

# M240

## CHARACTERISTICS

Microprocessor	8086, 16 bit
Clock	10 MHz
RAM access time	120 ns
Wait states	0
Maximum RAM capacity	640 KB

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## BOARDS

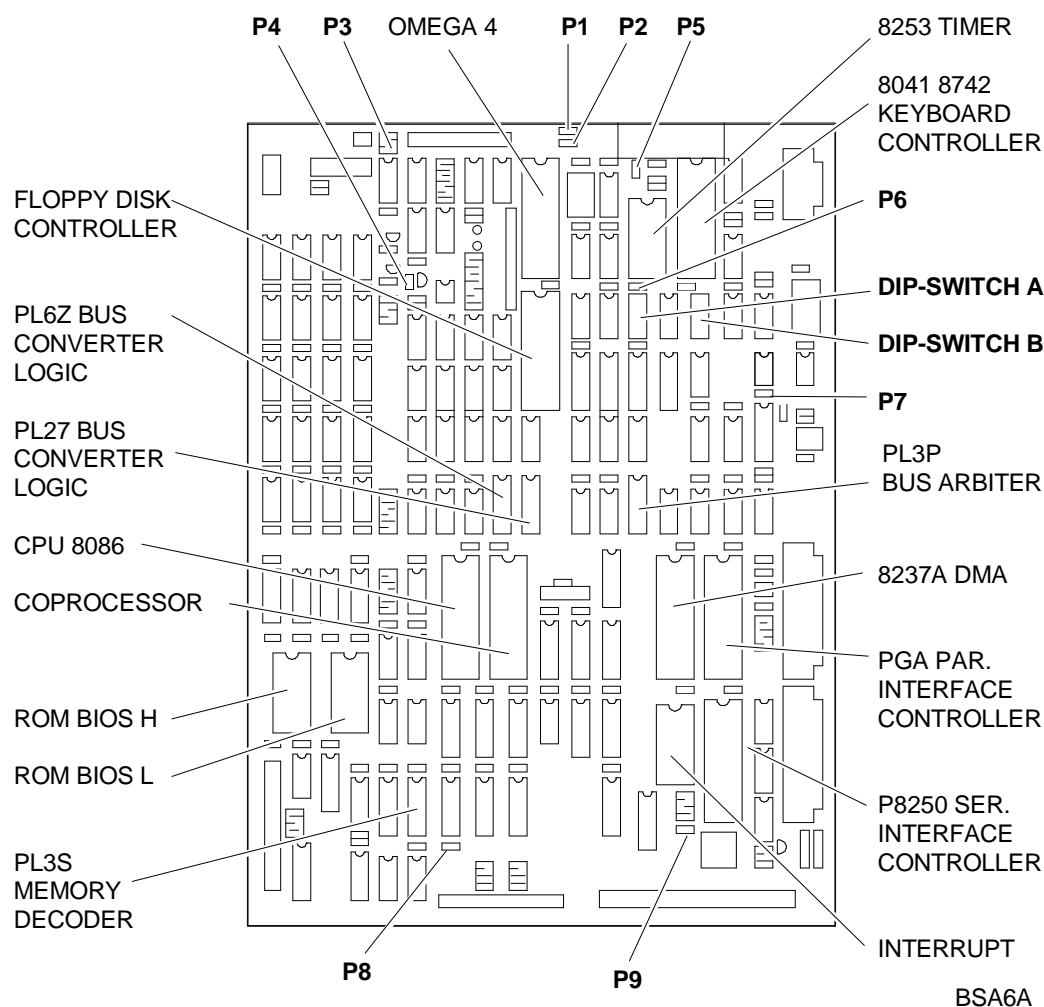
FUNCTION	DESCRIPTION	D.R.S. CODE	CHARACTERISTICS
CPU System Board	BA200	411658 H	
CPU System Board	BA208	411730 V	
Console Controller	CO124	411659 A	
Bus Adapter 8-BIT	IN093	968651 Q	Managed by spares
Bus Adapter 16-BIT	IN094	968652 R	Managed by spares
Power supply 220 V	LA16B	411052 M	Not interchangeable with other 185 W
Power supply 220 V	LA16C	411711 N	
OGC Monitor adapter	GO708	411687 P	Olivetti
PGC Monitor adapter	GO423	411688 Y	Positive video
OEC Monitor adapter	GO451/GO467/GO491	411860 Y	EGA compatible
OVC Monitor adapter	GO729	412452 L	VGA compatible 8-BIT
Hard Disk WD Controller	GO425	411423 E	Managed by spares
Hard Disk NCL Controller	GO447	411660 F	
External uFD 720 KB interface	IF362	411743 W	
External uFD interface	IN101		An external unit

