

MEMOREX 7100

MRX30 PHASE "0" COST ESTIMATE

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MEMOREX CONFIDENTIAL

The following section presents the product cost estimates for the 7100 processor and peripherals. The assumptions used to generate these estimates are also presented. Field Engineering costs will be included at a later date.

## COST ASSUMPTIONS

### I. 7100 PROCESSOR

#### A. DIRECT LABOR (ULTIMATE)

##### 1. Manufacturing

The following direct manufacturing hours are estimated for the three processor configurations:

Small Configuration	150 hours
Median Configuration	175 hours
Large Configuration	200 hours

These hours include contingency, processor assembly and unit test as well as system assembly and test. The direct labor rate was assumed to be \$4 per hour.

##### 2. Quality Control and Receiving Inspection

Q.C. and R.I. is taken as 10% of the direct manufacturing hours at a rate of \$4.30 per hour.

#### B. MATERIAL (ULTIMATE)

Ultimate material costs for the processor and I/O Adapters are included on the attached matrix. All of these costs include a 30% contingency. Floor loss is estimated as 3% of ultimate PCB component material costs plus 0.5% of all other ultimate material costs.

#### C. BURDEN

1. Direct labor burden on manufacturing Q.C. and R.I. is 125%.

2. Material burden on direct material plus floor is 12.9%.

#### D. MANUFACTURING SUPPORT

Manufacturing support includes a 94% burden. These costs are distributed on the attached matrix.

#### E. MANUFACTURING PROGRESS

Total manufacturing progress is estimated as 11% of base ultimate manufacturing cost, and is distributed on the attached matrix.

F. DEVELOPMENT ENGINEERING EFFORT

The cost of Development Engineering is based on the following breakdown of the cost of an engineering manmonth.

Controllable Department Cost	\$2470/mo
Non-Controllable Dept. Costs	410/mo
Controllable Product Support	970/mo
Non-Controllable Product Support	160/mo
TOTAL	\$4010/mo

The development engineering effort does not include Programming or Publications.

G. E.C. SCRAP AND REWORK

E.C. scrap and rework is estimated as 2.5% of base ultimate manufacturing costs.

H. EXPENSE

Manufacturing expense includes a 94% burden, and is distributed on the attached matrix.

I. OTHER COSTS

Other costs includes the shipping group cost.

CPU AND ADAPTERS

BASE ULTIMATE MATERIAL COST - 7100 PROCESSOR

<u>ITEM</u>	<u>COST W CONTINGENCY</u>
CPU 10K (28K)	\$4138
CPU 14K (32K)	4416
CPU 18K (36K)	4809
CPU 26K (44K)	5365
CPU 34K (52K)	6036
IFA	520
SEL. CHANNEL	260
ASYNCR LA	130
BI-SYNCR LA (225%)	195
WIDEBAND LA (225%)	195
ICA	325
IPA 150 LPM (320%)	195
300 LPM (638%)	390
8610-11 ADAPTER (250%)	195
8633 ADAPTER (250%)	195
8643 ADAPTER (250%)	195
8653 ADAPTER (250%)	195
8655 ADAPTER (250%)	195
8660 ADAPTER (250%)	195
80 COL. READER (340%)	130
80 COL. R/P (185%)	195
DATA ENTRY ADAPTER (200%)	195
STORAGE PROT & TIMER	260
CONSOLE ADAPTER	130

MRX30 PERIPHERAL PRODUCT COST\*

CONSOLE	\$ 1560
PRINTER 150 LPM	4225
300 LPM	6404
600 LPM	10358
1200 LPM	10514
TRIDENT	1288
8610	3313
8611	4166
8630	2798
8633	1508
8643	3283
8653	3907
8655	9088
8660	9093
80 COL. CR 300	2322
600	2533
80 COL R/P 500/100	14010
TAP CT + 30KB	6182
CT + 60KB	7061
30KB	4180
60KB	4690
DATA ENTRY DISPLAY	1560

\*Includes material, labor and burden.

	1972	1973	1974	1975	1976	1977	TOTAL
MFG SUPPORT	—	\$328K	\$197K	\$66K	\$33K	\$31K	\$655K
MFG PROGRESS	—	10%	80%	10%	—	—	100%
DEV ENG	\$435K	\$1545K	\$960K	\$363K	\$210K	\$112K	\$3625K
E.C. SCRAP	—	10%	70%	15%	5%	—	100%
MFG EXPENSE	—	\$110K	\$270K	280	200	50K	\$910K
MFG CAPITAL	—	\$312	\$156K	\$26K	\$26K	—	\$520K