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--*Text*--

F I E L D G U I D E

to

Qbus and Unibus Modules
Revised: July 27, 2002-----
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Introduction

This list is an attempt to coalesce all net knowledge on PDP-11 UNIBUS and Qbus modules. It is designed to supercede all the various homespun lists floating around -- giving one solid source of information.

An expansion is in progress. In addition to PDP-11 UNIBUS and Qbus, the list will now cover other forms of the PDP-11 such as the Professional Series (CTI-Bus). Further, it will cover not only PDP-11s, but VAXen and MIPS systems as well (VAXen being available in both UNIBUS and Qbus forms, and MIPS machines in Qbus). The list will also begin to include chassis, mounting boxes, power supplies and backplanes.

For some non-Digital (third-party) disk and tape controllers, a list of reputedly compatible drives may be shown. This list is not exhaustive, and other similar disk and tape interfaces may also work.

This list may be found on the following sites:

- 1) <http://world.std.com/~mbg/pdp11-field-guide.txt>

As of 02-Feb-2000, when I accepted the offer from the former maintainer to take over the file, this copy has become the official, most up-to-date copy. One thing people may note is that I have renamed it. This is because there is a similar file in the works elsewhere to cover pdp8 modules and options.

Comments and suggestions about the format and content of the file will be welcome at all times.

Please note that it may take some time for the *new* official file to make it to the mirrors mentioned below.

- 2) On [metalab.unc.edu](http://metalab.unc.edu/pub/academic/computer-science/history/pdp-11/hardware/field-guide.txt), in the following location:
[/pub/academic/computer-science/history/pdp-11/hardware/field-guide.txt](http://metalab.unc.edu/pub/academic/computer-science/history/pdp-11/hardware/field-guide.txt)

Tim maintains quite a large archive of other information, it is most definitely worth checking out -- Thanks, Tim!

- 3) On [ftp.village.org](http://ftp.village.org/pub/pdp-11/field-guide.txt), in [/pub/pdp-11/field-guide.txt](http://ftp.village.org/pub/pdp-11/field-guide.txt)

Dworkin keeps a compressed version here, too.

- 4) On [ftp.update.uu.se](http://ftp.update.uu.se/pub/pdp11/doc/field-guide.txt) in [/pub/pdp11/doc/field-guide.txt](http://ftp.update.uu.se/pub/pdp11/doc/field-guide.txt)

Johnny's site has quite a plethora of PDP-11 stuff, along with files/software pertaining to Pros and DECmates.

This file will be posted on an irregular basis to the PDP-11 related newsgroups (vmsnet.pdp-11, alt.sys.pdp11).

In order to ensure that this file is as comprehensive and accurate as possible, please don't hesitate to:

- 1) Send any additions or corrections you may have to the file maintainer (currently mbg@world.std.com).
- 2) Feel free to edit a private copy of the file to include your additions or corrections and send it (or a differences file) to the file maintainer.

Please be prepared to cite the source of any such information. This is to ensure that the file contains only validated information.

Just make sure you send anything you have to me. If you have relevant hardcopy and you don't feel like typing it in, get in contact with me and we'll work something out.

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We owe a great amount of thanks to Tim Shoppa, Johnny Billquist, Dworkin Muller and all others who maintain PDP-11 ftp sites. Also, a great deal of respect is to be accorded to *anyone* attempting to hook a PDP-11 to the net, or running one currently connected, for that matter. The same for anyone, anywhere who *doesn't* put a PDP-11 into the dumpster. Or the smelter. Etc. If you don't know what to do with it, please contact me via email and we'll get the information out to people who would be interested in saving it.

We owe final credit and gratitude to Ronald Copley, who developed and maintained this list for numerous years. Thanks *alot*!

Credits List (alphabetical order):

Joe Allen (author of the amazing JOE!)
 Randy Betke (Qbus clarifications)
 Johnny Billquist (11/70 goodies, maintains ftp.update.uu.se ftp site)
 Ronald Copley (Originally compiled and maintained this document)
 Eric Dittman (Emulex modules, uVAXen modules)
 Chris Doran (Corrections, additions)
 Tony Duell (corrections)
 Jonathan Elson (Dilog modules list)
 Megan Gentry (New information, new format, new maintainer)
 Henk Gooijen (additions)
 Tom Guptill (maintains lenin.cc.rochester.edu "orphan" computer site)
 Hans Hamakers (corrections, additions)
 Lee Havemann (thanks, Lee!!)
 Bob Hoffman (cleared up Dilog issue)
 Doug Jones (help in general)
 Ken Kirkby (video modules, staggering amount of other info)
 Brian Knittel (additions)
 Nick Laflamme (loaned a couple of DEC catalogues)
 Dworkin Muller (maintains ftp.village.org ftp site)
 Garry Page (LPS11 modules, others)
 Tim Shoppa (general help, maintains sunsite.unc.edu ftp site)
 Eric Smith (additions)
 Alan Sieving (big list, advice, et alia)
 Emanuel Stiebler (corrections, additions)
 Karl Sipfle (corrections)
 Pete Turnbull (Qbus modules, mucho PDP wisdom)
 Mike Umbricht (11/44 goodies, additions)
 Ken Wellsch (11/20 specifications)
 Dave Woodman (additions)

Mike Yankus (11/84 additions & more)
 Rudy Zijlstra (UNIBUS module clarifications/additions)

Notes:

- o 'Refs:' indicates documentation in which information for the option may be found.
- o In the BUS column, Q is Qbus, U is UNIBUS, CTI is CTI bus (Professional 300 series). With Vax and MIPS boards being added, there may be some new bus designations such as BI and XMI added here.
- o EK-xxxxx-yy numbers are documents, with yy = UG for user guide, TM for technical manual, IN for installation manual, RC for reference card, OP for operator's manual, PS for pocket service guide, CG for configuration Guide. (These are only a few examples, not a definitive list). The 'xxxxx' is often, but not always, the option name.
- o MP-xxxxx numbers are maintenance printsets
- o ZFxxx-RZ and ZJxxx-RZ numbers are Diagnostic Documentation Kits.
- o The Micronotes (uNotes) are single-topic articles, written by various people within Digital to clarify information for other Digital employees. There are two sets of them, with similar numbers. If a uNOTE is cited here, it should be listed as either uNOTE O# to signify the original set of 115, or uNOTE N# to signify the newer set of 44. Some of the older uNotes were recycled and given new numbers. Check out metalab.unc.edu for copies of the new Micronotes, which can be found under:

/pub/academic/computer-science/history/pdp-11/hardware/micronotes
- o For Qbus boards, unless specified as having an S-Box handle or being a MINC module or for a BA200 series enclosure, boards should be able to be used in any Qbus backplane. (In fact, most boards without S-Box handles should still be usable in a BA200 series enclosure)
- o Please note that some Qbus modules may only be inserted into Q/Q backplanes, some may only be inserted into Q/CD backplanes, and some are jumper selectable for Q/Q or Q/CD. Also, some modules support 16-bit only, some support 18-bit and some support full 22-bit.
- o The latest version of the file has been modified such that for a given module, all lines containing text pertaining to that module have the module number at the beginning of the line. This is to make it easy to grep (UNIX) for a module number and have all information returned instead of just the first line.

M O D U L E L I S T

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MODULE      OPTION      BUS  DESCRIPTION
-----
000034      MCS11-CK   CTI  Bus option RAM (256Kbytes)
000034          PN: 50-15487
000034          Refs: EK-PC100-V1

000041      DTC11-A    CTI  Telephone Management System (TMS)
000041          Refs: EK-PC100-V2, MP-01654, Intel (8031, 8051, 8251A)
000041          Refs: Intel (8255A)

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000042    DECNA      CTI  Ethernet Controller
000042      PN: 50-15986 (50-15987 for DECNA-K, per O/M list)
000042      Refs: EK-PC100-V2, MP-01895, Intel (82586)

000043    PC3XS-AA   CTI  Z80/CPM option
000043      PN: 50-15640
000043      Refs: EK-PC100-V2

000046    PC3XX-AA   CTI  Realtime Interface
000046      PN: 50-15538
000046      Refs: EB-25824-18

000051    DRC11-AA   CTI  Parallel Interface

000052    DLC11-AA   CTI  Serial Interface

000053    ARC11-AA   CTI  Analogue Interface

000064    -----   CTI  Quad serial line option

000401    -----   CTI  5.25" Winchester disk controller
000401      PN: 54-15134
000401      Refs: EK-PC100-V2

001002    -----   CTI  Professional 350 Bus video bit map controller
001002      PN: 50-15137
001002      Refs: EK-PC100-V1

001403    VC241-A    CTI  Professional 350 extended bitmap (color option)
001403      PN: 50-15145
001403      Refs: EK-PC100-V1

002004    -----   CTI  RX50 5.25" floppy diskette controller
002004      PN: 50-15057
002004      Refs: EK-PC100-V2

54-11086 -----   -   Power regulator. +15V @ 4A, used in BA11-K

A009     AD11-K     U   Analogue-to-Digital Converter for 11/34

A012     ADV11-A    Q   16-channel, 12-bit Analogue-to-Digital Converter
A012      Caution: uses BC1 for purposes other than BDAL18
A012      Refs: EK-ADV11-OP, MP-00193, EB-20174-20, uNOTE O#108

A013     MNCAD     ?   LSI11 BUS IN MINC, 16 Ch 12-bit A/D, QUINT

A017     NCV11-A    Q   Dual 4-input MUX, S&H, 8 bit A/D, Quad

A020     -----   Q   A/D, 16-Channel, Relay-switched

A026     AXV11-C    Q   16-channel, 12-bit Analogue-to-Digital plus
A026      2-channel, 12-bit Digital-to-Analogue Converter
A026      (Also AXV11-D)
A026      Refs: EK-AXV11-UG, MP-01291, EK-AXVAB-UG, EK-UDIPD-RC
A026      Refs: uNOTE N#044

A026-PA  AXV11-S     Q   16-channel, 12-bit Analogue-to-Digital plus
A026-PA  2-channel, 12-bit Digital-to-Analogue Converter
A026-PA  Refs: EK-AXV11-UG, MP-01291, EK-AXVAB-UG, EK-UDIPD-RC

A029     IAV11-C     ?   16 Channel flying cap. ex MUX add-on
A029      for IAV11-A

A030     ADQ32-A     Q   200Khz 32 Channel Analogue-to-Digital
A030      Converter with DMA
A030      Refs: EK-153AA-UG, EK-UDIPA-RC

A030-PA  ADQ32-S     Q   200Khz 32 Channel Analogue-to-Digital
A030-PA  Converter with DMA
A030-PA  (for BA200 series)

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A030-PA			Refs: EK-153AA-UG, EK-UDIPA-RC
A1007	AMF01-A	Q	48 Channel Addon for ADF01-B (A814-YA)
A1008	ADV11-D	Q	Analogue-to-Digital Converter, with DMA
A1008			Refs: EK-AV11D-UG, EK-UDIPD-RC
A1008-PA	ADV11-S	Q	Analogue-to-Digital Converter, with DMA
A1008-PA			Refs: EK-AV11D-UG, EK-UDIPD-RC
A1009	AAV11-D	Q	Digital-to-Analogue Converter, with DMA
A1009			Refs: EK-AV11D-UG, EK-UDIPD-RC
A1009-SA	AAV11-S	Q	Digital-to-Analogue Converter, with DMA
A1009-SA			(for BA200 series)
A1009-SA			Refs: EK-AV11D-UG, EK-UDIPD-RC
A154	MNCAM	?	8 Differential or 16 Single Ended Channel
A154			MUX, Quint
A241	LPSAG-VG	U	LPS11 4-channel variable gain preamplifier
A242	LPSAG	U	LPS11 4-channel fixed gain preamplifier
A246	MNCAG	?	4 Channel Switched Gain Differential Input
A246			Preamp, Quint
A406	LPSSH	U	LPS11 Analogue sample-and-hold option
A406	LPSAD-12	U	LPS11 Analogue sample-and-hold (3 of 4)
A407	LPSAD-12	U	LPS11 8-channel A/D multiplexor (4 of 4)
A410	IAV11-A	Q	4/12 Channel Analogue-to-Digital Converter
A410-PA	IAV1S-AA	Q	16 Channel Analogue-to-Digital Converter
A410-PA			S-Box handle
A410-PO	IAV1S-A	Q	4/12 Channel Analogue-to-Digital Converter
A410-PO			S-Box handle
A410-YA	IAV11-AA	Q	16 Channel Analogue-to-Digital Converter
A411	ASM01-A	Q	16 Channel Sample and Hold.
A4002	KWV11-C	Q	Programmable real-time clock
A4002			Refs: uNOTE O#108
A6001	AAV11-A	Q	4-channel, 12-bit Digital-to-Analogue Converter
A6001			Caution: uses BC1 for purposes other than BDAL18
A6001			Refs: EK-ADV11-OP, MP-00186, EB-20175-20, uNOTE O#108
A6002	MNCAA	?	MINC LSI-11 Bus, 4 Channel, 12-Bit
A6002			Digital-to-Analogue Converter, Quint
A6006	AAV11-C	Q	4-channel, 12-bit Digital-to-Analogue Converter
A6006			Refs: EK-AXV11-UG, MP-01294, ZJ248-RZ, uNOTE O#108
A6007	IAV11-B	Q	4 Channel Isolated 20ma Analogue output
A6007-PO	IAV1S-B	Q	4 Channel Isolated Digital-to-Analogue Converter
A6007-PO			S-Box handle
A6009	AAF01-A	?	Highspeed Analogue-to-Digital Converter.
A625	LPSVC	U	LPS11 Two 12-bit DACs (2 of 2)
A8000	ADV11-C	Q	16-channel 12-bit Analogue-to-Digital Converter
A8000			with software-controllable gain
A8000			Refs: EK-AXV11-UG, MP-01292, ZJ250-RZ, uNOTE O#108

A804	LPSAD-12	U	LPS11 12-bit A/D Converter (2 of 4)
A814-YA	ADF01-B	?	Highspeed Analogue-to-Digital Converter.
G066		-	TU16 9 Channel read amp
G102	-----	U	Sense inhibit card for 11/15
G109C	????????	?	?????
G114	????????	U	????? (with G235 and H217C, part of memory option)
G231	????????	?	16K XY Selection, Current source, Address Latch, 8K Decode.
G231			
G235	????????	U	16K XY Drive, Current source, Decode (with G114 and H217C, part of memory option)
G235			
G651	????????	U	4-8K 16-18 bit mother board, mates with H221 (with H221-A, part of memory option)
G651			
G401	MS11-BR	U	4-Kword 16-bit MOS RAM (11/45)
G401-YA	MS11-BR	U	4-Kword 18-bit MOS RAM (11/45)
G5108		U	Writeable programmable logic array tester for F11 chipset
G5108			
G5115		U	H777-TA power supply tester
G5148	TU58-AA/BA	Q	Interface to parallel TU58
G5152	KXT11-A	Q	Test module, 4-Kbyte RAM, 24-Kbyte PROM, CSR
G5167		Q	PULSAR (LSI-11 multiprocessor board)
G5168		Q	PULSAR event transmitter
G5169		Q	PULSAR event receiver
G5173		U	11/60 2355 control
G5174		U	11/60 2355 4-line tester
G5215	KDF11-TC	Q	LSI CPU bus isolator extender
G5216		Q	PULSAR performance monitor
G5281		Q	11/23 bus exercisor
G5337		Q	11/03 multi LSI option tester
G5353		U	11/24 quick verify station controller
G5616		Q	Qbus extender card
G645		U	8-Kword 19-bit stack board (11/05, 11/25, 11/45, PDP-10)
G645			
G647		U	16-Kword 20-bit stack board (PDP11, PDP10)
G651		U	4 to 8-Kword 16 to 18-bit mother board (Mates with H221)
G651			
G652		U	16-Kword 16 to 18-bit mother board with logic (Mates with H222-A)
G652			
G652-YA		U	G652 that mates with H222-YA
G653	MMV11-A	Q	4-Kword 16-bit mother board with logic (mates with H223). Q16/CD-only option.
G653			

G653	Refs: EB-18451-20, MP-00094	
G657		U 32-Kword SPC core memory electronics with no parity (18-bit)
G657		
G727		U Grant continuity card with DMA link (NPR), single
G727		
G727-A		U Grant continuity card
G7270		U Longer form of G727
G7271		U Short double-jumper card (MF11-L)
G7272		Q Grant continuity card
G7273		U Bus Grant & Non-processor grant
G736		U jumper module
G7360		U priority selector, G736 with two sockets
H114		U (with G114 and G235, part of memory option)
H207		U 4096x16 core stack for 11/15 (on G616 & G617)
H211	MM8-EH	U 4-Kword 12-bit stack on G648 (for 11/20)
H213		U 4-Kword 16-bit stack on G645
H214		U 8-Kword 16-bit H213 (used in MM11-L)
H214		(replaced by H215)
H214-YA		U 8-Kword 16-bit H213 (used in MM11-L)
H214-YA		(replaced by H215) (same as H214, but 850NS)
H215		U 8-Kword 18-bit (parity) H213 (used in MM11-LP, ME15)
H216		? 8K x 19 bit H213, used in MF10
H217		U 16-Kword 16-bit memory stack (with G114 and G235)
H217		(replaced by MA20-M)
H221-A		U 8-Kword 18-bit stack (plugs into G651)
H221-B		U 8-Kword 16-bit stack (plugs into G651)
H222	MM11-DP	U 16-Kword 18-bit stack
H223	MMV11-A	Q 4-Kword 16-bit stack & drive assembly
H223		(plugs into G653)
H223	Refs: EB-18451-20, MP-00094	
H224		U 32-Kword 18-bit core stack
H228-B	MM11-YP	U 32-Kword 18-bit 14-mil core stack
H228-B		(plugs into G657)
H3006		8-Line RS232 Distribution panel
H3020		DMF32 Multi-function distribution
H315		Test Connector
H315		(DH11, DL11E, DL11W, DLV11, DQ11, DU11, DUV11)
H317-B		Distribution Panel (DH11)
H317-E		Distribution Panel, EIA (DZ11)
H317-F		Distribution Panel, 20mA (DZ11)

H3173-A	Distribution Panel
H3190	DZ11 Test connector
H325	Line loopback test connector
H325	(DMV11, DMP11, DMR11, DPV11,
H325	DUP11, DV11, DZ11, DZV11)
H3250	Test Connector (DMC11, DMP11, DMR11, DMV11)
H3251	Test Connector (DMP11, DMR11, DMV11)
H3254	Test Connector (DMP11, DMR11, DMV11)
H3255	Test Connector (DMP11, DMR11, DMV11)
H3257	Terminator Test Connector (DMP11, DMR11, DMV11)
H3258	Terminator Test Connector (DMP11, DMR11, DMV11)
H3259	Cable Turnaround test connector (DPV11, DZ32)
H3260	Cable Turnaround test connector (DPV11)
H327	DZ11 Turnaround connector
H3271	Staggered Turnaround Test Connector (DZ11[-x])
H3272	Test Connector (DZ32)
H3273	Test Connector (DZ11-X)
H3274	Test Connector (DZ11)
H3277	Staggered loopback test connector
H329	DZV11 Comm Loopback test connector
H349	Distribution panel
H7004-B	20mA Static Filter
H7004-C	EIA Static Filter
H7104-C	Power regulator, +2.5V 85A, used in VAX-11/750
H7104-C	Refs: MP-01020
H7104-D	Power regulator, +5V 120A, used in VAX-11/750
H7104-D	Refs: MP-01021
H7105	Power regulator, +15V, used in VAX-11/750
H744	Power regulator. +5V @ 25A, used in BA11-K
H745	Power regulator. -15V @ 10A, used in BA11-K
H754	Power regulator. +20V @ 8A, and -5V @ 1.1A,
H754	used in BA11-K.
H780	Power supply (used in BA11-M)
H780	(120vac: -A, -C, -E, -H, -K, -M, -P,
H780	240vac: -B, -D, -F, -J, -L, -N, -R)
H780	Refs: EK-H780C-OP, EB-07948-53, MP-H780
H781	Power supply (used in BA11-M)
H7835	Power supply (used in VT103 terminal)
H786	Power supply (used in BA11-N)
H7861	Power supply (used in BA11-N)

H7862			Power supply (used in Professional 300 series)
H7862		Refs: EK-PC100-V1	
H7864			Power supply (used in BA23)
H8611			Test Connector (DH11)
H8612			Test Connector (DV11)
H861C			Test Connector (DH11, DV11)
H9270	DDV11-A	Q	4 x 4 Qbus backplane, Q18 (used in BA11-M)
H9270-Q		Q	4 x 4 Qbus Backplane, Q22 (used in BA11-M)
H9273-A		Q	4 x 9 Qbus backplane, Q18/CD
H9275 (-A)		Q	4 x 9 Qbus backplane, Q22 (used in BA11-N)
H9275 (-A)		Refs: EK-H927A-CG, uNOTE N#035	
H9276 (-A)		Q	4 x 9 Qbus backplane, Q22/CD (used in BA11-N)
H9278 (-A)		Q	4 x 8 Qbus backplane (used in BA23)
H9278 (-A)			3 slots (1-3) Q22/CD, 5 slots (4-8) Q22
H9281-BA		Q	2 x 4 Qbus backplane, Q18 (used in BA11-VA)
H9281-BB		Q	2 x 8 Qbus backplane
H9281-C		Q	2 x 12 Qbus Backplane
H9281-QA		Q	2 x 4 Qbus backplane, Q22, dual height
H9281-QB		Q	2 x 8 Qbus backplane, Q22, dual height
H9281-QC		Q	2 x 12 Qbus backplane, Q22, dual height
L2001	KA60	M	80NS CMOS SMP Dual CPU w/64kb snoop cache
L2002	VS600	M	M-Bus to Q-Bus adapter module
L2003	VS600	M	I/O Controller module for DSSI/SCSI, Ethernet,
L2003			printer, modem, keyboard, mouse/tablet
L2004	VS600	M	LEGSS Graphics Base module w/accelerator
L2005-AA	VS600	M	LEGSS 8-plane output module
L2006-AA	VS600	M	LEGSS 16-plane memory upgrade
L2007-A	MS60	M	8Mb memory array with 1Mb chips
L2007-B	MS60	M	16Mb memory array with 1Mb chips
L2007-C	MS60	M	32Mb memory array with 1Mb chips
L2008	VS600	M	TQK70 Tape adapter module
L2010-AA	KA60	M	60NS CMOS SMP Dual CPU w/64kb snoop cache,
L2010-AA			1Mbit video ram, FBIC interface chip to M-Bus,
L2010-AA			VDAC CLR Graphics chip
L4002-AA	KA675	-	vax 4000/600 CPU card
L4002-BA	KA675	-	vax 4000/500 CPU card
L4002-CA	KA675	-	vax 4000/400 CPU card
L4004-BA	MS690-BA	-	32 MByte DRAM for VAX 4000 /400 /500 /600

