

EXPANDED PDP-11/35 BUSINESS PLAN
(21" CHASSIS)

Jack MacKeen
PDP-11/OEM Marketing
September, 1973

SYNOPSIS

1. PRODUCT

11/40 converted to 16K memories less TTY and services.

2. BASIC PRICE INCLUDES

CPU console, 21" chassis, cab, power control, power supplies, and appropriate memory.

3. COST

<u>16K</u>	<u>32K</u>	<u>48K</u>	<u>64K</u>
\$ 4021	5022	6181	7182

4. RECOMMENDED PRICE

\$16995	20495	24495	27995
---------	-------	-------	-------

5. TERMS

Type 1 OEM Discount/Return to Factory Warranty.

6. GROSS MARGIN AT 29% AVERAGE OEM DISCOUNT

66.7	65.4	64.4	63.9
------	------	------	------

7. RELATED/AFFECTED PRODUCT

OEM PDP-11/40

8. ANNOUNCEMENT/DELIVERY

16K announced October 1 for Q3 delivery.
32K, 48K, 64K announced January 1 for Q4 delivery.

TABLE OF CONTENTS

	<u>PAGE</u>
I. Product Description	1
II. Cost Data	3
III. Margin Analysis/Recommended Price	4
IV. Product Unit Forecast	5
V. Related/Affected Products	6
VI. Product Schedules	7
VII. Competition	8

APPENDIX A

COST REFERENCE JUNE (PINK BOOK)

I. PRODUCT DESCRIPTION

The primary intent of the expanded 11/35 is to provide an aggressively priced processor/memory package to gain additional revenues from present and additional OEM customers requiring the processing capability of the 11/40 class machine. In the OEM marketplace, these customers are presently purchasing 11/40 systems with a gross value of \$45,000 - 50,000 and having slightly over 32K of core.

Additionally, the expanded 11/35 completes the establishment of a true OEM product family by offering the power and packaging flexibility of the 11/40 chassis on unbundled OEM terms. The OEM product family now would consist of 5 1/4" and 10 1/2" 11/05; 10 1/2" and 21" 11/35. The expanded 11/35 also provides a vehicle for the sale of the new 16K memories.

The expanded 11/35 is mechanically the 11/40 as presently sold with the following changes.

1. TTY and control (standard on 11/40) are not included and must be purchased as line items.
2. Existing 8K (MF11-L) backplane and power regulator are removed. 16K (MF11-U) backplane, power regulator and harness are added.
3. Memory Management Unit (KT11-D) is included.
4. Front panel rescreened 11/35.

I. PRODUCT DESCRIPTION (Con't)

As with the 10 1/2" 11/35, the expander version will be sold as an OEM product with a type 1 discount. Terms and conditions are those of the OEM discount agreement, i.e., 30 day return to factory warranty, documentation at list prices, and circuit schematics, and OEM diagnostics with each system. All other products/services such as system software, training, installation and extended warranty are available at established prices.

The expanded 11/35 will be available in four versions varying only in core memory size. Memory Management will be standard. I/O Console device and control (TTY or LA30) is not included and must be purchased as a separate line item. All other standard hardware features of the 11/40 are included.

<u>TYPE #</u>	<u>MEMORY</u>	<u>VOLTAGE</u>	<u>SYSTEM UNIT SPACES AVAILABLE</u>
11/35 /	16K	115/230	5
11/35 /	32K	115/230	5
11/35 /	48K	115/230	3
11/35 /	64K	115/230	3

II. COST DATA

Presented below is the cost data used as the basis for this plan. Except where noted, costs shown are "Prior 3 Month's Weighted Average Actual Cost," from the June 1973 Option and System Actual Cost Report (Pink Book).

1. 16K Model

11/40-CA	\$4390
----------	--------

Less LT33DC	\$ 941
DL11-A	84
MF11-L	711
	<u>\$1736</u>

1736
<u>2654</u>

Plus

16K MF11-U*	1159
KT11-D	<u>208</u>

BASIC COST \$4021

2. 32K Model

Plus 16K MM11-U*

1001
COST <u>\$5022</u>

3. 48K Model

Plus 16K MF11-U*

1159
COST <u>\$6181</u>

4. 64K Model

Plus 16K MM11-U*

1001
COST <u>\$7182</u>

*Cost from MF11-U/MM11-U business plan.

NOTE:

1. Cost of Option Level only.
2. Cost does not include FY74 accounting changes.

J. J. J. J.
9/19/73

III. MARGIN ANALYSIS/RECOMMENDED PRICE

MEMORY SIZE WITH MGMT.	DEC PRICE	COST	% G.M. AVE. DISC. 29%	% G.M. MAX. DISC. 38%
1. 16K	16995	4021	66.7	61.8
2.	+5%	4871	59.6	53.8
3.	+5%	5721	52.6	45.7
1. 32K	20495	5022	65.4	60.4
2.	+5%	6047	58.4	52.4
3.	+5%	7072	51.4	44.3
1. 48K	24495	6181	64.4	59.3
2.	+5%	7406	57.4	51.2
3.	+5%	8631	50.4	53.2
1. 64K	27995	7182	63.9	58.6
2.	+5%	8582	56.8	50.6
3.	+5%	9982	49.8	42.5

NOTE: Lines 2 and 3 of each category above provide margins realized if miscellaneous costs are added to the manufacturing costs at 5% of list price. This was first done in the June 1973 Cost Report (Pink Book).

Line 2 represents allocated miscellaneous manufacturing costs.

Line 3 represents system integration.

IV. PRODUCT UNIT FORECAST

	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>TOTAL</u>
FY74	--	--	*130	*150	280
FY75	150	160	170	175	655
FY76	175	180	175	150	680
FY77	100	50	30	--	180
					<hr/> 1795

*Based in part on conversion of existing 11/40 orders and customers.

