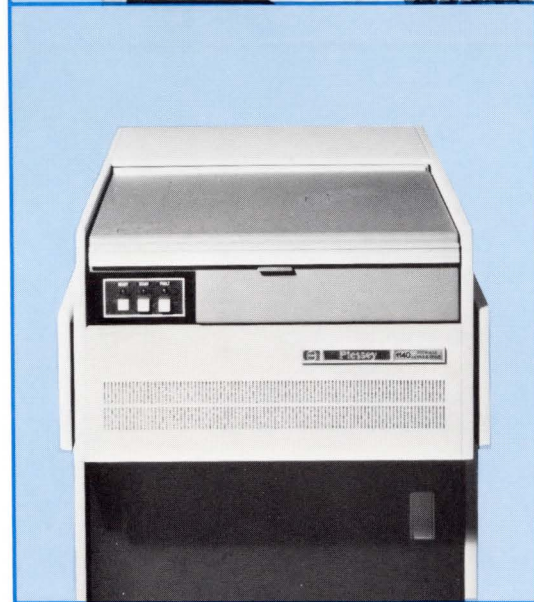
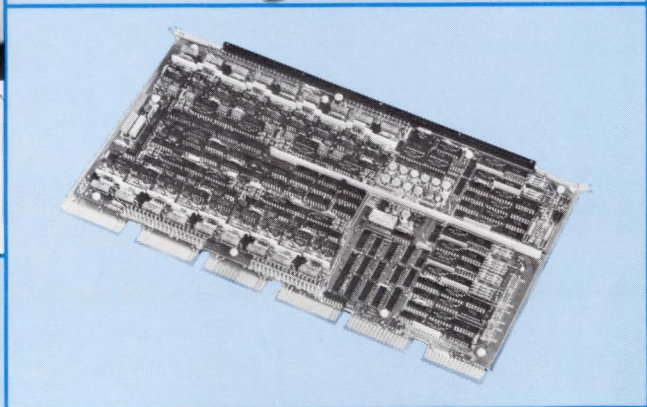
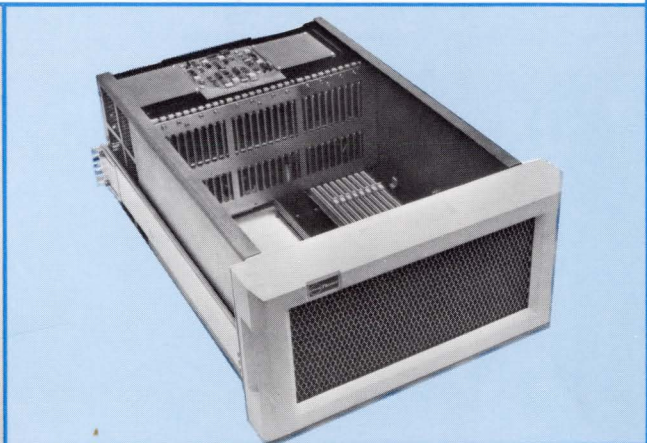


# MINICOMPUTER ADD-ONS AND PERIPHERALS

## PRODUCT SUMMARY



**Plessey  
Peripheral  
Systems**

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PDP Unibus: DEC trade name.  
NOVA: Data General trade name.

## INTRODUCTION

This Product Summary includes all Plessey Microsystems' products for extension and enhancement of Digital Equipment Corp., Data General Corp. and Interdata minicomputers, as well as products for the general OEM minicomputer market.

All minicomputer add-ons and peripheral products are entirely compatible with the equivalents cited in the corresponding column. Plessey Microsystems' add-on and peripheral products require only 1 standard bus load. They are designed for easy integration in the host equipment, they require no rewiring, no hardware alteration and no software modification overlays or special device drivers. The software packages of the original manufacturers will run with all Plessey Microsystems' Mini-Expanders as they would with the standard original memories or peripherals, unless specifically mentioned.

All relevant information is given here for easy reference on each Plessey Microsystems product by type, CPU compatibility, mounting, power requirement, size and the equivalent product. Plessey Microsystems' products and services listed herein are more fully described in their respective product specifications, manuals and bulletins.

When ordering equipment, specify the product reference number listed on the left column and, when required, the application (CPU type, daisy chain, etc.) in which the product will be used.

Equipment installation is optional and can be ordered separately. Maintenance is available through yearly maintenance contracts covering regular preventive maintenance and repair calls.

## ADD - ON MEMORIES - DEC

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>CORE MEMORY</b>					
<b>PM-80</b>					
8K words of 12 bits, 1 card. Core Memory System. 1200 nsec cycle time. Mounts in CPU. Occupies 2 slots.	8 E, F, M	1 slot in CPU	+ 5V 1.8A -15V 3.5A	QUAD	MM8-EJ
<b>PM-8A16</b>					
16K words of 12 bits, 1 card. Core Memory System. 1000 nsec cycle time. Mounts in CPU. Occupies 2 slots.	8A-400 8A-420	1 slot 4 to 8	+ 5V 2,5A + 20V 2,5A	HEX	MM8-AB
<b>PM-1100</b>					
8K words of 16 bits, 1 card, Core Memory System mounted on a 1 SU chassis. Has space for one additional 8K16 card. 900nsec cycle time. Mounts in CPU or BA11/ES.	11/15-20	1 SU	+ 5V 3.0A -15V 6.5A	HEX	MM11-E (2 ×)
<b>PM-1105B</b>					
8K words of 16 bits, 1 card Core Memory System. 900 nsec cycle time. Mounts in standard or modified Unibus backplanes. This memory replaces the PM-1105. Occupies 2 slots.	11/05-10-35 11/40-45 *11/04-34 *10.5'' and 21'' boxes	MF11-L *DD11-D *DD11-C PM-F11 PM-F11/SPC-1 *PM-D11/SPC-1 *PM-D11/SPC-2 *only where 6A of -15V is available.	+ 5V 3.0A -15V 5.3A	HEX	MM11-L MM11-C
<b>PM-1105BP</b>					
8K words of 18 bits parity, 1 card Core Memory System. 900nsec cycle time. Mounts in standard or modified Unibus backplanes. This memory replaces the PM-1105P. Occupies 2 slots.	11/35-40-45 *11/04-34 PM-7259 PM-7850 M 7259 M 7850 *10.5'' and 21'' boxes	MF11-LP *DD11-D *DD11-C PM-F11/P *PM-D11/SPC-1 *PM-D11/SPC-2 *only where 6A of -15V is available	+ 5V 3.5A -15V 5.7A	HEX	MM11-LP MM11-CP
<b>PM-1116B</b>					
16K words of 16 bits, 1 card Core Memory System. 900 nsec cycle time. Mounts in standard or modified Unibus backplanes. This memory replaces the PM1116. Occupies 2 slots.	11/05-10-35 11/40-45 *11/04-34 *10.5'' and 21'' boxes	MF11-L *DD11-D/C *DD11-PK PM-F11 *PM-D11/SPC-1/2 *only where 6A of -15V is available	+ 5V 3.3A -15V 5.3A	HEX	*MM11-D PM-1105B (2 ×) MM11-L (2 ×)

