



**EPP-80
MPP-80S
GPP-80**

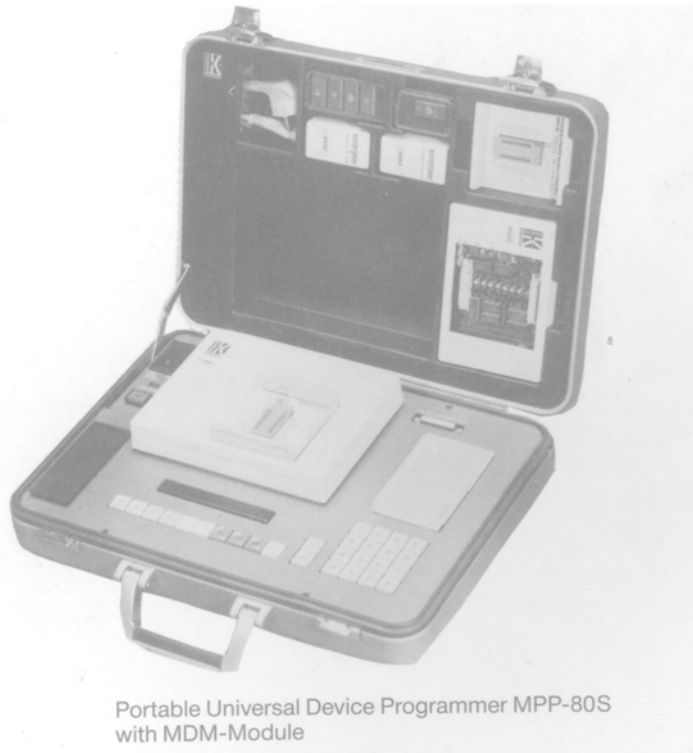
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Contents	
Revision Status	3
KONTRON's Device Programmer Family	4
General Information	8
EPROM programming algorithms	12
Key	13
EPROMs, EEPROMs and Microcomputers	14
Bipolar PROMs	23
Programmable Logic (PAL, IFL, etc.)	41

List dated:	May 1986
MDM software revision:	4.3 / 2.9
UPM software revision:	1.45
GPP software revision:	3.0
Notes:	

KONTRON's Device Programmer Family

MPP-80S



Universal device programmer housed in a portable metal case. Built-in serial interface and UV- EPROM- erasing lamp. Requires the use of one of the shown modules to program the desired device(s). Back page picture shows MPP-80S with MDM mounted and MOD, SA and 2 identifiers, together with some EPROMs, stored in special compartments.

EPP-80

Universal engineering device programmer. Built-in serial interface and UV- EPROM- erasing lamp with timer as a standard; optional second interface may be serial, Centronics compatible or GPIB (IEEE-488). Requires the use of one of the shown modules to program the desired device(s). Front page picture shows EPP-80 with UPM/B installed.

MDM



MOS Device Module, for programming EPROMs with the standard MDM Socket

Adapter (SA-MDM, see section EPROMs) and, with special socket adapters, for programming single-chip microcomputers with on-chip EPROM.

UPM/A

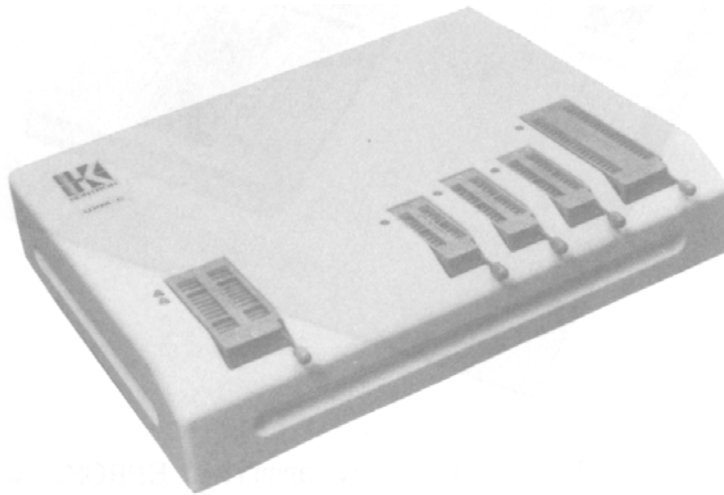


Universal Programming Module for handling Bipolar PROMs and EPROM devices. Identical with UPM/B except for programming of programmable logic devices.

UPM/B

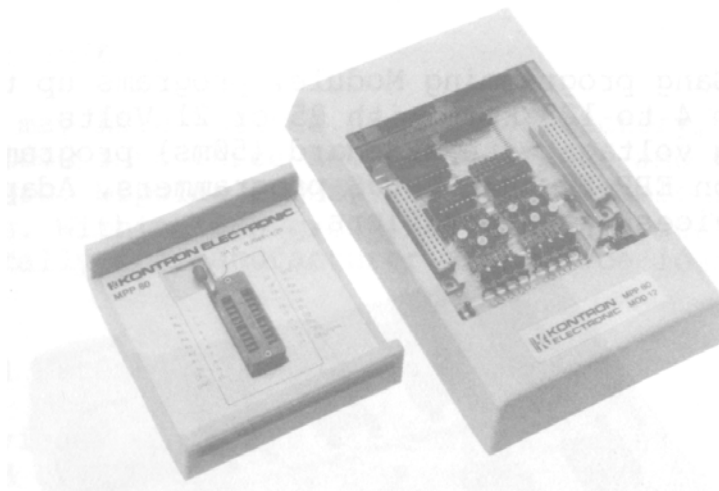
Universal Programming Module for handling Bipolar PROMs, EPROMs as well as 20- and 24-pin programmable logic devices.

UPM/C



Universal Programming Module for EPROM devices as well as 20, 24 and 40 pin programmable logic devices including ECL.

MOD



Programming module for generic families (PROMs, EPROMs or PALs) of one or several manufacturers, e.g. MOD 6 for Motorola and Harris bipolar PROM devices. Accepts socket adapters ("SA") for adaption to various pinouts.

SA

Socket Adapter, adapts programming module ("MOD") to different pinouts of the various devices of a generic family.

GPP-80



Gang and set EPROM- programmer. Programs 1 to 16 EPROMs in 1 to 8 sets simultaneously. Requires no additional modules, identifiers or other adapters.

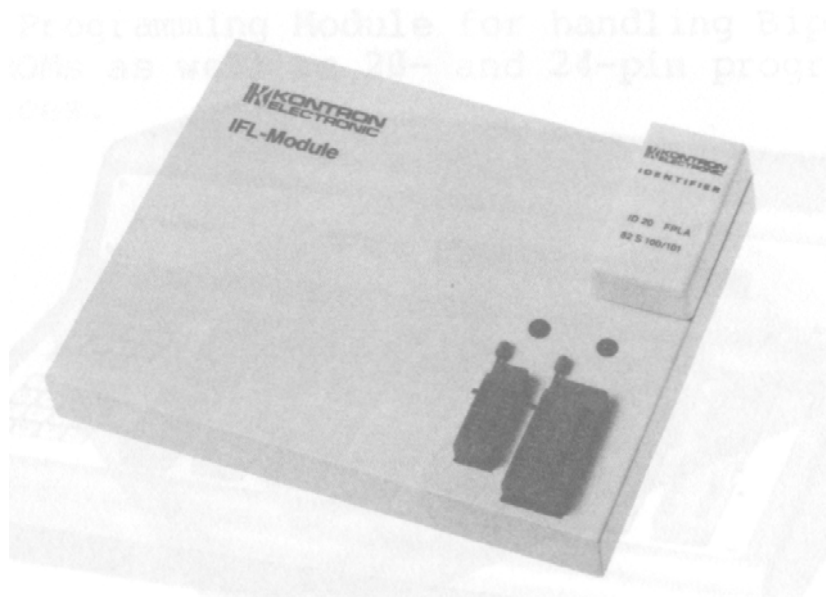
DGM

Universal Gang programming Module, programs up to 8 EPROMs from 4 to 128 kbit with 25 or 21 Volts programming voltage with standard (50ms) programming algorithm on EPP-80 or MPP-80S programmers. Adapted to various devices via identifiers.

Id

Identifiers to adapt UGM or IFL to different devices.

IFL



Integrated Fuse Logic module, generic module for Signetics and Harris IFL devices (FPLA, FPLS, FPGA etc.). The IFL is adapted to different devices by means of identifiers.

General Information:

As you may have noticed from the directory, the list is divided into three sections: EPROMs and microcomputers, bipolar PROMs, and programmable logic devices. Within each group, devices are sorted alpha-numerically for manufacturer and device identification code.

Special Notes:

* Devices, where the asterisk is listed instead of a UPM or MDM code are not yet implemented. However, the implementation of these devices is in preparatory stage, or the algorithm is already implemented but still disabled because it could not yet be verified with the device manufacturer.

As we do not know when we will receive new devices and the relevant algorithms from the device manufacturer (sometimes manufacturers preannounce new devices which are then withdrawn from the program), we cannot specify the date when the MDM or UPM will actually program such devices.

Devices of one family:

With the EPP-80 and MPP-80S the device to be programmed is selected by rolling through the internal list of available manufacturers and devices. Most devices are implemented with their full number. Devices which are different in technology but compatible with respect to programming specifications, e.g. Schottky and low power Schottky types, are not separately implemented. Example: Signetics' PROMs 82S180 and 82LS180.

In this case, you may either use the main device's id or the code listed in this selecting guide to activate the proper programming algorithm.

Security fuse programming on Intel 8751 single chip microcomputers:

Intel 8751 and 8751H and compatible types have identical programming algorithms. However, the devices are listed with different MDM codes. The difference between the 2 codes is that the 8751 code leaves the security bit intact, whereas the 8751B algorithm programs it. A slightly different programming algorithm is used for the AMD 8751 (MDM code "8751D"). This algorithm will always program the security bit.

Intelligent EPROM Programming Algorithms:

An EPROM programming algorithm is determined by two main parameters: The programming voltage V_{pp} , which is applied to the EPROM, and the pulse width (duration). For standard EPROMs like 2716, 2732, 2732A etc., the values are 25 or 21 Volts, with 50 ms pulses for each memory location. Consequently, the programming time for an 8 Kbyte device such as the 2764 amounts to 8192×50 ms, or approximately 7 minutes, plus the time the programmer needs to perform the various tests (verify etc.).

To reduce programming times, the EPROM manufacturers introduced faster, "intelligent" programming algorithms. Instead of applying constant 50 ms programming pulses to each memory location, pulses of shorter duration ("tpp") are used. Following each pulse, the location's content is verified. If it does not yet hold the desired data, another pulse is applied, and the test is retried. The whole procedure is repeated until the desired data are found in the location, and the correct number of pulses ("X") has been applied to the location.

To prevent indefinite retries on damaged or malfunctioning devices which cannot be programmed, the number of initial pulses to one memory location is limited to a maximum of "Y".

Depending on the used programming algorithm, a number of additional pulses ("Z"), eventually with wider pulse width ("tap"), may be applied to the same memory location, before the programmer increments to the next address to be programmed.

Additionally, the normal supply voltage Vcc is slightly increased during programming.

The programming parameters are then:

Vpp	programming voltage
Vcc	supply voltage during programming
tpp	programming pulse width
X	number of pulses, until correct data are found for the first time in a location
Y	the maximum number of initial pulses applied to one memory location until the correct data must be found in that location
tap	pulse width of additional pulses applied to memory location after the desired data have first been found
Z	number of additional pulses

If you have a new EPROM which is not yet listed in this Selecting Guide, you can check, by comparing the manufacturer's programming specifications with those listed in the table below, whether your MDM or UPM has a suitable programming algorithm already implemented. This algorithm can be used for programming the new device.

Silicon Signature:

The latest EPROM designs of some manufacturers feature the **Silicon Signature**, which is a device code that can be read by suitable device programmers.

If you have such a device, and your EPP-80 or MPP-80S is equipped with an MDM or UPM module, you may set the programmer to the proper programming algorithm by just inserting the EPROM with the silicon signature into the EPROM socket and pressing the "A" key to activate the 'select device¹ function. The programmer will then try to read the silicon signature and, if the attempt is successful and the detected silicon signature code is known, select the suitable programming algorithm immediately. The selected device code appears in the display as if it were entered or dialed in manually.