L4004-CA	MS690-CA	-	64 MByte DRAM for VAX 4000 /400 /500 /600
L4004-DA	MS690-DA	-	128 MByte DRAM for VAX 4000 /400 /500 /600
M105		U	Device selector for PDP-11
M105			(Also called Address selector module)
M109		U	PDP-11 device selector with jumpers, bits 13-17
M1091		U	Memory device selector, with jumpers, bits 11-17
M1500		U	Bidirectional bus interfacing gates [pdp8/pdp11]
M1501		U	Bus input interface (16 drivers)
M1502		U	16-bit bus output interface
M1621		U	Digital voltmeter data input interface for
M1621			Fluke 8200A/8400A, H-P 3450A/3480A, Data
M1621			Precision 2000, Systron-Donner 7110, Dana 4800
M1621			M105 or eqvt is required. May use M7820
M1623		U	Instrument remote control interface.
M1623			Supports DVMS as M1621 + programmable PSUs:
M1623			Fluke 4210A/4216A/4250A/4265A,
M1623			H-P 6129B/6130B/6131B
M1623			M105 or eqvt is required. May use M7820
M167		U	Compares two 8-bit words (<, =, >)
M1801		U	16-bit reed relay output interface
M2009	CE11	U	Set point register
M2010	CE11	U	2 Channel impulse counter
M224	KA11	U	11/20 8-bits with data paths module, 2 latches,
M224			adder.
M225	KA11	U	11/20 registers module (processor memory)
M225			16 bits x 16 bits
M234	KE11-A	U	3 8-bit registers, adder & L/R shift
M239		U	3 4-bit counters (8291s) or 74197, parallel load
M244		U	6 Ckts, Each 3 input Mux with latch, non-inverting
M2500		U	2 64-word 4-bit MOS FIFO memories (needs -12V)
M2500-YA		U	M2500 with filter cap on line U1
M2501	DMA01-A	U	Dual 8*4 bit RAM (4 74170's)
M2501-YA		U	M2501 with 1.2K resistive pullups on RAM outputs
M2503	ADC01	U	Dual 256 bit Schottky RAM (3106's)
M2504		U	Dual 256*4 RAM, common address, separate data I/O
M259	KT11	U	Associative memory, 2x8, shift register
M259			capability
M3100	DECSA	U	EIA sync line unit for DECSA
M3101	DECSA	U	V.35 sync line unit for DECSA
M3102	DECSA	U	2-line async line unit for DECSA
M3102			(DEC/DLC/DRCSA)
M3103	DECSA	U	LP line unit for DECSA

M3104	DHV11-A	Q	8-line Asynchronous Multiplexor, with DMA
M3104			Refs: EK-DHV11-TM, EK-DHV11-MC, MP-01783, ZJ362-RZ
M3104			Refs: uNOTE N#041
M3105	DHU11-A	U	16-line async DMA MUX
M3105			Refs: EK-DHU11-UG
M3106	DZQ11-M	Q	4-line double-buffered async MUX, EIA 50-10KB,
M3106			with modem control; replaces M7957 (dual height)
M3106			Refs: EK-DZQ11-UG, EK-DZQ11-MC, EK-DZQ11-TM, MP-01795
M3106			Refs: ZJ251-RZ
M3106-PA	DZQ11-SA	Q	4-line double-buffered async MUX with S-box handle
M3106-PA			Refs: EK-DZQ11-UG, EK-DZQ11-MC, EK-DZQ11-TM, MP-01795
M3106-PA			Refs: ZJ251-RZ
M3107	DHQ11-M	Q	8-line async MUX module, DMA, Q22
M3107			Refs: EK-DHQ11-TM, EK-DHQ11-UG
M3108	DSV11-A	Q	2-line sync SLU for BA23/123 (-AA is first unit,
M3108			-AB is second add-on unit).
M3108			Refs: EK-DSV11-TD, EK-DSV1M-IN, EK-DSV1M-UG, EK-DSV11-IN
M3108			Refs: EK-DSV11-UG
M3108-PA	DSV11-S	Q	2-line sync SLU for BA223 (-SF is first unit,
M3108-PA			-SG is second add-on unit).
M3108-PA			Refs: EK-DSV11-TD, EK-DSV1M-IN, EK-DSV1M-UG, EK-DSV11-IN
M3108-PA			Refs: EK-DSV11-UG
M3110	DRCSA	U	Protocol assist #1 w/special character check
M3110			and CRC (DEC/DLC/DRCSA)
M3111	DRCSA	U	Protocol assist #2 w/special character check
M3111			and CRC (DEC/DLC/DRCSA)
M3112	DRCSA	U	Console boot terminator (DEC/DLC/DRCSA)
M3117	DHZ11	Q	16-line Asynchronous Multiplexor
M3118-YA	CXA16-A	Q	16-line Asynchronous Multiplexor w/DEC423 output
M3118-YA			(for BA200 series only)
M3118-YA			Refs: EK-CAB16-TM, EK-CAB16-UG
M3118-YB	CXB16-A	Q	16-line Asynchronous Multiplexor w/DEC423 output
M3118-YB			(for BA200 series only)
M3118-YB			Refs: EK-CAB16-TM, EK-CAB16-UG
M3119-YA	CXY08-A	Q	8-Line Asynchronous Multiplexor w/DEC423 output
M3119-YA			(for BA200 series only)
M3119-YA			Refs: EK-CXY08-TM
M3121-PA	DFA01-AA	Q	Dual integral modem with S-box handle,
M3121-PA			DF224 compatible, US/CAN
M3121-PA			Refs: EK-CAB16-TM, EK-DFA01-IN
M3123	DHF11	Q	32-line Async MUX, Fiber optic I/O for BA223
M3123-YA	DHF11	Q	32-line Async MUX, Fiber optic I/O
M3124	CXA08-M	Q	8 line async MUX w/nmc, ITEG handle,
M3124			w/DEC423 Out
M3125		Q	BITBUS to Qbus interface
M3125-PA		Q	Qbus interface to Intel BITBUS, Q22, RS485,
M3125-PA			with S-box handle
M3125-YA		Q	Qbus interface to Intel BITBUS, Q22, no handle
M3126	DFA01-BA	Q	Dual integral modem with S-box handle, UK version

M3127-PA M3127-PA	DESQA-SA/SF	Q	Ethernet/thinwire adapter (DELQA+DESTA) with S-box handle
M3127-PB M3127-PB	DESQA-SA/SF	Q	M3127-PA with handle access thinwire pushbutton switch.
M3128	QBIC	Q	Qbus interface to VMI CCIC
M3129 M3129	KMV11	Q	NRZI/RS422 data Converter for KMV11 (renamed KMV1A)
M3130-GA	IGQ11	Q	2 Port GE-Genius bus to Q-bus for GE-FANUC
M3130-GB	IGQ11	Q	1 Port GE-Genius bus to Q-bus for GE-FANUC
M3130-PA M3130-PA	IGQ11	Q	Q22-bus interface to GE-Genius bus with S-box handle
M3130-SA	IGQ11	Q	2-Port GE-Genius bus to Q-bus
M3130-SB	IGQ11	Q	1-Port GE-Genius bus to Q-bus
M3130-YA	IGQ11	Q	GE-Genius bus to Q-bus interface, standard handle
M3133	DRQ3B	Q	RS-422 Signal conditioning module for DRQ3B
M3134-PA	DS500	Q	IBM Terminal server, 4 port (DECServer 500)
M3135-01 M3135-01		Q	Multi-line DECVoice, Q-bus for multiple channels, 50 MHz clock
M3135-02 M3135-02		Q	Multi-line DECVoice, Q-bus for multiple channels, 60 MHz clock
M3136		Q	Q-bus module connects M3135 to T1 telephone service
M3137-AA	DEVIS	Q	+12V power module for DEVIS (VAXCAMERA)
M3138-AA	KRQ01-AA	Q	Data cipher module for Qbus
M4000	CE11, CEV11	?	16-bit programmable clock
M4001	DMS11-F	?	Clock
M4002 M4002 M4002	KWV11-C	Q	Programmable Real-Time Clock Refs: EK-AXV11-UG, MP-01293, EK-AXVAB-UG, EK-UDIPD-RC Refs: EK-KWV1C-CG, ZJ247-RZ, uNOTE N#044
M4002-PA M4002-PA M4002-PA	KWV11-S	Q	Programmable Real-Time Clock Refs: EK-AXV11-UG, MP-01293, EK-AXVAB-UG, EK-UDIPD-RC Refs: ZJ247-RZ, uNOTE N#044
M4003-AA		Q	Realtime clock for Qbus 32-bit counter, 10MHz
M4003-PA M4003-PA		Q	Realtime clock for Qbus 32-bit counter, 10MHz with S-box handle
M454 M454 M454	DC11-A	U	Crystal clock with simultaneous outputs of 28.8, 19.2, 9.6, 4.8, 2.4, 1.760 KHz (for DC11-A, DP11-A)
M4540	DC11, DH11	U	M454 with more frequencies available
M5001	CIS11-B	?	8 channel optically isolated inputs
M5001-YA		?	M5001 with 24V voltage sense inputs
M5001-YB		?	M5001 with 24V contact sense inputs
M5001-YC		?	M5001 with customized inputs

M5010		D	32-bit non-isolated dc input module (IP11)
M5010			I/O Daisy chain bus, 32-bit 55V (6V threshold)
M5010			Non-isolated DC sense
M5011		D	16-bit non-isolated dc input module (IP11)
M5011			I/O Daisy chain bus, 16-bit, 55V (6V threshold)
M5011			Non-isolated change of state interrupt
M5012		D	16-bit isolated dc input module (IP11)
M5012			I/O daisy chain bus, 16-bit, 55V (6V threshold)
M5012			Isolated DC sense
M5012-YA		D	M5012 with TTL compatible inputs (IP11)
M5013		D	8-bit isolated ac input module (IP11)
M5013			I/O daisy chain bus, 8-bit, 120VAC
M5013			(46-75V threshold) isolated AC sense, one
M5013			bit interrupts
M5014		D	Dual input counter, 16-bit (IP11)
M5014			I/O daisy chain bus, dual 16-bit input counter
M5015-YM	CSC11	D	M5015-YF with flags inhibited
M5016		D	Quad input counter/prescaler, 8-bit (IP11)
M5016			I/O daisy chain bus, quad 8-bit counter/prescaler
M5017	CE11,CEV11	?	Signal receiver (5V contact sense)
M5017-YC	CE11,CEV11	?	Signal receiver (12V opto input)
M5019	CE11,CEV11	?	Input function module (SSMU)
M5020-YA	CSC11	?	32 bit OCI with 600V isolation and filter
M5020-YA			3ms, 5V input
M5020-YB	CSC11	?	32 bit OCI with 600V isolation and filter
M5020-YB			3ms, 12V input
M5020-YC	CSC11	?	32 bit OCI with 600V isolation and filter
M5020-YC			3ms, 48V input
M5020-YD	CSC11	?	32 bit OCI with 600V isolation and filter
M5020-YD			3ms, 129V input
M5020-YF	CSC11	?	36 bit OCI with 600V isolation and filter
M5020-YF			3ms, 5V input
M5020-YG	CSC11	?	36 bit OCI with 600V isolation and filter
M5020-YG			3ms, 12V input
M5020-YH	CSC11	?	36 bit OCI with 600V isolation and filter
M5020-YH			3ms, 48V input
M5020-YJ	CSC11	?	36 bit OCI with 600V isolation and filter
M5020-YJ			3ms, 129V input
M5020-YN	CSC11	?	32 bit OCI input 15VDC, 2ms delay, common V
M5020-YP	CSR11	?	32 bit OCI input, 5VDC, 4.5ms delay
M5020-YR	CSC11	?	M5020-YE with slow flag response
M5026	IDV1S-A	Q	16-bit opto-isolated input module
M5026-PO	IDV1S-A	Q	16-bit opto-isolated input module
M5026-PO			with S-box handle
M5027	KMS11	?	8 channel RS232 to RS422 converter

M5028	DRU11-C	U	Optocoupler conditioning module for DRU11-C
M5031 M5031		D	16-channel isolated dc interrupt module, 16-bit (IP11)
M586	DF11-BA	U	Integral modem, 103 standard
M587	DF11-BB	U	Async internal modem, answer-only, Bell CBS or CDT
M5900	DJ11	U	16-channel TTL receiver
M5901	DJ11	U	16-channel EIA transmitter
M5902	DJ11	U	16-channel full duplex TTY transceiver
M5903	RH11	U	MASSBUS terminal transceiver
M5904	RH11	U	MASSBUS control transceiver
M5906 M5906	DJ11-AD/AE DH11-AD/AE	U	16-channel EIA-TTL, TTL-EIA, priority sockets, 2 H854.
M5906-YA	DJ11-AD/AE	U	M5906 modified to accept X1 baud clock rate
M591		U	5 Channel EIA to DEC, 4 Channel DEC to EIA
M5912-YA	DFS11-MA	U	Private wire integral modem, 1 Megabaud, DF11 pins
M5912-YB	DFS11-MB	U	500 Kbaud M5912-YA
M5912-YC	DFS11-MC	U	240 Kbaud M5912-YA
M5912-YD	DFS11-MD	U	56 Kbaud M5912-YA
M5912-YE	DFS11-ME	U	100 Kbaud M5912-YA
M5915	MNCDI	U	Digital input to MINC, 16 lines, Quint height
M5916 M5916		U	24 Differential transmitters and 24 Differential Receivers, Quad
M5916-YA	DR11-L,-M	U	Differential adapter
M5916-YB	DMA01-A	U	Differential adapter
M5917	CRS11-LL	U	Differential drive for card readers, 17 in, 1 out
M5922		U	RM03 transceiver port A
M5923		U	RM03 transceiver port B
M5924	DF11-L	U	Fiber optic link
M5925	LPC01-V	U	6 differential receivers, 10 differential drivers
M5926	DSZ11-B	U	Add-on for TTL 20mA loop conversion
M5927 M5927	DAV11	U	TTL to differential transceiver (Like M7230 except all signals from 3 H854)
M5927-YA	DR11-C	U	DR11-C Compatible Differential line driver
M5928	DMS11-F	U	DMS11-F, Modem level Converter, TTL/RS423
M5929	MTS02-BD	U	Multidrop interface
M5931	DM11-XM	U	EIA to/from MIL188C/100/114
M5932	DM11-XF	U	EIA to/from fiber optic cable
M5935	DF11-WA	U	10 5V 70mA outputs, 2 inputs

M594 M594	DF11-A	U	8 channel EIA-CCITT to DEC, 7 DEC to EIA-CCITT 3V hysteresis
M594-YB	DF11-A	U	M594 with 3V hysteresis
M5941	DFS11-H	U	8 channel MIL188C to DEC interface for DFS11-H
M5941-YA M5941-YA	DFS11-HA	U	8 channel MIL188C to DEC Interface for data lines only
M5941-YB	DFS11-HB	U	75 Baud 8 Ch MIL188C to DEC Interface
M5941-YC	DFS11-HC	U	110 Baud 8 Ch MIL188C to DEC Interface
M5941-YD	DFS11-HD	U	150 Baud 8 Ch MIL188C to DEC Interface
M5941-YE	DFS11-HE	U	300 Baud 8 Ch MIL188C to DEC Interface
M5941-YF	DFS11-HF	U	600 Baud 8 Ch MIL188C to DEC Interface
M5941-YH	DFS11-HH	U	1200 Baud 8 Ch MIL188C to DEC Interface
M5941-YJ	DFS11-HJ	U	2400 Baud 8 Ch MIL188C to DEC Interface
M5941-YK	DFS11-HK	U	3600 Baud 8 Ch MIL188C to DEC Interface
M5941-YL	DFS11-HL	U	4800 Baud 8 Ch MIL188C to DEC Interface
M5941-YM	DFS11-HM	U	9600 Baud 8 Ch MIL188C to DEC Interface
M5941-YN	DFS11-HN	U	50K Baud 8 Ch MIL188C to DEC Interface
M5942 M5942	DF11-L	U	8 channel EIA-CCITT to DEC, 7 DEC to EIA-CCITT, 300,600,1200,1800 baud crystal clock
M5943 M5943	DM11-DR	U	5 channel EIA-CCITT to TTL 4 channel TTL to Tri-state
M5943-YA M5943-YA	DM11-DS	U	M5943 modified to permit other drivers and receivers on same lines
M5946 M5946	DFS11-A	U	8 channel differential drive and receiver, 40mA, 0 to +5V, receiver +15 to -15V.
M5947 M5947	DR11-BD	U	M919 with differential drive and receive with 3 H855
M5948	CSC11	U	Interface and serial Y-bus connector
M5949 M5949	DMC11-DA	U	EIA to MIL188-114 Converter 7 receivers, 4 drivers
M595	DF11	U	Current mode Converter for 301 and 303 modem
M5951		Q	100 Mbit transceiver, single line, used in Hydra
M5952	DFS11-BA	U	5 channel TTL to RS422, 8 channel RS422 to TTL
M5952-YA M5952-YA	DFS11-BB	U	5 channel TTL to MIL 188-114, 8 channel MIL 188-144 to TTL
M5952-YB M5952-YB	DFS11-??	U	5 channel EIA RS232C to RS422, 8 channel RS422 to RS232C
M5952-YC M5952-YC	DFS11-??	U	5 channel EIA RS232C to MIL 188-114, 8 channel MIL188-114 to RS232C
M5953	DV11/DZ11	U	16 EIA to TTL, 24 TTL to EIA, conn for DV11, DZ11
M596	DF11	U	20mA to DEC, DEC to 20mA, 4 channel each,

M596			replaced by M5960
M5960	DF11	U	Replaces M596
M597	DX11	U	6 channel IBM receiver + bus
M5970	PC500	U	PC500 TCY Control Module
M5971	DZQ11/DHQ11	Q	4 channel EIA to 20mA Converter
M5973	LLD11	U	TTL to differential transceiver
M5974	LN01K-AA	U	TTL to differential transceiver
M5974			(9 transmit, 2 receive)
M5975		Q	DECServer 500 support for IBM3270 class terminals
M5976-AA	KZQSA	Q	Qbus to SCSI adapter
M5976-SA	KZQSA-SA	Q	Qbus to SCSI adapter (for BA200/400 enclosures)
M5976-SA			with S-box handle
M5977-AA	RQZX1	Q	Qbus to SCSI disk (MSCP) and tape (TMSCP) adapter
M598	DF11-K	U	1 Channel optical coupled 20ma to DEC send/recv
M5980		U	10-channel TTL differential transeiver
M5982	DWQVA	Q	2 channel fiber optic interface (IFQ), Qbus to
M5982			Stealth bus
M599		U	4 channel Xmit and Rec Western Union High Level
M599			(+/- 6V 10mA) Telex
M6003	MNCDO	Q	16 Channel Digital output, MINC, Quint
M6010		D	32-bit non-isolated dc output module (IP11)
M6010-YA		D	32-bit non-isolated dc output module (TTL, IP11)
M6011		D	Non-isolated dc one-shot output module (IP11)
M6012		D	8-bit optical isolated dc output module (IP11)
M6013		D	8-bit isolated ac output module (IP11)
M6014		D	Dual 16-bit output Converter (IP11)
M6015		D	16-bit retentive dc output module (IP11)
M6029	IDV11-B	?	16-bit Opto Isol. outputs
M688		U	UNIBUS power fail driver module
M7013	????????	?	Vector Generator and Character Generator
M7013			Control, VT40
M7014	????????	U	Unibus Controller and Bootstrap for VT40
M7014-YA	????????	U	M7014 w/No Bus Terminators
M7015	LPS11-S	U	LPS11 UNIBUS control
M7016	LPSKW	U	LPS11 Programmable realtime clock & 2 Schmitt
M7016			triggers.
M7017	LPSDR	U	LPS11 16-bit buffered digital I/O
M7018	LPSAD-12	U	LPS11 A/D control (1 of 4)
M7019	LPSVC	U	LPS11 Scope control (1 of 2)