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-1116A</b>					
16K words of 16 bits 1 card Core Memory System. 900 nsec cycle time. Mounts only in modified Unibus backplane (max. of 3 PM-1116A in one 2 SU backplane). Occupies 2 slots.	11/04-34 11/05S-35S *11/40-45 *only when +20V, -5V reg. installed	DD11-D, DD11-PK DD11-C PM-D11SPC/1-2	+20V 3.0A + 5V 2.5A - 5V 0.21A	HEX	MM11-D
<b>PM-1116AP</b>					
16K words of 18 bits, 1 card parity Core Memory System. 900nsec cycle time. Mounts only in modified Unibus backplane (max. of 3 PM-1116AP in one 2 SU backplane). Occupies 2 slots.	11/04-34 11/05S-35S *11/40-45 PM-7850 M 7850 *only when +20V -5V reg. inst.	DD11-D DD11-C PM-D11SPC/1-2	+20V 3.2A + 5V 2.5A - 5V 0.21A	HEX	MM11-DP MM11-CP
<b>PM-1132/100</b>					
32K words of 16 bits, 1 card Core Memory System. 950nsec cycle time. Mounts in standard or modified Unibus backplanes (max. of 3 PM-1132/100 in one MF11-L or PM-F11). Occupies 2 slots.	11/05-10-35 11/40-45 *11/04-34 *10.5'' and 21'' boxes	MF11-L PM-F11 PM-F11SPC/1 *DD11-D *DD11-PK *DD11-C *PM-D11SPC/1-2 *only where 6A of -15V is available	+ 5V 4.3A -15V 5.7A	HEX	PM-1116B (2x) PM-1105BP (4x) *MM11-D (2x) MM11-C (4x) MM11-L (4x)
<b>PM-1132P/101</b>					
32K words of 18 bits parity. 1 card Core Memory System. 950nsec cycle time. Mounts only in standard Unibus backplane (max. of 3 PM-1132/101 in one 2 SU backplane). Occupies 2 slots.	11/35-40-45 *11/04-34 PM-7259/101 PM-7850 M 7259 *10.5'' and 21'' boxes	MF11-LP PM-F11/P	+ 5V 4.3A -15V 5.7A	HEX	MM11-LP (4x) PM-1105BP (4x)
<b>PM-1132P/102</b>					
32K words of 18 bits parity, 1 card Core Memory System. 950nsec cycle time. Mounts only in modified Unibus backplane (max. of 3 PM1132P/102 in one 2 SU backplane). Occupies 2 slots.	*11/04-34 PM-7850 M 7850 *10,5'' and 21'' boxes	*DD11-D *DD11-PK *DD11-C *PM-D11SPC/1-2 *only when 6A of -15V is available	+ 5V 4.3A -15V 5.7A	HEX	MM11-DP (2x) PM-1116AP (2x)

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-J11</b> This system is contained within an expansion chassis. Memory is provided in 32K by 36 bit word (128K bytes) increments, to a maximum of 192K words (768K bytes) core memory. It is hardware and software compatible with the PDP-11/70 and provides for two-way interleaving within the chassis as well as interleaving on a like capacity basis between memory systems. 950nsec cycle time.	11/70 or MJ11-AD	19" rack uses 10.5" of rack height	115V 60Hz 230V 50 Hz 700VA	W 17.60" H 10.50" D 25.00" 100 lbs.	MJ11-AH

### SEMI-CONDUCTOR MEMORY

<b>PM-S1132</b> 32K words of 18 bits (or 16), MOS dynamic, 1 card Memory System. Mounts in DD11-D/C, PM-D11/SPC-1/2 backplanes. Occupies 1 slots. 500nsec cycle time. Available in 4K increments.	11/05S 11/35-40-45 11/04-34 PM-7850 M 7850	DD11-D DD11-C PM-D11/SPC-1 PM-D11/SPC-2	+ 5V 0.8A + 5V BAT 1.7A + 15V BAT 0.65A	HEX	MS11-JP (2x)
<b>PM-S1164</b> 64K words of 18 bits (or 16), MOS dynamic, 1 card. Memory System. Occupies 1 slot. 500 nsec max. cycle time. Available in 4K increments.	11/35-40-45 11/34 PM-7850 M-7850	DD11-D DD11-C PM-D11/SPC-1 PM-D11/SPC-2	+ 5V 0.8A + 5V BAT 2.5A + 15V BAT 0.7A	HEX	MS-11JP (4x)