Note:

There are a few devices on the market which differ from each other but have the same silicon signature. The silicon signature of such a device has not been implemented into the module's software to avoid ambiguity. The programmer will jump to the manual device selection mode as if no silicon signature were available. **Please select the device code as listed.**

EEROM programming algorithms:

MDM or	prog.	supply	initial prog.	max.	pulse width of	no. of
UPM	voltage	voltage	pulse width	no. of pulses	addit. pulses	addit. pulses
device code	V_{pp} [V]	V_{cc} [V]	t_{pp}	Y	t_{ap}	Z
2764	21.00	5.00	50 ms	1	-	none
2764A	12.50	6.00	1 ms	25	3 ms	X
2764D	12.75	6.00	1 ms	25	2 ms	1
2764F	21.00	6.00	1 ms	20	4 ms	X
2764-F	21.00	6.00	1 ms	15	4 ms	X
27C64	12.50	6.00	1 ms	25	3 ms	X
5133F	21.00	6.00	1 ms	15	4 ms	X
F2764	12.75	6.25	100 µs	25	-	none
27128	21.00	5.00	50 ms	1	-	none
27128D	12.75	6.00	1 ms	25	2 ms	1
27128E	21.00	6.00	1 ms	20	1 ms	X
27128F	21.00	6.00	1 ms	15	4 ms	X
5143F	21.00	6.00	1 ms	15	4 ms	X
F27128	12.75	6.25	100 µs	25	-	none
27256	12.50	6.00	1 ms	25	3 ms	X
27256C	12.50	6.00	500 µs	25	1.5 ms	X
27256D	12.75	6.00	1 ms	25	2 ms	1
27256E	12.50	6.00	1 ms	20	3 ms	X
27C256	21.00	6.00	1 ms	20	1 ms	X
F27256	12.75	6.25	100 µs	25	-	none
27512	12.50	6.00	1 ms	25	3 ms	X
27512D	12.50	6.00	1 ms	25	2 ms	1
27513	12.50	6.00	1 ms	25	3 ms	X

Device Id	Manufacturer's part number
Function	Besides the standard abbreviations (EPROM, PROM, EEPROM) we use the following terms: 1-Ch-uC : Single chip microcomputer with on-chip EPROM PL : Programmable Logic Device EPL : Erasable PL
Organisation	Memory or fuse map organisation. Note : PAL-fantom fuses (if any) are included therein!
Pins	Number of pins of the device
UPM Type	UPM type(s) that may be used. Available today: A: PROMs and EPROMs B: PROMs, EPROMs and 20 / 24 pin PALs C: EPROMs and 20 / 24 / 40 pin PALs
UPM Code	Code to be entered or selected to activate the proper programming algorithm
MDM SA	Required socket adapter
MDM Code	Code to be entered or selected to activate the programming algorithm
Module	required generic programming module
SA	required socket adapter
UGM or IFL Id	Identifier required for gang programming with UGM, respectively to adapt IFL module to device
GPP Code	Device code to activate proper programming algorithm
Manufacturer	manufact.code displayed resp. selectable on GPP-80

EPROMs, EEPROMs, 1 Chip μ C's

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Module	SA	UGM or IFL Id	GPP Code	Mnf.
Advanced Micro Devices (AMD)												
Am1702A	EPROM	256x8	24	-	-	-	-	3	7	-	-	-
Am2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
Am27128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	Am27128	AMD
Am27128A	EPROM	16384x8	28	any	27128D	MDM	27128D	-	-	-	-	-
Am2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	Am2716	AMD
Am27256	EPROM	32768x8	28	any	27256D	MDM	27256D	-	-	-	Am27256	AMD
Am2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	Am2732	AMD
Am2732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	Am2732A	AMD
Am27512	EPROM	65536x8	28	any	27512D	MDM	27512D	-	-	-	Am27512	AMD
Am2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	Am2764	AMD
Am2764A	EPROM	8192x8	28	any	2764D	MDM	2764D	-	-	-	Am2764A	AMD
Am27C1024	EPROM	65536x16	40	C+PA4 8	*	48	*	-	-	-	-	-
Am8751H	1-Ch-uC	4096x8	40	-	-	36-1	8751D	-	-	-	-	-
Am9702A	EPROM	256x8	24	-	-	-	-	3	7	-	-	-
Am9708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
Am9716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	Am2716	AMD
Am9732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	Am27 32	AMD
Am9761H	1-Ch-uC	8192x8	40	-	-	36-1	9761	-	-	-	-	-
Am9764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	Am2764	AMD
Am9864	EEPROM	8192x8	28	any	9864	MDM	9864	-	-	-	-	-
Exel												
XL2816A	EEPROM	2048x8	24	any	2816A	MDM	2816A	-	-	-	-	-
Fairchild Semiconductor												
F2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
F2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	2716	-
F38E70	1-Ch-uC	2048x8	40	-	-	44	38E70	-	-	-	-	-
Fujitsu												
MBL8742	1-Ch-uC	2048x8	40	-	-	8-2	8749	-	-	-	-	-
MBL8749H	1-Ch-uC	2048x8	40	-	-	8-2	8749	-	-	-	-	-
MBM2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	MBM2532	FUJIT
MBM27128	EPROM	16384x8	28	any	27128E	MDM	27128E	-	-	13	MBM27128	FUJIT
MBM27256	EPROM	32768x8	28	any	27256	MDM	27256	-	-	-	MBM27256	FUJIT
MBM2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	MBM2732	FUJIT
MBM2732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	MBM27 32A	FUJIT
MBM2764	EPROM	8192x8	28	any	2764F	MDM	2764F	26	32-1	8	MBM2764	FUJIT
MBM27C128	EPROM	16384x8@	28	any	*	MDM	*	-	-	-	MBM27C128	FUJIT

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Fujitsu	(continued)											
MBM27C256	EPROM	32768x8	28	any	27C256	MDM	27C256	-	-	-	MBM27C256	FUJIT
MBM27C32	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	MBM27C32	FUJIT
MBM27C32A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	MBM27C32A	FUJIT
MBM27C512	EPROM	65536x8	28	any	27512	MDM	27512	-	-	-	MBM27C512	FUJIT
MBM27C64	EPROM	8192x8	28	any	2764F	MDM	2764F	26	32-1	8	MBM27C64	FUJIT
MBM8516	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MBM2716	FUJIT
MBM8518	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MBM8532	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	MBM2732	FUJIT
General Instrument												
ER5816	EEPROM	2048x8	24	any	2816	MDM	2816	-	-	-	2816A	-
Hitachi												
HN27256	EPROM	32768x8	28	any	27256	MDM	27256	-	-	-	HN27256	HITAC
HN27512	EPROM	65536x8	28	any	*	MDM	*	-	-	-	HN27512	HITAC
HN27C256	EPROM	32768x8	28	any	*	MDM	*	-	-	-	HN27C256	HITAC
HN27C64G	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	HN27C64	HITAC
HN462532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	2532	HITAC
HN462716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	HN462716	HITAC
HN462732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	HN462732	HITAC
HN4627C32	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	27C32	HITAC
HN48016	EEPROM	2048x8	24	any	48016	MDM	48016	28	1-1	12	HN48016	HITAC
HN4827128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	HN4827128	HITAC
HN482732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	HN482732A	HITAC
HN482764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	HN482764	HITAC
HN4827C32A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	27C32A	HITAC
HN4827C64	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	HN27C64	HITAC
HN58064	EEPROM	8192x8	28	any	*	MDM	*	-	-	-	HN58064	HITAC
Hughes Aircraft												
HNVM3004	EEPROM	512x8	24	any	3704	MDM	3704	-	-	-	-	-
HNVM3008	EEPROM	1024x8	24	any	3708	MDM	3708	-	-	-	-	-
HNVM3704	EEPROM	512x8	24	any	3704	MDM	3704	-	-	-	-	-
HNVM3708	EEPROM	1024x8	24	any	3708	MDM	3708					

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Module	SA	UGM or IFL Id	GPP Code	Mnf.
Intel												
i1702A	EPROM	256x8	24	-	-	-	-	3	7	-	-	-
i2704	EPROM	512x8	24	-	-	MDM	2704	2	2-2	1	-	-
i2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
i27128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	i27128	INTEL
i27128A	EPROM	16384x8	28	any	27128A	MDM	27128A	-	-	-	i27128A	INTEL
i2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	i2716	INTEL
i27256	EPROM	32768x8	28	any	27256	MDM	27256	-	-	-	i27256	INTEL
i2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	i2732	INTEL
i2732A	EPROM	4096x8	24	any	2732AF	MDM	2732AF	9	12-1	11	i2732A	INTEL
i27512	EPROM	65536x8	28	any	27512	MDM	27512	-	-	-	27512	-
i27513	EPROM	65536x8	28	any	27513	MDM	27513	-	-	-	-	-
i2758	EPROM	1024x8	24	any	2758	MDM	2758	1	1-2	3	-	-
i2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	i2764	INTEL
i2764A	EPROM	8192x8	28	any	2764A	MDM	2764A	-	-	-	i2764A	INTEL
i27C64	EPROM	8192x8	28	any	27C64	MDM	27C64	-	-	-	i27C64	INTEL
i2815	EEPROM	2048x8	24	any	2815	MDM	2815	-	-	-	-	-
i2816	EEPROM	2048x8	24	any	2816	MDM	2816	31	34	-	i2816A	INTEL
i2816A	EEPROM	2048x8	24	any	2816	MDM	2816	31	34	-	i2816A	INTEL
i2817A	EEPROM	2048x8	28	any	2817A	MDM	2817A	-	-	-	i2817A	INTEL
i2920	1-Ch-uC	1152x8	28	-	-	33	2920	-	-	-	-	-
i8702A	EPROM	256x8	24	-	-	-	-	3	7	-	-	-
i8704	EPROM	512x8	24	-	-	MDM	2704	2	2-2	1	-	-
i8708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
i8741	1-Ch-uC	1024x8	40	-	-	8	8741	8	8	-	-	-
i8741A	1-Ch-uC	1024x8	40	-	-	8	8741	8	8	-	-	-
i8742	1-Ch-uC	2048x8	40	-	-	8-2	8749	-	-	-	-	-
i8748	1-Ch-uC	1024x8	40	-	-	8	8748	8	8	-	-	-
i8748H	1-Ch-uC	1024x8	40	-	-	8	8748B	-	-	-	-	-
i8749H	1-Ch-uC	2048x8	40	-	-	8-2	8749	-	-	-	-	-
i8751	1-Ch-uC	4096x8	40	-	-	36-1	8751	-	-	-	-	-
i8751H	1-Ch-uC	4096x8	40	-	-	36-1	8751B	-	-	-	-	-
i8755	1-Ch-uC	2048x8	40	-	-	14	8755	10B	14	-	-	-
i8755-8	1-Ch-uC	2048x8	40	-	-	14	8755A	10	14	-	-	-
i8755A	1-Ch-uC	2048x8	40	-	-	14	8755A	10	14	-	-	-
i87C64	EPROM	8192x8	28	any	27C64	MDM	27C64	-	-	-	i87C64	INTEL
P27128A	EPROM	16384x8	28	any	*	MDM	F27128	-	-	-	-	-
P27256	EPROM	32768x8	28	any	*	MDM	P27256	-	-	-	i27256	INTEL
P2764A	EPROM	8192x8	28	any	*	MDM	F2764		23		P2764A	INTEL

