-SA
ITEM #10

VIEW WITH FRONT PANEL REMOVED

RA82

RA82

FRONT PANEL
PART OF
KDA50-SA
ITEM #10

9
16
OR
17
31
32
33
36

22

VaxServer 3800

5
OR
6

VIEW WITH FRONT DOOR REMOVED

PLOT AT: .500
FILE NAME: DV360SI-0-DBU8

CAUTION: OFF SHEET PARTS LIST-EXISTS
REFER TO K-PL-DV360SI-0-DBP
(MLA1947)

TITLE
VAXSERVER 3800
(VMS)

RA82

DIST
ASSY

3 2 1 0

TK70

17-01363-01

	A-B	C-D
SLOT 1	O-BUS (1)	C D
2	O-BUS (2)	C D
3	O-BUS (3)	C D
4	O-BUS (4)	C D
5	O-BUS (5)	C D
6	O-BUS (6)	C D
7	O-BUS (7)	C D
8	O-BUS (8)	C D
9	O-BUS (9)	C D
10	O-BUS (10)	C D
11	O-BUS (11)	C D
SLOT 12	O-BUS (12)	C D

BACKPLANE
MODULE SIDE

SLOT
12 11 10 9 8 7 6 5 4 3 2 1

SLOT

M7169
M7164
M7516
M7621
M7621
M7620-BA

KDA50
17-00951-01
DELQA
MS650
KA650-BA

17-00951-03

SEE NOTES
1,4,5,6
SHEET 1

SEE NOTE 3

21

24

SEE NOTE 7
SHEET 1

23
35
36

PLOT AT .5000

REVISION HISTORY
DATE ECO HISTORY REV

TITLE
VAXSERVER 3600
(VMS)

DOCUMENT NUMBER
DV3605I-0-DBU

SCALE 1/2 SHEET 2 OF 3

MLOI

BLANK

FLUSH

FLUSH

BLANK

70-24071-01

RECESSED

RECESSED

RECESSED

VIEW C-C

VIEW D-D

POSSIBLE MODULE CONFIGURATIONS REQUIRING
FILLER GAP PANEL ASSEMBLY (DEC PART NUMBER 70-24071)

PLOT AT .5000

REVISION HISTORY
ECO HISTORY   REV

TITLE
VAXSERVER 3800
(VMS)

DOCUMENT NUMBER
DV38051-0-DBU

ML01

LEGEND

PART NO.	REV	VARIATION
DV360S2-A2	A1	SEE PARTS LIST
DV360S2-A3	A1	SEE PARTS LIST
DV360S2-A4	A1	SEE PARTS LIST
DV360S2-A5	A1	SEE PARTS LIST
DV360S2-AA	A1	SEE PARTS LIST
DV360S2-AE	A1	SEE PARTS LIST

NOTES:

1. MODULE PLACEMENT/CONFIGURATION SHOWN IS FOR BASE (KERNAL) SYSTEM ONLY. ACTUAL MODULE PLACEMENT IS DEPENDENT ON CUSTOMER CONFIGURATION.

2. UNLESS OTHERWISE INDICATED, ROUTING OF CABLES, LOCATION OF AND NUMBER OF CABLE CLAMPS IS LEFT UP TO MFG DISCRETION.

3. DEPENDENT ON CUSTOMER CONFIGURATION IF SLOTS 6-12 HAVE LESS THAN 6.5 AMP LOAD THEN A M9060-YA MUST BE INSTALLED IN SLOT 12.

4. TOK70 CONTROLLER SHOULD BE LOCATED IN THE LOWEST SLOT NUMBER AVAILABLE AND THE KDA50-SA CONT. WOULD BE LOCATED IN THE NEXT AVAILABLE SLOT. (EXAMPLE: WITH SLOTS 1-4 TAKEN UP THE TOK70 CONTROLLER WOULD GO IN SLOT 5 AND THE KDA50-SA IN SLOT 6 AND 7.)