### EXTENSION BOXES

<b>PM-1150/2A</b> Rack mountable Memory Extension Box. Includes a 2SU memory backplane PM-D11 without SPC slot. Has +5V ±15V power supplies, fans, slides. Can receive 4 PM-1132/100, 101, 102 or 4 PM-S1132P or 5 PM-1116B or 4 PM1105BP. The PM-1150/2A replaces the PM-1150/2 and PM-1150/2P. Parity memories require a PM-7850 parity controller.	11 family	19" rack uses 5.25" of rack height	115V 60 Hz 230V 50 Hz 600VA	W 17.60" H 5.25" D 20.00" 70 lbs.	—
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Description	Compatibility	Mounting	Max. power	Size	Equivalent
<b>PM-1150/4</b> Rack mountable General Purpose Extension Box. Provides space for 6 SU. Has +5V at 25A, -15V at 12.5A, -5V at 3A, +15V unregulated at 1.5A. Cooling fans, mounting slides.	11 family	19" rack uses 10.5" of rack height	115V 60Hz 230V 50Hz 700VA	W 17.60" H 10.50" D 23.70" 100 lbs.	BA11-K
<b>PM-1150/5</b> Rack mountable General Purpose Extension Box. Provides space for 6 SU. Has +5V at 50A, -15V at 10A, +15V at 3A, +20V at 8A, -5V at 4A. Cooling fans, mounting slides.	11 family	19" rack uses 10.5" of rack height	115V 60Hz 230V 50Hz 1200VA max.	W 17.60" H 10.50" D 23.70" 100 lbs.	BA11-K

## ACCESSORIES - DEC

### SYSTEM UNITS

#### PM-F11

2 SU Memory Mounting Standard Unibus Backplane, 9 slots. Supplied with power supply cable (specify cable required for application with order), without PM-920 Unibus Jumper. Can accommodate the PM-1105B, PM-1116B, PM-1132/100 and MM11-L memories.

11/05-10  
11/35-40-45  
BA11-K  
PM-1150/4  
PM-1150/5

2 SU

—

—

MF11-L  
Backplane

#### PM-F11/P

2 SU Parity Memory Mounting Standard Unibus Backplane, 9 slots. Supplied with power supply cable (specify cable required for application with order), without PM-920 Unibus Jumper. Can accommodate PM-1105BP, PM-1132P/101 and MM11-LP memories, PM-7259, M-7259 and PM-930A.

11/35-40-45  
BA11-K  
PM-1150/4  
PM-1150/5

2 SU

—

—

MF11-LP  
Backplane

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-F11/SPC</b>					
2 SU General Purpose Mouting Standard Unibus Backplane, 9 slots. Accepts Small Peripheral Controllers Quad card on slots 1 to 9; slots 7 and 8 are wired as DF-11 slots. Memories or HEX small Peripheral Controllers can be plugged into slots 2 to 6. Accommodates the PM-1105B, PM-1116B, PM-1132/100 memories. Supplied with power supply cable, without PM-920 Unibus Jumper.	11/05-10-35 11/40-45 11/04-34 BA11-K PM-1150/4 PM-1150/5	2 SU	—	—	—
<b>PM-F11/SPC-1</b>					
1 SU General Purpose Mounting Backplane. Same as PM-F11/SPC except 4 slots.	11/05-10 11/35-40-45 11/04-34 BA11-K PM-1150/4 PM-1150/5	1 SU	—	—	—
<b>PM-D11/SPC-1</b>					
2 SU, 9 slots modified Unibus Backplane. Accepts Hex Small Peripheral Controllers, PM-1105B, PM-1105BP, PM-1116B, PM-1116A, PM-1116AP, PM-1132/100-102, PM-S1132, PM-S1164 and MM11-DP memories, and PM-7850. Includes PS cable, not Unibus Jumper.	11/35-40-45 11/04-34 BA11-K PM-1150/4 PM-1150/5	2 SU	—	—	DD11-D
<b>PM-D11/SPC-2</b>					
1 SU, 4 slots modified Unibus Backplane. Accepts Small Peripheral Controllers, PM-1105B, PM-1116B, PM-1116A, PM-1132/100, PM-S1132, PM-S1164 and MM 11-D memories and PM-7850. Includes PS cable, not Unibus Jumper.	11/35-40-45 11/04-34 BA11-K PM-1150/4 PM-1150/5	1 SU	—	—	DD11-C
<b>MEMORY MANAGEMENT</b>					
<b>PM-11D</b>					
Memory Management option. Permits access to 124K words of memory and relocation, includes stack limit option PM-11A (KJ11-A).	11/35-40	1 slot prewired in CPU	+5V 4A	HEX	KT11-D



Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-837</b>					
Extended Memory and Time Share Control. Allows addressing of memory greater than 4K.	8/E, F, M 8/A100	1 slot	+5V 1.2A	QUAD	M837 KM8-E
<b>PARITY CONTROLLERS</b>					
<b>PM-7259</b>					
Provides Parity Generation Logic for all memories mounted in its backpanel.	11/35-40-45 PM-F11/P MF11-LP	1 slot prewired	+5V 1.5A	Double height module	M7259
<b>PM-7850</b>					
Provides Parity Generation and Detection Logic for all memories mounted in its backpanel. Replaces the PM7259.	11/35-40-45 11/04-34 DD11-D PM-D11- SPC/1-2 PM-F11P	1 slot	+5V 1.5A	Double height module	M7850
<b>INTERFACES AND CLOCKS</b>					
<b>PM-DL11-WA</b>					
Provides 20mA or RS232 Serial Line Interface to an ASCII terminal, such as LA36, VT50 or LT33 and Line Real Time Clock. Includes a 4 feet, 20 mA current loop cable.	11 family DD11-D PM-D11/ SPC-1-2	SPC slot	+5V 1.8A	QUAD	DL11-WA
<b>PM-DL11-WB</b>					
Provides EIA RS232C Interface to an EIA terminal. Supplied with a 25' cable terminated by a Cinch DB 25 P plug.	11 family DD11-D PM-D11/ SPC-1-2		+5V 1.8A	QUAD	DL-11WB
<b>PM-KW11P</b>					
Programmable Real Time Clock. Program selectable of 100Khz, 10 Khz line frequency or extended signal.	11/CPU	SPC slot	+5V 1A	Double height unit	KW11-P
<b>*UNIBUS EXTENDER</b>					
<b>PM-DB11/A</b>					
*Unibus Extender. Forms branch Unibus from trunk, passes all bus grant and priority request lines. Provides up to 19 additional bus loads and 50' additional Unibus length. Occupies a single HEX SPC slot. Bus cycle time increase for devices using the PM-DB11/A is 150ns max. Creates 1 bus load on each side of the extender.	11 family	PM-D11/SPC-1 PM-D11/SPC-2 PM-F11/SPC PM-F11/SPC-1 DD11-B DD11-D DD11-C	+5V 3A	HEX	DB11-A