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Module	SA	UGM or IFL Id	GPP Code	Mnf.
Intersil												
IM2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
IM6653	EPROM	1024x4	24	-	-	MDM	6653	20	23	-	-	-
IM6654	EPROM	512x8	24	-	-	MDM	6654	20	2-3	-	-	-
IM6657	EPROM	2048x4	24	-	-	MDM	6657	-	-	-	-	-
IM6658	EPROM	1024x8	24	-	-	MDM	6658	-	-	-	-	-
IM6716	EPROM	2048x8	24	any	6716	MDM	6716	-	-	-	-	-
Mitsubishi												
58563S	EPROM	256x8	24	-	-	-	-	3	7	-	-	-
8748	1-Ch-uC	1024x8	40	-	-	8	8748	8	8	-	-	-
M5L2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
M5L27128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	M5L27128	MITSU
M5L2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	M5L2716	MITSU
M5L27256	EPROM	32768x8	28	any	*	MDM	*	-	-	-	M5L27256	MITSU
M5L2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	M5L2732	MITSU
M5L2732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	M5L2732A	MITSU
M5L27512	EPROM	65536x8	28	any	*	MDM	*	-	-	-	M5L27512	MITSU
M5L2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	M5L2764	MITSU
Mostek												
MK2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MK2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MK2716	MOSTE
MK2764	EPROM	8192x8	28	any	2764	MDM	2764	26	32-1	8	MK2764	MOSTE
MK3702	EPROM	256x8	24	-	-	-	-	3	7	-	-	~
Motorola												
68732-0	EPROM	4096x8	24	any	687320	MDM	687320	-	-	-	-	-
68732-1	EPROM	4096x8	24	any	687321	MDM	687321	-	-	-	-	-
MC68701	1-Ch-uC	2048x8	40	-	-	42	68701	-	-	-	-	-
MC68705P3	1-Ch-uC	3776x8	40	-	-	40	68705A	-	-	-	-	-
MC68705R3	1-Ch-uC	3776x8	40	-	-	41	68705B	-	-	-	-	-
MC68705U3	1-Ch-uC	3776x8	40	-	-	41	68705B	-	-	-	-	-
MC68708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MC68A708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MCM2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	MCM2532	MOTOR
MCM2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MCM2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MCM2716	MOTOR
MCM27L16	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MCM2716	MOTOR
MCM2816	EEPROM	2048x8	24	any	2816-B	MDM	2816-B	-	-	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Motorola	(continued)											
MCM68764	EPROM	8192x8	24	any	68764	MDM	68764	27	1-3	10	MCM68764	MOTOR
MCM68766	EPROM	8192x8	24	any	68764	MDM	68764	27	1-3	10	MCM68764	MOTOR
MCM68L764	EPROM	8192x8	24	any	68764	MDM	68764	27	1-3	10	MCM68764	MOTOR
TMS2716	EPROM	2048x8	24	-	-	MDM	2716-3	2	2	4	-	-
TMS27A16	EPROM	2048x8	24	-	-	MDM	2716-3	2	2	4	-	-
Nippon Electric (NEC)												
UPD27128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	UPD27128	NEC
UPD2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	UPD2716	NEC
UPD27256A	EPROM	32768x8	28	any	*	MDM	*	-	-	-	UPD27256A	NEC
UPD27256D	EPROM	32768x8	28	any	27C256	MDM	27C256	-	-	-	UPD27256	NEC
UPD2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	UPD2732	NEC
UPD2732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	UPD2732A	NEC
UPD2758	EPROM	1024x8	24	any	2758	MDM	2758	2	2-1	3	-	-
UPD2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	UPD2764	NEC
UPD27C256	EPROM	32768x8	28	any	27C256	MDM	27C256	-	-	-	UPD27C256	NEC
UPD27C256A	EPROM	32768x8	28	any	*	MDM	27256E	-	-	-	UPD27C256	NEC
UPD8716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	UPD2716	NEC
UPD87 41	1-Ch-uC	1024x8	40	-	-	8	8741	8	8	-	-	-
UPD8748	1-Ch-uC	1024x8	40	-	-	8	8748	8	8	-	-	-
UPD8748HD	1-Ch-uC	1024x8	40	-	-	8	8748B	-	-	-	-	-
UPD8749HD	1-Ch-uC	4096x8	40	-	-	MDM	8749	-	-	-	-	-
UPD8755A	1-Ch-uC	2048x8	40	-	-	14	8755A	10	14			
National Semiconductor												
MM1702AQ	EPROM	256x8	24	-	-	-	-	3	7	-	~	-
MM2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	2532	NS
MM2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MM2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MM2716	NS
MM2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	MM2732	NS
MM2758A	EPROM	1024x8	24	any	2758	MDM	2758	1	1-2	3	-	-
MM2758B	EPROM	1024x8	24	any	2758A	MDM	2758A	-	-	-	-	-
MM2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	2764	NS
MM9716	EEPROM	2048x8	24	any	48016	MDM	48016	28	1-1	12	-	-
NMC25C32	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	-	-
NMC27C128	EPROM	16384x8	28	any	*	MDM	*	-	-	-	NMC27C128	NS
NMC27C16H	EPROM	2048x8	24	any	*	MDM	*	-	-	-	NMC27C16H	NS
NMC27C256	EPROM	32768x8	28	any	*	MDM	*	-	-	-	NMC27C256	NS
NMC27C32	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	NMC27C32	NS

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Module	SA	UGM or IFL Id	GPP Code	Mnf.
National Semiconductor (continued)												
NMC27C32H	EPROM	4096x8	24	any	*	MDM	*	-	-	-	NMC27C32H	NS
NMC27C512	EPROM	65536x8	28	any	*	MDM	*	-	-	-	NMC27C512	NS
NMC27C64	EPROM	8192x8	28	any	*	MDM	*	-	-	-	NMC27C64	NS
NMC2816	EEPROM	2048x8	24	any	2816	MDM	2816	31	34	-	-	-
NMC9716	EEPROM	2048x8	24	any	2816	MDM	2816	31	34	-	-	-
NMC9817	EEPROM	2048x8	24	any	2817 A	MDM	2817A	-	-	-	-	-
NMC98C64A	EPROM	8192x8	28	any	*	MDM	*	-	-	-	NMC98C64ANS	
OKI												
8755A	1-Ch-uC	2048x8	40	-	-	14	8755A	10	14	-	-	-
MSM2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	MSM2532	OKI
MSM2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
MSM27128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	MSM27128	OKI
MSM2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MSM2716	OKI
MSM27256	EPROM	32768x8	28	any	*	MDM	*	-	-	13	MSM27256	OKI
MSM2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	MSM2732	OKI
MSM2732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	MSM2732A	OKI
MSM2758	EPROM	1024x8	24	any	2758	MDM	2758	2	2-1	3	-	-
MSM2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	MSM2764	OKI
MSM8716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	MSM2716	OKI
RCA												
CDP18U42	EPROM	256x8	24	-	-	43	1842	-	-	-	-	-
Ricoh												
RD27C32	EPROM	4096x8	24	any	*	MDM	*	-	-	-	RD27C32	RICOH
RD5H32	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	RD5H32	RICOH
Rockwell												
R2764	EPROM	8192x8	28	any	*	MDM	*	-	-	-	R2764	ROCKW
R87C32	EPROM	4096x8	24	any	*	MDM	*	-	-	-	R27C32	ROCKW
R87C64	EPROM	8192x8	28	any	*	MDM	*	-	-	-	R87C64	ROCKW
SGS Ates												
M2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	M2532	SGS
M2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	M2716	SGS
M27256	EPROM	32768x8	28	any	*	MDM	*	-	-	-	M27256	SGS
M2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	-	-
M2764	EPROM	8192x8	28	any	2764	MDM	2764	26	32-1	8	M2764	SGS

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Module	SA	UGM or IFL Id	GPP Code	Mnf.
Seeq												
27C256	EPROM	32768x8	28	any	*	MDM	27256C	-	-	-	-	-
2816A	EEPROM	2048x8	24	any	2816A	MDM	2816A	-	-	-	2816A	SEEQ
2816AH	EEPROM	2048x8	24	any	2816AH	MDM	2816AB	-	-	-	-	-
2817A	EEPROM	2048x8	24	any	2817A	MDM	2817A	-	-	-	2817A	SEEQ
5133	EEPROM	8192x8	28	any	5133F	MDM	5133F	-	-	-	5133	SEEQ
5133H	EEPROM	8192x8	28	any	5133F	MDM	5133F	-	-	-	5133	SEEQ
5143	EPROM	16384x8	28	any	5143F	MDM	5143F	-	-	-	5143	SEEQ
51C53	EPROM	32768x8	28	any	51C53	MDM	*	-	-	-	-	-
5213	EEPROM	2048x8	24	any	52B13	MDM	52B13	-	-	-	5213	SEEQ
5213H	EEPROM	2048x8	24	any	52B13	MDM	52B13	-	-	-	5213	SEEQ
5223	EEPROM	4096x8	24	-	-	-	-	-	-	-	5223	SEEQ
5233	EEPROM	8192x8	28	-	-	-	-	-	-	-	5233	SEEQ
52B13	EEPROM	2048x8	24	any	52B13	MDM	52B13	-	-	-	52B13	SEEQ
52B13H	EEPROM	2048x8	24	any	52B13	MDM	52B13	-	-	-	52B13H	SEEQ
52B23	EEPROM	4096x8	24	any	52B23	MDM	52B23	-	-	-	52B23	SEEQ
52B23H	EEPROM	4096x8	24	any	52B23F	MDM	52B23F	-	-	-	52B23H	SEEQ
52B33	EEPROM	8192x8	28	any	52B33	MDM	52B33	-	-	-	52B33	SEEQ
52B33H	EEPROM	8192x8	28	any	52B33F	MDM	52B33F	-	-	-	52B33H	SEEQ
5516A	EEPROM	2048x8	24	any	2816 A	MDM	2 816 A	-	-	-	2816A	SEEQ
Signetics Corporation												
2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
Synertec												
2716	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	2716	SYNER
Texas Instruments												
TMS2508	EPROM	1024x8	24	any	2508	MDM	2508	1	1-2	3	-	-
TMS2516	EPROM	2048x8	24	any	2516	MDM	2516	1	1-1	5	TMS2516	TEXAS
TMS2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	TMS2532	TEXAS
TMS2564	EPROM	8192x8	28	any	2564	MDM	2564	25	32	9	TMS2564	TEXAS
TMS25L32	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	TMS2532	TEXAS
TMS2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
TMS27128	EPROM	16384x8	28	any	27128F	MDM	27128	-	-	13	TMS27128	TEXAS
TMS2716	EPROM	2048x8	24	-	-	MDM	2716-3	2	2	4	-	-
TMS27256	EPROM	16384x8	28	any	27256	MDM	27256	-	-	13	-	-
TMS2732	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	-	-
TMS2732A	EPROM	4096x8	24	any	2732A	MDM	27 32A	9	12-1	11	TMS2732A	TEXAS
TMS2764	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	TMS2764	TEXAS

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Texas Instruments (continued)												
TMS27C256	EPROM	16384x8	28	any	27256	MDM	27256	-	-	13	-	-
TMS27L08	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
TMS7742	1-Ch-uC	4096x8	40	-	-	47	7742	-	-	-	-	-
Thomson-EFCIS												
EF2516	EPROM	2048x8	24	any	2516	MDM	2516	1	1-1	5	-	-
EF2532	EPROM	4096x8	24	any	2532	MDM	2532	7	1	7	2532	-
EF2708	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
EF68764	EPROM	8192x8	24	any	68764	MDM	68764	27	1-3	10	MCM68764	-
Toshiba												
TC57256	EPROM	32768x8	28	any	27C256	MDM	27C256	-	-	-	TC27C256	TOSHI
TMM27128	EPROM	16384x8	28	any	27128F	MDM	27128F	-	-	13	TMM27128	TOSHI
TMM27256	EPROM	32768x8	28	any	27C256	MDM	27C256	-	-	-	TMM27256	TOSHI
TMM2732A	EPROM	4096x8	24	any	2732A	MDM	2732A	9	12-1	11	2732A	TOSHI
TMM2732D	EPROM	4096x8	24	any	2732	MDM	2732	9	12	6	TMM2732	TOSHI
TMM2764D	EPROM	8192x8	28	any	2764-F	MDM	2764-F	26	32-1	8	TMM2764	TOSHI
TMM321	EPROM	512x8	24	-	-	MDM	2704	2	2-2	1	-	-
TMM322	EPROM	1024x8	24	-	-	MDM	2708	2	2-1	2	-	-
TMM323	EPROM	2048x8	24	any	2716	MDM	2716	1	1-1	5	TMM323	TOSHI
TMP8755A	1-Ch-uC	2048x8	40	-	"	14	8755A	10	14	-	-	-
Xicor												
X2804A	EEPROM	512x8	24	any	*	MDM	2804	-	-	-	X2804A	XICOR
X2816A	EEPROM	2048x8	24	any	2816A	MDM	2816A	-	-	-	X2816A	XICOR
X2864A	EEPROM	8192x8	28	any	*	MDM	2864				X2864A	XICOR