5. IN TRANSITION BETWEEN FLUSH AND RECESSED HANDLES A FILLER PANEL (7024071-01) MUST BE USED (SEE SHEET 4)

6. ALL UNUSED SLOTS AND MODULES WITHOUT S-BOX TYPE HANDLES MUST BE COVERED WITH A SINGLE WIDTH BLANK MODULE COVER.

7. DISTRIBUTION BRACKET IS MOUNTED IN HOLES A1 & A4 WITHIN REAR OF CPU CABINET.

8. ITEM 42 (70-25708-01) IS LOCATED UNDER TOP COVER (H9544-LR).

RA82

VAXSERVER 3602

VAXSERVER 3602

10
19
OR
20
36
37
38
41

25

6
OR
7

12

11

25

27
44
45

6
OR
7

PLOT AT: .500
FILE NAME: DV360S2-0-DBUB

CAUTION: OFF SHEET PARTS LIST EXISTS
SEE K-PL-DV360S2-0-DBP
(MLA1949)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 111)

DO NOT SCALE DRAWING
REMOVE BURRS AND
BREAK SHARP CORNERS

TITLE
VAXSERVER 3602
(VMS)

DOCUMENT NUMBER
DV360S2-0-DBU

RA82

FRONT PANEL
PART OF KDA50-SA
ITEM #13

	A-B	C-D	
SLOT 1	Q-BUS (1)	C	D
2	Q-BUS (2)	C	D
3	Q-BUS (3)	C	D
4	Q-BUS (4)	C	D
5	Q-BUS (5)	C	D
6	Q-BUS (6)	C	D
7	Q-BUS (7)	C	D
8	Q-BUS (8)	C	D
9	Q-BUS (9)	C	D
10	Q-BUS (10)	C	D
11	Q-BUS (11)	C	D
SLOT 12	Q-BUS (12)	C	D