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>DUAL PORT COUPLER</b>					
<b>PM-DA11</b>					
Dual Port Coupler, allows peripherals and memory to be shared between two PDP-11 processors. Also provides separate Unibus which allows internal high speed DMA transfers. Consists of 3 parts: 1) Primary bus coupler (2 ea) plugs in HEX SPC slots 2) Secondary bus Controller (1ea) plugs in an Unibus slot. Provides address mapping status information, power fault isolation. <i>Software transparent.</i>	11 family	PM-D11/SPC-1 PM-D11/SPC-2 PM-F11/SPC PM-F11/SPC-1 DD11-D DD11-C	Primary coupler +5V 2.5A Secondary controller +5V 2.2A	HEX (3 ×)	—
<b>BOOTSTRAP LOADER</b>					
<b>PM-RL11</b>					
Bootstrap Loader and terminator. Contains ROM with bootstrap program for RC11, RF11, PM-TS11 or TM-11, PM-DS11 or RK11, (DKO, DK1), PM-DS1114 or PM-DS1180 or RP11, TC11 and PC11/PR11.	11/05-10 11/35-40-45	*Unibus slot	+5V 1A	Double height unit	BM873YC
<b>UNIBUS TERMINATORS AND JUMPERS</b>					
<b>PM-920</b>					
*Unibus Jumper Module. Used to interconnect System Units.	11 family	—	—	—	M920
<b>PM-930</b>					
*Unibus Terminator.	11/20-15 11/05-10 11/35-40-45	—	—	—	M930
<b>PM-930A</b>					
*Unibus Continuity Card. Used to convert PM-F11/P parity backplane into a non-parity backplane.	—	—	—	—	—
<b>PM-9302</b>					
*Unibus Terminator. Also contains logic to detect the assertion of certain current signals.	11/04-34	—	—	—	M9302

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-7271</b> Bus Grant Continuity card. Used in an unoccupied SPC slot.  *Unibus is a registered trademark of Digital Equipment Corp.	11 family	—	—	—	G727

### LSI-11 BASED PRODUCTS

<b>PM-V1150/LSI</b> Rack mountable chassis designed to support LSI-11 based systems. Provide space for 6 SU. Has +5V at 25 Amps, -15V at 10A, +15V at 3A, power supplies. Includes the operator console, cooling fan, mounting rails.	LSI-11	19" rack, uses 10.5" of rack height.	115V 60Hz 230V 50 Hz 700VA	W 7.60" H 10.50" D 23.70"	—
<b>PM-F11/LS4</b> 1S U backplane, 4 slots. Includes a +12V regulator for the LSI-11, and 10 Q-bus slot cards. Accepts any LSI-11 Q-bus option.	Micro-1	1SU Hex wide	—	—	—
<b>PM-VU11</b> LSI-11 bus to Unibus Converter. Allows the LSI-11 to control the *Unibus.	LSI-11 Micro-1	1 slot, closest to LSI-11 CPU	+5V 2A	QUAD	—
*Registered trade mark Digital Equipment Corp.					
<b>PM-SV32</b> 28K words of 16 bits dynamic MOS Memory System. Interfaces to LSI-11 Q-bus and contains independant refresh circuitry. Can optionally be refreshed by CPU or by REV11-AC. Occupies 1 QUAD slot (2 LSI-11 half slots), cycle time 500 nsec, available in 4K increments.	LSI-11 11/03 Micro-1	H 9270 DDV11-B PM-F11/LS4	+5V 2A +12V 0.5A	QUAD	MS V11-B (4 ×) MS VU-CB
<b>PM-V08</b> 8K words of 16 bits, single card Core Memory System. Interfaces to LSI-11 Q-bus. Occupies 2 QUAD slots.	LSI-11 Micro-1	DDV11-B	+ 5V 2A -12V 2A	QUAD	MMV11-A (2 ×)

## PERIPHERALS - DEC

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>MOVING HEADS DISC STORAGE 2.5 TO 20 MEGABYTES, PDP-11</b>					
<b>PM-DC11</b>					
Disc Controller. Hardware and software compatible with RK11 disc controller. Capable of controlling up to 10 megawords (20 megabytes) of disc storage in any combination of PM-DD11, and or RK05 disc drives. Occupies 1SU.	11/CPU PM-1150/4 PM-1150/5 BA11-K	1SU	+5V 5.75A	QUAD (4 ×) 1 SU	RK11 Controller
<b>PM-DD11/A</b>					
1.25 megawords Single Front Loading Cartridge (IBM2315, 12 sectors) Disc Drive. Hardware, software and media compatible with RK05/RK11. 11.1 usec/words transfer rate, average access time 50msec. Can be connected directly to the RK11 or PM-DC11 controllers or after an existing disc drive. Recording density 100 TPI, 2200BPI. Disc cartridge not included.	11 family RK11 PM-DC11	19" rack. uses 7" of rack height	115V 60Hz 230V 50Hz 300VA	W 17.60" H 7.00" D 22.00" 80 lbs.	RK 05
<b>PM-DD/11B</b>					
2.5 megawords Dual Disc Drive. Drives one removable front loading cartridge (IBM 2315, 12 sectors) and one fixed disc, each 1.25 megawords. Hardware, software and media compatible with RK05/RK11. 11.1 usec/word transfer rate. Average access time 50msec. Can be connected directly to the RK11 or PM-DC11 controllers or after an existing disc drive. Recording density 100TPI, 2200BPI. Disc cartridge not included.	11 family RK11 PM-DC11	19" rack uses 7" of rack height	115V 60Hz 230V 50Hz 300VA	W 17.60" H 7.00" D 22.00" 80 lbs.	RK05 (2 ×)

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-DD/11C</b> 5 megawords Dual Disc Drive. Drives one removable top loading cartridge (IBM 5440, 12 sectors) and one fixed disc, 2,5 megawords each. 11.1 usec/words transfer rate. Average access time 50msec. Uses double track density 200TPI. Two 1.25 megawords RK05s are interleaved on each 2,5 megawords disc. The PM-DD/11C responds as 4 separate RK05s. It is hardware and software but not media compatible. Can be connected directly to the RK11 or PM-DC/11 controller or after an existing disc drive. Recording density 200TPI 2200 BPI. Disc cartridge not included.	11 family RK11 PM-DC11	19" rack or table top	115V 60Hz 230V 50Hz 300VA	W 17.60" H 10.00" D 22.00" 100 lbs.	RK 05 (4 ×)

**PM-DS/11**

Disc System. Includes the PM-DC11 controller plus one PM-DD11/ disc drive. Disc cartridge not included.