With the exception of the 16K memories, this product is now over one (1) year old. Approximately two (2) years additional life can be expected and then a sharp drop will occur due to announcement of new mid-range 11 replacement at significantly less \$.

The table below presents estimated gross revenues for the above CPUs shipped as systems. Average value per system will rise as lower core prices trigger increased core buying and additional peripherals are added to the system. The rise will be very slight due to price erosion.

<u>FISCAL YEAR</u>	<u># SYSTEMS</u>	<u>SYSTEM REVENUES*</u>	<u>AVERAGE</u>
FY74	280	\$12,040	\$43K
FY75	655	31,440	48K
FY76	680	35,360	52K
FY77	180	9,540	53K

*In 000's

V. RELATED/AFFECTED PRODUCTS

Presently OEMs can purchase the 11/40 only as a bundled full-service system. With the 11/40 now an accepted product in the marketplace, many OEMs wish to make repeat buys without paying for unnecessary services. The expanded 11/35, offered as an unbundled product on OEM terms fulfills this need.

Since 70% of the present OEM 11/40 business comes from less than 20 customers, a minimum 70% of OEM 11/40 business will be converted to the expanded 11/35. Unbundling, combined with the aggressive pricing contained herein, is expected to bring the impact to over 90%. New OEMs may still buy bundled systems (11/40) for development under the new OEM QDA, but this should be less than 10% of total OEM requirements for the processor and will approach zero in a short time. This is supported by the fact that with software now treated as a product at standard prices, even new OEMs will probably buy the expanded 11/35 in order to maintain product continuity.

In summary, the OEM 11/40 business will convert to the expanded 11/35.

VI. PRODUCT SCHEDULES

As the 16K memories are already being implemented on the 11/40 (new regulator - H754, new power harness), the expander 11/35 can be produced as soon as these ECOs are completed and the 16K memories available.

The OEM Group will ship the first production 16K sense systems in Q2, FY74 if all ECOs and tests are completed on schedule. Large scale deliveries can then be made in Q3.

VII. COMPETITION

The expanded version of the 11/35 will compete in the OEM area primarily with the Data General Nova 840.

Varian has announced a "memory mapping" feature with the V-73 to handle 256K words of core, but price and policies are not available.

16K NOVA 840	\$16,530	EXPANDED 11/35	\$16,995
Less Memory	-2,400		
Price Cut	<u>14,130</u>		
CAB	<u>1,000</u>		
POWER FAIL	<u>400</u>		
	\$15,530		
32K			
ADD	<u>6,400</u>		
	\$21,930		\$20,495

APPENDIX A

COST REFERENCE JUNE (PINK BOOK)

PRODUCTION BUSINESS MANAGER

RESPONSIBLE ENGINEER

B. Hesseltine

WESTMINSTER

B. Armstrong

CURRENT:	Average Actual Cost June			FY74 Standard	Prior 3 Month's Weighted Average Actual Cost
Raw Material	908				907
Memory Stack	234				225
Labor & O/H Added:	Labor	O/H	Total		
Board Fabrication	40	136	176		184
Metal Fabrication	22	64	86		88
Module Production	72	252	324		303
Sub-Assy. Prod.	48	118	166		162
Final Assy.&Test	245	565	810		868
Labor & O/H Total	427	1135	1562		1605
Direct Product Build Cost	2704				2737*
Allocated Misc.Mfg. Cost	500				
Cost Before System Integration	3204				
Allocated System Integration	500				
Total Manufacturing Cost	3704				

Comments: Dir. Prod. Build Cost

* Restated to include correct P/S costs in Bill of Material

Cum
Volume
(Units)

HISTORY: Date of 1st Shipment

Dir. Prod. Build Cost	1st.Qtr.	2nd.Qtr.	JAN.	FEB.	MAR.	APR.	MAY	JUNE
						2836*	2687*	2704
Quantity Produced						6	12	26
Acceptance Yield								91%
Dir.Prod. build Cost Committed by Mfg.								
Initial Cost Estimates								

FORECAST:

Dir. Prod. Build Cost
Qty. Per Month

Estimated Product Life:
Estimated Units During Product Life:

What If?

Maynard List Price: \$9,995

PRODUCTION BUSINESS MANAGER

RESPONSIBLE ENGINEER

B. Hesseltine

WESTMINSTER

B. Armstrong

CURRENT:	Average Actual Cost June			FY74 Standard	Prior 3 Month's Weighted Average Actual Cost
Raw Material	2000				2002
Memory Stack	234				220
Labor & O/H Added:	Labor	O/H	Total		
Board Fabrication	47	156	203		192
Metal Fabrication	51	157	208		215
Module Production	64	251	315		320
Sub-Assy. Prod.	60	165	225		269
Final Assy.&Test	237	538	775		1172
Labor & O/H Total	459	1267	1726		2162
Direct Product Build Cost	3960				4390
Allocated Misc.Mfg. Cost	650				
Cost Before System Integration	4610				
Allocated System Integration	650				
Total Manufacturing Cost	5260				

Comments: Dir. Prod. Build Cost

Cum
Volume
(Units)

HISTORY: Date of 1st Shipment

Dir. Prod. Build Cost	1st.Qtr.	2nd.Qtr.	JAN.	FEB.	MAR.	APR.	MAY	JUNE
		4497	4297	4467	4463	4457	4318	3960
Quantity Produced		41	73	78	71	73	143	171
Acceptance Yield								84%
Dir.Prod. build Cost Committed by Mfg.								
Initial Cost Estimates								

FORECAST:

Dir. Prod. Build Cost
Qty. Per Month

Estimated Product Life:
Estimated Units During Product Life:

What If?

Maynard List Price: \$12,995