BACKPLANE
MODULE SIDE

DIST. PANEL
PART KDA50-SA
ITEM #13

VIEW WITH FRONT PANEL REMOVED

VIEW WITH FRONT DOOR REMOVED

PLOT AT .5000

TITLE		DOCUMENT NUMBER	
VAXSERVER 3802 (VMS)	SIZE CODE E UA	NUMBER DV36052-0-DBU	REV B
	SCALE 1/2	SHEET 2 OF 4	
		ML01	

RA82

DIST ASSY

3 2 1 0
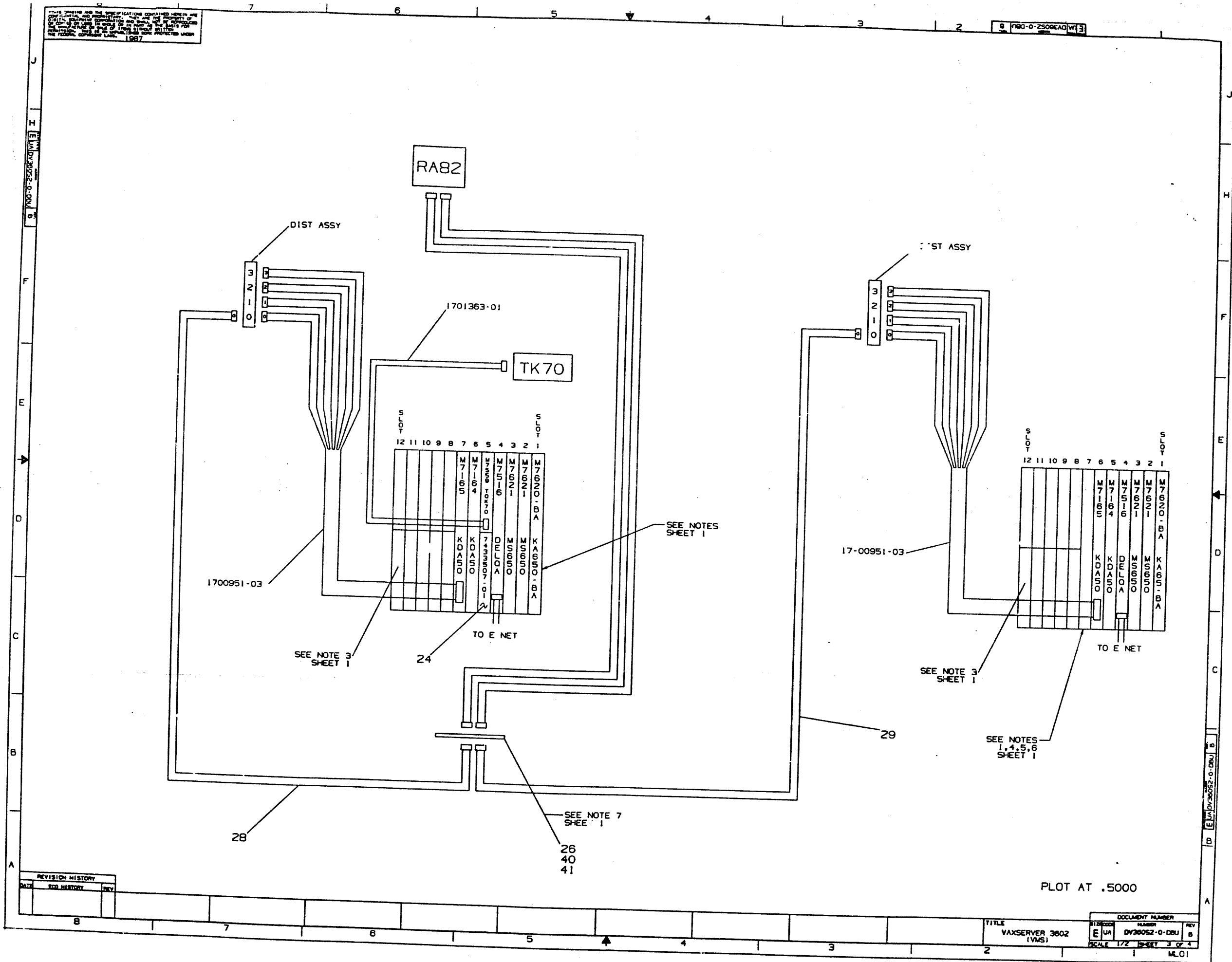
1701363-01

TK70

DIST ASSY

3 2 1 0

SLOT 12 11 10 9 8 7 6 5 4 3 2 1

M7165 M7164 M7516 TK70 M7621 M7621 M7620-BA

KDA50 KDA50 743509-01 DELQA MS650 KA650-BA

TO E NET

SEE NOTES SHEET 1

1700951-03

17-00951-03

SLOT 12 11 10 9 8 7 6 5 4 3 2 1

M7165 M7164 M7516 M7621 M7621 M7620-BA

KDA50 KDA50 DELQA MS650 KA65-BA

TO E NET

SEE NOTE 3 SHEET 1

24

SEE NOTE 3 SHEET 1

29

SEE NOTES 1,4,5,6 SHEET 1

28

SEE NOTE 7 SHEET 1

26
40
41

PLOT AT .5000

BLANK

FLUSH

FLUSH

70-24071-01

BLANK

RECESSED

RECESSED

RECESSED

VIEW C-C

VIEW D-D

POSSIBLE MODULE CONFIGURATIONS REQUIRING
FILLER GAP PANEL ASSEMBLY (DEC PART NUMBER 70-24071)

PLOT AT .5000

REVISION HISTORY

DATE | ECO HISTORY | REV

TITLE
VAXSERVER 3802
(VMS)