11 family

1SU +  
rack space

115V 60Hz  
230V 50Hz

—

RK11

**PM-DKA/11**

Disc Cartridge, IBM 2315 Front Loading 12 sectors, 1.25 megawords. 2200BPI, 100TPI.

RK05

—

—

—

RK05K11

**MOVING HEADS DISC STORAGE, 20 TO 327 MEGABYTES, PDP-11**

**PM-DS1140**

Storage Module System. Includes one PM-DD1140, 10 megawords (20 megabytes), Storage Module Drive and the Controller. The controller occupies 1SU. Allows extension of up to 4 PM-DD 1140 drives. Hardware and software compatible, it requires no special device drivers or software modifications when versionalized for 20 megabytes basic increments. Disc pack not included.

11/CPU  
PM-1150/4  
PM-1150/5  
BA11-K

1SU +  
free standing

120V 60Hz  
220/240 50Hz  
1250VA  
+5V 12A  
-15V 2A  
+15V 2A

—

RPR11

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-DS1180</b>					
Storage Module System. Includes one PM-DD1180, 20 megawords (40 megabytes), Storage Module Drive and the Controller. The Controller occupies 1SU. Allows extension of up to 4 PM-DD1180 drives. Hardware and software compatible, it requires no special device drivers or software modifications when versionalized for 40 megabytes basic increments. Disc pack not included.	11/CPU PM-1150/4 PM-1150/5 BA11-K	1SU + free standing	120V 60Hz 220/240V 50Hz 1250VA +5V 12A -15V 2A +15V 2A	—	RP11
<b>PM-DS1114</b>					
Disc Pack System. Includes one PM-DD1114 20 megawords (40 megabytes) Disc Pack Drive and the Controller. The Controller occupies 1SU. Allows extension of up to 8 mixed PM-DD1114 and/or RP03. Hardware, software and media compatible. Disc pack not included.	11/CPU PM-1150/4 PM-1150/5 BA11-K	1SU + free standing	115V 60Hz 230V 50Hz 1200VA +5V 6A	—	RP11
<b>EXPANSION DISC DRIVES 20 TO 327 MEGABYTES, PDP-11</b>					
<b>PM-DD1140</b>					
10 megawords (20 megabytes) Storage Module Drive. 3.31usec/words transfer rate, 30msec. access time. Emulates the RP02 disc pack drive. Hardware and software compatible. This disc can also be formatted for a max. of 31.5 megabytes capacity. This requires using modified software. The capacity limits are determined by jumpers on the controller. Uses disc pack model PM-DK1140. Disc pack not included.	11 family PM-DS1140	free standing	120V 60Hz 220/240V 50Hz 1250VA	W 19.00'' H 34.00'' D 34.00'' 243 lbs.	RP02
<b>PM-DK-1140</b>					
CDC ® model 9876 disc Pack. Has 3 recording and 3 protection 14'' discs.	PM-DS 1140 PM-DD 1140	—	—	—	—

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-DD1180</b> 20 megawords (40 megabytes) Storage Module Drive. 3.31 usec/words transfer rate. 30msec access time. Emulates the RP03 disc pack drive. Hardware and software compatible. This disc can also be formatted for a max. of 63 megabytes. This requires using modified software. The capacity limits are determined by jumpers on the controller. Uses disc pack PM-DK1180 model. Disc pack not included.	11 family PM-DS1180	free standing	120V 60Hz 220/240V 50Hz 1250VA	W 19.00'' H 34.00'' D 34.00'' 243 lbs.	RP03

<b>PM-DK-1180</b> CDC ® model 9877 disc pack. Has 3 recording and 3 protection 14'' discs.	PM-DS 1180 PM-DD 1180	—	—	—	—
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<b>PM-DD1114</b> 20 megawords (40 megabytes) removable Disc Pack Drive. 7.5 usec/words transfer rate. 35msec average access time. Hardware, software and media (IBM2316 20 surface pack) compatible with the RP03. Recording density 2200BPI, 200 TPI. Disc pack not included.	11 family RP11 PM-DS1114	free standing	115V 60Hz 230V 50Hz 1200VA	W 27.50'' H 38.00'' D 37.50'' 700 lbs.	RP03
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## FLOPPY DISC

