

# M280

## CHARACTERISTICS

Microprocessor	80286
Clock	12 MHz (8 MHz BUS)
RAM access time	100 ns
Wait states	1
ROM memory	32 KB
Minimum/maximum RAM capacity	1 MB

4

## BOARDS

FUNCTION	DESCRIPTION	D.R.S. CODE	CHARACTERISTICS
CPU System board	BA817	411994 B	W = 230  Maximum 2 MB EGA compatible Monitor, positive ST506/MFM ST506/RLL
CPU System board	BA824		
Console controller	CO113	964908 F	
Bus Adapter	IF622	497680 T	
Power supply	LA21	411077 N	
U-TURN board	IF623	497682 R	
RAM expansion	ME903	411993 A	
OEC monitor adapter	GO451/GO467	411860 Y	
PGC monitor adapter	GO423	411688 Y	
HD/FD controller	GO714	411638 V	
HD/FD controller	GO723	412141 L	

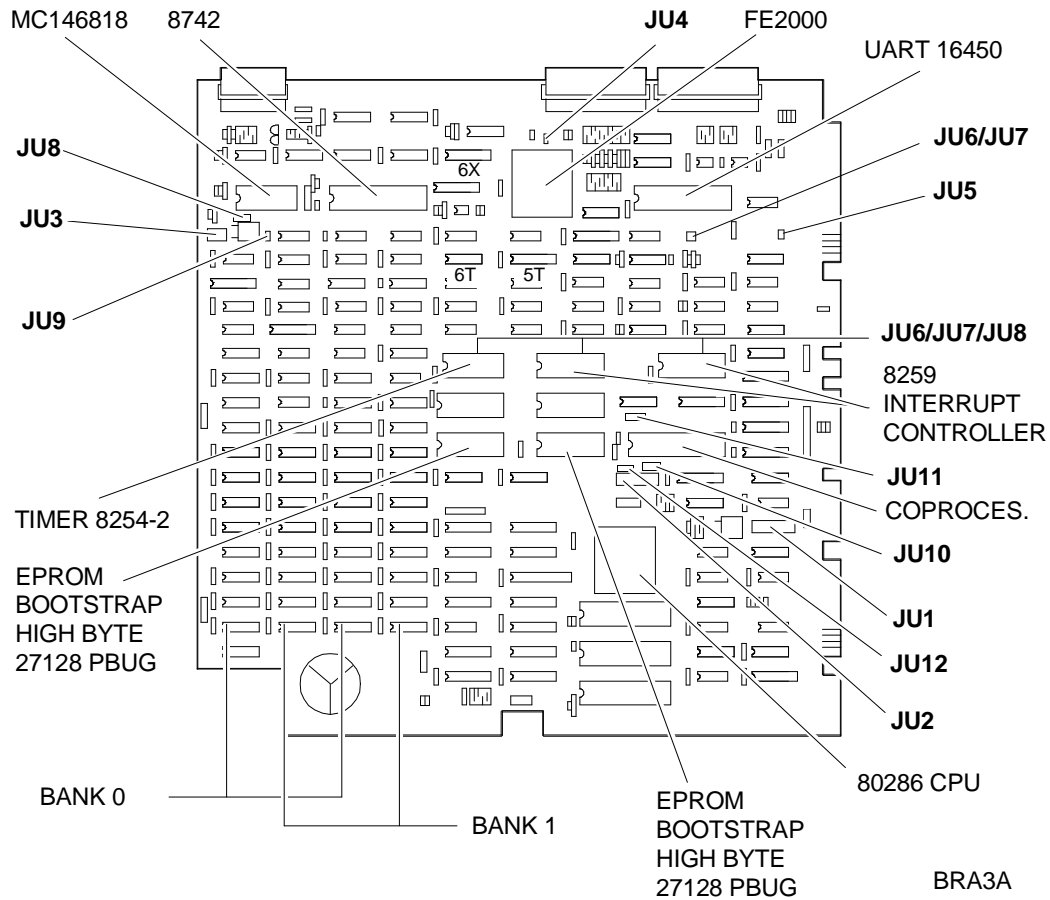
## ROM BIOS/PAL/EPROM LEVEL

FUNCTION		POS.	EVOLUTION		
ROM	H	6 K	PBVW 2.14	PBVS 2.16	Rev. 2.16.1
Bios	L	4 K	PBVV 2.14	PBVT 2.16	
Wait logic		5 D	PLY4		
Bus logic		6 T	PBVU		
		1 A	PLY5		
BIO select.		3 M	PBUA		
I/O logic		1 F	PBUD		
RAM decode		5 T	PBUC		
PIGGY BACK		6 X	PL99		
KBC uP8742		8 V	CSP9		
Keyboard FW		-			

## COMPATIBILITY NOTES

ROM BIOS 2.16: (CD 255.60.1/502)	<ul style="list-style-type: none"> <li>- Enlarges the HDU table and adds a 62 MB RLL hard disk</li> <li>- Solves problems with 1.44 MB uFD</li> <li>- Supports OEC 2 board in CGA mode</li> <li>- Solves format B problem: (CDM 501 M280)</li> <li>- Manages correctly hard disk even if it is not formatted with the system BIOS level</li> </ul>
ROM BIOS 2.16.1	Solves problems of operation with Windows/S and with the PG 208M2 printer.