## ROM BIOS/PAL/EPROM LEVEL

FUNCTION	EVOLUTION				
	H	L			
ROM BIOS	H	PCH5 2.04	PCHE 2.10	PCHK 2.11	PCHL 2.12
	L	PCH6 2.04	PCHF 2.10	PCHJ 2.11	PCHM 2.12
RAM Decoder		PL3S			
Bus Converter logic		PL6Z			
Bus Converter logic		PL27			
Bus Arbiter		PL3P	PLYW/PLWW		
uP8742 Keyboard controller			CSQM 1.2	CSQR 1.5	
Character Generator ROM 259		PCFY 5.26	PDPL 5.28		
Keyboard firmware (ANK 25-102)		uPD8040 (CS35)		uPD8050: CSQH, CSP4	
Keyboard firmware (ANK 25-02)		PDB3 3.2	PDB5 3.5		

PAL PLYW (CDM 240.60.5/505A)	Solves "Parity Error" problems
PAL PLWW (BIT 240.60.5/07)	Solves compatibility with REDES ETHERLINK and 3 COM
BIOS 2.10 (BIT 240.60.5/8)	Solves: <ul style="list-style-type: none"> <li>- "Format Failure" message during hard disk formatting under MS DOS</li> <li>- WANGTEK 40 MB streaming tape unit management</li> <li>- I/O errors in floppy disk after an ON/OFF sequence</li> <li>- Clock problems after using "GOSLOW"</li> <li>- Possibility of testing system from a remote work station</li> <li>- Possibility of programming in RTCC</li> </ul>
BIOS 2.11 (BIT 240.60.5/10)	- Solves FUJITSU 8284 problem
BIOS 2.12 BIOS 2.14	- Manages 40 MB hard disk - Solves 3.5" JU253 floppy problem (BIT 11)
Keyboard firmware PDB5 3.5 (BIT 241.60.5/4)	Solves F9 decoding problems

**SYSTEM BOARD COMPONENTS AND SETTINGS: BA200/BA208**



**DIP-SWITCHES OF GROUP A**

AREA	1	2	3	4	5	FUNCTION
RAM capacity	ON	ON				RAM not enabled
	ON	OFF				256 KB
	OFF	ON				512 KB
	OFF	OFF				640 KB
EGC board			ON			Present
			OFF			Not present
No. MFD units				ON	ON	1 unit
				OFF	ON	2 units
				ON	OFF	3 units
				OFF	OFF	4 units

AREA	6	7	8	FUNCTION
Monitor type and screen form	ON	ON		EGA INS. or CRT not present
	OFF	ON		40 x 25 colour
	ON	OFF		80 x 25 colour
	OFF	OFF		80 x 25 monochromatic
Coprocessor 8087			ON	Not present
			OFF	Present

**DIP-SWITCHES OF GROUP B**

AREA	1	2	3	4	FUNCTION	
Microfloppy density	ON				720 KB/360	
	OFF				1.44 MB/1.2	
Unit A		ON			5.25"	
		OFF			3.5"	
Unit B			ON			5.25"
			OFF			3.5"
Floppy controller				ON	Enabled	
				OFF	Disabled	

AREA	5	6	7	8	FUNCTION	
ROM BIOS	ON				BIOS HD - system board	
	OFF				BIOS HD on controller	
Monitor controller		ON			OGC	
		OFF			Others	
Serial port			ON			Enabled
			OFF			Disabled
Parallel port				ON	Enabled	
				OFF	Disabled	

### JUMPERS

NAME	FUNCTION	AREA	POSITION
P1 and P2	"Disk Change" signal enable P1 = Unit B P2 = Unit A	360 KB MFD unit	1-2
		720 KB, 1.2 MB, 1.44 MB uFD unit	2-3
P3	Production		Not present
P4	V.C.O. setting		Present
P5	Production		Not present
P6	Production		Not present
P7 and P9	Production		Present
P8	System ROM BIOS enable	Enabled	Not present
		Not enabled	Present

### I/O ADDRESS MAP

ADDRESS	FUNCTION
000-01F	DMA controller
020-03F	Interrupt controller
040-05F	Timer
060-06F	Keyboard controller
070-07F	Date and time
080-09F	DMA register
0A0-0BF	NMI register
378-37F	Parallel controller
3F0-3F7	Floppy disk
3F8-3FF	Serial controller

### INTERRUPT LEVELS

LEVEL	FUNCTION
IRQ0	Timer
IRQ1	Keyboard
IRQ2	Available
IRQ3	Available
IRQ4	Serial port
IRQ5	Available
IRQ6	Floppy disk
IRQ7	Parallel port

### DMA CHANNELS

CHANNEL	FUNCTION
DMA0	RAM refresh
DMA1	Available
DMA2	Floppy disk
DMA3	Available