M7020	LPS11-NP	U	LPS11 DMA option
M7025	KW11-K	U	Dual programmable clock
M7028	DMS11-F	U	DMS11-F, KMC11-A Line Unit Interface
M7028-YA	DMS11-F	U	DMS11-F, KMC11-A Line Unit Interface + Terminator
M7029	DMS11-F	U	Line unit interface W HDLC protocol
M7030	CTS11-J	U	Control for CTS11-J
M7031	CTS11-J	U	Drivers, receivers, code Converter for CTS11-JA
M7032	CTS11-J	U	Drivers, receivers, code Converter for CTS11-JB
M7033		U	Scanner module for use with Hickok card equipment
M7034		U	80 Column driver for use with Hickok card equipment
M7035		U	22 Column driver for use with Hickok card equipment
M7036		U	Diode Module assembly for use with Hickok card equipment
M7036			
M7037		U	Reader-Control module for true data card/bade reader
M7039-BC	MS220-A	Q	KN220 64 MB mem, Fujitsu DRAMS
M7039-CC	MS220-A	Q	KN220 128 MB mem, Fujitsu DRAMS
M7051		U	VT48 data registers & multiplexors
M7052		U	VT48 dual 12x12 multiplier with successive approximation.
M7052			
M7053		U	VT48 scissoring & tangent control
M7054		U	VT48 stack & silo control
M7055		U	VT48 display status MUX
M7056		U	VT48 stack & silo
M7057		U	VT48 display status register
M7058		U	VT48 display control
M7059		U	VT48 bus control
M7060		U	VT48 push button control (SPC)
M7061	VSV11-F	Q	Raster graphics sync generator & cursor control (also VSV11-H, -J, -K)
M7061			Refs: EK-VSVFQ-UG, MP-01012, EK-VT101-TM, YM-C193C-00
M7061			
M7062	VSV11-MA	Q	Raster graphics image memory
M7062			Refs: EK-VSVFQ-UG, MP-01012, EK-VT101-TM, YM-C193C-00
M7062			
M7064	VSV11	Q	Raster graphics image processor (18-bit DMA only)
M7064			Refs: EK-VSVFQ-UG, MP-01012, EK-VT101-TM, YM-C193C-00
M7064			
M7065		U	Synch line receiver, 6, 7 or 8 bits
M7066	VTV01	U	Video Display Sys: UNIBUS to Qbus Converter
M7067	VMV21	U	Video Display Sys: sync generator & character generator (64-char, 25 lines).
M7067			

M7068	VMV31	U	Video Display Sys: bit map, 128 x 128 x 4
M7069	VMV22	U	Video Display Sys: microprocessor & memory
M7070	VMV22	U	Video Display Sys: character & sync generator
M7071 M7071		U	Video Display Sys: image memory, RAMs & buffer logic.
M7075		U	Sync line transmitter; 6-, 7- or 8-bits
M7078		U	4 pulse synchronizers (74120)
M7079		U	16 Channel badge reader
M7081 M7081	LA120	-	LA120 control, hex with no fingers, 7-wire printhead version
M7081-YB	LAS12	-	M7081 with ROMs for LAS12, LA124
M7081-YD M7081-YD	LA120-RB	-	M7081 with increased head drive current for thick forms
M7082	DMA01	U	Single DMA Mux channel
M7083	DMA01	U	8-level priority arbiter
M7084	DB11-H	U	DB11-H Control
M7086	PTV11-E		Controller for FACIT 4070
M7088	CE11	U	CE11, CEV11 interrupt register
M7089		U	Quad transceiver
M7090 M7090	KD11-Z Refs: EK-KD11Z-TM	U	11/44 console interface module
M7091 M7091	KE44-A Refs: EK-KE44A-YM	U	11/44 CIS control store module
M7092	KE44-A	U	11/44 CIS data path/logic module
M7093	FP11-F	U	11/44 floating point module
M7094	KD11-Z	U	11/44 data path module
M7095	KD11-Z	U	11/44 control module
M7096	KD11-Z	U	11/44 multifunction module
M7097	KK11-B	U	11/44 4-Keyword cache module
M7098	KD11-Z	U	11/44 UNIBUS interface
M7114 M7114	VT30-H	U	RBG graphics UNIBUS interface board (TV sync generator, memory, control & output)
M7130 M7130	DTQNA	Q	Token-bus (IEEE 802.4) to Qbus Network Adapter Controller module
M7131	DTQNA	Q	Token-bus to Qbus Network Adapter Modem module, used with M7130
M7132	DTC04	Q	DECVoice main processor board (dual height)
M7133 M7133	KDF11-UA	U	11/24 CPU board, line clock & 2 SLUs (Revision D or earlier)
M7133-YA M7133-YA	KDF11-UA	U	11/24 CPU board, line clock & 2 SLUs (Revision E or later)

M7134	KT-24	U	11/24 UNIBUS map (extended address to 22 bits)
M7135	KD32-AA	Q	MicroVAX I datapath with G floating point
M7135			Refs: EK-KD32-OM, EK-KD32A-OM-CN1, uNOTE N#021
M7135-YA	KD32-AB	Q	MicroVAX I datapath with D floating point
M7135-YA			Refs: EK-KD32-OM, EK-KD32A-OM-CN1, uNOTE N#021
M7136	KD32-AA/AB	Q	MicroVAX I memory control
M7136			Refs: EK-KD32-OM, EK-KD32A-OM-CN1, uNOTE N#021
M7138	LNV21	Q	Q-bus to laser printer DMA interface module
M7139-AA	VS200	Q	Microvax II CPU, Q-bus interface, console,
M7139-AA			Network controller, @MB memory, option connector,
M7139-AA			private memory bus controller
M7139-AC	VS200	Q	M7139 with Fuji 256K parts
M7139-AF	VS200	Q	M7139 with Hitachi 256K parts
M7139-AH	VS200	Q	M7139 with NEC 256K parts
M7142	VK170-CA	Q	Serial video module, CRT control logic,
M7142			ASCII in/video out
M7142			Refs: EK-M7142-UG, MP-00775
M7145	R80	-	R80 servo control and position detector, hex board
M7147	DV11	U	M7808 (M7247+M7246) with synchronized scanner
M7148	CE11-D	U	CE11-D Unibus interface
M7149	CE11-D	U	CE11-D Port control
M7150	CE11-D	U	MIOS Bus usage arbitration
M7151	CE11-D	U	MIOS bus monitor
M7152	CE11-D	U	Maintenance and processor fail alarm
M7153	CE11-D	U	Multiplexed input function module
M7154	CE11-D	U	Multiplexed input channel selector
M7157	DRJ11-A	U	Line interface, EIA receiver, sync logic, buffer
M7157			logic
M7158	DRJ11-A	U	Unibus interface, NPR, bus MUX and transceiver
M7160	HSC50	U	HSC50 SERDES emulator
M7161	UDA50	U	UNIBUS SDI disk adapter PR board, no ROMs (1 of 2)
M7161			Refs: EK-UDA50-UG
M7161-YA	UDA50	U	M7161 with blasted ROMs
M7161-YA			Refs: EK-UDA50-UG
M7162	UDA50	U	UNIBUS SDI disk adapter SI board (2 of 2)
M7162			Refs: EK-UDA50-UG
M7164	KDA50-Q	Q	Qbus SDI disk adapter, Q22 (1 of 2) (QDA SDI)
M7164			Refs: EK-KDA5Q-UG, uNOTE N#041
M7165	KDA50-Q	Q	Qbus SDI disk adapter, Q22 (2 of 2) (QDA SDI)
M7165			Refs: EK-KDA5Q-UG, uNOTE N#041
M7166		?	Expands BI bus to UNIBUS (KA820)
M7168	VCB02, QDSS	Q	4-plane colour bitmap module

M7169	VCB02, QDSS	Q	4-plane video controller module
M7177	DN01-AA	Q	Aut call unit, cable sockets to DLV11, phone line
M7179	MPM11	U	Mem port control for MPM11
M718		U	Bus interface for PDP-11
M7181	CMV11-AA	Q	CMR Host controller for Qbus to Qbus interface
M7182 M7182	CMV11-AA	Q	CMR Host controller for Q-bus micro control and 4 serial ports
M7183	CMR01-AA	U	Micro control for expanded CMR01-AA
M7184	CMR01-AA	U	R-bus control for expanded CMR01-AA
M7185	CMR01-AA	U	24kbyte EPROM for expanded CMR01-AA
M7186	CMR01-AA	U	8Kbyte static RAM for expanded CMR01-AA
M7190	DZS11-EA	U	8-line statistical comm mux
M7193	DRQ11-CA	Q	DMA interface, 16-bit
M7194	DR11	U	Differential signal conditioning module
M7195-FA M7195-FA M7195-FA M7195-FA	MXV11-BF	Q	128-Kbyte RAM, 2 async EIA SLU, I/O, clock, 2 28-pin ROM sockets Refs: EK-MXV1B-UG, EK-MXVB2-UG, uNOTEs N#003, N#015 Refs: N#019 (O#106), N#020, N#033
M7196 M7196 M7196	TSV05	Q	TSV05 controller for Q/Q22 bus Refs: EK-TSV05-TM, MP-01167, EB-18451-20, EB-17723-20 Refs: uNOTE N#041
M7197	IDV11-D	Q	5-channel 16-bit counter module
M7198	IDV11-D	Q	5 channel counter module with S-box handle
M7206	TSV05	Q	TSV05 Q-bus controller
M7206-PA	TSV05	Q	TSV05 Q-bus controller, for BA2xx boxes
M7207 M7207		Q	Co-processor for image compression & expansion implemented by using CCITT standard T.3, T.4
M7208	CMCTS	Q	CMCTS (Cluster memory controller, SDI controller)
M7209 M7209	CMCTL	Q	CMCTL (For S-box) Cluster memory controller, SDI controller)
M721	KA11	U	Bus interface 1, 8-bits gated in and out
M7210	KE11-A	U	Data control
M7212	DB11	U	Address line bus repeater control for DB11
M7213	DB11	U	Bus repeater control, for DB11
M7213-YA	DB11	U	M7213 with special modifications, 2 jumpers, 2 cuts
M7216-YA	KH11-A	U	M7216 for KH11-A
M7217	KP11-A	U	Power fail and restart
M7218	KP11-A	U	Bus requests
M7219	RC11	U	Bus interface

M7220	RC11	U	Clock control
M7221	RC11	U	Disk interface
M7222	RC11	U	Status control
M7224	RC11	U	Unit and track selector
M7225	RC11	U	Status control extender
M7226	DN11	U	DN11 Control
M7227-YA	XY11-A	U	XY11-A plotter control, 300-400 steps/sec
M7227-YB	XY11-B	U	XY11-B plotter control, 500-600 steps/sec
M7227-YC	XY11-C,E	U	XY11-C,E plotter control, 800-1300 steps/sec
M7227-YD	XY11-D	U	XY11-D plotter control, 1600-1800 steps/sec
M7228	KW11-P	U	Real time programmable clock
M7229	DA11-B	U	DR11-B interface for DA11-B
M7230	DA11-BJ	U	Differential cable driver and receiver
M7231	KD11-A	U	11/40 data paths module
M7232	KD11-A	U	11/40 micro word module
M7233	KD11-A	U	11/40 IR decode module
M7234	KD11-A	U	11/40 timing module
M7235	KD11-A	U	11/40 processor status module
M7236	KT11-D	U	11/40 memory management module
M7237		U	11/40 stack limit register
M7238	KE11-E	U	11/40 EIS board
M7239	KE11-F	U	11/40 FIS control
M724	KA11	U	11/20 bus and console control module
M7240	DM11	U	DM11-A control
M7241	DM11	U	DM11-B control, quad
M7242	DM11	U	DM11-C control
M7243	DM11	U	DM11 transmitter D
M7244	DM11	U	DM11 transmitter E
M7245	DM11	U	DM11 receiver, quad
M7246	DM11-BB	U	Modem control scan, 16 lines, DM11-BB
M7247	DM11-BB	U	8 Line Mux with modem control
M7248		U	Unibus repeater BBSY
M7249	CD11	U	Hollerith Check (Multiple ones error detector)
M725	KA11	U	11/20 bus interface and IR module
M7251	KG11-A	U	Network interface XOR and CRC block check option
M7253		U	11 to Lear Siegler 7700 terminal

M7254	RK11-D	U	RK05 status control module
M7255	RK11-D	U	RK05 disk control module
M7255-YA		U	Modified M7255 for Diablo series 30 disk drives
M7256	RK11-D	U	RK05 registers module (data path)
M7257	RK11-D	U	RK05 bus control module
M7258	LP11	U	Printer controller (Dataproducts interface)
M7259	MF11-LP	U	Parity for MF11-LP
M726	KA11	U	11/20 IR decode module
M726-YA	KH11-A	U	M726 for KH11-A
M7260	KD11-B	U	11/05 data paths module
M7261	KD11-B	U	11/05 control logic module
M7263	KD11-D	U	11/04 processor module
M7264	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264			Caution: uses DC1, DB1, DE1, DF1 for purposes
M7264			other than BDAL18-21
M7264	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264	Refs:		MP-00589, EK-LSI11-MC
M7264-AA	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-AA	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-AA	Refs:		MP-00589, EK-LSI11-MC
M7264-AB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-AB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-AB	Refs:		MP-00589, EK-LSI11-MC
M7264-BB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-BB			with DIBOL microm
M7264-BB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-BB	Refs:		MP-00589, EK-LSI11-MC
M7264-CB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-CB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-CB	Refs:		MP-00589, EK-LSI11-MC
M7264-DB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-DB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-DB	Refs:		MP-00589, EK-LSI11-MC
M7264-EB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-EB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-EB	Refs:		MP-00589, EK-LSI11-MC
M7264-FB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-FB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-FB	Refs:		MP-00589, EK-LSI11-MC
M7264-HB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-HB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-HB	Refs:		MP-00589, EK-LSI11-MC
M7264-JB	KD11-F	Q	11/03 processor with 4-Kword MOS RAM
M7264-JB	Refs:		EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-JB	Refs:		MP-00589, EK-LSI11-MC
M7264-YA	KD11-H	Q	11/03 processor with 0-Kword RAM
M7264-YA			(To be replaced by M7264-YC)
M7264-YA			Caution: uses DC1, DB1, DE1, DF1 for purposes

M7264-YA			other than BDAL18-21
M7264-YA			Refs: EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-YA			Refs: MP-00589, EK-LSI11-MC
M7264-YB	KD11-Q	Q	11/03 processor with 0-Kword RAM & DIBOL microm
M7264-YB			Refs: EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-YB			Refs: MP-00589, EK-LSI11-MC
M7264-YC	KD11-H	Q	11/03 processor with 0-Kword RAM
M7264-YC			(Revision F or later)
M7264-YC			Refs: EB-18451-20, MP-00049, MP-00050, MP-00264, MP-00357
M7264-YC			Refs: MP-00589, EK-LSI11-MC
M7265	KD11-E	U	11/34 data paths module (replaced by M8265)
M7266	KD11-E	U	11/34 control module (replaced by M8266)
M7268	RKV11	Q	RK11-D to Qbus adapter
M7268			Refs: EK-RKV11-OP, EK-RKV11-TM, MP-00223, EB-20175-20
M7269	RKV11-D	Q	RK05 controller (16-bit DMA only)
M7269			Refs: EK-RKV11-OP, EK-RKV11-TM, MP-00223, EB-20175-20
M727	KA11	U	11/20 State control module
M727-YA	KH11-A	U	M727 for KH11-A
M7270	KD11-HA	Q	LSI-11/2 CPU, 16-bit
M7270			Caution: uses BC1, BD1, BE1, BF1 for purposes
M7270			other than BDAL18-21
M7270			Refs: MP-00563
M7275		U	BRPE 11 punch interface
M7276		U	Trend reader interface
M7277	DH11	U	DH11 Transmit scanner and NPR
M7278	DH11	U	DH11 Registers and byte count
M7279	DH11	U	DH11 FIFO buffer
M728	KA11	U	11/20 Timing and states module
M728-YA	KH11-A	U	M728 for KH11-A
M7280		U	8 UARTS on quad-height board
M7281	CB11-DA	U	Unibus to 32 point relay distributor module
M7282	CB11-SB	U	Unibus to 64 point input scan
M7283	DA11-F	U	Window data path board
M7284	DA11-F	U	Window control
M7285	DJ11	U	MUX control board
M7285-YA	DJ11	U	M7285 W baud rate of 50
M7285-YB	DJ11	U	M7285 W baud rate of 100
M7286	FK11	U	FK11 Interface, VT20
M7288	DH11	U	Line parameters control
M7289	DH11	U	Receiver scanner
M7291	CB11-HA	U	16 point input interrupt
M7292		U	TU60 interface

M7293	MM11-U/UP	U	Timing and control
M7294	RH11	U	MASSBUS data buffer and control
M7294-YA	RH11-C	U	Modified M7294 for RH11-C
M7295	RH11-A	U	MASSBUS bus control
M7295-YA M7295-YA	RH11-B	U	Modified M7295 with independent NED timeout for RH11-B
M7296	RH11	U	MASSBUS control and status registers
M7297	RH11	U	MASSBUS parity control
M7298		U	11/40 watchdog timer with restart and crystal clock
M7349	ML11	U	ML11 indicator board, status LEDs + on/off switch
M7350	RT02	-	RT02-C, -D, -E badge reader
M7351	TM04-AA	U	Massbus control
M7352	TM04-AA	U	Tape control for STC 1935 formatter and 1921 drive
M7355		U	4 Megabit bubble array, Intel 7110
M7357-AB	ML11-A	U	256 Kb array, mostly good Mostek 16K chips
M7357-AC	ML11-A	U	256 Kb array, mostly good National 16K chips
M7357-AE	ML11-A	U	256 Kb array, mostly good TI 16K chips
M7358-AE	ML11-B	U	1 Mb array, mostly good TI 64K chips
M7358-AF	ML11-B	U	1 Mb array, mostly good Hitachi 64K chips
M7358-AH	ML11-B	U	1 Mb array, mostly good NEC 64K chips
M7359	DRV11-S	Q	EIA/RS408 8 bit parallel I/O interface
M7360	ADC11,ADA11	U	Controller, hex, two slots thick
M7361	ML11	U	Asynchronous control
M7362	ML11	U	Synchronous control
M7363	ML11	U	ML11 array data
M7386	VTV30-K	Q	VT30 Interface (Character serial input/output)
M7452		U	UNIBUS to Fiber Optic C
M7454	TU80K-CP	U	TU80 interface (Dilog/Digital)
M7455	TSU05	U	TSU05 controller
M7458-AA M7458-AA	MSV11-RA	Q	1-Mbyte PMI/Q22 parity memory with CSR (Also M7458-AC, -AH, -AJ)
M7460	KA785		SBL, LOW BITS INTER.
M7461	KA785		SBH, HIGH BITS INTER.
M7462	KA785		CAM, CACHE ADD MATRIX
M7463	KA785		CDM, CACHE DATA MATRIX
M7464	KA785		TBM, CPU TRANSLATION BUF

M7465	KA785		IDP, CPU INSTR DATA PATH
M7466	KA785		IRC, CPU INSTRUCT DECODE
M7467	KA785		DBP, CPU DATA PATH "B"
M7468	KA785		DEP, CPU DATA PATH "E"
M7468-YA	KA785		DEP, DATAPATH MODULE,16-31 BIT
M7469	KA785		DDP, CPU DATA PATH "D"
M7469-YA	KA785		DDP, DATAPATH MODULE,08-15 BIT
M7470	KA785		DCP, CPU DATA PATH
M7470-YA	KA785		DCP, DATAPATH MODULE,00-07 BIT
M7471	KA785		DAP, CPU DATA PATH "A"
M7471-YA	KA785		DAP, DATAPATH CONTROL MODULE
M7472	KA785		CEH, COND CODES HIGH BIT
M7473	KA785		ICL, INTR.CONT.LOW BITS
M7474	KA785		CLK, CPU CLOCK
M7475	KA785		JCS, JOINT CONT.STORE
M7476	KA785		USC, MICRO SEQUENCER
M7477	KA785		CIB CPU CONSOLE INTR
M7478	KA620	Q	RTVAX, 1 Mbyte, FP, TPU clock, boot/diag ROM
M7478-AA	KA785	Q	32 BIT SBC W/1MB, FLT. POINT
M7484		U	FEPCM Unibus bridge module
M7485	UDA50-A	U	UNIBUS to radial disk interface PR board with no ROMs (SDI disk controller)
M7485-YA	UDA50-A	U	UNIBUS to radial disk interface PR board with blasted ROMs
M7486	UDA52	U	Controller for SDI disk drives (UDA SI)
M7488		U	UNIBUS graphics workstation (Graphics display processor)
M7490	RRD50	U	UNIBUS control for RRD50
M7490-YA	RRD50	U	UNIBUS control for RRD50 with encryption support
M7493-PA	R440F	Q	R449F (S-box) to SCSI Converter
M7500	KMV1A-M	Q	Programmable Communications Controller
M7500			Refs: EK-KMV1A-TM, EK-KMV1A-UG, MP-01173, AA-HN43B-TN
M7500			Refs: ZJ360-PY
M7500-Px	KMV1A-Sx	Q	Programmable Communications Controller
M7500-Px			(for BA200 series enclosures)
M7500-Px			-PA, -SF RS232
M7500-Px			-PB, -SG RS422
M7500-Px			-PC, -SH RS423
M7500-Px			Refs: EK-KMV1A-TM, EK-KMV1A-UG, MP-01173, AA-HN43B-TN
M7500-Px			Refs: ZJ360-PY
M7501	KMV2A-S	Q	Programmable comms controller, dual line.