DOCUMENT NUMBER
DV380S2-0-DBU

SCALE 1/2 SHEET 4 OF 4

ML01

1   1 B-DD-M7621-0   M7621-AA   8MB 256K CHIP RAM ARRAY = M7621-AF   1

REVISION HISTORY			KPL MATRIX FORMAT	SECTION A OF A	DRN: ROBERT KOPPENAL					
					DATE: 18-DEC-87	D	I	G	I	T A L
ENG	ECO NUMBER	REV	SECTION/VARIATION INDEX							
---	INITIAL	A	[A] AA		CHK'D: ROBERT KOPPENAL	TITLE PARTS LIST				
			[B]		DATE: 18-DEC-87	8MB ECC MOS MEMORY				
			[C]							
			[D]		DES.ENG: J. GROOMS					
			[E]		DATE: 18-DEC-87	DOCUMENT NUMBER				
			[F]			SIZE	CODE	NUMBER		REV
			[H]		RESP.ENG.: J. GROOMS					
			[J]		DATE: 18-DEC-87	K	PL	MS650-AA-DBP		A
					MFG.ENG: P. COHEN	RELEASE DATE: 18-DEC-87				
					DATE: 18-DEC-87	RELEASE STATUS: RELEASED				
			BASIC PART NUMBER: MS650	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER: B-DD-MS650-AA	FILE NAME: SH533A.PLS		EDIT # 5	

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS										
		H7868-A	S-BOX P. SUPPLY, 120V	BI	CI	DI								
		H7868-B	S-BOX P. SUPPLY, 240V	BI	CI	DI								
B-TC-H7868-0-DBU	1		H7868 UNIT ASSY (TC)	A	A	A								
D-UA-H7868-0-DBU	2		H7868 UNIT ASSY (UA)	A	B	B								
K-PL-H7868-0-DBP	1		H7868 UNIT ASSY (PL)	B	C	C								
D-IC-H7868-0-DBU	1		H7868 INTER CONNECT DWG	A	A	A								
K-SP-H7868-0-DBF	40		S-BOX P.S. (ENG SPEC)	A	A	B								
		MP-02511-01	PRINT SET H7868	REF	REF	REF								

NOTES:

REVISION HISTORY	REV.	A	B	C							
	ECO NO.	INITIAL	H7868-ML002	H7868-CTS003							
	DATE		10/87	06/88							

FILE NAME: B-DD-H7868-0-DBUC

digital

DRN. F. WIGGINS	DATE 27APR87	TITLE
CHK'D D. HEALY	DATE 27APR87	H7868 UNIT ASSY
DES. ENG. J. CROSS	DATE 27APR87	
RESP. ENG. J. CROSS	DATE 27APR87	SIZE CODE: B DD	NUMBER H7868-0-DBU	REV. C
MFG. ENG. M. SHILO	DATE 27APR87	SHEET 1 OF 3

ML01

①

```
        H7868
     UNIT ASSY
D-UA-H7868-0-DBU
K-PL-H7868-0-DBP
```

✳ ✳   ✳

②   ③   ④

```
  S-BOX POWER         PKG POWER SUPPLY        ENCLOSURE ASSY
    SUPPLY              H7868 INT.               REWORK
                     A-PA-3700944-0-0       D-1A-7024304-0-DBU
K-DD-5416879-0-DBU   K-PL-3700944-0-DBP     K-PL-7024304-0-DBP
```

✳   ASSY INDICATED IS AN ACCEPTABLE
    SHORT TERM SUBSTITUTE
    FOR D-1A-7433416-0-DBU,
    CALLED OUT IN FIND 1 OF
    SHEET 3 OF 3

✳ ✳   ALSO INCLUDED FOLLOWING
      PC BOARDS:
      K-DD-5416877-0-0   (SIGNAL SEQUENCER)
      K-DD-5416875-0-0   (FAN SPEED CONTROLLER)
      K-DD-5416913-0-0   (OVER CURRENT & OVER TEMP. CTRL.)