<b>PM-XS11</b> 512K bytes floppy disc System, including dual or single drive and a Unibus compatible controller which plugs into any PDP 11 SPC Unibus slots. Hardware, software and media compatible with the RX11.	11/05 11/35-40-45 11/04-34 Micro-1 DD11-D/C PM-D11/SPC 1 PM-D11/SPC 2	1 SU of rack mount 10,5'' height 60 lbs	115V 60 Hz 230V 50 Hz 575VA + 5V 3,5A +15V 0,1A -15V 0,1A		RX11
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Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>MOVING HEADS DISC STORAGE, PDP-8</b>					
<b>PM-DD8/A</b>					
1.6 megawords Single front loading (IBM2315 16 sectors) cartridge Disc Drive. Hardware, software and media compatible with RK 8-E/RK05. 8.32 usec/words transfer rate. 50msec access time. Can be connected directly to the RK8-E or PM-DC8 Disc Controller or after an existing RK05- or PM-DD8 drive. Recording density 100TPI, 2200BPI. Disc cartridge not included.	8/E, F, M 8/A RK8-E PM-DC8	19" rack uses 7" of rack height	115V 60Hz 230V 50Hz 300VA	W 17.60" H 7.00" D 22.00" 80 lbs.	RK05
<b>PM-DD8/B</b>					
3.32 megawords Dual Disc Drive. Drives one removable front loading cartridge (IBM 2315, 16 sectors) and one fixed disc, each. 1.66 megawords. Hardware, software and media compatible. 8.32 usec/words, transfer rate, 50msec access time. Can be connected directly to the RK8-E or PM-DC8 controller or after an existing RK05 or PM-DD8 drive. Recording density 100TPI, 2200BPI. Disc cartridge not included.	8/E, F, M 8/A RK8-E PM-DC8	19" rack uses 7" of rack height	115V 60Hz 230V 50Hz 300VA	W 17.60" H 7.00" L 22.00" 80 lbs.	RK05 (2x)
<b>PM-DC8</b>					
Disc Controller, hardware and software compatible with RK8E Controller. Capable of controlling 4 1.66 megawords disc in any combination of RK05 and PM-DD8/A or B up to 6.6 megawords of storage. Occupies 3 slots in CPU.	8/E, F, M 8/A	3 slots	+5V 3.0A	QUAD (3x)	RK8E Controller
<b>PM-DS8/A-B</b>					
Disc System. Includes the PM-DC8 plus one PM-DD8 disc drive. Disc cartridge. not included.	8E,F,M 8A	19" rack +3 slots	115V 60Hz 230V 50Hz 300VA +5V 3.0A	—	RK8E



Description	Compatibility	Mounting	Max. power	Size	Equivalent
<b>PM-DKA/8</b>					
Disc Cartridge, IBM 2315 front loading, 16 sectors, 1.6 megawords. 2200BPI, 100TPI.	RK-05 PM-DD8/A PM-DD8/B	—	—	—	RK05K-8
<b>MAGNETIC TAPE UNITS, PDP-11</b>					
<b>PM-TS11/A10-45</b>					
9 (7) tracks Magnetic Tape Transport and PM-TC11A Control Unit. Expandable to a total of 8 PM-TT11/A10 Tape Transport. 45 IPS, 800BPI. (Industry compatible). Controller occupies 1SU.	11/CPU PM-1150/4 PM-1150/5 BA11-K	19" rack uses 24.5" of rack height +1SU	115V 60Hz 230V 50Hz 500VA +5V 5.5A -15V 0.75A	—	TMB-11E/F
<b>PM-TS11/A10-75</b>					
9 (7) tracks Magnetic Tape Transport and Control Unit, PM-TC11A. Expandable to a max. of 8 PM-TT11/A10-75 Tape Transports. 75IPS, 800BPI. Controller occupies 1SU.	11/CPU PM-1150/4 PM-1150/5 BA11-K	19" rack uses 24.5" of rack height +1SU	115V 60Hz 230V 50Hz 750VA + 5V 5.5A -15V 0.75A	—	—
<b>PM-TS11/B8-37,5</b>					
Switch selectable 800 or 1600 BPI, 9 tracks Magnetic Tape Transport and Control Unit PM-TC11B. Expandable to a total of 8 PM-TT11B Tape Transports. 37,5 IPS, 8" reels. Controller occupies 1 SU.	11/CPU PM-1150/4 PM-1150/5 BA11-K	19" rack uses 12,5" of rack height + 1SU	115V 60Hz 230V 50Hz 500VA + 5V 5,5A - 15V 0,75A	—	—
<b>PM-TS11/B10-45</b>					
Switch Selectable 800 or 1600BPI, 9 tracks Magnetic Tape Transport and Control Unit PM-TC11/B. Expandable to a total of 8 PM-TT11/B-10 Transports. 45 IPS Controller occupies 1SU.	11/CPU PM-1150/4 PM-1150/5 BA11-K	19" rack uses 24.5" of rack height +1SU	115V 60Hz 230V 50Hz 500VA + 5V 5.5A -15V 0.75A	—	—

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-TS11/B10-75</b> Switch selectable 800 or 1600BPI, 9 tracks Magnetic Tape Transport and Control Unit PM-TC11B. Expandable to a total of 8 PM-TT11B Tape Transports. 75IPS, 10" reels. Controller occupies 1SU.	11/CPU PM-1150/4 PM-1150/5 BA11-K	19" rack uses 24,5" of rack height + 1SU	115V 60Hz 230V 50Hz 500VA + 5V 5,5A — 15V 0,75A	—	—

### EXPANSION TAPE DRIVES, PDP-11

<b>PM-TT11/A10-45</b> 9 (7) tracks Tape Transport. 45IPS, 800BPI, 10.5" reels. Mechanical arms. Connects to the PM-TC11/A Tape Controller.	PM-TS11/A10 TM-B11E/F	19" rack uses 24.5" of rack height	115V 60Hz 230 50Hz 500VA	W 19.00" H 24.50" D 11.00" 90 lbs.	—
<b>PM-TT11/A10-75</b> 9 tracks Tape Transport. 75IPS, 800BPI, 10.5" reels. Vacuum columns. Connects to the PM-TC11/A Controller.	PM-TS11/A10	19" rack uses 24.5" of rack height	115V 60Hz 230V 50Hz 750VA	W 19.00" H 24.50" D 21.00" 155 lbs.	—
<b>PM-TT11/B8-37,5</b> 9 tracks Tape Transport. Switch selectable 800 or 1600 BPI, 37,5 IPS, 8" reels. Mechanical arms. Connects to the PM-TC11/B Controller.	PM-TS11B	19" rack uses 12,5" of rack height	115V 60Hz 230V 50Hz 500VA	W 19,00" H 12,50" D 11,00" 45 lbs.	—
<b>PM-TT11/B10-45</b> 9 tracks Tape Transport. Switch selectable 800 or 1600 BPI, 45IPS, 10.5" reels. Mechanical arms. Connects to the PM-TC11/B Controller.	PM-TS11/B10	19" rack uses 24.5" of rack height	115V 60Hz 230V 50Hz 500VA	W 19.00" H 24.50" D 11.00" 90 lbs.	—
<b>PM-TT11/B10-75</b> 9 tracks Tape Transport. Switch selectable 800 or 1600 BPI, 75 IPS, 10" reels. Vacuum columns. Connects to the PM-TC11/B Controller.	PM-TS11B	19" rack uses 24,5" of rack height	115V 60Hz 230V 50Hz 750VA	W 19,00" H 24,50" D 21,00" 155 lbs.	—