M7502 M7502		Q	Single-line high speed intelligent communication interface
M7504 M7504 M7504 M7504	DEQNA-M	Q	Qbus to ethernet adapter, Q22, obsolete for VMS 5.x and above (use DELQA). Refs: MP-01369, EK-H4000-TM, AA-K759A-TK, EK-DEQNA-UG Refs: EB-22714-18
M7504-PA M7504-PA M7504-PA M7504-PA M7504-PA	DEQNA-S	Q	Qbus to ethernet adapter, Q22, obsolete for VMS 5.x and above (use DELQA). (for BA200 series) Refs: MP-01369, EK-H4000-TM, AA-K759A-TK, EK-DEQNA-UG Refs: EB-22714-18
M7505	BTR01	Q	Conditioning module for BTR interface
M7506-AA M7506-AA M7506-AA	MSV11-MA	Q	512-Kbyte 18-bit RAM (Also M7506-AC, -AE, -AF, -AH, -AP) Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-AT M7506-AT M7506-AT	MSV11-MA	Q	512-kbyte 22-bit parity/CSR MOS RAM (Also M7506-AU, -AV) Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BA M7506-BA	MSV11-MB	Q	1-Mbyte RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BC M7506-BC	MSV11-MB	Q	1-Mbyte RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BE M7506-BE	MSV11-MB	Q	1-Mbyte 22-bit parity/CSR MOS RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BF M7506-BF	MSV11-MB	Q	1-Mbyte RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BH M7506-BH	MSV11-MB	Q	1-Mbyte RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BP M7506-BP	MSV11-MB	Q	1-Mbyte RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BT M7506-BT	MSV11-MB	Q	1-Mbyte 22-bit parity/CSR MOS RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BU M7506-BU	MSV11-MB	Q	1-Mbyte 22-bit parity/CSR MOS RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7506-BV M7506-BV	MSV11-MB	Q	1-Mbyte 22-bit parity/CSR MOS RAM Refs: EK-MSV1M-UG, MP-02053, uNOTE N#028
M7507	LVN11	Q	Simplex 2.5MB full page bitmap memory
M7507-YA	LVN11	Q	Duplex 2.5MB full page bitmap memory
M7508	LVN11-A	Q	29116 image generator processor (IGP)
M7509	LVN11-A	Q	Q-bus/print engine interface (QPIO)
M7510	LVN11-A	Q	Horiz line proc, 256kB font RAM (HLP)
M7511	LVN11-A	Q	Horiz line proc, 512kB font RAM (HLP)
M7512 M7512	RQDX1E	Q	RQDX extender for RQDX1; must be the last item in the backplane, below the RQDX1.
M7513 M7513 M7513	RQDXE	Q	RQDX extender for RQDX2/3 (-AA for BA23, -FA for BA123). Refs: EK-RQDXE-UG

M7514	BTRXX-A	Q	DC/DC Converter module
M7515		Q	3-plane bitmap video generator for Q-bus
M7516	DELQA-M	Q	Ethernet interface (replaces DEQNA)
M7516	Refs: EK-DELQA-UG, EK-DELQA-IN		
M7516-PA	DELQA-S	Q	Qbus high-performance ethernet adapter, Q22
M7516-PA			(for BA200 series) (DEQTA)
M7516-PA	Refs: EK-DELQA-UG, EK-DELQA-IN		
M7516-YM	DELQA-M	Q	Qbus to Ethernet Turbo Module, Q22
M7516-YM	Refs: EK-DELQA-UG, EK-DELQA-IN		
M7517	VSV90	Q	VSV90 Q-bus graphics module
M7518	KEQDI-SA	Q	S-box control for internal RD's, 1 external RX
M7519-AA	LNV11	Q	Horiz line proc, 1 MB font RAN
M7521-AA	DELUA-AA	U	UNIBUS to ethernet adapter
M7521-AA			(Also M7521-AJ, -AP)
M7522	RUX50	U	MSCP controller for RX50
M7523	LNV11	Q	Duplex (QPIO) module
M7524	CMR53	Q	Q-bus digital input, 32 points
M7525	CMR53	Q	Q-bus digital output, 32 points
M7526	SS-LX56A-FA	Q	Digital/video controller
M7527	VSV22	Q	Q-bus 1024*864 graphics control module
M7528	CMR53	Q	High speed communications controller
M7529	CMR53	Q	Medium speed communications controller to DRV11
M7531	DIV32-SA,F	Q	Q-bus ISDN BRA module for BA23/BA123
M7531-KK	DIV32-SA,F	Q	Q-bus ISDN BRA module for BA200 series, Australia
M7531-PA	DIV32-SA,F	Q	Q-bus ISDN BRA module for BA200 series
M7545		U	Intelligent I/O controller
M7534	DEFQA	Q	QBus to FDDI Interface
M7540	FP785		FLOAT PT FRACT NORMALIZ
M7541	FP785		FMH, FLOAT PT FRACT MULT
M7542	FP785		FML, FLOAT PT FRACT MULT
M7543	FP785		FAD, FLOAT PT FRAC ADDER
M7544	FP785		FCT, FLOAT PT ACC CONTRL
M7546	TQK50-AA	Q	TMSCP controller for TK50 tape unit
M7546	Refs: uNOTE N#041		
M7547	TUK50-AA	U	TMSCP controller for TK50 tape unit
M7549		Q	Alternate buffer DMA interface for Q22 bus
M7551-AA	MSV11-QA	Q	1-Mbyte 22-bit parity/CSR MOS RAM
M7551-AA			(Also M7551-AC, -AE, -AF, -AH, -AJ, -AP)
M7551-AA	Refs: EK-MSV1Q-UG, MP-01931, ZJ246-RZ, uNOTE N#031		
M7551-BA	MSV11-QB	Q	2-Mbyte 22-bit parity/CSR MOS RAM

M7551-BA (Also M7551-BC, -BE, -BF, -BH, -BJ, -BP, -BT, -BV)
M7551-BA Refs: EK-MSV1Q-UG, MP-01931, ZJ246-RZ, uNOTE N#031

M7551-CA MSV11-QC Q 4-Mbyte 22-bit parity/CSR MOS RAM
M7551-CA (Also M7551-CC, -CE, -CF, -CH, -CP, -CT, -CV)
M7551-CA Refs: EK-MSV1Q-UG, MP-01931, ZJ246-RZ, uNOTE N#031

M7552 KRP50 Q RRD40-HB/-HD/RRD50 Optical Disk Controller Module
M7552 (also KRQ50-AA, KRQ50-SA, KRQ50-SF)
M7552 Refs: EK-RRD50-UG, EK-RRD50-PS

M7553 Q QBus Console Module (link to mainframe VAX)

M7554 KDJ11-DA Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs, LTC
M7554 Refs: EK-KDJ1D-UG

M7554-01 KDJ11-DA Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs, LTC (VE)
M7554-01 Refs: EK-KDJ1D-UG

M7554-02 KDJ11-DB Q 11/53-PLUS CPU
M7554-02 (J11 15MHz, 1.5-Mbyte RAM, 2 SLU, LTC)
M7554-02 Refs: EK-KDJ1D-UG

M7554-04 KDJ11-DD Q J11 CPU 18MHz, 1.5-Mbyte RAM, 2 SLUs (CSS)
M7554-04 Refs: EK-KDJ1D-UG

M7554-PA KDJ11-SA Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs
M7554-PA with S-box handle
M7554-PA Refs: EK-KDJ1D-UG

M7554-PB KDJ11-SB Q J11 CPU 18MHz, 512-Kbyte RAM, 2 SLUs, LAT PROM,
M7554-PB with S-box handle
M7554-PB Refs: EK-KDJ1D-UG

M7554-PC CMR53-AA Q J11 CPU 18MHz, 512-Kbyte RAM, 2 SLUs
M7554-PC with S-box handle, CMR53 boot PROM
M7554-PC Refs: EK-KDJ1D-UG

M7554-SA KDJ11-SA Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs
M7554-SA with S-box handle (VE)
M7554-SA Refs: EK-KDJ1D-UG

M7554-SC KDJ11-SC Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs
M7554-SC with S-box handle (VE)
M7554-SC Refs: EK-KDJ1D-UG

M7554-SD KDJ11-SD Q J11 CPU 18MHz, 1.5-Mbyte RAM, LAT ROM
M7554-SD with S-box handle
M7554-SD Refs: EK-KDJ1D-UG

M7554-SE KDJ11-SE Q J11 CPU 18MHz, 1.5-Mbyte RAM, 2 SLUs, LTC,
M7554-SE with S-box handle
M7554-SE Refs: EK-KDJ1D-UG

M7554-YA KDJ11-SA Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs, LTC,
M7554-YA no handle
M7554-YA Refs: EK-KDJ1D-UG

M7554-YB KDJ11-SB Q J11 CPU 15MHz, 512-Kbyte RAM, 2 SLUs, LAT PROMs,
M7554-YB no handle
M7554-YB Refs: EK-KDJ1D-UG

M7555 RQDX3 Q MFM Winchester and floppy disk controller
M7555 (RX50/RX33/RD50-54/RD31/RD32/RD33)
M7555 Refs: EK-RQDX3-UG, uNOTEs N#041, N#043

M7555-YA RQDX3-SD Q Controller for RX33D 48TPI floppy disk drive

M7556 U Minimum load module +5V 1A -15V 375mA, 11/84

M7558 MSV11 Q 2-Mbyte 22-bit MOS memory

M7558-AA M7558-AA	MSV11-SA	Q	2-Mbyte 22-bit parity/CSR MOS RAM (Also M7558-AC, -AE, -AF, -AL, -AP, -AR, -AU, -AV)
M7559	TQK70	Q	TMSCP controller for TK70
M7573	RQDX4	Q	Controller for RX35, RD50/1/2/3/4
M7602 M7602	VCB01, QVSS	Q	Qbus Video Sub System module for Q22 systems (uVAX I, II)
M7602-YA M7602-YA	VCB01, QVSS	Q	Qbus Video Sub System module, bitmap graphics option. (uVAX I, II)
M7605 M7605	TQK25	Q	0.25" streaming tape drive controller (TK25) Refs: uNOTE N#041
M7606-AA M7606-AA M7606-AA M7606-AA M7606-AA M7606-AA M7606-AA	KA630-AA	Q	MicroVAX II CPU w/1-Mbyte, floating point, time of year clock, boot/diagnostic ROM, Q22 (Also M7606-AC, -AF, -AH, -AL, -AP, -AS Also M7606-EC, -EE, -EF, -EP, -ES, -ET, -EU, -EV Also M7606-ZC, -ZF, -ZP, -ZS) Refs: EK-KA630-UG, EK-KD32-OM, EK-KD32A-OM Refs: uNOTES N#022, N#024, N#026
M7606-AB	KA630-AB	Q	MicroVAX II CPU, floating point.
M7607-AA M7607-AA M7607-AA	MS630-AA	Q	1-Mbyte RAM for MicroVAX II (Also M7607-AC, -AE, -AH, -AL, -AP, -AR, -AS, -AT, -AU, -AV, -ZC, -ZF, -ZS)
M7608-AA M7608-AA M7608-AA	MS630-BA	Q	2-Mbyte RAM for KA630 (MicroVAX II) (Also M7608-AC, -AE, -AH, -AL, -AP, -AR, -AS, -AT, -AU, -AV)
M7608-BA M7608-BA M7608-BA	MS630-BB	Q	4-Mbyte RAM for KA630 (MicroVAX II) (Also M7608-BC, -BE, -BH, -BL, -BP, -BR, -BS, -BT, -BU, -BV, -YC, -YF, -YS, -ZC, -ZF, -ZS)
M7609-AA M7609-AA	MS630-CA	Q	8-Mbyte parity 36-bit RAM for KA630 (MicroVAX II) (Also M7609-AC, -AF, -AH, -AP, -AV) (Q22 via CD)
M7616 M7616	KXJ11-CA	Q	J11 CPU, 512-Kbyte RAM, 64-Kbyte PROM (Q22 peripheral processor)
M7620 M7620 M7620	KA650-AA/BA	Q	MicroVAX III CPU (-AA full license, -BA workstation license), 90nS. Refs: EK-KA650-UG
M7621	MS650-AA	Q	8-Mbyte RAM for KA650 (MicroVAX III)
M7622	MS650-BA	Q	16-Mbyte RAM for KA650 (MicroVAX III)
M7624 M7624 ***	KA640-AA	Q	MicroVAX 3300/3400 CPU: CVAX chip, Ethernet, DSSI, 4 Mbyte memory (640QR) 640QR
M7625	KA655-BA	Q	MicroVAX III CPU (workstation license), 60nS
M7626	KA660	Q	VAX 4000 CPU, 57MHz, Q22, DSSI, ethernet
M7634-PA	IEQ11	Q	IEEE interface
M7635-AA	KN210	Q	DS5400, RISC 3000 CPU, Qbus interface
M7635-AB	KN210	Q	M7635-AA with LSI R3000, R3020 chips
M7635-AC	KN210	Q	M7635-AA with PERF R3000, R3020 chips
M7636		Q	I/O Module, DSSI Interface, Ethernet

M7637 M7637	KN220	Q	DS5500 CPU Module, Memory Control, 64Kb I&D Caches
M7638		Q	DS5500 I/O MOD @25MHZ W/QBUS,DSSI,SC
M7639	MS220	Q	DS 5500 64MB ECC MEM ARRAY
M7651 M7651	DRV11-WA	Q	18/22-bit DMA general purpose parallel interface Refs: EK-DRVWA-UG, MP-01582, ZJ244-RZ, uNOTE N#041
M7651-PA M7651-PA M7651-PA	DRV1W-S	Q	General-Purpose DMA Interface (for BA200 series) Refs: EK-DRVWA-UG, MP-01582, ZJ244-RZ, uNOTE N#041
M7651-YB M7651-YB	DRV11-WA	Q	M7651, revision C circuit Refs: EK-DRVWA-UG, MP-01582, ZJ244-RZ, uNOTE N#041
M7656 M7656 M7656 M7656	VSV21-AA	Q	Colour graphics module: M68K processor, HD63486 video processor (512x512 or 512x256 resolution), Serial ports for mouse, trackball, console and LK201.
M7658 M7658 M7658	DRQ3B-A	Q	2 x 16 bit, High-Speed, bidirectional Parallel interface w/DMA and Block Mode Refs: EK-O47AA-UG
M7658-PA M7658-PA M7658-PA	DRQ3B-S	Q	High-Speed, Parallel Interface (for BA200 series) Refs: EK-O47AA-UG
M7676 M7676 M7676 M7676 M7676 M7676 M7676 M7676 M7676 M7676 M7676 M7676 M7676	KXT11-AB	Q	Single-board 16-bit CPU (dual height). 16-Kbytes of static RAM 64-Kbytes of direct addressing capability PDP-11 base level instruction set 50, 60 or 800Hz realtime clock 24-line parallel I/O Two async serial I/O ports Four 28-pin memory sockets for up to 16-Kbytes of additional RAM and 16-Kbytes of ROM, or an extra 32-Kbytes of RAM or 32-Kbytes of ROM. (T11 processor) (FALCON-PLUS) (SBC-11/21-PLUS) Refs: EK-SBC02-CG, EK-SBC02-UG, EK-SBCOP-IN, uNOTE N#015
M7677	MDM	U	11/84 monitor and distribution monitor
M7677-YA	MDM(?)	U	11/84-A monitor (fan, blower, I/O distribution)
M7679	ISDN	Q	ISDN basic rate access Qbus board
M7680	RK05		RK05
M7681	RK05		CYLINDER ADDRESS + TRACK DIFF
M7684	RK05		CONTROL SEQUENCER
M7685 M7685	????????	?	Data Sequencer for RM02/03, can be replaced by M8685
M7686	????????	?	RM02/03 Control Interface
M7687	????????	?	???
M7690	VTV31-KA	Q?	RGB Bitmap 348Hx256V 50Hz
M7691	VTV31-KB	Q?	RGB Bitmap 348Hx240V 60Hz
M7693	VTV31-KD	Q?	RGB Bitmap 512Hx240V 60Hz
M7700 M7700	RK05		RK05 unit-sel/photoamp/sector-counter (Replaced by M7680)

M7701			DEC PAK CONTROL & INTERLOCK
M7705	RK06		RK06 MODULE
M7706	RK06		RK06 MODULE
M7707	RK06		RK06 SERVO CONTROL,QUAD
M7708	RK06		RK06 TRACK POSITION DETECTOR
M7726	RX01	-	8" floppy disk controller (internal board)
M7727	RX01	-	8" floppy disk read/write (internal board)
M7728-YC		-	M7728 ETCH REV L AND LATER
M7729	RK06	-	RK06,SERVO ANALOG,(REPLACES M
M7730	RK06	-	RK06 DUCIL PORT LOGIC BOARD
M7736	LA36	-	LA36 HT VT TOF OPTION,DOUBLE
M7740	RQC25	Q	Qbus to LESI bus adapter used on disks with
M7740			MSCP. RC25 controller. Replaces M8654. Q22.
M7740			(Also M7740-01, -PA) (Also called KLESI-QA and
M7740			used as the controller for a TU81-Plus)
M7740			Refs: EK-ORC25-PS, EK-ORC25-UG, MP-01612, ZJ350-RZ
M7740			Refs: uNOTE N#041
M7744	RX02	-	8" floppy disk controller (internal board)
M7744			Refs: MP-00629
M7745	RX02	-	8" floppy disk read/write (internal board)
M7745			Refs: MP-00629
M7760	TU60	-	Cassette logic (internal board)
M7761	TU60	-	Cassette servo and read (internal board)
M7762	RL11	U	RL01/02 disk controller
M7762			Refs: MP-00153
M7769	KFQSA-A	Q	Storage Adapter (DSSI Disk Interface), BA23
M7769			Refs: EK-KFQSA-IN
M7769	KFQSA-B	Q	Storage Adapter (DSSI Disk Interface), BA123
M7769			Refs: EK-KFQSA-IN
M7769	KFQSA-S	Q	Storage Adapter (DSSI Disk Interface), BA200 series
M7769			Refs: EK-KFQSA-IN
M7773	RP04		ASYNCHRONOUS LOGIC
M7774	RP04		REGISTER LOGIC
M7776	RP04		ERROR CORRECTION LOGIC, 4
M7786	RP05/06		SEEK SEARCH CONT
M7787	RP05/06		INTERFACE CONTROL
M7788	RP05/06		MINIMUM DEVICE LEVEL I
M7789	RP05/06		INTERFACE RECEIVER
M7792	DEUNA	U	DEUNA port module, UNIBUS to ethernet
M7792			microprocessor. (1 of 2)
M7793	DEUNA	U	DEUNA link module, M7792 to ethernet bus
M7793			line unit. (2 of 2)

M780	KL11	U	Teletype transmitter & receiver for KL11, 110 baud
M780-YB	KL11	U	150 baud M780
M780-YC	KL11	U	300 baud M780
M780-YD	KL11	U	600 baud M780
M780-YE	KL11	U	1200 baud send, 110 baud receive M780
M780-YF	KL11	U	2400 baud M780
M780-YH	KL11	U	Used in PMK02-C option
M780-YS M780-YS	KL11	U	307-Kbaud M780 for KL11-S Tektronix 4010 series terminals.
M7800 M7800 M7800 M7800	DL11	U	Async transmitter & receiver, 110-2400 baud, no clock (Replaces KL11, which consisted of M780, M105, M782)
			Refs: uNOTE N#033
M7800-YA M7800-YA	DL11	U	M7800 without EIA chips, current loop only
			Refs: uNOTE N#033
M7800-YB M7800-YB	DL11	U	M7800 with 24.6-Kbaud
			Refs: uNOTE N#033
M7800-YC M7800-YC M7800-YC	DL11	U	M7800 with filter on ring circuit for use with EMI filter cable
			Refs: uNOTE N#033
M7801	MC11	U	Data word control for MC11 (-YA is for MC11-B)
M7802	MC11	U	Address control for MC11 (-YA is for MC11-B)
M7803	MC11	U	Arbitration control for MC11
M7803-YA	MC11	U	Arbitration control with parity for MC11
M7803-YB	MC11	U	High speed M7803-YA, will be replaced by M7869
M7807 M7807	DV11	U	Bus control and MUX for DV11 (fits in DV11 backplane)
M7808 M7808	DV11	U	Modem control scan and MUX for DV11 (fits in DV11 backplane)
M7809	AR11	U	16 Channel 10 bit A/D, 1 ch D/A
M781 M781	PC11	U	PC11 control board for KA11 (Requires M105 and M782 or M7820 or M7821)
M7810	PC11	U	Paper tape reader/punch controller
M7812	DQ11-AA	U	Bus selectors, CSRs, shift registers
M7813	DQ11-AA	U	Character count, bus address, shift control
M7814 M7814 M7814	DZ11-C	U	8-line 20mA data MUX, 50 to 100-Kbaud (also DZ11-D, DZ11-F)
			Refs: EK-DZ110-OP, MP-00253
M7815	DQ11-AA	U	Modem control (DQ11-BA)
M7816	DQ11-AB	U	Bus selectors and block check
M7817	DQ11-AB	U	Character detection and sequence control (DQ11-BB)
M7818	DQ11-AA	U	Hardwired char detection and NPR control