Bipolar ROMS

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Advanced Micro Devices (AND)												
Am27LS18	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27LS184	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27LS184A	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27LS185	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27LS185A	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27LS19	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27PS181	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27PS185	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27PS191	PROM	2048x8	24	A,B	14 22	-	-	14	22	-	-	-
Am27PS191A	PROM	2048x8	24	A,B	14 22	-	-	14	22	-	-	-
Am27PS281	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27PS291	PROM	2048x8	24	A,B	14 29	-	-	14	29	-	-	-
Am27PS291A	PROM	2048x8	24	A,B	14 29	-	-	14	29	-	-	-
Am27PS41	PROM	4096x8	20	A,B	14 30	-	-	14	30	-	-	-
Am27S12	PROM	512x4	16	A,B	14 4-1	-	-	14	4-1	-	-	-
Am27S12A	PROM	512x4	16	A,B	14 4-1	-	-	14	4-1	-	-	-
Am27S13	PROM	512x4	16	A,B	14 4-1	-	-	14	4-1	-	-	-
Am27S13A	PROM	512x4	16	A,B	14 4-1	-	-	14	4-1	-	-	-
Am27S15	PROM	512x8	24	A,B	*	-	-	14	17-3	-	-	-
Am27S18	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27S180	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S180A	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S181	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S181A	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S184	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27S184A	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27S185	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27S185A	PROM	2048x4	18	A,B	14 4-4	-	-	14	4-4	-	-	-
Am27S18A	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27S18SA	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27S19	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27S190	PROM	2048x8	24	A,B	14 22	-	-	14	22	-	-	-
Am27S190A	PROM	2048x8	24	A,B	14 22	-	-	14	22	-	-	-
Am27S191	PROM	2048x8	24	A,B	14 22	-	-	14	22	-	-	-
Am27S191A	PROM	2048x8	24	A,B	14 22	-	-	14	22	-	-	-
Am27S19A	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27S19SA	PROM	32x8	16	A,B	14 3-1	-	-	14	3-1	-	-	-
Am27S20	PROM	256x4	16	A,B	14 4-2	-	-	14	4-2	-	-	-
Am27S20A	PROM	256x4	16	A,B	14 4-2	-	-	14	4-2	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Advanced Micro Devices (continued)												
Am27S21	PROM	256x4	16	A,B	14 4-2	-	-	14	4-2	-	-	-
Am27S21A	PROM	256x4	16	A,B	14 4-2	-	-	14	4-2	-	-	-
Am27S25	PROM	512x8	24	A,B	14 31-2	-	-	14	31-2	-	-	-
Am27S25A	PROM	512x8	24	A,B	14 31-2	-	-	14	31-2	-	-	-
Am27S26	PROM	512x8	22	-	-	-	-	14	18	-	-	-
Am27S27	PROM	512x8	22	-	-	-	-	14	18	-	-	-
Am27S28	PROM	512x8	20	A,B	14 6	-	-	14	6	-	-	-
Am27S280	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S280A	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S281	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S281A	PROM	1024x8	24	A,B	14 22-7	-	-	14	22-7	-	-	-
Am27S28A	PROM	512x8	20	A,B	14 6	-	-	14	6	-	-	-
Am27S29	PROM	512x8	20	A,B	14 6	-	-	14	6	-	-	-
Am27S290	PROM	2048x8	24	A,B	14 29	-	-	14	29	-	-	-
Am27S290A	PROM	2048x8	24	A,B	14 29	-	-	14	29	-	-	-
Am27S291	PROM	2048x8	24	A,B	14 29	-	-	14	29	-	-	-
Am27S291A	PROM	2048x8	24	A,B	14 29	-	-	14	29	-	-	-
Am27S29A	PROM	512x8	20	A,B	14 6	-	-	14	6	-	-	-
Am27S30	PROM	512x8	24	A,B	14 22-6	-	-	14	22-6	-	-	-
Am27S30A	PROM	512x8	24	A,B	14 22-6	-	-	14	22-6	-	-	-
Am27S31	PROM	512x8	24	A,B	14 22-6	-	-	14	22-6	-	-	-
Am27S31A	PROM	512x8	24	A,B	14 22-6	-	-	14	22-6	-	-	-
Am27S32	PROM	1024x4	18	A,B	14 24	-	-	14	24	-	-	-
Am27S32A	PROM	1024x4	18	A,B	14 24	-	-	14	24	-	-	-
Am27S33	PROM	1024x4	18	A,B	14 24	-	-	14	24	-	-	-
Am27S33A	PROM	1024x4	18	A,B	14 24	-	-	14	24	-	-	-
Am27S35	PROM	1025x8	24	A,B	14 31-1	-	-	14	31-1	-	-	-
Am27S35A	PROM	1025x8	24	A,B	14 31-1	-	-	14	31-1	-	-	-
Am27S37	PROM	1025x8	24	A,B	14 31-1	-	-	14	31-1	-	-	-
Am27S37A	PROM	1025x8	24	A,B	14 31-1	-	-	14	31-1	-	-	-
Am27S40	PROM	4096x8	20	A,B	14 30	-	-	14	30	-	-	-
Am27S40A	PROM	4096x8	20	A,B	14 30	-	-	14	30	-	-	-
Am27S41	PROM	4096x8	20	A,B	14 30	-	-	14	30	-	-	-
Am27S41A	PROM	4096x8	20	A,B	14 30	-	-	14	30	-	-	-
Am27S43	PROM	4096x8	24	A,B	14 22-11	-	-	14	22-11	-	-	-
Am27S43A	PROM	4096x8	24	A,B	14 22-11	-	-	14	22-11	-	-	-
Am27S45	PROM	2048x8	24	A,B	14 31	-	-	14	31	-	-	-
Am27S45A	PROM	2048x8	24	A,B	14 31	-	-	14	31	-	-	-
Am27S47	PROM	2048x8	24	A,B	14 31	-	-	14	31	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Advanced Micro Devices (continued)												
Am27S47A	PROM	2048x8	24	A,B	14 31	-	-	14	31	-	-	-
Am27S49	PROM	8192x8	24	A,B	14 22-12	-	-	14	22-12	-	-	-
Am27S49A	PROM	8192x8	24	A,B	14 22-12	-	-	14	22-12	-	-	-
Am27S65	PROM	1025x4	24	A,B	*	-	-	-	-	-	-	-
Am27S65A	PROM	1025x4	24	A,B	*	-	-	-	-	-	-	-
Am27S75	PROM	2049x4	24	A,B	*	-	-	-	-	-	-	-
Am27S75A	PROM	2049x4	24	A,B	*	-	-	-	-	-	-	-
Am27S85	PROM	4097x4	24	A,B	*	-	-	-	-	-	-	-
Am27S85A	PROM	4097x4	24	A,B	*	-	-	-	-	-	-	-
Cypress Semiconductor												
CY7C235	PROM	1024x8	20	A,B	*	-	-	-	-	-	-	-
CY7C245	PROM	2048x8	20	A,B	*	-	-	-	-	-	-	-
CY7C281	PROM	1024x8	20	A,B	*	-	-	-	-	-	-	-
CY7C282	PROM	1024x8	20	A,B	*	-	-	-	-	-	-	-
CY7C291	PROM	2048x8	20	A,B	*	-	-	-	-	-	-	-
CY7C292	PROM	2048x8	20	A,B	*	-	-	-	-	-	-	-
Fairchild Semiconductor												
93417	PROM	256x4	16	A,B	12 4-2	-	-	12	4-2	-	-	-
93427	PROM	256x4	16	A,B	12 4-2	-	-	12	4-2	-	-	-
93436	PROM	512x4	16	A,B	12 4-1	-	-	12	4-1	-	-	-
93438	PROM	512x8	24	A,B	12 5-1	-	-	12	5-1	-	-	-
93446	PROM	512x4	16	A,B	12 4-1	-	-	12	4-1	-	-	-
93448	PROM	512x8	24	A,B	12 5-1	-	-	12	5-1	-	-	-
93450	PROM	1024x8	24	A,B	12 5	-	-	12	5	-	-	-
93451	PROM	1024x8	24	A,B	12 5	-	-	12	5	-	-	-
93452	PROM	1024x4	18	A,B	12 4	-	-	12	4	-	-	-
93453	PROM	1024x4	18	A,B	12 4	-	-	12	4	-	-	-
93460	PROM	1024x8	24	A,B	12 5	-	-	12	5	-	-	-
93461	PROM	1024x8	24	A,B	12 5	-	-	12	5	-	-	-
93510	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
93514	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
93515	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
93L450	PROM	1024x8	24	A,B	12 5	-	-	12	5	-	-	-
93L451	PROM	1024x8	24	A,B	12 5	-	-	12	5	-	-	-
93Z450	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
93Z510	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
93Z511	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	odule	SA	IFL Id	Code	
Fairchild Semiconductor (continued)												
93Z564	PROM	8192x8	24	A,B	*	-	-	-	-	-	-	-
93Z565	PROM	8192x8	24	A,B	*	-	-	-	-	-	-	-
Fujitsu												
MB7051	PROM	32x8	16	A,B	18B 3-1	-	-	18B	3-1	-	-	-
MB7052	PROM	256x4	16	A,B	18B 4-2	-	-	18B	4-2	-	-	-
MB7053	PROM	512x4	16	A,B	18B 4-1	-	-	18B	4-1	-	-	-
MB7054	PROM	1024x4	18	A,B	18B 4	-	-	18B	4	-	-	-
MB7055	PROM	1024x8	24	A,B	18B 22-8	-	-	18B	22-8	-	-	-
MB7056	PROM	32x8	16	A,B	18B 3-1	-	-	18B	3-1	-	-	-
MB7057	PROM	256x4	16	A,B	18B 4-2	-	-	18B	4-2	-	-	-
MB7058	PROM	512x4	16	A,B	18B 4-1	-	-	18B	4-1	-	-	-
MB7059	PROM	1024x4	18	A,B	18B 4	-	-	18B	4	-	-	-
MB7060	PROM	1024x8	24	A,B	18B 22-8	-	-	18B	22-8	-	-	-
MB7117	PROM	256x8	20	A,B	23 6-1	-	-	23	6-1	-	-	-
MB7118	PROM	256x8	20	A,B	23 6-1	-	-	23	6-1	-	-	-
MB7121	PROM	1024x4	18	A,B	23 24-2	-	-	-	-	-	-	-
MB7122	PROM	1024x4	18	A,B	23 24-2	-	-	-	-	-	-	-
MB7123	PROM	512x8	20	A,B	23 6	-	-	23	6	-	-	-
MB7124	PROM	512x8	20	A,B	23 6	-	-	23	6	-	-	-
MB7127	PROM	2048x4	18	A,B	23 4-4	-	-	23	4-4	-	-	-
MB7128	PROM	2048x4	18	A,B	23 4-4	-	-	23	4-4	-	-	-
MB7131	PROM	1024x8	24	A,B	23 5	-	-	23	5	-	-	-
MB7132	PROM	1024x8	24	A,B	23 5	-	-	23	5	-	-	-
MB7133	PROM	4096x4	20	A,B	*	-	-	23	20	-	-	-
MB7134	PROM	4096x4	20	A,B	*	-	-	23	20	-	-	-
MB7137	PROM	2048x8	24	A,B	23 22	-	-	23	22	-	-	-
MB7138	PROM	2048x8	24	A,B	23 22	-	-	23	22	-	-	-
MB7141	PROM	4096x8	24	A,B	23 22-11	-	-	23	22-11	-	-	-
MB7142	PROM	4096x8	24	A,B	23 22-11	-	-	23	22-11	-	-	-
Harris Semiconductor												
HM6611	PROM	256x4	16	A,B	*	-	-	22	28	-	-	-
HM6641	PROM	512x8	24	A,B	*	-	-	24	2-4	-	-	-
HM7602	PROM	32x8	16	A,B	6 3	-	-	6	3	-	-	-
HM7603	PROM	32x8	16	A,B	6 3	-	-	6	3	-	-	-
HM7608	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7610	PROM	256x4	16	A,B	6 4-2	-	-	6	4-2	-	-	-
HM7610A	PROM	256x4	16	A,B	6 4-2	-	-	6	4-2	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Harris Semiconductor (continued)												
HM7611	PROM	256x4	16	A,B	6 4-2	-	-	6	4-2	-	-	-
HM7611A	PROM	256x4	16	A,B	6 4-2	-	-	6	4-2	-	-	-
HM7616	PROM	2048x8	24	A,B	6 5-3	-	-	6	5-3	-	-	-
HM76160	PROM	2048x8	24	A,B	6 5-4	-	-	6	5-4	-	-	-
HM76160S	PROM	2048x8	24	A,B	6 22	-	-	6	22	-	-	-
HM76161	PROM	2048x8	24	A,B	6 5-4	-	-	6	5-4	-	-	-
HM76161S	PROM	2048x8	24	A,B	6 22	-	-	6	22	-	-	-
HM76164	PROM	4096x8	20	A,B	6 30	-	-	6	30	-	-	-
HM76165	PROM	4096x8	20	A,B	6 30	-	-	6	30	-	-	-
HM7620	PROM	512x4	16	A,B	6 4-1	-	-	6	4-1	-	-	-
HM7620A	PROM	512x4	16	A,B	6 4-1	-	-	6	4-1	-	-	-
HM7621	PROM	512x4	16	A,B	6 4-1	-	-	6	4-1	-	-	-
HM7621A	PROM	512x4	16	A,B	6 4-1	-	-	6	4-1	-	-	-
HM76320	PROM	4096x8	24	A,B	6 22-11	-	-	6	22-11	-	-	-
HM76321	PROM	4096x8	24	A,B	6 22-11	-	-	6	22-11	-	-	-
HM7640	PROM	512x8	24	A,B	6 5-1	-	-	6	5-1	-	-	-
HM7640A	PROM	512x8	24	A,B	6 5-1	-	-	6	5-1	-	-	-
HM7641	PROM	512x8	24	A,B	6 5-1	-	-	6	5-1	-	-	-
HM7641A	PROM	512x8	24	A,B	6 5-1	-	-	6	5-1	-	-	-
HM7642	PROM	1024x4	18	A,B	6 4	-	-	6	4	-	-	-
HM7642A	PROM	1024x4	18	A,B	6 4	-	-	6	4	-	-	-
HM7643	PROM	1024x4	18	A,B	6 4	-	-	6	4	-	-	-
HM7643A	PROM	1024x4	18	A,B	6 4	-	-	6	4	-	-	-
HM7644A	PROM	1024x4	16	A,B	6 4-3	-	-	6	4-3	-	-	-
HM7647R	PROM	512x8	24	A,B	*	-	-	6	17-3	-	-	-
HM7648	PROM	512x8	20	A,B	6 6	-	-	6	6	-	-	-
HM7649	PROM	512x8	20	A,B	6 6	-	-	6	6	-	-	-
HM76641	PROM	8192x8	24	A,B	6 B 22-12	-	-	6B	22-12	-	-	-
HM7680	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7680A	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7680P	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7680R	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7680RP	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7681	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7681A	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7681P	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7681R	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
HM7681RP	PROM	1024x8	24	A,B	6 C	-	-	6	5	-	-	-
HM7684	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Harris Semiconductor (continued)												
HM7684P	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-
HM7685	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-
HM7685P	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-
HM7685R	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-
HM76LS03	PROM	32x8	16	A,B	6 3	-	-	6	3	-	-	-
Hitachi												
HN25044	PROM	1024x4	18	A,B	29 4	-	-	29	4	-	-	-
HN25045	PROM	1024x4	18	A,B	29 4	-	-	29	4	-	-	-
HN25084	PROM	2048x4	18	A,B	29 4-4	-	-	29	4-4	-	-	-
HN25084S	PROM	2048x4	18	A,B	29 4-4	-	-	29	4-4	-	-	-
HN25085	PROM	2048x4	18	A,B	29 4-4	-	-	29	4-4	-	-	-
HN25085S	PROM	2048x4	18	A,B	29 4-4	-	-	29	4-4	-	-	-
HN25088	PROM	1024x8	24	A,B	29 5	-	-	29	5	-	-	-
HN25088S	PROM	1024x8	24	A,B	29 5	-	-	29	5	-	-	-
HN25089	PROM	1024x8	24	A,B	29 5	-	-	29	5	-	-	-
HN25089S	PROM	1024x8	24	A,B	29 5	-	-	29	5	-	-	-
HN25168S	PROM	2048x8	24	A,B	*	-	-			-	-	-
HN25169S	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
Intel												
3602A	PROM	512x4	16	-	-	-	-	17	4-1	-	-	-
3602A-2	PROM	512x4	16	-	-	-	-	17	4-1	-	-	-
3604A	PROM	512x8	24	-	-	-	-	17	22-5	-	-	-
3604A-2	PROM	512x8	24	-	-	-	-	17	22-5	-	-	-
3605	PROM	1024x4	18	-	-	-	-	17	24	-	-	-
3605A	PROM	1024x4	18	-	-	-	-	17	24	-	-	-
3608	PROM	1024x8	24	-	-	-	-	17	22-7	-	-	-
3608-4	PROM	1024x8	24	-	-	-	-	17	22-7	-	-	-
3616	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
3616-1	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
3621	PROM	256x4	16	-	-	-	-	17	4-2	-	-	-
3621-1	PROM	256x4	16	-	-	-	-	17	4-2	-	-	-
3622A	PROM	512x4	16	-	-	-	-	17	4-1	-	-	-
3622A-2	PROM	512x4	16	-	-	-	-	17	4-1	-	-	-
3624A	PROM	512x8	24	-	-	-	-	17	22-5	-	-	-
3624A-2	PROM	512x8	24	-	-	-	-	17	22-5	-	-	-
3625	PROM	1024x4	18	-	-	-	-	17	24	-	-	-
3625A	PROM	1024x4	18	-	-	-	-	17	24	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Module	SA	UGM or IFL Id	GPP Code	Mnf.
Intel (continued)												
3628A-1	PROM	1024x8	24	-		-	-	17	22-7	-	-	-
3628A-3	PROM	1024x8	24	-	-	-	-	17	22-7	-	-	-
3628A-4	PROM	1024x8	24	-	-	-	-	17	22-7	-	-	-
3632	PROM	4096x8	24	-	-	-	-	17	22-11	-	-	-
3632-1	PROM	4096x8	24	-	-	-	-	17	22-11	-	-	-
3636B	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
3636B-1	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
3636B-2	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
82HS181	PROM	1024x8	24	-	-	-	-	17	5	-	-	-
82HS191	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
82HS321	PROM	4096x8	24	-	-	-	-	17	22-11	-	-	-
82S181	PROM	1024x8	24	-	-	-	-	17	5	-	-	-
82S191	PROM	2048x8	24	-	-	-	-	17	22	-	-	-
82S321	PROM	4096x8	24	-	-	-	-	17	22-11	-	-	-
Intersil												
5600	PROM	32x8	16	A,B	18 3-1	-	-	18	3-1	-	-	-
5603	PROM	256x4	16	A,B	18 4-2	-	-	18	4-2	-	-	-
5604	PROM	512x4	16	A,B	18 4-1	-	-	18	4-1	-	-	-
5605	PROM	512x8	24	A,B	18 22-4	-	-	18	22-4	-	-	-
5610	PROM	32x8	16	A,B	18 3-1	-	-	18	3-1	-	-	-
5623	PROM	256x4	16	A,B	18 4-2	-	-	18	4-2	-	-	-
5624	PROM	512x4	16	A,B	18 4-1	-	-	18	4-1	-	-	-
5625	PROM	512x8	24	A,B	18 22-4	-	-	18	22-4	-	-	-
Monolithic Memories (MMI)												
5300-1	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-
5301-1	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-
5305-1	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
5306-1	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
5308-1	PROM	256x8	20	A,B	34 6-1	-	-	4	6-1	-	-	-
5309-1	PROM	256x8	20	A,B	34 6-1	-	-	4	6-1	-	-	-
5330-1	PROM	32x8	16	A,B	4 3	-	-	4	3	-	-	-
5331-1	PROM	32x8	16	A,B	4 3	-	-	4	3	-	-	-
5335-1	PROM	256x8	24	A,B	34 5-2	-	-	4	5-2	-	-	-
5336-1	PROM	256x8	24	A,B	34 5-2	-	-	4	5-2	-	-	-
5340-1	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
5340-2	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
5341-1	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1			