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PAPER TAPE EQUIPMENT</b>					
<b>PM-PR11</b>					
High Speed Paper Tape Reader and Control Unit. 1000 ch/sec. Controller is on Quad card. Occupies 1SPC slot. Cable included.	11 family	19" rack uses 7" of rack height. +1SPC slot	115V 60Hz 230V 50Hz 110VA +5V 1.5A	W 19.00" H 7.00" D 4.00" +QUAD	PR11
<b>PM-PC11</b>					
High Speed Paper Tape Reader/Punch Combination and Control Unit. Reads at 1000 Ch/sec. Punches at 50ch/sec. Controller is on Quad card. Occupies 1SPC slot. Cables included.	11 family	19" rack uses 10.5" of rack height +1SPC slot	115V 60Hz 230V 50Hz 350VA +5V 1.5A	W 19.00" H 10.50" D 15.00" +QUAD	PC11
<b>PM-PR8</b>					
High Speed Paper Tape Reader and Control Unit. Controller is on Quad card. Occupies 1 SPC slot. Cable included.	8/E,F,M 8/A	19" rack uses 7" of rack height	115V 60Hz 230V 50Hz 110VA +5V 1.5A	W 19.00" H 7.00" D 4.00" +QUAD	PR8E
<b>PM-PC8</b>					
High Speed Paper Tape Reader/Punch Combination and Control Unit. Reads at 1000ch/sec., punches at 50ch/sec. Controller is on Quad board. Occupies 1 SPC slot. Cable included.	8/E,F,M 8/A	19" rack uses 10.5" of rack height	115V 60Hz 230V 50Hz 350VA +5V 1.5A	W 19.00" H 10.50" D 4.00" +Quad	PC8E

## ADD - ON MEMORIES DATA GENERAL

### CORE MEMORY

<b>PM-1200</b>					
8K word of 16 bits, 1 card Core Memory System. 1200 nsec. cycle time.	NOVA 1200 1210 1220	1 slot	+ 5V 2.30A - 5V 0.16A +15V 4.20A		8121
<b>PM-1216/104</b>					
16K words of 16 bits, 1 card Core Memory System. 1200 nsec. cycle time.	NOVA 1200 1210 1220	1 slot	+ 5V 2.30A - 5V 0.25A +15V 4.60A		8117
<b>PM-1216/107</b>					
16K words of 16 bits, 1 card Core Memory System. 1200 nsec. cycle time.	DCC 116H	1 slot	+ 5V 2.30A - 5V 0.25A +15V 4.60A		—

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-816/101</b> 16K words of 16 bits, 1 card Core Memory System. 800 nsec. cycle time.	NOVA 800 820	1 slot	+ 5V 2.8A — 5V 0.3A +15V 5.7A		8269 (2×)
<b>PM-816/30</b> 16K words of 16 bits, 1 card Core Memory System 1000 nsec. cycle time.	NOVA 830	1 slot	+ 5V 2.8A — 5V 0.3A +15V 4.8A		8280
<b>PM-816/40</b> 16K words of 16 bits, 1 card Core Memory System. 800 nsec. cycle time.	NOVA 840	1 slot	+ 5V 2.8A — 5V 0.3A +15V 5.7A		8269 (2×)
<b>PM-216</b> 16K words of 16 bits, 1 card Core Memory System. 800 nsec. cycle time.	NOVA 2/4 2/10	1 slot	+ 5V 2.8A — 5V 0.3A +15V 5.75A		8302
<b>PM-316</b> 16K words of 16 bits, 1 card. Core Memory System. 800 nsec cycle time.	NOVA 3/4 NOVA 3/12	1 slot	+ 5V 2.8A — 5V 0.3A + 15V 5.75A		8545

## PERIPHERALS DATA GENERAL

### MOVING HEADS DISC STORAGE

<b>PM-DD12/A</b> 2,5 megabytes Single Disc Drive. Front loading car- tridge type IBM 2315, 12 sectors. Hardware, software and media compatible with DGC's 4239 disc drive. Deli- vered with connecting cable. Power supply included. Disc cartridge not included. Re- cording density 100TPI, 2200BPI.	Any NOVA PM-DC12	19'' rack uses 7.5'' of rack height	115V 60Hz 230V 50Hz 300VA	W 17.6'' H 7 0'' D 22.0'' 80 lbs.	4239
<b>PM-DD12/B</b> 5 megabytes Dual Disc Drive. Drives one remov- able front loading cartridge type IBM 2315-12 sectors and 1 fixed disc. Each 2.5 megabytes. Hardware, soft- ware and media compatible with DGC 4237/4239 disc drives. Includes cables and power supply. Disc car- tridge not included. Recor- ding density 100TPI, 2200 BPI.	Any NOVA PM-DC12	19'' rack uses 7.5'' of rack height	115V 60Hz 230V 50Hz 300VA	W 17.6'' H 10.0'' D 22.0'' 100 lbs.	4239 (2×)