M7819	DZ11-A	U	8-line double-buffered async EIA
M7819			with modem control (50 to 96-Kbaud, 64-byte silo)
M7819			(also DZ11-B, DZ11-E)
M7819	Refs: EK-DZ110-OP, MP-00132		
M782	KL11	U	Interrupt control, 6-bits, 1 per PDP11 peripheral
M7820	KW11	U	Interrupt control, 7-bits, 1 per PDP11 peripheral
M7820			(Replaced by M7821)
M7821	KW11	U	Fast M7820
M7822	DU11	U	Synchronous serial line interface. Max 9600
M7822			baud. Bell 200 series modems. Optional
M7822			DCF11-A clock available.
M7823	KW11-W	U	Watchdog timer module
M7824	CP11-UP	U	Punch interface, CP11-UP
M7826	DVS11	U	Serial line xmit/receiver, sync, async, isosync
M7828	DT03	U	Remote DT03 bus switch control
M783		U	Bus transmitters 12 drivers, mixed logic
M7833	DV11	U	Line card, 4 async lines for DV11
M7833			(fits in DV11 backplane)
M7835	DD11	U	Tone alert used in DD11
M7836	DV11	U	ALU and transfer bus for DV11
M7836			(fits in DV11 backplane)
M7837	DV11	U	UNIBUS data and NPR control for DV11
M7837			(fits in DV11 backplane)
M7838	DV11	U	ROM, RAM and branch for DV11
M7838			(fits in DV11 backplane)
M7839	DV11	U	Line card, 4 async lines for DV11
M7839			(fits in DV11 backplane)
M784		U	Bus receiver (16 receivers), single in/single out
M784-YA		U	M784, non-inverting
M7840	KE11-B	U	Extended Arithmetic Element, KE11-A Compatible
M7843	DR11-K	U	Digital I/O
M7843-YA	DR11-K	U	M7843 with fusible resistor replaced by diode
M7845		U	Time out for boeing interface
M7846	RX11	U	RX01 floppy disk controller
M7847-AA	MS11-E	U	Either M7847-BA, -CA, -DA or -EA
M7847-AB	MS11-EP	U	Either M7847-BB, -CB, -DB or -EB
M7847-AD	MS11-FP	U	Either M7847-BD, -CD, -DD or -ED
M7847-AJ	MS11-JP	U	Either M7847-BJ, -CJ, -DJ or -EJ
M7847-BB	MS11-EP	U	4-Keyword 18-bit RAM
M7847-BD	MS11-FP	U	8-Keyword 18-bit RAM
M7847-BF	MS11-HP	U	12-Keyword 18-bit RAM

M7847-BJ	MS11-JP	U	16-Kword 18-bit RAM
M7847-CB	MS11-EP	U	4-Kword 18-bit RAM
M7847-CD	MS11-FP	U	8-Kword 18-bit RAM
M7847-CJ	MS11-JP	U	16-Kword 18-bit RAM
M7847-DB	MS11-EP	U	4-Kword 18-bit RAM
M7847-DD	MS11-FP	U	8-Kword 18-bit RAM
M7847-DJ	MS11-JP	U	16-Kword 18-bit RAM
M7847-EB	MS11-EP	U	4-Kword 18-bit RAM
M7847-ED	MS11-FP	U	8-Kword 18-bit RAM
M7847-EE	MS11-H	U	12-Kword 16-bit RAM
M7847-EJ	MS11-JP	U	16-Kword 18-bit RAM
M7847-YA	MS11-E	U	4-Kword 16-bit RAM
M7847-YB	MS11-EP	U	4-Kword 18-bit RAM
M7847-YC	MS11-F	U	8-Kword 16-bit RAM
M7847-YD	MS11-FP	U	8-Kword 18-bit RAM
M7847-YE	MS11-H	U	12-Kword 16-bit RAM
M7847-YF	MS11-HP	U	12-Kword 18-bit RAM
M7847-YJ	MS11-JP	U	16-Kword 18-bit RAM
M785		U	Bus transceiver, 8 drivers/8 receivers (8-bit)
M7850	MM11-BP/CP	U	Parity board for G651, MS11-EP/FP/HP/JP
M7855		U	UNIBUS exercisor and tester
M7856	DL11-W	U	RS-232 SLU & realtime clock option
M7856	Refs: uNOTE		N#033
M7856-YA	DL11-W	U	M7856 with 110 to 19.2-Kbaud option
M7856-YA	Refs: uNOTE		N#033
M7857	DL11-L	U	SLU & realtime clock, option, with RS449 capability
M7859	KY11-LB	U	Console interface; programmer's console (11/34a)
M786		U	Device Register Interface
M7860	DR11-C	U	M786+M105+M7821; general device interface to PDP11
M7864	DR11-L	U	DR11-L, 2 word unibus input interface
M7864-YA		U	M7864 modified for chrono-log clock interface
M7864-YB		U	M7864 modified for use with M5864 optical I/O Converter
M7865	DR11-M	U	Two word unibus output interface
M7867	DUP11-DA	U	SDLC or DDCMP sync interface
M7867	Refs: EK-DUP11-MM, EP-DUP11-MM		
M7869	MC11-B	U	Arbitration control (replaces M7803-YB)

M787	KW11-L	U	Line frequency clock
M7870	KU116	U	11/60 writable control store module
M7871	KD11-K	U	11/60 diagnostic control store module
M7871-YA	KD11-K	U	11/60 extended control store module
M7872	KD11-K	U	11/60 micro word module
M7873	KD11-K	U	11/60 decode module
M7874	KD11-K	U	11/60 data paths module
M7875	KD11-K	U	11/60 cache kit (memory & MMU)
M7876	KD11-K	U	11/60 timing module
M7877	KD11-K	U	11/60 status module
M7878	FP11-E	U	11/60 FNUA (Floating point Next micro Address)
M7879	FP11-E	U	11/60 exponent module
M788	MR11-A	U	Control logic module
M7880	FP11-E	U	11/60 FFP MULNET module
M7881 M7881	FP11-E	U	11/60 FALU module (Floating point Arithmetic Logic Unit)
M7883	CPI32	U	24 channel data mux, async
M7883-YA	CPI32	U	M7883 with async and sync
M7884	CPI32	U	Unibus interface card, async
M7884-YA	CPI32	U	Unibus interface card, async and sync
M7890	DT03	U	DT03 power sequence control
M7891-AH	MS11-LA	U	32-Kword 18-bit parity RAM (Also M7891-AL)
M7891-BA M7891-BA	MS11-LB	U	64-Kword 18-bit parity MOS memory (Also M7891-BB, -BC, -BD, -BE, -BF, -BH, -BL)
M7891-CH	MS11-LC	U	96-Kword 18-bit parity RAM (Also M7891-CL)
M7891-DA M7891-DA	MS11-LD	U	128-Kword 18-bit parity MOS memory (Also M7891-DB, -DC, -DD, -DE, -DF, -DH, -DL)
M7892		U	M7292 with 8881 & 380 (TU60 interface)
M7893-YA	DRS11	U	48 TTL outputs
M7893-YB	DRS11	U	48 open collector outputs
M7893-YC	DRS11	U	M7893-YA with data strobe
M7894	DRS11	U	48 optical isolated outputs
M7895-YA	DSS11	U	48 5V optical isolated inputs
M7895-YB	DSS11	U	48 24V optical isolated inputs
M7895-YE	DSS11	U	DSS11-AB, 48 5V optical isolated inputs, fast
M7896-YA	DSS11	U	48 24V contact sense inputs
M7897	PMK05	U	Indicator board

M7899	DZ32	U	DZ32 80line async mux modem control
M7900	RK611	U	RK06/07 Unibus interface, hex
M7901	RK611	U	RK06/07 register module, hex
M7902	RK611	U	RK06/07 control module, hex
M7903	RK611	U	RK06/07 data module, hex
M7904	RK611	U	RK06/07 drive interface module, hex
M7906	RK07	U	RK07 servo control
M7907	RK07	U	RK07 servo analogue board
M7908	RK07	U	RK07 track position detector/PLO
M7909	DZ32	U	DZ32 attenuated loop back input tester
M791		U	LA30 interface for PDP-11
M7910		U	M791+M105+M7821, parallel interface between PDP-11
M7910			and LA30P.
M7911	TMB11	U	TMB11 tape control 1
M7912	TMB11	U	TMB11 tape control 2
M7914	DPQ11-A	Q	Synchronous line interface
M7915	IEC11-B	U	IEC11-B (IEEE interface) control
M7917	PTV11-PA		PT02 Papertape reader interface
M792		U	32-word, 16-bit ROM diode matrix, all diodes in
M792			(used in DD11)
M792-YA		U	Papertape bootstrap loader for Teletype or
M792-YA			high-speed papertape reader (PC11)
M792-YB		U	Disk/DEctape bootstrap loader
M792-YC		U	Card Reader bootstrap loader (CR11)
M792-YD	MR11-DB	U	Bootstrap loader (11/45) (1 of 2)
M792-YE	MR11-DB	U	Bootstrap loader (11/45) (2 of 2)
M792-YF		U	DS500 loader ROM
M792-YH		U	TA11 bootstrap loader
M792-YJ	TM11	U	Bell special TM11 loader
M792-YK		U	VT20 bootstrap
M792-YL		U	RX11 floppy loader
M7920	PC11-F	U	SPC controller for facit reader/punch
M7921	MA11-F	U	MA11-F data multiplexer
M7922	MA11-F	U	MA11-F address multiplexer
M7923	MA11-F	U	MA11-F multiplexer control
M7924	MA11-F	U	MA11-F unibus interface
M7928	DZV11	Q	Sync serial line, with auto re-sync

M7929		U	Milliken high speed data mirroring
M7930	LP11	U	M793+M105+M7821, interface to Data Products line printers
M7930			
M7932	DRS11	U	48 channel output
M7933	DRS11-X	U	48 channel output with output conditioning
M7934	DSS11	U	48 channel input
M7935	DSS11-X	U	48 channel input with input conditioning
M7936	DV11	U	Ors 2 DV11 on a TTL level and drives EIA or MIL188
M7937	MA11-KA	U	Programmable port control for MA11-F, MA11-H
M7939	DZS11-C	U	8-line async mux, EIA I/O
M794	DC11-D	U	Modem interface & control card
M7940	DLV11	Q	Serial Line Unit (SLU, Async)
M7940			Refs: MP-00055, EB-20175-20, uNOTE N#033
M7940-YA	DLV11	Q	M7940 with extra wires to bring out clock & 110/300 speed change
M7940-YA			Refs: MP-00055, EB-20175-20, uNOTE N#033
M7940-YC	DLV11	Q	Modified M7940 for use in a tester, TTL in/out
M7940-YC			Refs: MP-00055, EB-20175-20, uNOTE N#033
M7940-YD	DLV11	Q	Modified M7940 for use in a tester, switchable baud rate
M7940-YD			Refs: MP-00055, EB-20175-20, uNOTE N#033
M7940-YE	DLV11	Q	Modified M7940 for use in a tester, XON/XOFF
M7940-YE			Refs: MP-00055, EB-20175-20, uNOTE N#033
M7941	DRV11	Q	16-bit parallel line unit
M7941			Refs: EK-ADV11-OP, MP-00054, EB-20175-20, ZJ244-RZ
M7941			Refs: MP-00866 (unconfirmed)
M7942	MRV11-AA	Q	Space for 4K 16-bit PROM
M7942			Refs: MP-00066
M7942-YA	MRV11-VA	Q	VT71T bootstrap
M7942-YB	MRV11-AA	Q	M7942 with VT52 emulator, VT71 bootstrap
M7942-YC	MRV11-VC	Q	VT72 bootstrap/diagnostic module
M7942-YD	MRV11-AA	Q	M7942 with CSR11 bootstrap
M7944	MSV11-B	Q	4-Kword 16-bit MOS RAM (external refresh)
M7946	RXV11	Q	RX01 8" floppy disk controller
M7946			Refs: EK-RXV11-OP, MP-00024, EB-20175-20, ZF220-RZ
M7948	DRV11-P	Q	LSI-11 bus foundation module. Basic Qbus interface board with space for wire-wrapping.
M7948			Refs: EK-DR11-OP, MP-00119, EB-20175-20
M7949	LAV11	Q	LA180 line printer control module
M7949			Refs: EK-LAV11-OP, MP-00306
M795		U	Word count and bus address module
M7950	DRV11-B	Q	16-bit parallel general purpose interface w/18bit DMA (quad)
M7950			Refs: EK-DRV1B-OP, MP-00160, EB-20175-20, ZJ244-RZ

M7951	DUV11-DA	Q	Sync interface, character protocol
M7951			DU11-DA compatible
M7951			Refs: EK-DUV11-OP, EK-DUV11-TM, MP-00297, EB-20175-20
M7951			Refs: ZJ237-RZ
M7952	KWV11-A	Q	Programmable realtime clock
M7952			Caution: uses BC1 for purposes other than BDAL18
M7952			Refs: EK-ADV11-OP, MP-00200, EB-20175-20, uNOTE O#108
M7953	MNCKW	?	MINC programmable real time clock
M7954	IBV11	Q	IEC general purpose interface (IEEE 488/GPIB)
M7954			Refs: EK-IBV11-TM, IEEE Std. 488-1975, MP-00274, EB-20175-20
M7955-AD	MSV11-CD	Q	16-Kword 16-bit MOS RAM with on-board refresh,
M7955-AD			18-bit addressing only.
M7955-AD			(Also M7955-YD, -YJ, -BD, -BJ, -CD, -CJ, -DD)
M7955-YA	MSV11-CA	Q	4-Kword 16-bit MOS RAM with refresh
M7955-YB	MSV11-CB	Q	8-Kword 16-bit MOS RAM with refresh
M7955-YC	MSV11-CC	Q	12-Kword 16-bit MOS RAM with refresh
M7955-YD	MSV11-DC	Q	16-Kword 16-bit MOS RAM with refresh
M7957	DZV11-M	Q	4-line double-buffered async EIA MUX
M7957			(With modem control, 50 to 10-Kbaud) (quad)
M7957			Refs: EK-DZV11-TM, MP-00462, EB-20175-20, EK-DZV11-UG
M7957			Refs: ZJ251-RZ
M7958	IP11	Q	Q-bus to I/O daisy chain bus control and interface
M7959	IP11	Q	Q-bus to D-bus cable (-PA for S-box, -YA for no
M7959			handle)
M796		U	Unibus master control, used with M782
M7966	DZS11-A	U	8-line async MUX, diff balanced long line I/O
M7966			(To be replaced by M8715)
M7967	DZS11-B	U	8-line async MUX, TTL I/O
M7967			used with M5926 for 20mA loop.
M7968	VW01-G	U	Writing tablet control
M7969	KW11-A	U	Watchdog timer
M797		U	Register select module, used with M105
M7970	TMS11-W	U	Command and status register
M7971	TMS11-W	U	Data control and CRCC logic
M7972	TMS11-W	U	Tape motion control
M7973	VT30-C, -D	U	VT30 timing and CSR
M7974	VT30-C	U	VT30-C picture store
M7975	VT30-D	U	VT30-D picture store
M7976	VT30-C	U	VT30-C scratch pad and character store
M7977	VT30-D	U	VT30-D scratch pad and character store
M7978	VT30-C, -D	U	VT30-C, -D color control
M7979	VT30-C, -D	U	VT30-C, -D unibus decode
M798		U	16 non-inverting UNIBUS drivers

M7980	DD11	U	AC/DC lo monitor, 8-pin mate-n-lock output
M7982	TS11	U	Serial tape control module
M7983	MF11	U	MF11-S through MF11-K control module
M7984-EA	MS11-KE	*	Either M7984-EB, -EC or -ED
M7984-EB	MS11-KE	*	16-Kword 39-bit MOS RAM array
M7984-EC	MS11-KE	*	16-Kword 39-bit MOS RAM array
M7984-ED	MS11-KE	*	16-Kword 39-bit MOS RAM array
M7984-ED			(*Note: M7984-xx fit into the 11/70's MK11
M7984-ED			memory box. MS11-KD is 32-Kword and MS11-KC
M7984-ED			is 128-Kword.)
M7985	IEC11-A	U	IEC bus interface
M799	AA11	U	Display control for AA11
M7990	LAB11	U	LAB11 color control
M7991	PCL11-B	U	PCL11-B transmitter interface
M7992	PCL11-B	U	PCL11-B transmitter unibus control
M7993	PCL11-B	U	PCL11-B transmitter registers
M7994	PCL11-B	U	PCL11-B transmitter bus logic and drivers
M7995	PCL11-B	U	PCL11-B receiver registers
M7996	PCL11-B	U	PCL11-B receiver unibus control
M7997	PCL11-B	U	PCL11-B receiver interface
M7998	PCL11-A	U	differential transceiver (replaced by M8003)
M8003	PCL11-B	U	PCL11-B TDM differential bus transceiver
M8005	IDV11	Q	16-bit relay output (-PO for S-box handles)
M8006-PA		Q	72-bit opto-isolated output module
M8007-PA		Q	72-bit opto-isolated input module
M8010	PCV11		Papertape reader-punch
M8012	BDV11	Q	Bus terminator, bootstrap and diagnostic ROMs
M8012			(CS revision E or earlier, 18 bits only)
M8012			(CS Rev. E or later, ECO M8012-ML005 installed)
M8012	Refs:		EK-BDV11-TM, MP-00489, EB-20175-20, uNOTEs N#003
M8012	Refs:		N#015, N#035
M8012-YA	BDV11	Q	Bus terminator (120 ohm), bootstrap and
M8012-YA			diagnostic ROMs, 18-bit only
M8012-YA	Refs:		EK-BDV11-TM, MP-00489, EB-20175-20, uNOTEs N#003
M8012-YA	Refs:		N#015, N#035
M8013	RLV11	Q	RL01 disk controller, 1 of 2
M8013			18-bit DMA only
M8013			Caution: uses BC1 and BD1 for purposes other
M8013			than BDAL18 and BDAL19
M8013	Refs:		EK-RLV11-TD, MP-00635, EB-20175-20
M8014	RLV11	Q	RL01 bus controller, 2 of 2
M8014			18-bit DMA only
M8014			Caution: uses BC1 and BD1 for purposes other
M8014			than BDAL18 and BDAL19

M8041 VT30-H Q Q-bus control for VT30-H
M8043 DLV11-M Q 4-Line Asynchronous Interface (formerly DLV11-J)
M8043 (CS Rev. E or earlier incompatible with KDF11-A
M8043 and KDF11-B)
M8043 (CS Rev. E or later, ECO M8043-MR002 installed)
M8043 Refs: EK-DLV1J-UG, MP-00586, EB-20175-20, ZJ269-RZ
M8043 Refs: uNOTE N#033
M8044-AA MSV11-DA Q 4-Kword 16-bit MOS RAM
M8044-AA (Also M8044-AB, -AC, -AD)
M8044-AA Refs: EK-MSV11-OP, MP-00566
M8044-BA MSV11-DB Q 8-Kword 16-bit MOS RAM
M8044-BA (Also M8044-BB, -BC, -BD)
M8044-BA Refs: EK-MSV11-OP, MP-00566
M8044-CA MSV11-DC Q 16-Kword 16-bit MOS RAM
M8044-CA (Also M8044-CB, -CC, -CD, -CE, -CF, -CH, -CL, -CM)
M8044-CA Refs: EK-MSV11-OP, MP-00566
M8044-DA MSV11-DD Q 32-Kword 16-bit MOS RAM
M8044-DA (Also M8044-DB, -DC, -DD, -DE, -DF, -DH, -DL, -DM)
M8044-DA Refs: EK-MSV11-OP, MP-00566
M8045-AB MSV11-EA Q 4-Kword 18-bit MOS RAM
M8045-AB Refs: EK-MSV11-OP, MP-00567
M8045-BA MSV11-EB Q 8-Kword 18-bit MOS RAM
M8045-CH MSV11-EC Q 16-Kword 18-bit MOS RAM
M8045-CH (Also M8045-CJ, -CK, -CL)
M8045-CH Refs: EK-MSV11-OP, MP-00567
M8045-DA MSV11-ED Q 32-Kword 18-bit MOS RAM
M8045-DA (Also M8045-DB, -DC, -DD, -DH, -DJ, -DK, -DL)
M8045-DA Refs: EK-MSV11-OP, MP-00567
M8046 DLV11-L Q DLV11 with differential drive like M5946
M8047-AA MXV11-AA Q 4-Kword RAM, 2 async EIA SLU, sockets for 2
M8047-AA 24-pin 5V ROMs (Also M8047-AB, -AC, -AD, -AE)
M8047-AA (18-bit addressing only on memory)
M8047-AA Refs: MP-00730, uNOTES N#003, N#004, N#015, N#020, N#033
M8047-AA Refs: uNOTE O#106
M8047-CA MXV11-AC Q 16-Kword RAM, 2 async EIA SLU, sockets for 2
M8047-CA 24-pin 5V ROMs
M8047-CA (Also M8047-CB, -CC, -CD, -CE, -CF, -CH, -CM)
M8047-CA Refs: MP-00730, uNOTES N#003, N#015, N#020, N#033
M8047-CA Refs: uNOTE O#106
M8047-HA MXV11-HA Q 16-Kword RAM, 2 async EIA SLU (8 bits + parity),
M8047-HA sockets for 2 24-pin 5V ROMs, 1-K I/O address,
M8047-HA jumper to 2-K (Also M8047-HB, -HC, -HD, -HE, -HF)
M8048 MRV11-C Q Universal PROM/ROM module with sockets for 16
M8048 24-pin ROMs, up to 32-Kword (18-bit addressing
M8048 only)
M8048 Refs: MP-00871
M8049 DRV11-J Q Hi-density parallel line unit (4 lines x 16 bits)
M8049 Refs: EK-DRV1J-UG, MP-00866, EB-20175-20, ZJ244-RZ
M8049-AA DRV1J-SA/SF Q Modification of DRV11-J to DRV1J-SA/-SF
M8049-AA Refs: EK-DRV1J-UG, MP-00866, EB-20175-20, ZJ244-RZ
M8049-PA DRV1J-S Q M8049 for BA200 series
M8049-PA Refs: EK-DRV1J-UG, MP-00866, EB-20175-20, ZJ244-RZ