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Monolithic Memories (continued)												
5341-2	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
5348-1	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
5348-2	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
5349-1	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
5349-2	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
5350-1	PROM	1024x4	18	A,B	*	-	-	4	13	-	-	-
5351-1	PROM	1024x4	18	A,B	*	-	-	4	13	-	-	-
5352-1	PROM	1024x4	18	A,B	34 4	-	-	4	4	-	-	-
5353-1	PROM	1024x4	18	A,B	34 4	-	-	4	4	-	-	-
5380-1	PROM	1024x8	24	A,B	34 5	-	-	4	5	-	-	-
5380-2	PROM	1024x8	24	A,B	34 5	-	-	4	5	-	-	-
5381-1	PROM	1024x8	24	A,B	34 5	-	-	4	5	-	-	-
5381-2	PROM	1024x8	24	A,B	34 5	-	-	4	5	-	-	-
5388-1	PROM	2048x4	18	A,B	34 4-4	-	-	4	4-4	-	-	-
5389-1	PROM	2048x4	18	A,B	34 4-4	-	-	4	4-4	-	-	-
5389-2	PROM	2048x4	18	A,B	34 4-4	-	-	4	4-4	-	-	-
53DA1641	PROM	4096x8	24	A,B	*	-	-	-	-	-	-	-
53DA1643	PROM	4096x8	24	A,B	*	-	-	-	-	-	-	-
53DA441	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
53DA442	PROM	1024x8	24	A,B	*	-	-	~"	-	-	-	-
53DA841	PROM	2048x4	24	A,B	*	-	-	-	-	-	-	-
53LS140	PROM	256x4	16	A,B	16 4-2	-	-	16	4-2	-	-	-
53LS141	PROM	256x4	16	A,B	16 4-2	-	-	16	4-2	-	-	-
53LS240	PROM	512x4	16	A,B	16 4-1	-	-	16	4-1	-	-	-
53LS241	PROM	512x4	16	A,B	16 4-1	-	-	16	4-1	-	-	-
53RA1681	PROM	2064x8	24	A,B	16 31	-	-	16	31	-	-	-
53RA441	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
53RA481	PROM	512x8	20	A,B	16 31-2	-	-	16	31-2	-	-	-
53RA481A	PROM	512x8	20	A,B	16 31-2	-	-	16	31-2	-	-	-
53RA881	PROM	1040x8	24	A,B	16 31-1	-	-	16	31-1	-	-	-
53RA881A	PROM	1040x8	24	A,B	16 31-1	-	-	16	31-1	-	-	-
53RS1681	PROM	2064x8	24	A,B	16A 31	-	-	16	31	-	-	-
53RS881	PROM	1040x8	24	A,B	16 31-1	-	-	16	31-1	-	-	-
53S080	PROM	32x8	16	A,B	16 3-1	-	-	16	3-1	-	-	-
53S081	PROM	32x8	16	A,B	16 3-1	-	-	16	3-1	-	-	-
53S081A	PROM	32x8	16	A,B	16 3-1	-	-	16	3-1	-	-	-
53S140	PROM	256x4	16	A,B	16 4-2	-	-	16	4-2	-	-	-
53S141	PROM	256x4	16	A,B	16 4-2	-	-	16	4-2	-	-	-
53S141A	PROM	256x4	16	A,B	16 4-2			16	4-2	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Monolithic Memories (continued)												
53S1641	PROM	4096x8	20	A,B	16 30	-	-	16	30	-	-	-
53S1641A	PROM	4096x8	20	A,B	16 30	-	-	16	30	-	-	-
53S1681	PROM	2048x8	24	A,B	16 5-4	-	-	16	5-4	-	-	-
53S1681A	PROM	2048x8	24	A,B	16 5-4	-	-	16	5-4	-	-	-
53S240	PROM	512x4	16	A,B	16 4-1	-	-	16	4-1	-	-	-
53S241	PROM	512x4	16	A,B	16 4-1	-	-	16	4-1	-	-	-
53S241A	PROM	512x4	16	A,B	16 4-1	-	-	16	4-1	-	-	-
53S280	PROM	256x8	20	A,B	16 6-1	-	-	16	6-1	-	-	-
53S281	PROM	256x8	20	A,B	16 6-1	-	-	16	6-1	-	-	-
53S281A	PROM	256x8	20	A,B	16 6-1	-	-	16	6-1	-	-	-
53S3281	PROM	4096x8	24	A,B	16 22-11	-	-	16	22-11	-	-	-
53S3281A	PROM	4096x8	24	A,B	16 22-11	-	-	16	22-11	-	-	-
53S440	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
53S441	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
53S441A	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
53S480	PROM	512x8	20	A,B	16 6	-	-	16	6	-	-	-
53S481	PROM	512x8	20	A,B	16 6	-	-	16	6	-	-	-
53S481A	PROM	512x8	20	A,B	16 6	-	-	16	6	-	-	-
53S841	PROM	2048x4	18	A,B	16 4-4	-	-	16	4-4	-	-	-
53S841A	PROM	2048x4	18	A,B	16 4-4	-	-	16	4-4	-	-	-
6300-1	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-
6301-1	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-
6305-1	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
6306-1	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
6308-1	PROM	256x8	20	A,B	34 6-1	-	-	4	6-1	-	-	-
6309-1	PROM	256x8	20	A,B	34 6-1	-	-	4	6-1	-	-	-
6330-1	PROM	32x8	16	A,B	4 3	-	-	4	3	-	-	-
6331-1	PROM	32x8	16	A,B	4 3	-	-	4	3	-	-	-
6335-1	PROM	256x8	24	A,B	34 5-2	-	-	4	5-2	-	-	-
6336-1	PROM	256x8	24	A,B	34 5-2	-	-	4	5-2	-	-	-
6340-1	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
6340-2	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
6341-1	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
6341-2	PROM	512x8	24	A,B	34 5-1	-	-	4	5-1	-	-	-
6348-1	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
6348-2	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
6349-1	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
6349-2	PROM	512x8	20	A,B	34 6	-	-	4	6	-	-	-
6350-1	PROM	1024x4	18	A,B	*	-	-	4	13	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Monolithic Memories (continued)												
6351-1	PROM	1024x4	18	A,B	*			4	13	-	-	-
6352-1	PROM	1024x4	18	A,B	34 4			4	4	-	-	-
6353-1	PROM	1024x4	18	A,B	34 4			4	4	-	-	-
6380-1	PROM	1024x8	24	A,B	34 5			4	5	-	-	-
6380-2	PROM	1024x8	24	A,B	34 5			4	5	-	-	-
6381-1	PROM	1024x8	24	A,B	34 5			4	5	-	-	-
6381-2	PROM	1024x8	24	A,B	34 5			4	5	-	-	-
6388-1	PROM	2048x4	18	A,B	34 4-4			4	4-4	-	-	-
6389-1	PROM	2048x4	18	A,B	34 4-4			4	4-4	-	-	-
6389-2	PROM	2048x4	18	A,B	34 4-4			4	4-4	-	-	-
63DA1641	PROM	4096x8	24	A,B	*			-	-	-	-	-
63DA1643	PROM	4096x8	24	A,B	*			-	-	-	-	-
63DA441	PROM	1024x8	24	A,B	*			-	-	-	-	-
63DA442	PROM	1024x8	24	A,B	*			-	-	-	-	-
63DA841	PROM	2048x4	24	A,B	*			-	-	-	-	-
63LS140	PROM	256x4	16	A,B	16 4-2			16	4-2	-	-	-
63LS141	PROM	256x4	16	A,B	16 4-2			16	4-2	-	-	-
63LS240	PROM	512x4	16	A,B	16 4-1			16	4-1	-	-	-
63LS241	PROM	512x4	16	A,B	16 4-1			16	4-1	-	-	-
63RA1681	PROM	2064x8	24	A,B	16 31			16	31	-	-	-
63RA441	PROM	1024x4	18	A,B	16 4			16	4	-	-	-
63RA481	PROM	512x8	20	A,B	16 31-2			16	31-2	-	-	-
63RA4 81A	PROM	512x8	20	A,B	16 31-2			16	31-2	-	-	-
63RA881	PROM	1040x8	24	A,B	16 31-1			16	31-1	-	-	-
63RA881A	PROM	1040x8	24	A,B	16 31-1			16	31-1	-	-	-
63RS1681	PROM	2064x8	24	A,B	16A 31			16	31	-	-	-
63RS881	PROM	1040x8	24	A,B	16 31-1			16	31-1	-	-	-
63S080	PROM	32x8	16	A,B	16 3-1			16	3-1	-	-	-
63S081	PROM	32x8	16	A,B	16 3-1			16	3-1	-	-	-
63S081A	PROM	32x8	16	A,B	16 3-1			16	3-1	-	-	-
63S140	PROM	256x4	16	A,B	16 4-2			16	4-2	-	-	-
63S141	PROM	256x4	16	A,B	16 4-2			16	4-2	-	-	-
63S141A	PROM	256x4	16	A,B	16 4-2			16	4-2	-	-	-
63S1641	PROM	4096x8	20	A,B	16 30			16	30	-	-	-
63S1641A	PROM	4096x8	20	A,B	16 30			16	30	-	-	-
63S1681	PROM	2048x8	24	A,B	16 5-4			16	5-4	-	-	-
63S1681A	PROM	2048x8	24	A,B	16 5-4			16	5-4	-	-	-
63S240	PROM	512x4	16	A,B	16 4-1			16	4-1	-	-	-
63S241	PROM	512x4	16	A,B	16 4-1			16	4-1	-	-	-