TITLE:		SIZE	CODE	NUMBER	REV.
H7868 UNIT ASSEMBLY	SHEET 2 OF 3	B	DD	H7868-0-DBU	C

ML01

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
	MP-02511-01	H7868 UNIT ASSY (MP)	-				
	B-TC-H7868-0-DBU	H7868 UNIT ASSY (TC)	-				
1	D-UA-H7868-0-DBU	H7868 UNIT ASSY	E/M				
	K-PL-H7868-0-DBP	H7868 UNIT ASSY (PL)	E/M				
	D-IC-H7868-0-DBU	H7868 INTERCONNECT DWG.	E				
	K-SP-H7868-0-DBF	S-BOX POWER SUPPLY (ENG SPEC)	E/M				
	D-IA-7433416-0-DBU	ENCLOSURE POWER SUPPLY	M				
	K-PL-7433416-0-DBP	ENCLOSURE POWER SUPPLY (PL)	M				
	D-MD-7433417-0-DBU	COVER POWER SUPPLY	M				
	D-MD-7433418-0-DBU	PAD, INSULATOR	M				
	C-MD-7433976-0-DBU	COVER, TOP POWER SUPPLY	M				
	B-MD-7434431-0-DBU	SUPPORT, SPRING	M				
	A-PS-3626511-0-0	LABEL, PWR S. H7868-A	M				
	A-PS-3618460-0-0	LABEL, BAR CODE BLANK	M				
	A-PS-3627463-0-0	LABEL, P.S. ID/REV H7868-A	M				
	A-PS-3610267-0-0	LABEL, DANGER HIGH VOLT.	M				
	B-IA-7023770-0-DBU	JUMPER, 120V	M				
	K-PL-7023770-0-DBP	JUMPER 120V (PL)	M				
	D-IA-7023366-0-DBU	WIRE HARNESS H7868	E/M				
	K-PL-7023366-0-DBP	WIRE HARNESS H7868 (PL)	E/M				
	C-MD-7436556-0-DBU	BRACKET, POWER SUPPLY	M				
	A-PS-3628945-0-0	LABEL, REV PATCH	M				
2	B-DD-5416879-0-0	S-BOX POWER SUPPLY	E/M				
3	A-PA-3700944-0-0	PKG POWER SUPPLY H7868 INT.	M				
	K-PL-3700944-0-DBP	PKG POWER SUPPLY H7868 INT. (PL)	M				

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

DRB 108A

digital

TITLE: H7868 UNIT ASSEMBLY

SHEET 3 OF 3

SIZE B | CODE DD | NUMBER H7868-0-DBU | REV. C

ML01

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																
		MS650-AA	8MB ECC MOS MEMORY	A																
K-PL-MS650-AA-DBP	1		PARTS LIST (SH533)	A																
B-PL-MS650-AA-0	1		SHIPPING LIST	A																

NOTES:

REVISION HISTORY		
REV		A
ECO NO.		
DATE	INIT	12/87

digital

DRN R. KOPPENAL	DATE 18 DEC.87	TITLE
CHK'D R. KOPPENAL	DATE 18 DEC.87	8MB ECC MOS MEMORY
DES. ENG. J. GROOMS	DATE 18DEC.87	DOCUMENT NUMBER
RESP. ENG. J. GROOMS	DATE 18DEC.87	SIZE B CODE DD NUMBER MS650-AA REV A
MFG. ENG. P. COHEN	DATE 18DEC.87	SHEET 1 OF 3

DRB 126C
EN-01242-16-REVA(386)

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┌─────────────────────────┐
│ 8MB ECC MOS MEMORY   │
│ K-PL-MS650-AA-DBP   │
│   (SH533)   │
└─────────────────────────┘

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┌─────────────────────────┐
│ C-VAX 8 MEGABYTE   │
│   │
│ B-DD-M7621-0   │
└─────────────────────────┘

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	K-PL-MS650-AA-DBP	8MB ECC MOS MEMORY PARTS LIST (SH533)					
	B-PL-MS650-AA-0	8MB ECC MOS MEMORY SHIPPING LIST					
2	B-DD-M7621-0	C-VAX 8 MEGABYTE					

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

digital

TITLE: 8MB ECC MOS MEMORY

SHEET 3 OF 3 | SIZE CODE: B CD | NUMBER: MS650-AA | REV: A

DR8 10BA
EN-01238-16-REYA(388)