**SYSTEM BOARD COMPONENTS AND SETTINGS**



<b>JU1</b> 1.....8 16.....9						
<b>AREA</b>	<b>1-16</b>	<b>2-15</b>	<b>3-14</b>	<b>FUNCTION</b>		
RAM	ON			512 KB		
	OFF*			1 MB		
Customer Eprom		ON	OFF	27128		
		OFF*	ON*	27256		
<b>AREA</b>	<b>4-13</b>	<b>5-12</b>	<b>6-11</b>	<b>7-10</b>	<b>8-9</b>	<b>FUNCTION</b>
BIOS Eprom	ON	OFF				27128
	OFF*	ON*				27256
Parallel Port				ON*		Enabled
				OFF		Not Enabled
Serial Port				ON		Not Enabled
				OFF*		Enabled
-	-				OFF*	Not used

**JU2**

AREA	1	2	3	4	FUNCTION
Clock of 80287 coprocessor See: JU10/JU11 and JU12	OFF*	OFF*	OFF*	OFF*	8 MHz
	ON	ON	ON	ON	12 MHz *
AREA	5	6	7	8	FUNCTION
Video	OFF*	OFF*			"Dual Port" PGC or OEC
	ON	ON			"Flicker" matrox
System clock			OFF*		24 MHz
			ON		External
80287 Wait states				OFF	10
				ON*	3

**JU3**

AREA	1	2	3	4	FUNCTION
Burn-in	OFF				Disabled
	ON				Enabled
Monitor type		OFF			Monochromatic
		ON*			Colour / Monochromatic
32 MHz clock			OFF		Disconnected
			ON*		Connected
			OFF *		Reserved

**JU4**

AREA	1	FUNCTION
14 MHz clock	OFF	Disconnected
	ON*	Connected

**JU6**

AREA	1	FUNCTION
System clock	OFF	8 MHz
	ON*	12 MHz

**JU5**

AREA	1	FUNCTION
1.8 MHz clock	OFF	Disconnected
	ON*	Connected

**JU8**

AREA	1	FUNCTION
MC146818 and non-volatile RAM clock	OFF	-
	ON*	MC146818 and RAM

(\*) Default position

**JU7**

AREA	1	FUNCTION
System clock	OFF*	12 MHz
	ON	8 MHz

**JU10 JU11 JU12**

AREA	1	FUNCTION
80287 coprocessor clock (See: JU2)	OFF*	8 MHz
	ON	12 MHz

**JU9**

AREA	1	FUNCTION
MC146818 clock	OFF	
Non-volatile RAM	ON*	MC146818 and RAM

(\*) Default position

**I/O ADDRESS MAP**

ADDRESS	FUNCTION	ADDRESS	FUNCTION
000-01F	DMA controller 1	2F8-2FF	Serial port 2
020-03F	Interrupt controller 1	300-31F	Reserved
040-05F	Timer	360-36F	Reserved
060-06F	Keyboard controller	378-37F	Parallel port 1
070-07F	RTC, CMOS, NMI mask	380-38F	Comm. SDLC 2
080-09F	DMA page register	3A0-3AF	SDLC 1
0A0-0BF	Interrupt controller 2	3B0-3BF	Reserved
0F0-0FF	80287	3C0-3CF	Reserved
1F0-1F8	Hard disk controller	3D0-3DF	Video controller
200-207	Reserved	3F0-3F7	Floppy disk controller
278-27F	Parallel port 2	3F8-3FF	Available

**INTERRUPT LEVELS**

LEVEL	FUNCTION
IRQ0	Channel 0 timer
IRQ1	Keyboard controller
IRQ2	Interrupt from interrupt controller 2
IRQ3	Serial port 2
IRQ4	Serial port 1
IRQ5	Parallel port 2
IRQ6	Floppy disk controller
IRQ7	Parallel port 1
IRQ8	Date and Time
IRQ9	Redirected to IRQ 2
IRQ10	Available
IRQ11	Available
IRQ12	Available
IRQ13	80287
IRQ14	Hard disk controller
IRQ15	Available

**DMA CHANNELS**

CHANNEL	FUNCTION
DMA0	8 BIT
DMA1	8 BIT
DMA2	8 BIT
DMA3	8 BIT
DMA4	16 BIT
DMA5	16 BIT
DMA6	16 BIT
DMA7	16 BIT