				UPM	UPM	MDM	MDM	Mo -		UGM or	GPP	Mnf .
Device Id	Function	Organis .	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Monolithic Memories (continued)												
63S241A	PROM	512x4	16	A,B	16 4-1	-	-	16	4-1	-	-	-
63S280	PROM	256x8	20	A,B	16 6-1	-	-	16	6-1	-	-	-
63S281	PROM	256x8	20	A,B	16 6-1	-	-	16	6-1	-	-	-
63S281A	PROM	256x8	20	A,B	16 6-1	-	-	16	6-1	-	-	-
63S3281	PROM	4096x8	24	A,B	16 22-11	-	-	16	22-11	-	-	-
63S3281A	PROM	4096x8	24	A,B	16 22-11	-	-	16	22-11	-	-	-
63S440	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
63S441	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
63S441A	PROM	1024x4	18	A,B	16 4	-	-	16	4	-	-	-
63S480	PROM	512x8	20	A,B	16 6	-	-	16	6	-	-	-
63S481	PROM	512x8	20	A,B	16 6	-	-	16	6	-	-	-
63S481A	PROM	512x8	20	A,B	16 6	-	-	16	6	-	-	-
63S841	PROM	2048x4	18	A,B	16 4-4	-	-	16	4-4	-	-	-
63S841A	PROM	2048x4	18	A,B	16 4-4	-	-	16	4-4	-	-	-
Mitsubishi												
M54700P	PROM	256x4	16	A,B	36 4-2	-	-	-	-	-	-	-
M54700S	PROM	256x4	16	A,B	36 4-2	-	-	-	-	-	-	-
M54730P	PROM	32x8	16	A,B	36 3-1	-	-	-	-	-	-	-
M54730S	PROM	32x8	16	A,B	36 3-1	-	-	-	-	-	-	-
M54740AP	PROM	1024x4	18	A,B	36 4	-	-	-	-	-	-	-
M54740S	PROM	1024x4	18	A,B	36 4	-	-	-	-	-	-	-
M54741AP	PROM	1024x4	18	A,B	36 4	-	-	-	-	-	-	-
M54741S	PROM	1024x4	18	A,B	36 4	-	-	-	-	-	-	-
Motorola												
MCM76161	PROM	2048x8	20	A,B	6 5-4	-	-	6	5-4	-	-	-
MCM76165	PROM	4096x8	20	A,B	6 30	-	-	6	30	-	-	-
MCM7620	PROM	512x4	16	A,B	6 4-1	-	-	6	4-1	-	-	-
MCM7621	PROM	512x4	16	A,B	6 4-1	-	-	6	4-1	-	-	-
MCM7640	PROM	512x8	24	A,B	6 5-1	-	-	6	5-1	-	-	-
MCM7641	PROM	512x8	24	A,B	6 5-1	-	-	6	5-1	-	-	-
MCM7642	PROM	1024x4	18	A,B	6 4	-	-	6	4	-	-	-
MCM7643	PROM	1024x4	18	A,B	6 4	-	-	6	4	-	-	-
MCM7649	PROM	512x8	20	A,B	6 6	-	-	6	6	-	-	-
MCM7680	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
MCM7681	PROM	1024x8	24	A,B	6 5	-	-	6	5	-	-	-
MCM7684	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-
MCM7685	PROM	2048x4	18	A,B	6 4-4	-	-	6	4-4	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Nippon Electric (NEC)												
UPB405	PROM	512x8	24	A,B	18C 22-5	-	-	18C	22-5	-	-	-
UPB406	PROM	1024x4	18	A,B	18C 4	-	-	18C	4	-	-	-
UPB409	PROM	2048x8	24	A,B	18C 22	-	-	18C	22	-	-	-
UPB417	PROM	1024x8	24	A,B	18C 22-9	-	-	18C	22-9	-	-	-
UPB419	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
UPB425	PROM	512x8	24	A,B	18C 22-5	-	-	18C	22-5	-	-	-
UPB426	PROM	1024x4	18	A,B	18C 4	-	-	18C	4	-	-	-
UPB429	PROM	2048x8	24	A,B	18C 22	-	-	18C	22	"		
National Semiconductor												
DM54LS471	PROM	256x8	20	A,B	15 6-1	-	-	15	6-1	-	-	-
DM54S188	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM54S287	PROM	256x4	16	A,B	15 4-2	-	-	15	4-2	-	-	-
DM54S288	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM54S387	PROM	256x4	16	A,B	15 4-2	-	-	15	4-2	-	-	-
DM54S472	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM54S473	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM54S474	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-
DM54S475	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-
DM54S570	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM54S571	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM54S572	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM54S573	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM54S574	PROM	1024x4	18	A,B	15 24-1	-	-	15	24-1	-	-	-
DM74LS471	PROM	256x8	20	A,B	15 6-1	-	-	15	6-1	-	-	-
DM74S188	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM74S287	PROM	256x4	16	A,B	15 4-2	-	-	15	4-2	-	-	-
DM74S288	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM74S387	PROM	256x4	16	A,B	15 4-2	-	-	15	4-2	-	-	-
DM74S472	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM74S472A	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM74S472B	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM74S473	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM74S473A	PROM	512x8	20	A,B	15 6	-	-	15	6	-	-	-
DM74S474	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-
DM74S474A	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-
DM74S474B	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-
DM74S475	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-
DM74S475A	PROM	512x8	24	A,B	15 5-1	-	-	15	5-1	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
National Semiconductor (continued)												
DM74S570	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM74S570A	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM74S571	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM74S571A	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM74S571B	PROM	512x4	16	A,B	15 4-1	-	-	15	4-1	-	-	-
DM74S572	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM74S572A	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM74S573	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM74S573A	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM74S573B	PROM	1024x4	18	A,B	15 4	-	-	15	4	-	-	-
DM74S574	PROM	1024x4	18	A,B	15 24-1	-	-	15	24-1	-	-	-
DM77S180	PROM	1024x8	24	A,B	15 5	-	-	15	5	-	-	-
DM77S181	PROM	1024x8	24	A,B	15 5	-	-	15	5	-	-	-
DM77S184	PROM	2048x4	18	A,B	15 4-4	-	-	15	4-4	-	-	-
DM77S185	PROM	2048x4	18	A,B	15 4-4	-	-	15	4-4	-	-	-
DM77S185A	PROM	2048x4	18	A,B	15 4-4	-	-	15	4-4	-	-	-
DM77S188	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM77S190	PROM	2048x8	24	A,B	15 22	-	-	15	22	-	-	-
DM77S191	PROM	2048x8	24	A,B	15 22	-	-	15	22	-	-	-
DM77S191A	PROM	2048x8	24	A,B	15 22	-	-	15	22	-	-	-
DM77S280	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
DM77S281	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
DM77S288	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM77S290	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
DM77S291	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
DM77SR181	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
DM87LS181	PROM	1024x8	24	A,B	15 5	-	-	15	5	-	-	-
DM87S180	PROM	1024x8	24	A,B	15 5	-	-	15	5	-	-	-
DM87S181	PROM	1024x8	24	A,B	15 5	-	-	15	5	-	-	-
DM87S181A	PROM	1024x8	24	A,B	15 5	-	-	15	5	-	-	-
DM87S184	PROM	2048x4	18	A,B	15 4-4	-	-	15	4-4	-	-	-
DM87S185	PROM	2048x4	18	A,B	15 4-4	-	-	15	4-4	-	-	-
DM87S185A	PROM	2048x4	18	A,B	15 4-4	-	-	15	4-4	-	-	-
DM87S188	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM87S190	PROM	2048x8	24	A,B	15 22	-	-	15	22	-	-	-
DM87S191	PROM	2048x8	24	A,B	15 22	-	-	15	22	-	-	-
DM87S191A	PROM	2048x8	24	A,B	15 22	-	-	15	22	-	-	-
DM87S280	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
DM87S281	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
National Semiconductor (continued)												
DM87S288	PROM	32x8	16	A,B	15 3-1	-	-	15	3-1	-	-	-
DM87S290	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
DM87S291	PROM	2048x8	24	A,B	*	-	-	-	-	-	-	-
DM87SR181	PROM	1024x8	24	A,B	*	-	-	-	-	-	-	-
Raytheon												
29600	PROM	256x8	20	A,B	4 6-1	-	-	4	6-1	-	-	-
29601	PROM	256x8	20	A,B	4 6-1	-	-	4	6-1	-	-	-
29602	PROM	256x8	20	A,B	4 6-1	-	-	4	6-1	-	-	-
29603	PROM	256x8	20	A,B	4 6-1	-	-	4	6-1	-	-	-
29610	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
29611	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
29612	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
29613	PROM	512x4	16	A,B	4 4-1	-	-	4	4-1	-	-	-
29620	PROM	512x8	20	A,B	4 6	-	-	4	6	-	-	-
29621	PROM	512x8	20	A,B	4 6	-	-	4	6	-	-	-
29622	PROM	512x8	20	A,B	4 6	-	-	4	6	-	-	-
29623	PROM	512x8	20	A,B	4 6	-	-	4	6	-	-	-
29624	PROM	512x8	24	A,B	4 5-1	-	-	4	5-1	-	-	-
29625	PROM	512x8	24	A,B	4 5-1	-	-	4	5-1	-	-	-
29626	PROM	512x8	24	A,B	4 5-1	-	-	4	5-1	-	-	-
29627	PROM	512x8	24	A,B	4 5-1	-	-	4	5-1	-	-	-
29630	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29631	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29632	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29633	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29634	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29635	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29636	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29637	PROM	1024x8	24	A,B	4 5	-	-	4	5	-	-	-
29640	PROM	4096x8	20	A,B	4 30	-	-	4	30	-	-	-
29641	PROM	4096x8	20	A,B	4 30	-	-	4	30	-	-	-
29642	PROM	4096x8	20	A,B	4 30	-	-	4	30	-	-	-
29643	PROM	4096x8	20	A,B	4 30	-	-	4	30	-	-	-
29650	PROM	2048x4	18	A,B	4 4-4	-	-	4	4-4	-	-	-
29651	PROM	2048x4	18	A,B	4 4-4	-	-	4	4-4	-	-	-
29652	PROM	2048x4	18	A,B	4 4-4	-	-	4	4-4	-	-	-
29653	PROM	2048x4	18	A,B	4 4-4	-	-	4	4-4	-	-	-
29660	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Raytheon (continued)												
29661	PROM	256x4	18	A,B	4 4-2	-	-	4	4-2	-	-	-
29662	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-
29663	PROM	256x4	16	A,B	4 4-2	-	-	4	4-2	-	-	-
29671	PROM	4096x8	24	A,B	4 22-11	-	-	4	22-11	-	-	-
29673	PROM	4096x8	24	A,B	4 22-11	-	-	4	22-11	-	-	-
29680	PROM	2048x8	24	A,B	4 5-4	-	-	4	5-4	-	-	-
29681	PROM	2048x8	24	A,B	4 5-4	-	-	4	5-4	-	-	-
29682	PROM	2048x8	24	A,B	4 5-4	-	-	4	5-4	-	-	-
29683	PROM	2048x8	24	A,B	4 5-4	-	-	4	5-4	-	-	-
Signetics Corporation												
82HS195	PROM	4096x8	20	A,B	11 30	-	-	11	30	-	-	-
82LS180	PROM	1024x8	24	A,B	11 5	-	-	11	5	-	-	-
82LS181	PROM	1024x8	24	A,B	11 5	-	-	11	5	-	-	-
82S114	PROM	256x8	24	-	-	-	-	13	17-1	-	-	-
82S115	PROM	512x8	24	-	-	-	-	13	17	-	-	-
82S123	PROM	32x8	16	A,B	11 3	-	-	11	3	-	-	-
82S126	PROM	256x4	16	A,B	11 4-2	-	-	11	4-2	-	-	-
82S129	PROM	256x4	16	A,B	11 4-2	-	-	11	4-2	-	-	-
82S130	PROM	512x4	16	A,B	11 4-1	-	-	11	4-1	-	-	-
82S131	PROM	512x4	16	A,B	11 4-1	-	-	11	4-1	-	-	-
82S136	PROM	1024x4	18	A,B	11 4	-	-	11	4	-	-	-
82S136A	PROM	1024x4	18	A,B	11 4	-	-	11	4	-	-	-
82S137	PROM	1024x4	18	A,B	11 4	-	-	11	4	-	-	-
82S137A	PROM	1024x4	18	A,B	11 4	-	-	11	4	-	-	-
82S140	PROM	512x8	24	A,B	11 5-1	-	-	11	5-1	-	-	-
82S141	PROM	512x8	24	A,B	11 5-1	-	-	11	5-1	-	-	-
82S146	PROM	512x8	20	A,B	11 6	-	-	11	6	-	-	-
82S147	PROM	512x8	20	A,B	11 6	-	-	11	6	-	-	-
82S180	PROM	1024x8	24	A,B	11 5	-	-	11	5*	-	-	-
82S181	PROM	1024x8	24	A,B	11 5	-	-	11	5	-	-	-
82S182	PROM	1024x8	24	A,B	11 5	-	-	11	5	-	-	-
82S183	PROM	1024x8	24	A,B	11 5	-	-	11	5	-	-	-
82S184	PROM	2048x4	18	A,B	11 4-4	-	-	11	4-4	-	-	-
82S185	PROM	2048x4	18	A,B	11 4-4	-	-	11	4-4	-	-	-
82S190	PROM	2048x8	24	A,B	11 22	-	-	11	22	-	-	-
82S191	PROM	2048x8	24	A,B	11 22	-	-	11	22	-	-	-
82S195	PROM	4096x8	20	A,B	11 30	-	-	11	30	-	-	-
82S23	PROM	32x8	16	A,B	11 3	-	-	11	3	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Signetics Corporation (continued)												
82S2708	PROM	1024x8	24	A,B	11 5	-	-	11	5	-	-	-
82S321	PROM	4096x8	24	A,B	11 22-11	-	-	11	22-11	-	-	-
Texas Instruments												
SN74S188	PROM	32x8	16	A,B	5 3	-	-	5	3	-	-	-
SN74S2708	PROM	1024x8	24	A,B	19 5	-	-	19	5	-	-	-
SN74S287	PROM	256x4	16	A,B	5B 4-2	-	-	5B	4-2	-	-	-
SN74S288	PROM	32x8	16	A,B	5 3	-	-	5	3	-	-	-
SN74S387	PROM	256x4	16	A,B	5B 4-2	-	-	5B	4-2	-	-	-
SN74S454	PROM	2048x4	18	A,B	19 25	-	-	19	25	-	-	-
SN74S455	PROM	2048x4	18	A,B	19 25	-	-	19	25	-	-	-
SN74S470	PROM	256x8	20	A,B	5 6-1	-	-	5	6-1	-	-	-
SN74S471	PROM	256x8	20	A,B	5 6-1	-	-	5	6-1	-	-	-
SN74S472	PROM	512x8	20	A,B	5 6	-	-	5	6	-	-	-
SN74S47 3	PROM	512x8	20	A,B	5 6	-	-	5	6	-	-	-
SN74S474	PROM	512x8	24	A,B	5 5-1	-	-	5	5-1	-	-	-
SN74S475	PROM	512x8	24	A,B	5 5-1	-	-	5	5-1	-	-	-
SN74S476	PROM	1024x4	18	A,B	19 24-3	-	-	19	24	-	-	-
SN74S477	PROM	1024x4	18	A,B	19 24-3	-	-	19	24	-	-	-
SN74S478	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
SN74S479	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
TBP14S10	PROM	256x4	16	A,B	5B 4-2	-	-	5B	4-2	-	-	-
TBP14SA10	PROM	256x4	16	A,B	5B 4-2	-	-	5B	4-2	-	-	-
TBP18S030	PROM	32x8	16	A,B	5 3	-	-	5	3	-	-	-
TBP18S22	PROM	256x8	20	A,B	5 6-1	-	-	5	6-1	-	-	-
TBP18S42	PROM	512x8	20	A,B	5 6	-	-	5	6	-	-	-
TBP18S46	PROM	512x8	24	A,B	5 5-1	-	-	5	5-1	-	-	-
TBP18SA030	PROM	32x8	16	A,B	5 3	-	-	5	3	-	-	-
TBP18SA22	PROM	256x8	20	A,B	5 6-1	-	-	5	6-1	-	-	-
TBP18SA42	PROM	512x8	20	A,B	5 6	-	-	5	6	-	-	-
TBP18SA46	PROM	512x8	24	A,B	5 5-1	-	-	5	5-1	-	-	-
TBP24S10	PROM	256x4	16	A,B	19 4-5	-	-	19	4-5	-	-	-
TBP24S41	PROM	1024x4	18	A,B	19 24-3	-	-	19	24	-	-	-
TBP24S81	PROM	2048x4	18	A,B	19 25	-	-	19	25	-	-	-
TBP24SA10	PROM	256x4	16	A,B	19 4-5	-	-	19	4-5	-	-	-
TBP24SA41	PROM	1024x4	18	A,B	19 24-3	-	-	19	24	-	-	-
TBP24SA81	PROM	2048x4	18	A,B	19 25	-	-	19	25	-	-	-
TBP28L166	PROM	2048x8	24	A,B	19 22	-	-	19	22	-	-	-
TBP28L22	PROM	256x8	20	A,B	19 6-3	-	-	19	6-3	-	-	-