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-DD12/C</b>					
10 megabytes Dual Disc Drive. Drives one removable top loading cartridge type IBM 5540, 12 sectors and one fixed disc. Each 5 megabytes. Hardware, software compatible with DGC 4239 disc drive. Includes cables and power supply. Cartridge not included. Recording density 200TPI, 2200BPI. The PM-DD12/C responds as 4 separate 4239 drives.	Any NOVA PM-DC12	19" rack or table top	115V 60Hz 230V 50Hz 300VA	W 17.60" H 7.00" D 22.00" 100 lbs.	4239 (4x)
<b>PM-DKA/12</b>					
Disc Cartridge IBM 2315 front loading, 12 sectors. 2.5 megabytes, 2200BPI, 100 TPI.	4239 PM-DD12/A PM-DD12/B	—	—	—	4273C
<b>PM-DC12</b>					
Disc Controller. Hardware, software compatible with DGC 4046/4074 Disc Controller. Capable of controlling up to 10 megabytes of disc storage in any combination of Plessey and/or DGC disc drives. The PM-DC12 eliminates the need for the internal adaptation and the power supply.	Any NOVA	1 slot	+5V 5A	—	4046
<b>PM-DS12</b>					
Disc System includes the PM-DC12 controller plus a PM-DD12 Disc Drive. Disc cartridge not included.	Any NOVA	rack/space +1 slot	—	—	—
<b>MAGNETIC TAPE UNITS</b>					
<b>PM-TS12/C-10</b>					
9 (7) tracks Tape Transport System. 45IPS, 1600BPI, 10.5" reels and Controller PM-TC12. Expandable to a total of 8ea PM-TT12/C-10 and DGC Tape Transport in any combination.	Any NOVA	19" rack +1 slot	115V 60Hz 230V 50Hz 500VA +5V 3.75A		4196 4196A

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>PM-TS12/A10-75</b> 9 (7) tracks Tape Transport System. 75IPS, 800BPI, 10.5" reels and Controller PM-TC12. Expandable to a total of 8 PM-TT12/A10-75 and DGC Tape Transports in any combination.	Any NOVA	19" rack +1 slot	115V 60Hz 230V 50Hz 750VA +5V 3.75A		6021

## EXPANSION TAPE DRIVES

<b>PM-TT12/C-10</b> 9 (7) tracks Tape Transport. 45IPS, 1600BPI 10.5" reels. Mechanical arms. Includes cables.	Any NOVA PM-TC12	19" rack uses 24.5" of rack height	115V 60Hz 230V 50Hz 500VA	W 19.0" H 24.5" D 11.0" 90 lbs	4196A 4196B
<b>PM-TT12/A10-75</b> 9 (7) tracks Tape Transport. 75IPS, 800BPI, 10.5" reels. Vacuum columns. Includes cables.	Any NOVA PM-TC12	19" rack uses 24.5" of rack height	115V 60Hz 230V 50Hz 750VA	W 19.0" H 24.5" D 11.0" 155 lbs.	6023

## ADD - ON MEMORIES INTERDATA

### CORE MEMORY

<b>PM-716/100</b> 16K words of 17 bits parity, 1 card Core Memory System. 32K bytes of 8 bits and 1 bit of parity for both bytes. Cycle time 750nsec.	50-55-70-74 7/16	1 slot	+ 5V 2.75A +16.5V 3.00A -16.5V 2.90A		—
<b>PM-716/101</b> 16K words of 16 bits, non parity. 1 Card Core Memory System. 32K bytes of 8 bits. Cycle time 750 nsec.	50-55-70-74 7/16	1 slot	+ 5V 2.96A + 5V 2.75A +16.5V 3.00A -16.5V 2.90A		—
<b>PM-716/104</b> 16K words of 17 bits parity, 1 Card Core Memory System. 32K bytes of 8 bits and 1 bit of parity for both bytes. Cycle time 750 nsec.	7/32	1 slot	+ 5V 2.97A + 5V 2.75A +16.5V 3.00A -16.5V 2.90A		—
<b>PM-716/105</b> 16K words of 16 bits, non parity Core Memory System. 36K bytes of 8 bits. Cycle time 750nsec.	7/16-7/32 50-70	1 slot	+ 5V 2.97A + 5V 2.75A +16.5V 3.00A -16.5V 2.90A		—

## OEM EQUIPMENT

Description	Compatibility	Mounting	Max. Power	Size	Equivalent
<b>TAPE READERS</b>					
<b>PM-R2000</b>					
Tape Reader Head, Control and Interface board. Reads at 1000 ch/sec. Stop on characters. Infrared detection. Various interface configurations available.	—	panel	+ 5V 0.75A +15V 2.00A	Head: W 3.87" H 2.00" D 5.63" 4 lbs.	Board: W 4.50" D 6.50"
<b>PM-R2100</b>					
Tape Reader, Control and Interface and <i>Power Supply, on 19" RETMA rack panel</i> Reads 1000ch/sec with stop on characters. Infrared detection. Various Interface configurations available.		19" rack uses 5.25" of rack height	115V 60Hz 230V 50Hz 60VA	W 19.00" H 5.25" D 4.00" 15 lbs.	—
<b>PM-R2110</b>					
Tape Reader, Control and Interface. Power Supply and bins for handling <i>fanfold tapes, on 19" RETMA rack panel.</i> Reads 1000 ch/sec. with stop on character. Infrared detection. Various Interface configurations available.		19" rack uses 7" of rack height	115V 60Hz 230V 50Hz 60VA	W 19.00;; H 7.00" D 4.00" 20 lbs.	—
<b>PM-R2120</b>					
Tape Reader. Control and Interface. Power Supply and bins for handling fanfold tapes, <i>mounted in stand alone cabinet.</i> Reads 1000ch/sec. with stop on character. Infrared detection. Various Interface configurations available.		Table top	115V 60Hz 220V 50Hz 60VA	W 21.00" H 10.00" D 8.00" 25 lbs.	—
<b>PM-R3000</b>					
<i>Portable</i> Tape Reader, Control and Interface. Power Supply and bins for handling fanfold paper tapes. Mounted in a carrying case. Reads 1000ch/sec. with stop on character. Infrared detection. Various Interface configurations available.		Carrying case	115V 60Hz 230V 50Hz 60VA	W 22.00" H 10.50" D 10.00" 25 lbs.	—

**READER - PUNCH COMBINATION****PM-C4010**

Tape Reader/Punch Combination, Control and Interface, Power Supply, Bins for handling fanfold tapes. Reads at 1000ch/sec with stop on character. Infrared detection. Punches at 50 CPS. Various Interface configurations available. Mounted on 19" RETMA rack-panel.

19" rack  
uses 10.5" of  
rack height

115V 60Hz  
230V 50Hz

W 19"  
H 10.5"  
D 12"  
38 lbs.

—



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