M8053 DMV11 Q Microprogrammed controller V.35, RS232/423, with
M8053 space for ROM
M8053 Refs: EK-DMV11-UG, EK-DMVQM-TM, MP-00942, ZJ328-RZ
M8053 Refs: uNOTE N#041

M8053-AA DMV11 Q Microprogrammed controller (needs one of M5930-
M8053-AA M5931) (Also M8053-AB, -AC, -ETC)
M8053-AA Refs: EK-DMV11-UG, EK-DMVQM-TM, MP-00942, ZJ328-RZ
M8053-AA Refs: uNOTE N#041

M8053-MA DMV11-A Q M8053 with DDCMP control ROM (point-to-point or
M8053-MA multidrop)
M8053-MA Refs: EK-DMV11-UG, EK-DMVQM-TM, MP-00942, ZJ328-RZ
M8053-MA Refs: uNOTE N#041

M8053-PA DMV11 Q M8053 with S-box handle
M8053-PA Refs: EK-DMV11-UG, EK-DMVQM-TM, MP-00942, ZJ328-RZ
M8053-PA Refs: uNOTE N#041

M8059-FA MSV11-LF Q 64-Kword MOS RAM, single voltage
M8059-FA (Also M8059-FC, -FF, -FH, -FJ, -FP, -FV)
M8059-FA Refs: EK-MSV0L-UG, EK-MSV1L-CG, MP-01238, ZJ246-RZ

M8059-KA MSV11-LK Q 128-Kword MOS RAM, single voltage
M8059-KA (Also M8059-KC, -KF, -KH, -KJ, -KP, -KV)
M8059-KA Refs: EK-MSV0L-UG, EK-MSV1L-CG, MP-01238, ZJ246-RZ

M8061 RLV12 Q RL01/RL02 disk control
M8061 Refs: EK-RLV12-UG, EK-RLV12-TD, MP-01282, ZJ285-RZ
M8061 Refs: uNOTE N#041

M8063-AA KXT11-AA Q FALCON (SBC-11/21) single-board CPU with 2 SLU,
M8063-AA 1 parallel line unit, line frequency clock,
M8063-AA 16-Kbyte RAM (T11 processor)
M8063-AA Refs: EK-KXT11-UG, EK-SBC11-UG, uNOTES N#007, N#015

M8063-BA KXT11-BA Q FALCON (SBC-11/21) single-board CPU with 2 SLU,
M8063-BA 1 parallel line unit, line frequency clock,
M8063-BA 16-Kbyte RAM (T11 processor)
M8063-BA Refs: EK-KXT11-UG, EK-SBC11-UG, uNOTES N#007, N#015

M8064 DMV11 Q Microprogrammed controller, integral modem, space
M8064 for ROM (single-line sync)
M8064 Refs: EK-DMV11-UG, EK-DMVQM-TM, MP-00942, ZJ328-RZ
M8064 Refs: uNOTE N#041

M8064-MA DMV11 Q M8064 with DDCMP point-to-point or multidrop,
M8064-MA integral modem interface
M8064-MA Refs: EK-DMV11-UG, EK-DMVQM-TM, MP-00942, ZJ328-RZ
M8064-MA Refs: uNOTE N#041

M8067-FA MSV11-PF Q 128-Kbyte MOS memory with parity CSR
M8067-FA (Also M8067-FB, -FC)
M8067-FA Refs: EK-MSV0P-UG, MP-01239, ZJ246-RZ

M8067-KA MSV11-PK Q 256-kbyte MOS memory with parity CSR
M8067-KA (Also M8067-KC, -KE, -KF, -KH, -KJ, -KP, -KV)
M8067-KA Refs: EK-MSV0P-UG, MP-01239, ZJ246-RZ

M8067-LA MSV11-PL Q 512-Kbyte MOS memory with parity CSR
M8067-LA (Also M8067-LC, -LF, -LH, -LJ, -LP, -LV)
M8067-LA Refs: EK-MSV0P-UG, MP-01239, ZJ246-RZ

M8080 ISV11-B Q DECdataway QBus Interface

M8081 Q Image processing frame buffer prototype

M8084 ISV11-B Q DECdataway Line Interface (Modem)

M8085 ISV11-B Q DECDataway serial line interface

M8086-YA	LPV11	Q	2-channel LPV11 printer control for S-box
M8087-PA		Q	Scanner/printer to Q-bus DMA interface
M8088-AA	ND50	Q	ND50 memory controller for demand printing solution
M8089-AA		Q	ND50 adapter ADLC to Q-bus data translation
M8090	ICS11	U	ICS11 master control
M8094	ICR11	U	ICR11 remote master control
M8096	ICR11	U	ICR11 remote slave control
M8098	ICR11	U	ICR11 remote modem control, 1 Megabaud
M8100		U	11/45 data path module
M8101		U	11/45 general register address module
M8102		U	11/45 instruction register control module
M8103		U	11/45 ROM address control module
M8104		U	11/45 processor data and UNIBUS registers module
M8105		U	11/45 timing and miscellaneous control module
M8106		U	11/45 UNIBUS control module (Replaced by M8119)
M8107		U	11/45 segmentation address paths module
M8108	KT11-C	U	11/45 segmentation status register module
M8108-YA	KT11-CD	U	11/45 segmentation status register module
M8109		U	11/45 timing generator module
M8110		U	11/45 memory control for MOS memory
M8111		U	11/45 1-Keyword 16-bit bipolar memory
M8111-YA		U	11/45 1-Keyword 18-bit bipolar memory
M8112		U	11/45 floating point ROM control module
M8113		U	11/45 floating point exponent data paths module
M8114		U	11/45 fraction high order data path module
M8115		U	11/45 fraction low order data path module
M8116		U	11/45 segmentation jumper board
M8119		U	11/45 UNIBUS control for FP11-C compatibility
M8119			(Replaces M8106)
M8120		U	11/45 memory control for bipolar memory
M8121-YA	MS11-AP	U	4-Keyword 18-bit bipolar memory
M8123	KB11-C	U	11/70 ROM & address control, FP11-C compatible
M8124	RH70-C	U	11/74 M8150 with expanded silo
M8125	RH70-C	U	11/74 M8153-YA new layout
M8126	FP11-C	U	11/70 fraction processor, high order
M8127	FP11-C	U	11/70 fraction processor, low order

M8128	FP11-C	U	11/70 floating point ROM control
M8129	FP11-C	U	11/70 fraction processor, exponent path
M8130	KB11-C	U	11/70 data paths module
M8131	KB11-C	U	11/70 general registers and ALU control
M8132 M8132	KB11-C	U	11/70 instruction register decode & condition codes
M8132-YA M8132-YA	KB11-C	U	11/74 instruction register decode & condition codes modified to indicate full decode of ASRB
M8133	KB11-C	U	11/70 ROM & ROM control module
M8134	KB11-C	U	11/70 processor data & UNIBUS registers module
M8135	KB11-C	U	11/70 trap and miscellaneous control module
M8136	KB11-C	U	11/70 UNIBUS and console control module
M8137	KB11-C	U	11/70 system address path module
M8138 M8138	KB11-C	U	11/70 segmentation status register used with FP11-B
M8138-YA M8138-YA	KB11-C	U	11/70 segmentation status register, used with FP11-C.
M8139	KB11-C	U	11/70 timing generator module
M8140	KB11-C	U	11/70 segmentation and console control module
M8141	KB11-C	U	11/70 mapping box
M8142	KB11-C	U	11/70 cache control board
M8143	KB11-C	U	11/70 cache address memory board
M8144	KB11-C	U	11/70 cache data memory
M8145	KB11-C	U	11/70 cache data path
M8147 M8147	MJ11-A/B	U	11/70 memory control and timing module (Replaces M8148)
M8148 M8148	MJ11-A	U	11/70 memory control and timing module (Replaced by M8147)
M8149	MJ11	U	11/70 memory transceiver card
M8150	RH70	U	11/70 MASSBUS data path module
M8151	RH70	U	11/70 MASSBUS control and status module
M8152	RH70	U	11/70 MASSBUS address and word count registers
M8153 M8153	RH70	U	11/70 MASSBUS UNIBUS control (M8150-M8153 is option RH55 in an 11/55)
M8153-YA M8153-YA	RH70	U	11/70 M8153 with independent NED timeout for RH70-B (see M8125)
M8154	RH70	U	11/70 MES, massbus controller
M8156	RHS70-A	U	Data path module
M8157	RHS70-A	U	DMA control module
M8158	MK11	U	Address buffer module

M8159	MK11	U	Data buffer module
M8160	MK11	U	Control A module
M8161	MK11	U	Control B module
M8162	MK11	U	Port MUX A module
M8163	MK11	U	Port MUX B module
M8164	MK11/MKA11	U	Data buffer module (Replaces M8159)
M8165-YA	KE74-A	U	11/74 CCR, CISP control ROM logic card #1
M8165-YB	KE74-A	U	11/74 CCR, CISP control ROM logic card #2
M8166	KE74-A	U	11/74 CCS, CISP control store
M8167	KE74-A	U	11/74 CDI, CISP decimal integral
M8168	KE74-A	U	11/74 DSC, CISP descriptor unit
M8169		U	11/74 maintenance display and control
M8177	KB11-CM	U	11/74 system address path
M8181	KB11-EM	U	11/74 mapping box
M8182	KB11-CM	U	11/74 cache control board
M8183	KB11-CM	U	11/74 cache address memory board
M8184	KB11-EM	U	11/74 cache data memory
M8185	KB11-EM	U	11/74 cache data path
M8185-YC	KDF11-AC	Q	11/23 CPU without options
M8185-YC	Refs: EK-KDF11-UG		
M8186	KDF11-A	Q	11/23 CPU (Prior to etch rev. C, 18-bit
M8186			addressing only. Caution, uses BC1, BD1,
M8186			BE1, BF1 for purposes other than BDAL18-21)
M8186	Refs: EB-18451-20, MP00734, EH-17898-20, EK-KDF11-UG		
M8186	Refs: EK-KDFAA-CG, ED-2136-20, ED-18325-53, uNOTES N#006		
M8186	Refs: N#017		
M8186-YA	KDF11-AA	Q	11/23 CPU with KTF11-AA (MMU) and sockets for
M8186-YA			KEF11-AA (FP11)
M8186-YA	Refs: EB-18451-20, MP00734, EH-17898-20, EK-KDF11-UG		
M8186-YA	Refs: EK-KDFAA-CG, ED-2136-20, ED-18325-53, uNOTES N#006		
M8186-YA	Refs: N#017		
M8186-YB	KDF11-AB	Q	11/23 CPU with KTF11-AA (MMU) and KEF11-AA (FP11)
M8186-YB	Refs: EB-18451-20, MP00734, EH-17898-20, EK-KDF11-UG		
M8186-YB	Refs: EK-KDFAA-CG, ED-2136-20, ED-18325-53, uNOTES N#006		
M8186-YB	Refs: N#017		
M8186-YC	KDF11-AC	Q	11/23 CPU without options
M8186-YC	Refs: EB-18451-20, MP00734, EH-17898-20, EK-KDF11-UG		
M8186-YC	Refs: EK-KDFAA-CG, ED-2136-20, ED-18325-53, uNOTES N#006		
M8186-YC	Refs: N#017		
M8188	FPF11	Q	Floating point processor for PDP-11/23[+], (11/24?)
M8188	Refs: EK-FPF11-TM, MP-01285		
M8189	KDF11-BA	Q	11/23-PLUS single-board CPU
M8189	Refs: EK-KDFEB-UG, MP-01236, uNOTE N#015		
M8190	KDJ11-B	U	11/84 CPU: J11 CPU 15MHz with unusable socket for
M8190			FPJ11 and 2 SLUs, boot & diagnostic ROMs, 3 ROM

M8190 sockets, 8-Kbyte cache.
M8190 Refs: EK-KDJ1B-UG, uNOTE N#039

M8190-AB KDJ11-BB Q J11 CPU 15MHz with 2 boot & diagnostic ROMs
M8190-AB FPJ11 compatibility (warm floating point, but
M8190-AB will accept FPA)
M8190-AB Refs: EK-KDJ1B-UG, uNOTE N#039

M8190-AC KDJ11-BD Q J11 CPU 15MHz with 2 boot & diagnostic ROMs,
M8190-AC FPJ11-AA
M8190-AC Refs: EK-KDJ1B-UG, uNOTE N#039

M8190-AD KDJ11-BA Q J11 CPU 18MHz with 2 boot & diagnostic ROMs
M8190-AD FPJ11 compatibility (warm floating point, but
M8190-AD will accept FPA)
M8190-AD Refs: EK-KDJ1B-UG, uNOTE N#039

M8190-AE KDJ11-BF Q/U 11/83-84 CPU J11 CPU 18MHz with 2 boot &
M8190-AE diagnostic ROMs, FPJ11-AA.
M8190-AE Refs: EK-KDJ1B-UG, uNOTE N#025, N#030, N#035, N#039

M8191 KTJ11-B U 11/84 UNIBUS PMI controller (contains 4 optional
M8191 boot ROM sockets (M9312 compatible)).

M8192 KDJ11-AA Q LSI-11/73 CPU, 8-Kbyte cache, not FPJ11-AA
M8192 compatible (but can be upgraded)
M8192 Refs: EK-KDJ1A-UG, uNOTES N#006, N#008, N#009, N#011
M8192 Refs: N#025, N#039

M8192-YB KDJ11-AB Q LSI-11/73 CPU, 8-Kbyte cache, FPJ11-AA compatible.
M8192-YB Refs: EK-KDJ1A-UG, uNOTES N#006, N#008, N#009, N#011, N#040

M8192-YC KDJ11-AC Q LSI-11/73 CPU, 8-Kbyte cache, FPJ11-AA installed.
M8192-YC Refs: EK-KDJ1A-UG, uNOTES N#006, N#008, N#009, N#011, N#040

M8194 KDF11 Q Data memory module

M8195 KDF11 Q Cache data path module

M820 KA11 U 11/20 data path control module

M8200 DMC11 U 1-line sync DDCMP DMA, microprocessor board
M8200 (Space for 1K ROM)
M8200 Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8200-YA DMC11-R U 1-line sync DDCMP microprocessor with 1K control
M8200-YA ROM (point-to-point, used with M8201).
M8200-YA Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8200-YB DMC11-AL U 1-line sync DDCMP microprocessor with 1K control
M8200-YB ROM (point-to-point slave, used with M8202).
M8200-YB Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8200-YC DMC11 U 1-line sync DDCMP microprocessor with 1K control
M8200-YC ROM for LPA11.
M8200-YC Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8201 DMC11 U 1-line sync DDCMP DMA, EIA & V35 line board
M8201 Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8202 DMC11 U 1-line sync DDCMP DMA, coax line board
M8202 Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8202-YA DMC11-MA U 1Mbps integral modem line unit
M8202-YA Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8202-YB DMC11 U 500-Kbaud integral modem line unit
M8202-YB Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8202-YC DMC11 U 250-Kbaud integral modem line unit
M8202-YC Refs: EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM

M8202-YD	DMC11-MD	U	56Kps integral modem line unit
M8202-YD	Refs:		EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM
M8202-YE	ISB11-A	U	Multi-drop 56-Kbaud integral modem line unit
M8203	DMP11	U	Line unit, RS-449, integral modem
M8204	KMC11-A	U	Microprocessor, DMC11 code, 1K RAM programme space
M8206	DMC11	U	Microprocessor, DMC11 code, 4K RAM programme space
M8206	Refs:		EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM
M8207	DMC11	U	Microcontroller with space for ROM
M8207	Refs:		EK-DMCMP-TM, EP-DMCMP-TM, MP-00076, EK-DMCLU-MM
M8207-RA	DMR11	U	Microprocessor based sync communication
M8207-RA			controller, implements DDCMP protocol.
M8207-RA	Refs:		EK-DMR11-TM, EP-DMR11-TM, MP-00911, EK-M8207-TM
M8207-RA	Refs:		EK-M8203-TM
M8207-YA	DMP11	U	Microprocessor with DDCMP control ROM
M8207-YA			(point-to-point or multidrop, used with M8203)
M8207-YA	Refs:		EK-DMR11-TM, EP-DMR11-TM, MP-00911, EK-M8207-TM
M8207-YA	Refs:		EK-M8203-TM
M8208	VT1X3-MM	Q	Maintenance Module for 11MDS system (VT103)
M8208			(to be installed in specially-wired slot)
M821	KA11	U	11/20 register control module
M8217	DW11-A	U	UNIBUS to Qbus interface module
M822	KA11	U	11/20 flag control module
M823	KA11	U	11/20 codes data module
M8238	KU780-A		2K WCS
M824	KA11	U	11/20 priority module
M825	KA11	U	11/20 power failure and control module
M8254	DA11-KA	U	Interprocessor buffer
M8255	KY11-R,RC	U	Unibus serial console micro control
M8255-01	KY11-RE	U	Unibus serial european console micro control
M8256	RX211	U	RX02 floppy disk controller
M826		U	75 to 250-ns clock with SR (8-phase clock)
M8264	KD11-D/E	U	11/34 No sack time-out (needed for KD11-D, KD11-E)
M8265	KD11-EA	U	11/34A data paths module (Replaces M7265)
M8266	KD11-EA	U	11/34A control module (Replaces M7266)
M8267	FP11-A	U	11/34A floating point processor
M8267-TA	FP11-A	U	Test module for M8267
M8268	KK11-A	U	11/34 cache module
M827	KE11-A	U	Clock and states
M829	CR-11	U	CR-11/CM-11 card reader controller
M829			(Requires M105 and M782 or M7820 or M7821)
M8290	CR-11	U	CR-11/CM-11 card reader controller

M8634-PA			Refs: EK-IEUQ1-UG
M8636	KWV11-W	Q	Watchdog Timer, 5 in, 2 out, optical isolation
M8637-BA	MSV11-JB	Q	1-Mbyte ECC PMI RAM with CSR. Q22.
M8637-BA			(Also M8637-BC, -BF, -BH, -BL, -BP)
M8637-BA			Refs: EK-MSV1J-UG, MP-02056, uNOTES N#028, N#030
M8637-CA	MSV11-JC	Q	2-Mbyte ECC PMI RAM with CSR, Q22.
M8637-CA			(Also M8637-CC, -CF, -CH, -CL, -CP)
M8637-CA			Refs: EK-MSV1J-UG, MP-02056, uNOTES N#028, N#030
M8637-DA	MSV11-JD	Q	1-Mbyte ECC RAM.
M8637-DA			(Also M8637-DC, -DE, -DF, -DH, -DL, -DP, -DT, -DV)
M8637-DA			Refs: EK-MSV1J-UG, MP-02056, uNOTES N#028, N#030
M8637-EA	MSV11-JE	Q	2-Mbyte ECC RAM.
M8637-EA			(Also M8637-EC, -EE, -EF, -EH, -EL, -EP, -ET, -EV)
M8637-EA			Refs: EK-MSV1J-UG, MP-02056, uNOTES N#028, N#030
M8638		Q	HDLC DMA single channel sync MUX controller
M8639	RQDX1	Q	RD51/52 & RX50 MFM Disk control module
M8639			(Needs microcode rev 9.0 code ROMs for RD52)
M8639			(Must be final device in bus)
M8639			Refs: EK-RQDX1-UG, MP-01731, uNOTE N#043
M8639-YA	RQDX1	Q	RD51/52 & RX50 MFM Disk control module
M8639-YA			(Must be final device in bus)
M8639-YA			Refs: EK-RQDX1-UG, MP-01731, uNOTE N#043
M8639-YB	RQDX2	Q	RD51/52 & RX50 MFM Disk control module, can
M8639-YB			be expanded (must be final DMA device in bus)
M8639-YB			Refs: EK-RQDX2-UG, MP-01731, uNOTE N#043
M8659		Q	LSI-11 Bus Grant card (VT71 Grant Card)
M8687		U	RM05 Drive interface
M8716	DR11-W	U	General purpose DMA parallel interface
M8716			(DR11-B hex)
M8717		U	Interprocessor interrupt and sanity timer
M8718		U	Modem control, 16-lines (CTS & RTS)
M8719	IP112	D	UNIBUS to D-BUS cable (I/O daisy chain bus)
M8719			control and interface
M8720-YA	MSS11-KA	U	4-Kword 18-bit MOS RAM
M8720-YB	MSS11-KB	U	8-Kword 18-bit MOS RAM
M8720-YC	MSS11-KC	U	12-Kword 18-bit MOS RAM
M8720-YD	MSS11-KD	U	16-Kword 18-bit MOS RAM
M8720-YE	MSS11-KE	U	4-Kword 18-bit static MOS RAM
M8720-YF	MSS11-KF	U	8-Kword 18-bit static MOS RAM
M8720-YH	MSS11-KH	U	12-Kword 18-bit static MOS RAM
M8720-YJ	MSS11-KJ	U	16-Kword 18-bit static MOS RAM
M8721-YA		U	UNIBUS repeater
M8721-YB	DT07	U	Isolated loopversion DT07 port module
M8721-YC	DT07	U	DT07 switched UNIBUS repeater