				UPM	UPM	MDM	MDM	Mo -		UGM or	GPP	Mnf .
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Texas Instruments (continued)												
TBP28L42	PROM	512x8	20	A,B	19 6	-	-	19	6	-	-	-
TBP28L45	PROM	512x8	24	A,B	19 22-3	-	-	19	22-3	-	-	-
TBP28L46	PROM	512x8	24	A,B	19 22-13	-	-	19	22-13	-	-	-
TBP28L85	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
TBP28L86	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
TBP28LA22	PROM	256x8	20	A,B	19 6-3	-	-	19	6-3	-	-	-
TBP28P166	PROM	2048x8	24	A,B	19 22	-	-	19	22	-	-	-
TBP28P42	PROM	512x8	20	A,B	19 6	-	-	19	6	-	-	-
TBP28P45	PROM	512x8	24	A,B	19 21-3	-	-	19	21-3	-	-	-
TBP28P85	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
TBP28R165	PROM	2049x8	24	A,B	19 31	-	-	19	31	-	-	-
TBP28R166	PROM	2048x8	24	A,B	19 21	-	-	19	21	-	-	-
TBP28R45	PROM	512x8	24	A,B	19 22-3	-	-	19	22-3	-	-	-
TBP28R85	PROM	1024x8	24	A,B	19 21-1	-	-	19	21-1	-	-	-
TBP28S166	PROM	2048x8	24	A,B	19 22	-	-	19	22	-	-	-
TBP28S2708	PROM	1024x8	24	A,B	19 5	-	-	19	5	-	-	-
TBP28S42	PROM	512x8	20	A,B	19 6	-	-	19	6	-	-	-
TBP28S45	PROM	512x8	24	A,B	19 22-3	-	-	19	22-3	-	-	-
TBP28S46	PROM	512x8	24	A,B	19 22-13	-	-	19	22-13	-	-	-
TBP28S85	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
TBP28S86	PROM	1024x8	24	A,B	19 22-1	-	-	19	22-1	-	-	-
TBP28SA166	PROM	2048x8	24	A,B	19 22	-	-	19	22	-	-	-
TBP28SA42	PROM	512x8	20	A,B	19 6	-	-	19	6	-	-	-
TBP28SA46	PROM	512x8	24	A,B	19 22-13	-	-	19	22-13	-	-	-
TBP28SA86	PROM	1024x8	24	A,B	19 22-1			19	22-1			

Programmable Logic

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Advanced Micro Devices (AMD)												
AmPAL16H8	PL	256x8	20	B,C	9725	-	-	33	37	-	-	-
AmPAL16HD8	PL	256x8	20	B,C	9725	-	-	33	37	-	-	-
AmPAL16L8	PL	256x8	20	B,C	9717	-	-	33	37	-	-	-
AmPAL16LD8	PL	256x8	20	B,C	9717	-	-	33	37	-	-	-
AmPAL16R4	PL	256x8	20	B,C	9724	-	-	33	37	-	-	-
AmPAL16R6	PL	256x8	20	B,C	9724	-	-	33	37	-	-	-
AmPAL16R8	PL	256x8	20	B,C	9724	-	-	33	37	-	-	-
AmPAL22V10	PL	1500x5	24	B,C	9728	-	-	-	-	-	-	-
Altera												
EP300	EPL	-	-	B,C	*	-	-	-	-	-	-	-
EP310	EPL	-	-	B,C	*	-	-	-	-	-	-	-
EP600	EPL	-	-	B,C	*	-	-	-	-	-	-	-
EP610	EPL	-	-	B,C	*	-	-	-	-	-	-	-
Cypress Semiconductor												
16L8	PL	256x8	20	B,C	4017	-	-	-	-	-	-	-
16R4	PL	256x8	20	B,C	4024	-	-	-	-	-	-	-
16R6	PL	256x8	20	B,C	4024	-	-	-	-	-	-	-
16R8	PL	256x8	20	B,C	4024	-	-	-	-	-	-	-
22V10	EPL	-	24	B,C	*	-	-	-	-	-	-	-
Harris Semiconductor												
16H8	PL	256x8	20	B,C	9801	-	-	IFL	-	32	-	-
16L8	PL	256x8	20	B,C	9801	-	-	IFL	-	30	-	-
16P8	PL	257x8	20	B,C	9803	-	-	IFL	-	33	-	-
77209	PL	256x8	20	B,C	9801	-	-	IFL	-	30	-	-
77215	PL	256x8	20	B,C	9801	-	-	IFL	-	32	-	-
77216	PL	257x8	20	B,C	9803	-	-	IFL	-	33	-	-
Monolithic Memories (MMI)												
PAL10H8	PL	512x4	20	B,C	2218	-	-	21	27	-	-	-
PAL10L8	PL	512x4	20	B,C	2213	-	-	21	27	-	-	-
PAL12H6	PL	512x4	20	B,C	2219	-	-	21	27	-	-	-
PAL12L10	PL	640x5	24	B,C	2201	-	-	21	27-1	-	-	-
PAL12L6	PL	512x4	20	B,C	2214	-	-	21	27	-	-	-
PAL14H4	PL	512x4	20	B,C	2220	-	-	21	27	-	-	-
PAL14L4	PL	512x4	20	B,C	2215	-	-	21	27	-	-	-
PAL14L8	PL	640x5	24	B,C	2202	-	-	21	27-1	-	-	-

Device Id	Function	Organis.	Pins	UPM Type	UPM Code	MDM SA	MDM Code	Mo- dule	SA	UGM or IFL Id	GPP Code	Mnf.
Monolithic Memories (continued)												
PAL16A4	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16C1	PL	512x4	20	B,C	2221	-	-	21	27	-	-	-
PAL16H2	PL	512x4	20	B,C	2222	-	-	21	27	-	-	-
PAL16L2	PL	512x4	20	B,C	2216	-	-	21	27	-	-	-
PAL16L6	PL	640x5	24	B,C	2203	-	-	21	27-1	-	-	-
PAL16L8	PL	512x4	20	B,C	2217	-	-	21	27	-	-	-
PAL16L8 A	PL	512x4	20	B,C	2217	-	-	21	27	-	-	-
PAL16L8B	PL	512x4	20	B,C	3017	-	-	-	-	-	-	-
PAL16P8	PL	514x4	20	B,C	2230	-	-	-	-	-	-	-
PAL16R4	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16R4A	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16R4B	PL	512x4	20	B,C	3024	-	-	-	-	-	-	-
PAL16R6	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16R6A	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16R6B	PL	512x4	20	B,C	3024	-	-	-	-	-	-	-
PAL16R8	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16R8A	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL16R8B	PL	512x4	20	B,C	3024	-	-	-	-	-	-	-
PAL16RP4	PL	514x4	20	B,C	2231	-	-	-	-	-	-	-
PAL16RP6	PL	514x4	20	B,C	2231	-	-	-	-	-	-	-
PAL16RP8	PL	514x4	20	B,C	2231	-	-	-	-	-	-	-
PAL16X4	PL	512x4	20	B,C	2224	-	-	21	27	-	-	-
PAL18L4	PL	640x5	24	B,C	2204	-	-	21	27-1	-	-	-
PAL20C1	PL	640x5	24	B,C	2212	-	-	21	27-1	-	-	-
PAL20G8	PL	169x8	24	B,C	2242	-	-	-	-	-	-	-
PAL20L10	PL	640x5	24	B,C	2206	-	-	21	27-1	-	-	-
PAL20L10A	PL	640x5	24	B,C	2206	-	-	21	27-1	-	-	-
PAL20L2	PL	640x5	24	B,C	2205	-	-	21	27-1	-	-	-
PAL20L8	PL	640x5	24	B,C	2226	-	-	21	27-1	-	-	-
PAL20P8	PL	169x8	24	B,C	2242	-	-	-	-	-	-	-
PAL20R4	PL	640x5	24	B,C	2227	-	-	21	27-1	-	-	-
PAL20R4A	PL	640x5	24	B,C	2227	-	-	21	27-1	-	-	-
PAL20R6	PL	640x5	24	B,C	2227	-	-	21	27-1	-	-	-
PAL20R6A	PL	640x5	24	B,C	2227	-	-	21	27-1	-	-	-
PAL20R8	PL	640x5	24	B,C	2227	-	-	21	27-1	-	-	-
PAL20R8A	PL	640x5	24	B,C	2227	-	-	21	27-1	-	-	-
PAL20RA10	PL	642x5	24	B,C	2245	-	-	-	-	-	-	-
PAL20RS10	PL	674x5	24	B,C	2244	-	-	-	-	-	-	-
PAL20RS4	PL	674x5	24	B,C	2246	-	-	-	-	-	-	-

				UPM	UPM	MDM	MDM	Mo-		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	odule	SA	IFL Id	Code	
Monolithic Memories (continued)												
PAL20RS8	PL	674x5	24	B,C	2244	-	-	-	-	-	-	-
PAL20S10	PL	674x5	24	B,C	2243	-	-	-	-	-	-	-
PAL20X10	PL	640x5	24	B,C	2223	-	-	21	27-1	-	-	-
PAL20X4	PL	640x5	24	B,C	2223	-	-	21	27-1	-	-	-
PAL20X8	PL	640x5	24	B,C	2223	-	-	21	27-1	-	-	-
PAL32R16	PL	1060x8	40	C	2247	-	-	-	-	-		
PAL6L16	PL	32x8	24	B,C	2248	-	-	-	-	-	-	-
PAL8L14	PL	32x8	24	B,C	2249	-	-					
National Semiconductor												
PAL10H8	PL	512x4	20	B,C	9518	-	-	21	27	-	-	-
PAL10L8	PL	512x4	20	B,C	9513	-	-	21	27	-	-	-
PAL12H6	PL	512x4	20	B,C	9519	-	-	21	27	-	-	-
PAL12L10	PL	640x5	24	B,C	9501	-	-	21	27-1	-	-	-
PAL12L6	PL	512x4	20	B,C	9514	-	-	21	27	-	-	-
PAL14H4	PL	512x4	20	B,C	9520	-	-	21	27	-	-	-
PAL14L4	PL	512x4	20	B,C	9515	-	-	21	27	-	-	-
PAL14L8	PL	640x5	24	B,C	9502	-	-	21	27-1	-	-	-
PAL16A4	PL	512x4	20	B,C	9524	-	-	21	27	-	-	-
PAL16C1	PL	512x4	20	B,C	9521	-	-	21	27	-	-	-
PAL16H2	PL	512x4	20	B,C	9522	-	-	21	27	-	-	-
PAL16L2	PL	512x4	20	B,C	9516	-	-	21	27	-	-	-
PAL16L6	PL	640x5	24	B,C	9503	-	-	21	27-1	-	-	-
PAL16L8	PL	512x4	20	B,C	9517	-	-	21	27	-	-	-
PAL16R4	PL	512x4	20	B,C	9524	-	-	21	27	-	-	-
PAL16R6	PL	512x4	20	B,C	9524	-	-	21	27	-	-	-
PAL16R8	PL	512x4	20	B,C	9524	-	-	21	27	-	-	-
PAL16X4	PL	512x4	20	B,C	9524	-	-	21	27	-	-	-
PAL18L4	PL	640x5	24	B,C	9504	-	-	21	27-1	-	-	-
PAL20C1	PL	640x5	24	B,C	9512	-	-	21	27-1	-	-	-
PAL20L10	PL	640x5	24	B,C	9506	-	-	21	27-1	-	-	-
PAL20L2	PL	640x5	24	B,C	9505	-	-	21	27-1	-	-	-
PAL20L8	PL	640x5	24	B,C	9526	-	-	21	27-1	-	-	-
PAL20R4	PL	640x5	24	B,C	9527	-	-	21	27-1	-	-	-
PAL20R6	PL	640x5	24	B,C	9527	-	-	21	27-1	-	-	-
PAL20R8	PL	640x5	24	B,C	9527	-	-	21	27-1	-	-	-
PAL20X10	PL	640x5	24	B,C	9523	-	-	21	27-1	-	-	-
PAL20X4	PL	640x5	24	B,C	9523	-	-	21	27-1	-	-	-
PAL20X8	PL	640x5	24	B,C	9523	-	-	21	27-1	-	-	-

				UPM	UPM	MDM	MDM	Mo -		UGM or	GPP	Mnf.
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Panatech / Ricoh												
EPL10P8	EPL	-	20	B,C	*	-	-	-	-	-	-	-
EPL12P6	EPL	-	20	B,C	*	-	-	-	-	-	-	-
EPL14P4	EPL	-	20	B,C	*	-	-	-	-	-	-	-
EPL16P2	EPL	-	20	B,C	*	-	-	-	-	-	-	-
Signetics Corporation												
82S100	PL	16x48x8	28	-	-	-	-	IFL	-	20	-	-
82S101	PL	16x48x8	28	-	-	-	-	IFL	-	20	-	-
82S102	PL	16x9	28	-	-	-	-	IFL	-	21	-	-
82S103	PL	16x9	28	-	-	-	-	IFL	-	21	-	-
82S104	PL	16x48x8	28	-	-	-	-	IFL	-	22	-	-
82S105	PL	16x48x8	28	-	-	-	-	IFL	-	22	-	-
82S106	PL	16x48x8	28	-	-	-	-	IFL	-	23	-	-
82S107	PL	16x48x8	28	-	-	-	-	IFL	-	23	-	-
82S150	PL	18x12	20	-	-	-	-	IFL	-	25	-	-
82S151	PL	18x12	20	-	-	-	-	IFL	-	25	-	-
82S152	PL	18x32x10	20	-	-	-	-	IFL	-	24	-	-
82S153	PL	18x32x10	20	-	-	-	-	IFL	-	24	-	-
82S154	PL	18x32x12	20	-	-	-	-	IFL	-	26	-	-
82S155	PL	18x32x12	20	-	-	-	-	IFL	-	26	-	-
82S156	PL	18x32x12	20	-	-	-	-	IFL	-	27	-	-
82S157	PL	18x32x12	20	-	-	-	-	IFL	-	27	-	-
82S158	PL	18x32x12	20	-	-	-	-	IFL	-	28	-	-
82S159	PL	18x32x12	20	-	-	-	-	IFL	-	28	-	-
Texas Instruments												
SN54PL16R4	PL	512x4	20	B,C	9924	-	-	21	27	-	-	-
SN54PL16R6	PL	512x4	20	B,C	9924	-	-	21	27	-	-	-
SN54PL16R8	PL	512x4	20	B,C	9924	-	-	21	27	-	-	-
SN54PL20L10	PL	640x5	24	B,C	9906	-	-	21	27-1	-	-	-
SN54PL20L8	PL	640x5	24	B,C	9926	-	-	21	27-1	-	-	-
SN54PL20R4	PL	640x5	24	B,C	9927	-	-	21	27-1	-	-	-
SN54PL20R6	PL	640x5	24	B,C	9927	-	-	21	27-1	-	-	-
SN54PL20R8	PL	640x5	24	B,C	9927	-	-	21	27-1	-	-	-
SN54PL20X10	PL	640x5	24	B,C	9923	-	-	21	27-1	-	-	-
SN54PL20X4	PL	640x5	24	B,C	9923	-	-	21	27-1	-	-	-
SN54PL20X8	PL	640x5	24	B,C	9923	-	-	21	27-1	-	-	-
SN74PL16L8	PL	512x4	20	B,C	9917	-	-	21	27	-	-	-
SN74PL16R4	PL	512x4	20	B,C	9924	-	-	21	27	-	-	-

				UPM	UPM	MDM	MDM	Mo -		UGM or	GPP	Mnf .
Device Id	Function	Organis.	Pins	Type	Code	SA	Code	dule	SA	IFL Id	Code	
Texas Instruments (continued)												
SN74PL16R6	PL	512x4	20	B,C	9924	-	21	27	-	-	-	-
SN74PL16R8	PL	512x4	20	B,C	9924	-	21	27	-	-	-	-
SN74PL20L10	PL	640x5	24	B,C	9906	-	21	27-1	-	-	-	-
SN74PL20L8	PL	640x5	24	B,C	9926	-	21	27-1	-	-	-	-
SN74PL20R4	PL	640x5	24	B,C	9927	-	21	27-1	-	-	-	-
SN74PL20R6	PL	640x5	24	B,C	9927	-	21	27-1	-	-	-	-
SN74PL20R8	PL	640x5	24	B,C	9927	-	21	27-1	-	-	-	-
SN74PL20X10	PL	640x5	24	B,C	9923	-	21	27-1	-	-	-	-
SN74PL20X4	PL	640x5	24	B,C	9923	-	21	27-1	-	-	-	-
SN74PL20X8	PL	640x5	24	B,C	9923	-	21	27-1	-	-	-	-