M8721-YD	DT07	U	Port terminated DT07 port module
M8722-AH M8722-AH	MS11-MA	U	128-Kbyte MOS ECC memory (11/44, 11/24) (Also M8722-AN)
M8722-BA M8722-BA M8722-BA	MS11-MB	U	256-Kbyte MOS ECC memory (11/44, 11/24) (Also M8722-BB, -BC, -BD, -BF, -BH, -BJ, -BK, -BL, -BM, -BN)
M8728-AA M8728-AA M8728-AA	MK11	U	64-Kword 39-bit MOS memory array (11/70, 11/750) (Also M8728-AB, -AC, -AD, -AE, -AF, -AH, -AK, -AM, -AN)
M8728-CM M8728-CM	MK11	U	16-Kword 39-bit MOS memory array (11/70) (Also M8728-CN)
M873		U	UNIBUS restart with space for 4 ROMs (256 x 4)
M8730	KW11-C	U	Calendar and clock module
M8730-YA	KW11-C	U	Calendar and clock module with more features
M8739	KLESI-UA	U	LESI-to-UNIBUS interface for RC25, TU81
M8743-AA M8743-AA M8743-AA	MDECS-AA	U	512-Kbyte ECC RAM (Also M8743-AB, -AC, -AD, -AE, -AF, -AH, -AJ, -AK, -AL, -AM, -AN, -AP, -AV)
M8743-BA M8743-BA M8743-BA	MS11-PB	U	1-Mbyte ECC RAM (Also M8743-BB, -BC, -BD, -BE, -BF, -BH, -BJ, -BK, -BL, -BM, -BN, -BP, -BV)
M8750 M8750		-	VAX-11/750 1Mbyte MOS memory assembly Refs: MP-01398
M8901		-	TU16 data synchronizer, replaced by M8901-YB
M8901-YA M8901-YA		-	TM02-FE data synchronizer for 75 IPS drive, replaced by M8901-YC
M8901-YB		-	TU16 data synchronizer, replaces M8901
M8901-YC M8901-YC	TM02-FE	U	Data synchronizer for 75 IPS drive (Replaces M8901-YA, -YC)
M8901-YD	TM03-AB	U	Data synchronizer for 125 IPS drive
M8902	TM02-FA	U	TM02 tape control, PE (also TM02-FB, -FC, -FD)
M8902-YA	TM02-FE	U	M8902 for 75 IPS drive (also TM02-FF, -FH, -FJ)
M8903 M8903	TM02-FA	U	TM02 tape control, common mode (also TM02-FB, -FC, -FD)
M8903-YA	TM02-FE	U	M8903 for 75 IPS drive (also TM02-FF, -FH, -FJ)
M8904	TM02-FA	U	TM02 tape control, NRZI (also TM02-FB, -FC, -FD)
M8904-YA	TM02-FE	U	TU45 M8904 (also TM02-FF, -FH, -FJ)
M8905	TM02-FA	U	TM02 maintenance register (also TM02-FB, -FC, -FD)
M8905-YA	TM02-FE	U	TM02-FE M8905 for 75 IPS drive
M8905-YB	TM03	U	TM03 M8905
M8906	TM02	U	TM02 16-bit fiddler
M8908-YA	TM03	U	TM03 MASSBUS interface (replaces M8908)
M8909	TM02	U	TM02 MASSBUS interface (replaced by M8909-YA)

M8909-YA	TM02/03	U	TM02/03 MASSBUS interface (replaces M8909)
M8911 M8911		-	TU16 (TM02) slave clock, motion delay, replaced by M8931 on TE16
M8912		-	TE16 slave test function generator
M8913 M8913 M8913	TM03	U	Data driver 2 H854, 10 lines driven from board, 20 lines brought out, TU16 (from O/M list)
M8913-YA M8913-YA M8913-YA	TM03	U	Data driver M8913 with terminator resistors, TU16 (from O/M list)
M8916	TU16-W	-	logic and write board
M8928 M8928	TM03	U	TU45 magtape adapter for Pertec 9000 (replaces M8921, M8928)
M8931 M8931		-	TU16 (TM02 & TM03) slave clock, motion delay replaces 8911
M8932	TM03	-	tape control
M8933	TM03	U	tape control common mode
M8934	TM03	U	tape control NRZI
M8937	TM03	-	TM03, control and write drivers
M8981-AA M8981-AA M8981-AA	KDJ11-EA	Q/U	11/93-94 CPU 18MHz, DCJ11, FPJ11, 2-Mbyte parity RAM, 8 async SLUs, boot/diagnostic ROM Refs: EK-26921-00 (DCJ11), uNOTE N#040
M8981-BA M8981-BA M8981-BA	KDJ11-EB	Q/U	11/93-94 CPU 18MHz, DCJ11, FPJ11, 4-Mbyte parity RAM, 8 async SLUs, boot/diagnostic ROM Refs: EK-26921-00 (DCJ11), uNOTE N#040
M9001		-	Bus connector
M9001-YA	TE16	-	M9001 with 8 lines grounded
M9001-YB	TE16	-	M9001 terminated
M9001-YC	TE16	-	M9001-YA terminated
M9014		U	UNIBUS to 3 H854s
M9015		U	3 H854s to UNIBUS
M9031		U	UNIBUS to 3 3M cables for 11/74
M9037		Q	Grant continuity
M9039 M9039		U	TE16 terminator (will replace M9001 series & M8913)
M9047		Q	Grant continuity (also M9047-SA, -SF)
M9058 M9058		Q	Distribution/adaptor/buffer board for RQDX1/2/3 to four drives and switch panels, fits BA23/124.
M9061-AA		U	11/84 AC/DC reboot sequencer
M920		U	UNIBUS connector
M9202 M9202		U	UNIBUS connector, inverted (M9192+M9292 assembled 1" apart with 2' cable)

M930 U Terminator for PDP11 bus, 120-ohm to +3V, 1000pf
M930 on BF1 & BF2

M9300 U UNIBUS B terminator (M930 with NPR logic)

M9301 U UNIBUS terminator with space for 512-word ROM
M9301 bootstrap (slots A & B in hex SPC; addresses:
M9301 765000, 773000)
M9301 Refs: EK-M9301-TM

M9301-SA U M9301 with Western Electric bootstrap
M9301-SA Refs: EK-M9301-TM

M9301-SB U M9301 with Chase bootstrap (M9301-YA + 2nd RP04)
M9301-SB Refs: EK-M9301-TM

M9301-SC U M9301 with Chase bootstrap (M9301-YC + 2nd RK11)
M9301-SC Refs: EK-M9301-TM

M9301-SD U M9301 with SEDM bootstrap for WECO
M9301-SD Refs: EK-M9301-TM

M9301-SE U M9301 with Canada Post Office bootstrap
M9301-SE Refs: EK-M9301-TM

M9301-SF U M9301 with DA11 bootstrap
M9301-SF Refs: EK-M9301-TM

M9301-SH U M9301-YC modified for RX11
M9301-SH Refs: EK-M9301-TM

M9301-SJ U M9301-YA + RF11 boot (WECO)
M9301-SJ Refs: EK-M9301-TM

M9301-SK U Boot for DMC11, RX01, TU10, DL11, PTR, ASCII,
M9301-SK diagnostics
M9301-SK Refs: EK-M9301-TM

M9301-SL U M9301-SE with no remote switch panel
M9301-SL Refs: EK-M9301-TM

M9301-SV U M9301 with DQ11-DA DECnet loader, RK, RX, TMA11
M9301-SV boots
M9301-SV Refs: EK-M9301-TM

M9301-SW U M9301-SF updated with DA11 DECnet 2 bootstrap
M9301-SW Refs: EK-M9301-TM

M9301-SX U M9301 with DA11 DECnet 2 loader
M9301-SX Refs: EK-M9301-TM

M9301-SY U M9301 with DMC11 DECnet & TJE16 loader
M9301-SY Refs: EK-M9301-TM

M9301-WA U M9301 with 765000 & 766000 addresses, DN87S SMP
M9301-WA boot (TOPS-10)
M9301-WA Refs: EK-M9301-TM

M9301-WB U M9301-WA except DN20-CC, -CD SMP boot (TOPS-10)
M9301-WB Refs: EK-M9301-TM

M9301-YC U M9301 with 11/70 bootstrap
M9301-YC Refs: EK-M9301-TM

M9301-YD U M9301 with DDCMP bootstrap
M9301-YD Refs: EK-M9301-TM

M9301-YE U M9301 with bootstrap for DECnet, DL11-E, DU11,
M9301-YE DUP11, low speed PTR, ASCII console
M9301-YE Refs: EK-M9301-TM

M9301-YF		U	M9301 with boot for PC11, RP02-6, RS03-4, RK05-6,
M9301-YF			RX01, TU10, TU16, TU56, TS03, TTY, ASCII console,
M9301-YF			diagnostics
M9301-YF			Refs: EK-M9301-TM
M9301-YH		U	M9301 with 11/60 bootstrap (works with 11/70)
M9301-YH			Refs: EK-M9301-TM
M9301-YJ		U	M9301 with bootstrap for DECnet DMC11, RX01, TU10,
M9301-YJ			ASCII console
M9301-YJ			Refs: EK-M9301-TM
M9301-YL		U	M9301 with Olivetti bootstrap
M9301-YL			Refs: EK-M9301-TM
M9302		U	11/04 UNIBUS terminator, far end
M9302			(Fits in any Standard UNIBUS slot, terminating all
M9302			newer UNIBUS machines.)
M9302-YA		U	M9302 with different resistors for minimum UNIBUS
M9302-YA			levels
M9302-YB		U	M9302 card used to mount an overtemperature relay
M9303		U	M930 with individual +5V for each terminator (used
M9303			with 2347 UNIBUS tester)
M9303-YA		U	M9303 + M9307 wired together with 1" spacers.
M9303-YA			(used with 2347 UNIBUS tester)
M9304		U	Long M930 for low margin testing
M9304-YA		U	Long M930 for high margin testing
M9305		U	M981 for low margin testing
M9305		U	M981 for high margin testing
M9306		U	11/04 near end UNIBUS terminator, no boot
M9306-YB		U	M9306 with different resistors to give a minimum
M9306-YB			UNIBUS level when put in parallel with another
M9306-YB			terminator.
M9307		U	M919 for 2 40-conductor 3M cable
M9308		U	Single-ended margin head (UNIBUS terminator with
M9308			sack turn-around logic)
M9309		U	Long M930
M9311		U	M9301 with 766000 and 763000 addresses and GT62
M9311			comm boot loader.
M9312		U	Bootstrap terminator with 5 empty ROM sockets; one
M9312			for CPU diagnostics, 4 for peripheral boots
M9312			Refs: EK-M9312-TM
M9312-YA		U	M9312 revision C or later for 11/74
M9312-YA			Refs: EK-M9312-TM
M9313		U	UNIBUS exercisor + terminator (UET)
M9400	REV11	Q	Terminator, DMA refresh, bootstrap (bootstrap for
M9400			use with KD11-F and KD11-HA processors only.
M9400			Termination for 18-bits only.
M9400			DMA refresh may be used in any system.)
M9400-YA	REV11-A	Q	120-ohm terminators with refresh & floppy boot
M9400-YA			Refs: MP-00073, EB-20175-20, uNOTE N#035

M9400-YB TEV11 Q 120-ohm terminators
M9400-YB Refs: MP-00073, EB-20175-20, uNOTE N#035

M9400-YC REV11-C Q Refresh and boot alone
M9400-YC Refs: MP-00073, EB-20175-20, uNOTE N#035

M9400-YD REV11-D Q Headers alone, no terminators, Cable
M9400-YD connector (18-bit bus only).
M9400-YD BCV1A-XX = M9400-YD + M9401 + 2 x BC05L-XX cable

M9400-YE REV11-E Q Headers and 240-ohm terminators (18-bit bus only)
M9400-YE (can be used with M9401 as a Qbus extender)
M9400-YE BCV1B-XX = M9400-YE + M9401 + 2 x BC05L-XX cable
M9400-YE Refs: uNOTE N#035

M9400-YF REV11-F Q M9400-YA with boot sockets with no ROMs
M9400-YF Refs: uNOTE N#035

M9400-YH REV11-H Q LDP/COMM boot & floppy boot with terminators
M9400-YH Refs: MP-00331, (MP-00074 ?), EB-20175-20, uNOTE N#035

M9400-YJ REV11-J Q DMA refresh bootstrap, cable connector, 250-ohm
M9400-YJ terminator
M9400-YJ Refs: uNOTE N#035

M9400-YK REV11-K Q M9400-YH with no terminators

M9400-YL REV11-L Q M9400-YH with cable connectors
M9400-YL Refs: uNOTE N#035

M9400-YM REV11-M Q Refresh with DECnet bootstrap

M9400-YN REV11-N Q RX02 boot and refresh

M9401 Q Mirror-image connector used at other end of cable
M9401 to M9400 to join 2 backplanes. 18-bit bus only,
M9401 No terminators.
M9401 BCV1A-XX = M9400-YD + M9401 + 2 x BC05L-XX cable
M9401 BCV1B-XX = M9400-YE + M9401 + 2 x BC05L-XX cable

M9404[-00] Q 1st Q22 bus cable connector, no terminators
M9404[-00] Used at end of cable nearest cpu.
M9404[-00] Refs: uNOTE N#035

M9404-YA Q Cable connector for expansion box, with 240-Ohm
M9404-YA terminators. Used at end of cable nearest to CPU.
M9404-YA BCV2C-XX = M9404-YA + M9405 + 2 x BC02D-XX cable
M9404-YA Refs: uNOTE N#035

M9405 Q 2nd Q22 bus cable connector, no terminators,
M9405 mirror image. Used at end of cable furthest from
M9405 CPU.
M9405 BCV2B-XX = M9404-00 + M9405-00 + 2 x BC02D-XX cable
M9405 Refs: uNOTE N#035

M9405-YA Q M9405 with 120-Ohm terminators. Used at end of
M9405-YA cable furthest from CPU.
M9405-YA BCV2A-XX = M9404-00 + M9405-YA + 2 x BC02D-XX cable
M9405-YA Refs: uNOTE N#035

M9405-YD Q M9405 with no terminators. Used at end of cable
M9405-YD furthest from cpu
M9405-YD Refs: uNOTE N#035

M9405-YE Q M9405 with 240-Ohm terminators. Used at end of
M9405-YE cable furthest from cpu
M9405-YE Refs: uNOTE N#035

M971 - H854 mounted on single card, accepts BC08R

M974	-	Test Connector (DH11)
M9713-AA	U	11/94 +5V and -15V minimum load module for KDJ11-E
M9715	?	'paddle' board, connects to KA660
M992-YB	U	Bootstrap diode matrix
M9970	U	M997, H854 Facing Edge (11/05)
W9301	U	Quad-height hi-density wire wrappable module
W9301		Used for customer-designed and built boards.
W9302	U	Hex-height hi-density wire wrappable module
W940	U	Quad-height wire wrappable module,
W940		space for 50 14/16-pin ICs
W941	U	Dual-height wire wrappable module,
W941		space for 25 14/16-pin ICs
W942	U	W940 with IC sockets
W943	U	W941 with IC sockets
W950	U	Quad-height wire wrappable module,
W950		space for 30 14/16-pin and 8 24-pin ICs
W951	U	Dual-height wire wrappable module,
W951		space for 15 14/16-pin and 4 24-pin ICs
W9511	Q	Quad-height wire wrap module, no sockets
W9512	Q	Dual-height wire wrap module, no sockets
W9513	Q	W9511 with 58 pre-mounted DIP sockets
W9514	Q	W9511 with 58 pre-mounted DIP sockets
W9515	Q	W9512 with 25 pre-mounted DIP sockets
W952	U	W950 with IC sockets
W953	U	W951 with IC sockets
W960	U	Single-height blank module with space for
W960		2 14/16-pin ICs or 1 24-pin IC
W964	U	Blank terminator board
W968	U	Quad-height blank module with space for
W968		72 14/16-pin ICs
W969	U	Dual-height blank module with space for 36
W969		14/16-pin ICs
W970	U	Single-height blank module
W971	U	Dual-height blank module
W972	U	Single-height blank module, copper clad
W9720	U	Single-height blank module, copper clad
W9721	U	Dual-height blank module, copper clad
W9722	U	Quad-height blank module, copper clad
W973	U	Dual-height blank module, copper clad
W974	U	Single-height blank module, perforated

W975		U	Dual-height blank module, perforated
W979		U	Dual-height blank module with space for 18 14/16-pin ICs
W982		U	Single-height module extender
W984		U	Dual-height module extender
W987		U	Quad-height module extender
W990		U	Single-height bare board, split lug terminals
W991		U	Dual-height bare board, split lug terminals
W992		U	Single-height blank module, copper clad
W993		U	Dual-height blank module, copper clad
W998		U	Single-height blank module, perforated
W999		U	Dual-height blank module, perforated
BB11	BB11	U	4-slot blank mounting panel (backplane with UNIBUS and power lines only)
DD11-A	DD11-A	U	UNIBUS Backplane with 4 SPC slots
DD11-B	DD11-B	U	UNIBUS Backplane with 4 SPC and 2 DF11 slots
DD11-C	DD11-C	U	UNIBUS Backplane with 4 SPC slots
DD11-D	DD11-D	U	UNIBUS Backplane with 9 SPC slots
DD11-PK	DD11-PK	U	9-Slot backplane for 11/04,34,34a
DDV11-B	DDV11-B	Q	6 x 9 Qbus backplane, Q18
DLV11-K	DLV11-K	-	EIA to 20mA controller (-KA, -KB)
DLV11-K			Refs: EK-DLVKA-IN, MP-00694, EB-20175-20, uNOTE N#033
DLV11-K			
KXT11-LP	KXT11-LP	-	Active Loopback connector (for use with KXT11-A)
RLV11	RLV11	Q	RL01/02 disk controller option, consists of modules M8013 and M8014. Q/CD-only option.
RLV11			18-bit DMA only. Caution: uses BC1 and BD1 for purposes other than BDAL18 and BDAL19
RLV11			Refs: EK-RLV11-TD, MP-00635, EB-20175-20
RLV11			
VSV11	VSV11	Q	Raster Graphics option, consists of modules M7061, M7062 and M7064. Q/CD-only option.
VSV11			Refs: EK-VSVFQ-UG, MP-01012, EK-VT101-TM
VSV11			

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T H I R D P A R T Y O P T I O N L I S T

MODULE	OPTION	BUS	DESCRIPTION
	306A	Q	Grant Technology clock/calendar
	307	Q	Grant Technology clock/calendar
	440	Q	Data Systems Design (DSD) disk controller. Emulates RXV21.
	880	Q	Data Systems Design (DSD) disk controller.

Emulates Digital RLV12 and RXV21. Has on-board boot code.

ACT DH/DM	U	Able Comput Technology 16 async communication line controller with modem control. All standard DH11 baud rates, plus 19.2-Kbaud. Emulates DEC DH11+DM11.
ADC-01	U	Ampex controller for up to two SMD disks. Limited to drives with low data rates and requires a custom driver.
B01076	Q	Baydel multi-function board
B01079-4	Q	Baydel cartridge tage controller
BRX-50	Q	Baydel 5.25" floppy disk controller
Buslink/Uni	U	Able Computer interprocessor communications board, emulates DA11
Buslink/Q	Q	Able Computer interprocessor communications board, emulates DA11
CQ1610	Q	Dilog 16-line RS-232 communications controller. Emulates DH11
CQ1620	Q	Dilog 8-line RS-232 communications controller. Emulates DHV11
CQ1622	Q	Dilog 8-line RS-422 communications controller
CQ1640	Q	Dilog 16-line RS-232 communications controller
CS01/H	Q	Emulex 16-64 line RS-422 communications controller. Emulates 2-8 DHV11
CS02/H	Q	Emulex 16-line RS-422 communications controller. Emulates 1 DH11 or 2 DHV11
CS04	Q	Emulex 16-64-line RS-232/422 communications controller. Emulates 2-8 DHV11s
CS08	Q	Emulex 8-line RS-232 communications controller. Emulates DHV11.
CS09	Q	Emulex 16-line RS-232 communications controller. Emulates 2 DH11
CS11	U	Emulex 16-64 line RS-422 communications controller. Emulates DH11, DMF32 or DV11
CS11/F	U	Emulex communications controller, 8-line RS-422 + 1 synch + 1 parallel. Emulates DMF32
CS11/H	U	Emulex 16-64 line RS-232 communications controller. Emulates DH11?
CS11/U	U	Emulex 32-line synchronous/asynchronous communications controller. Emulates DU11?
CS11/V	U	Emulex 32-line synchronous/asynchronous communications controller. Emulates DV11
CS21/H	U	Emulex 16-line RS-232 communications controller. Emulates DH11
CS21/U	U	Emulex 16-line RS-232 communications controller Emulates DU11?
CS21/Z	U	Emulex 16-line RS-232 communications controller.

			Emulates DZ11-E
	CS23	U	Emulex 12-32-line RS-232 communications controller. Emulates DHU11
	CS32/F	U	Emulex 16-128-line RS-232 communications controller. Emulates DMF32
	CTS11	Q	Baydel QIC 2 .25" DC600A/DC300XL tape cartridge drive controller. Registers are similar, but not identical, to TSV05
	CU1710	U	Dilog asynchronous communications controller. 16 Channels with modem control, emulates DHU11
	DC7711	Q	Fisher-Rosemount Provox process control system Highway II interface (DHI)
706131	DCV51	-	Plessey disk controller for 1-4 MFM drives. Supports ST251.
706131	DH6215-DH1	Q	Fisher-Rosemount Provox process control system Data Highway interface
	DHU/HS	U	Able Computer 16-port async RS-232 communications board. Emulates DHU-11
	Dual I/O	U	Able Computer general purpose parallel interface Emulates 2 x DR11-C
	DV/16	U	Able Computer 16-port sync/async DMA communications multiplexor with support for ADCCP, Bisync, DDCMP. Emulates DV11
	DZ/16	U	Able Computer 16-port async multiplexor. Emulates 2 x DZ11
	DM01	Q	Emulex ST506/ST412 disk controller. Emulates RQDXn, SA540 5.25" floppy disk interface emulates RX50. 22-bit bus.
	DM02	Q	Emulex ESDI disk controller. Emulates RQDXn, SA540 5.25" floppy disk interface emulates RX50. 22-bit bus.
	DQ100	Q	Dilog disk controller emulating Digital RK05 (supports Diablo 31)
	DQ120	Q	Dilog DU120 tape controller
	DQ130	Q	Dilog DU120 tape controller. Emulates TM11. 4 Drives. Pertec I/O
	DQ132	Q	TS-11 emulation for Pertec formatted tape, up to 4 drives. Q22. Dilog. Replaced by DQ142.
	DQ142	Q	Dilog .5" reel-to-reel tape drive controller for TU80 and CDC 92185. Emulates TS11. Replaced (with restrictions) by DQ152
	DQ152	Q	Dilog .5" reel-to-reel tape drive controller Pertec I/O
	DQ153	Q	TMSCP emulation for Pertec formatted tape, up to 4 drives, LSI-11 boot, LSI-11 & VAX config programme & diagnostics in ROM, NVRAM config settings. Q22. Dilog.
	DQ200	Q	Dilog disk controller. Emulates extended RK11/RK05 (supports CDC 9448-96)

DQ202A	Q	Dilog disk controller. Emulates RP11/RP02/03 (Supports CDC 9715-160 and Fujitsu 2284)
DQ215	Q	Dilog disk controller. Emulates RK711/RK07 (Supports CDC 9715-160)
DQ235	Q	Dilog disk controller. Emulates RK611/RK06 (supports SSM 096)
DQ236	Q	Dilog 4 x SMD 20Mhz disk controller. Replaced by DQ256.
DQ246	Q	Dilog 4 x SMD/ESMD disk controller. Emulates MSCP. (Supports Fujitsu 2333). Replaced by DQ256.
DQ256	Q	Dilog 24 Mhz SMD disk controller, Emulates MSCP, 4 drives. Replaces DQ246
DQ302	Q	Dilog QIC-02 .25" cartridge tape drive interface Emulates TM11.
DQ322	Q	Dilog QIC-02 .25" cartridge tape controller, Emulates TM11
DQ3256	Q	Dilog 24 MHz SMD disk controller. Emulates MSCP. BA4000
DQ330	Q	Dilog Kennedy 6450 cartridge tape controller
DQ3686	Q	Dilog 20 MHz ESDI & SA450 disk controller. Emulates MSCP. BA4000. Replaced by MQ3686
DQ409	Q	Dilog 8" DSDD floppy disk controller
DQ419	Q	Dilog floppy disk controller, SA850, Emulates RX01/RX02
DQ606	Q	Dilog floppy disk controller, SA450, Emulates RX33/50
DQ614	Q	Dilog ST-506/412 emulation of four RL01/02
DQ616	Q	Dilog 4 x ST506/ST412 (MFM) disk controller for uVAX Emulates MSCP. Replaced by MQ606.
DQ619	Q	Dilog floppy disk drive controller. Emulates RXV21/RX02. Shugart SA450 compatible, DSD or Dilog media compatible, supports two drives. 22-bit addressing capability
DQ686	Q	Dilog 4 x ESDI disk controller. Emulates MSCP. Replaced (with restrictions) by DQ696.
DQ696	Q	Dilog 2 x ESDI disk controller. Emulates MSCP. (supports Fujitsu 2333)
DR-216	Q	Dataram 256kb/512kb/1Mb/2Mb memory
DR-224	Q	Dataram 8Mb memory for uVAX
DR-244	Q	Dataram 1Mb memory for uVAX
DR-275	?	Dataram 1Mb memory for VAX 11/750
DR-278	?	Dataram 1-4Mb memory for VAX 11/780
DR-283	Q	Dataram 1/2/4Mb memory for uPDP-11
DR-286	?	Dataram 4-16Mb memory for VX8600/8650

DSC-RQD11-SCH	Q	Sigma disk controller (supports CDC XMD850)
DSC-RQD11A/C	Q	Sigma MFM disk controller. Emulates RQDX2 (supports Seagate 251-4)
DT2752	?	Data Translation A/D board. Newer version of DT2782 with burst/increment mode problems fixed
DT2762	?	Data Translation A/D board
DT2764	?	Data Translation A/D board
DT2782	?	Data Translation A/D board
DT2784	?	Data Translation A/D board
DU132	U	Dilog .5" magtape interface. Emulates TM11. 4 drives. Pertec formatted I/O. Replaced by DU142.
DU142	U	Dilog .5" magtape interface. Emulates TM11. 4 drives. Pertec formatted I/O
DU236	U	Dilog SMD disk controller. Emulates MSCP. Replaced by DU256.
DU256	U	Dilog 24 Mhz SMD disk controller, Emulates MSCP, 4 drives.
DU312	U	Dilog .5" magtape interface
DU686	U	Dilog 4 x ESDI disk controller. Emulates MSCP.
ESDC	Q	Andromeda ESDI disk controller. Emulates MSCP. (Supports CDC 94196-766, Fujitsu M2263E, Hitachi DK515-78, and Seagate 442)
FP105	Q	Able Computer 128-port async RS-232 communications board. Emulates 16 x DHV11 or 16 x CXY08
FP106	Q	Able Computer 128-port async RS-232 communications board. Emulates 8 x CXA16
Interlink/Uni	U	Able Computer general purpose DMA interface Replaces DR11-B
Interlink/Q	Q	Able Computer general purpose DMA interface Replaces DR11-B
MLSI-TM11	Q	MDB 800/1600 BPI Pertec unformatted magtape (3-cable) formatter/controller. Emulates TM11
MLV11	Q	General Robotics multifunction module, 128k RAM + 2 serial RS232 I/O
MQ100	Q	Dilog multifunction board
MQ3686	Q	Dilog 20 Mhz ESDI & SA450 disk controller, Emulates MSCP, BA4000, Replaces DQ3686
MQ686	Q	Dilog disk controller. Emulates MSCP & RX33/50. 4 x ESDI drives + 2 x floppy drives
MQ696	Q	Dilog disk controller. Emulates MSCP & RX33/50. 2 x ESDI drives + 2 x SA450 floppy drives
MQ759	Q	Dilog disk/tape adapter. Emulates MSCP & TMSCP. SA450 port, RX33/50 compatible, 7 x SCSI devices + 2 SA450 floppy drives
MSV11-Q	Q	General Robotics 1Mb 22-bit memory for uPDP-11

MSV11-R	Q	General Robotics 4Mb 22-bit memory, MSV11-P compatible
MWV11-A	Q	Baydel ST506/MFM disk controller. Caution: backplane must not use BC1-BE1 for purposes other than BDAL18-21
NS23S	Q	National Semiconductor 4k or 4Mb x 18-bit memory
PM-CCV11A	Q	Plessey .25" tape cartridge (CDV11A) interface
PM-DCV11A	Q	Plessey disk controller emulating Digital RK05 (supports Diablo 30)
PM-DRV11	Q	Plessey parallel interface
PM-FCV21B	Q	Plessey SASI interface, controlling MFM disk(s) emulates 4 x RL02 via a formatter
PM-MFV11A	Q	Plessey multifunction module: 1 RS-232 (console) port, front panel control, bootstrap ROMs, programmable line time clock, Qbus terminator
PM-SV128A	Q	Plessey 128k memory for uPDP-11
PM-WSV31	Q	Plessey 8" DSDD floppy disk controller, RX02 compat.
Q984	Q	AEG (Modicon) Modbus Plus programmable controller
QD01/D	Q	Emulex ST506 disk controller. Emulates KDA50. 22-bit bus.
QD21	Q	Emulex ESDI disk controller. Emulates MSCP. Has LSI-11 boot, LSI-11 & VAX config and diagnostic programmes in ROM, NVRAM config settings. Q22.
QD24	Q	Emulex ESDI disk controller. Emulates MSCP. For VAX 3500/3600.
QD25	Q	Emulex ESDI disk controller. Emulates MSCP. (Supports CDC 766)
QD32	Q	Emulex SMD-E disk controller. Emulates MSCP. Diagnostic and setup programmes in ROM. NVRAM config settings. Q22.
QD33	Q	Emulex SMD controller for up to two SMD disks. Supports SMD-0 and SMD-E, with data rates up to 24MHz for SMD-E. MSCP emulation. DMA (uses adaptive techniques and block mode, supports scatter-write and gather-read on the uVAX-I).
QD34	Q	Emulex SMD-E disk controller. Emulates MSCP. For VAX 3500/3600.
QD35	Q	Emulex disk controller. Emulates MSCP (Supports Fujitsi M2333)
Q/DHU	Q	Able Computer 8/16-port async RS-232 communications board. Emulates DH11 and DM11, speeds to 38.4kb
QHV	Q	Able Computer 8-port async RS-232 communications board. Emulates DHV11
QHV+	Q	Able Computer 16-port async RS-232 communications board. Emulates DHV11, data only
QS09	Q	Emulex 16-line RS-232 communications controller for VAX 3500/3600. Emulates 2 x CXY08.

QT13	Q	Emulex tape controller. Emulates TSV05 or TMSCP. 0.5" tape at 800, 1600, 3200, or 6250bpi.
QT14	Q	Emulex tape controller. Emulates TSV05 or TMSCP. 0.5" tape at 800, 1600, 3200, or 6250bpi. For VAX 3500/3600.
QuadrAsync/B	U	Able Computer async RS-232 communications board Emulates 4 x DL11-B
QuadrAsync/C	U	Able Computer async 20mA communications board Emulates 4 x DL11-C
QuadrAsync/E	U	Able Computer async RS-232 communications board with modem control. Emulates 4 x DL11-E
RDC-16	Q	See First Technology, MSCP Ram Disk, 16MB
RDE-32	Q	See First Technology, 32MB extender for RDC-16
RQD11 -DESDI	Q	Sigma disk controller (Supports Fujitsu 2246E)
RQD11-ECP	Q	Sigma ESDI disk controller (Supports CDC 94196-766 and Hitachi DK515-78)
RQD11/EC	Q	Sigma ESDI disk controller (= Webster WQESD/4) (Supports 760Mb Maxtor XT8760E)
RQD11/SCH	Q	Sigma disk controller (Supports CDC XMD850)
Rebus	U	Able Computer Unibus repeater, replaces DB11-A/H
SBCM70	Q	LSI-11 with 4 RS-232 lines, DLV11-J compatible, and 512kb-2Mb memory
SBCM71	Q	LSI-11 with 4 RS-232 lines, DLV11-J compatible, and 256kb-2Mb memory
SC01	Q	Emulex disk controller
SC02/A	Q	Emulex SMD disk controller. Emulates Digital RP11/RP02/RP03. Includes BDV11-compatible line-time clock.
SC02/B	Q	Emulex SMD disk controller. Emulates Digital RH11/RM02/RM03.
SC02/C	Q	Emulex SMD disk controller. Emulates Digital RK611/RK06/RK07. 22-bit. Supports Fujitsu 2322. Includes BDV11-compatible line-time clock.
SC02/L	Q	Emulex SMD disk controller. Emulates Digital RLV11/RL01/RL02. 22-bit. Includes BDV11-compatible line-time clock.
SC02/M	Q	Emulex SMD disk controller. Emulates ??? Includes BDV11-compatible line-time clock.
SC03	Q	Emulex SMD disk controller. Emulates RM11/RM03 Includes BDV11-compatible line-time clock.
SC03/BX	Q	Emulex SMD disk controller. Emulates RH11/RH70/RM02/RM05/RM80/RP06 Includes BDV11-compatible line-time clock.
SC11	U	Emulex disk controller
SC12/A	U	Emulex SMD disk controller. Emulates RP11E/RP02/RP03

SC12/C	U	Emulex SMD disk controller. Emulates RK611/RK06. Supports CDC 9730-80 & 9448-96, and Priam 3350.
SC12/L	U	Emulex SMD disk controller. Emulates ????
SC12/M	U	Emulex SMD disk controller. Emulates MSCP
SC12/V	U	Emulex SMD disk controller for VAX. Emulates RK711/RK07. Supports CDC 9730-80 & 9448-96, and Priam 3350.
SC21/B	U	Emulex SMD disk controller. Emulates RH11/RM02
SC21/BM	U	Emulex SMD disk controller. Emulates RJM02/RJM05
SC21/B2	U	Emulex SMD disk controller. Emulates RJP06
SC21/BE	U	Emulex SMD disk controller. Emulates RJM02/RJM05
SC21/BX	U	Emulex disk controller
SC21/C	U	Emulex SMD disk controller. Emulates RK611/RK06
SC21/V	U	Emulex SMD disk controller for vax. Emulates RM03/RM05. Needs Emulex VAX/UM software.
SC31/BX	U	Emulex SMD disk controller. Emulates RH11/RM02/RM03/RM05/RP06. Needs Emulex VAX/UM software to use on VAX. Supports Fujitsu Eagle.
SC72/BX	U	Emulex SMD/MMD disk controller for PDP-11/70 only. Emulates RH70/RM02/RM03/RM05/RP06/RM80.
SC750/B1	S	Emulex 1-4 SMD disk controller for VAX-11/750 only. Emulates RH750/RP06.
SC750/B2	S	Emulex 1-4 SMD disk controller for VAX-11/750 only. Emulates RH750/RP06. Supports Fujitsu Eagle, and Memorex 677.
SC750/B3	S	Emulex 1-4 SMD disk controller for VAX-11/750 only. Emulates RM03. Supports CDC 9762, 9730-80, DM 980, (730-160, and Fujitsu 2248
SC758/B1	C	Emulex 1-8 SMD disk controller for VAX-11/750 only. Emulating RM03 and RM05.
SC7000/B1	C	Emulex 1-4 SMD disk controller for VAX-11/750 and 11/780 (requires V-MASTER). Emulates RM03/RM05/RM80. Supports CDC (762, (710, 9715-160, 9766, 9715-340, 9715-500, 9771, 9775, & 9730-160, CDS T302RM, DF 9330, and Fujitsu 2284, 2294, 2312, 2351A.
SC7003	C	Emulex 1-4 SMD/SMD-E disk controller for VAX-11/750 and 11/780 (requires V-MASTER). Emulates RM02/RM03/RM05/RM80.
SC780	S	Emulex disk controller for VAX-11/780. Emulates RM03/RM05/RM80/RP06
SC788/B1	S	Emulex SMD disk controller for VAX-11/780. Emulates RM03/RM05/RM80/RP06
SCAT/45	U	Able Computer 256k static MOS memory Replaces MS11-A/-B/-C
SCDC-11	Q	Andromeda SCSI controller. Emulates MSCP.
SDC-DLV11J	Q	Sigma clone of DLV11-J. 4-line SLU.

SDC-RLV12	Q	Sigma Disk controller. Emulates RLV12/RL02 (Supports Rodime R204)
SDC-RQD11-EC	Q	Sigma MSCP/ESDI Winchester disk controller
SDC-RXV31	Q	Sigma floppy disk controller. Emulates RXV21/RX02. (Supports Mitsubishi M2696-63)
SDC-DLV11J	Q	Sigma clone of DLV11-J. 4-line SLU.
SM696	Q	Dilog disk/tape controller. Emulates MSCP & RX33/50 + 2 x ESDI drives + 2 x SA450 drives
SMDC	Q	Andromeda disk controller. Emulates MSCP. (Includes Fujitsu 2312 and CDC Elite & Sabre)
SPE44	-	Emulex port expander. Interfaces multiple VAXes to a single bank of SMD-compatible drives.
SQ3153	Q	Dilog tape coupler 1/2" Pertec formatted I/O. Emulates TMSCP, 4 drives, BA4000
SQ3703A	Q	Dilog SCSI tape adapter. Emulates TMSCP. BA4000. Replaced by SQ3709
SQ3706A	Q	Dilog SCSI disk adapter. Emulates MSCP. BA4000. Replaced by SQ3709
SQ3709	Q	Dilog SCSI disk/tape adapter. Emulates MSCP and TMSCP. 7 x SCSI devices, BA4000. Replaces SQ3703A & SQ3706A
SQ3723A	Q	Dilog SCSI differential tape adapter. BA4000. Emulates TMSCP. BA4000
SQ3726A	Q	Dilog SCSI differential disk adapter. Emulates MSCP.
SQ703A	Q	Dilog SCSI tape adapter. Emulates TMSCP Replaced by SQ739
SQ706A	Q	Dilog SCSI disk adapter. Emulates MSCP. Replaced by SQ739
SQ713A	Q	Dilog SCSI differential tape adapter. Emulates TMSCP
SQ706	Q	Dilog SCSI disk controller for Ramstor 5150
SQ739	Q	Dilog disk/tape adapter. Emulates MSCP & TMSCP. 7 x SCSI devices. Replaces SQ703A and SQ706A
SQ85	Q	AEG (Modicon) Modbus Plus communications card
STBC	Q	Baydel multi-function module. 22-bit terminator/bootstrap/line clock/powerfail/control panel.
SU723A	U	Dilog SCSI tape adapter. Emulates TMSCP. 7 drives
SU726A	U	Dilog SCSI disk adapter. Emulates MSCP. 7 drives
TC-130	U	Western Peripherals tape controller and formatter. 4 UNIBUS modules in a system unit. Interfaces with industry standard non-formatted drives and emulates a TU10.
TC01	Q	Emulex .5" reel-to-reel tape controller. Emulates TU10

TC01/N	Q	Emulex .5" reel-to-reel tape controller,
TC01/P	Q	Emulex .5" reel-to-reel tape controller,
TC02	Q	Emulex Pertec-interface tape drive controller. Emulates TS11. Early revisions incompatible with VMS.
TC02	Q	Emulex Pertec-interface tape drive controller. Emulates TS11. Early revisions incompatible with VMS. Supports 1-4 Cipher F880, CDC 92181, Kennedy 6809, and Pertec F1000.
TC02/FS	Q	Emulex .5" reel-to-reel tape controller,
TC05	Q	Emulex CDC Sentinel .25" cartridge tape controller. Emulates TS11. Supports CDC 92192 Sentinel.
TC05/SX	Q	Emulex .5" reel-to-reel tape controller.
TC11/N	U	Emulex .5" reel-to-reel tape controller. Emulating TM11/TU10.
TC11/P	U	Emulex .5" reel-to-reel tape controller. Emulating TM11/TU10.
TC11/V	U	Emulex .5" reel-to-reel tape controller. Emulates MT11/TU10. Needs Emulex VAX/UT software.
TC12	U	Emulex .5" reel-to-reel tape controller. Emulates TS11. 22-bit. Supports 1-4 Cipher F880, CDC 92181, Kennedy 6809, and Pertec F1000.
TC12/FS	U	Emulex .5" reel-to-reel tape controller,
TC13	Q	Emulex Pertec-interface tape drive controller. Switchable TU81 TMSCP or TS11 emulation.
TC13	U	Emulex Pertec-interface tape drive controller. Switchable TU81 TMSCP or TS11 emulation. Supports 1-4 Cipher F880, CDC 92181, Kennedy 6809, and Pertec F1000.
TC15	U	Emulex CDC Sentinel .25" cartridge tape controller. Emulating Digital TS11. Supports CDC 92192 Sentinel.
TC15/SX	U	Emulex CDC Sentinel .25" cartridge tape controller,
TC-130	U	Western Peripherals tape controller and formatter. 4 UNIBUS modules in a system unit. Interfaces with industry standard non-formatted drives and emulates a TU10.
TC7000	C	Emulex .5" reel-to-reel tape controller for VAX-11/750 & 11/780 (with V-MASTER). Emulates TGU77/TEU77. 1-8 Pertec interface drives or 1-4 STC interface drives.
TS0100	Q	PICO-bus interface for Kennedy 6455 .25" tape cartridge (DC300/DC600)
UC01/LX	Q	Emulex SCSI bus adaptor. Emulates 1-4 RL01/RL02. 22-bit. Includes BDV11-compatible line-time clock and sockets for bootstrap ROMs and bus terminators.
UC02	Q	Emulex SCSI bus (ANSI X3T9.2) adaptor. Emulates MSCP controller for 1-4 disks. 22-bit.
UC03	Q	Emulex SCSI bus adaptor. Emulates MSCP controller

UC04	Q	Emulex SCSI bus adaptor. Emulates MSCP controller
UC06D	Q	Emulex SCSI bus adaptor.
UC07D	Q	Emulex single SCSI bus adaptor.
UC08-2	Q	Emulex dual SCSI bus adaptor.
UC12	U	Emulex SCSI bus adaptor. Emulates MSCP controller
UC13	U	Emulex SCSI bus adaptor. Emulates MSCP controller
UC14	U	Emulex SCSI bus adaptor. Emulates MSCP controller
UD23	U	Emulex ESDI disk controller. Emulates UDA50.
UD33	U	Emulex SMD-E disk controller. Emulating UDA50.
V-MASTER	S	Emulex interface enabling use of SC7000/B1, SC7003, and TC7000 on VAX-11/780.
VMZ/32	U	Able Computer 16-port async RS-232 communications board. Emulates async ports (only) of DMF32
WDC-11	Q	Andromeda controller for Seagate ST251-1 (emulates 2 x RL02)
WQESD/4	Q	Webster ESDI disk controller (= Sigma RQD11/EC) (Supports 760Mb Maxtor XT8760E)
XCV21/31	Q	Plessey QumeTrak 8" floppy disk controller
QTO	Q	TD Systems SCSI TMSCP tape controller, LSI-11 & VAX config and diagnostic programmes in ROM, NVRAM config settings. Q22.

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