M TECHNOLOGY, INC.
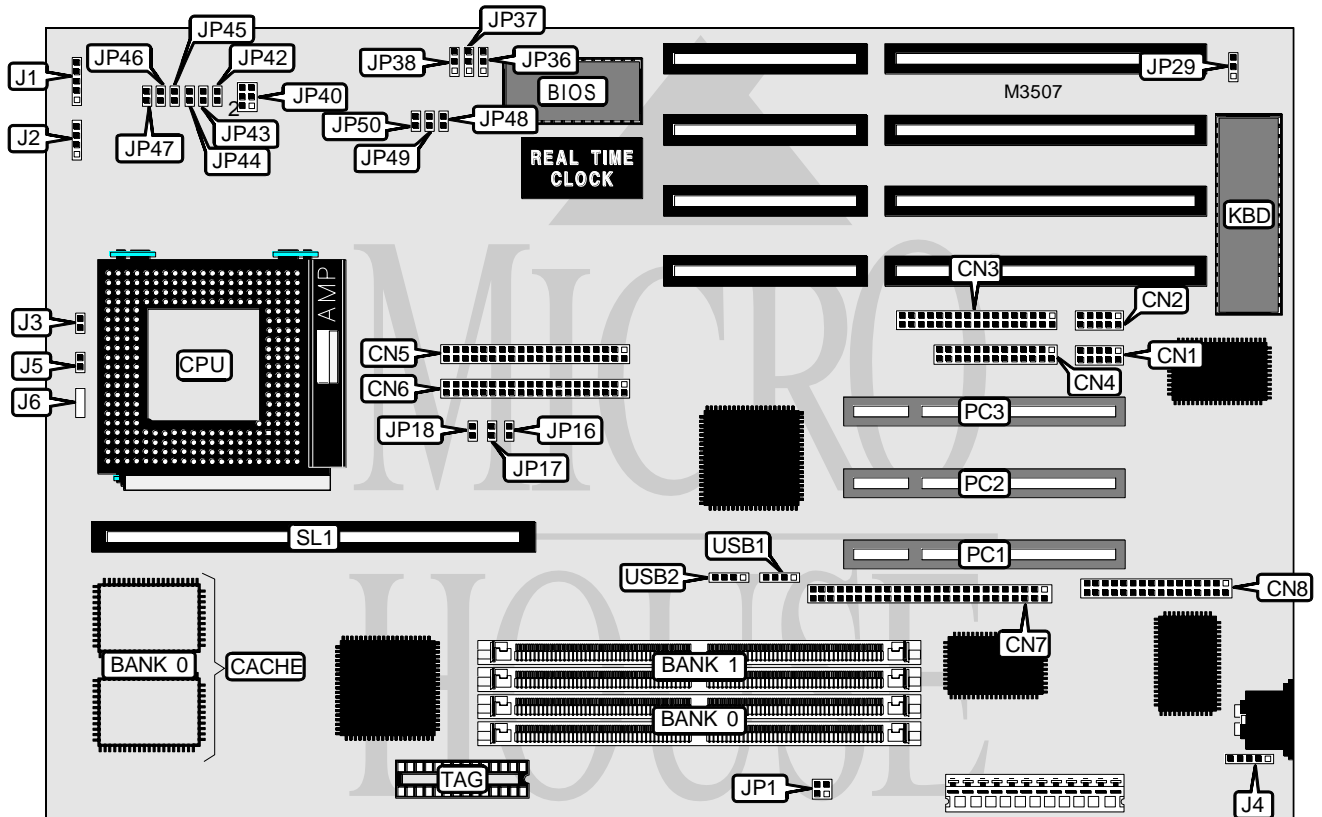# R528 PENTIUM PCI/ISA

Processor	CX M1/Pentium
Processor Speed	75/90/100/120/133/150/166/180/200MHz
Chip Set	Intel
Video Chip Set	None
Maximum Onboard Memory	512MB (EDO supported)
Maximum Video Memory	None
Cache	256/512KB
BIOS	Award
Dimensions	330mm x 218mm
I/O Options	32-bit PCI slots (3), floppy drive interface, green PC connector, IDE interfaces (2), SCSI connector, parallel port, PS/2 mouse interface, serial ports (2), cache slot, USB connectors (2), sound adapter connector
NPU Options	None

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CONNECTIONS			
Purpose	**Location**	**Purpose**	**Location**
Serial port 2	CN1	Reset switch	J3
Serial port 1	CN2	PS/2 mouse interface	J4
Floppy drive interface	CN3	Green PC connector	J5
Parallel port	CN4	IDE interface LED	J6
IDE interface 1	CN5	SCSI interface LED	JP1
IDE interface 2	CN6	32-bit PCI slots	PC1 - PC3
SCSI interface	CN7	Cache slot	SL1
Sound adapter connector	CN8	USB connector 1	USB1
Power LED & keylock	J1	USB connector 2	USB2
Speaker	J2		
Note: CN7 & CN8 are optional and may not be present on all boards.			

USER CONFIGURABLE SETTINGS		
Function	**Label**	**Position**
í PS/2 mouse enabled	JP29	Pins 1 & 2 closed
PS/2 mouse disabled	JP29	Pins 2 & 3 closed
í CMOS memory normal operation	JP38	Pins 1 & 2 closed
CMOS memory clear	JP38	Pins 2 & 3 closed

DRAM CONFIGURATION		
Size	**Bank 0**	**Bank 1**
4MB	(2) 512K x 36	None
4MB	(2) 256K x 36	(2) 256K x 36
6MB	(2) 512K x 36	(2) 256K x 36
6MB	(2) 256K x 36	(2) 512K x 36
8MB	(2) 1M x 36	None
8MB	(2) 512K x 36	(2) 512K x 36
10MB	(2) 1M x 36	(2) 256K x 36
12MB	(2) 512K x 36	(2) 1M x 36
16MB	(2) 2M x 36	None
16MB	(2) 1M x 36	(2) 1M x 36
18MB	(2) 2M x 36	(2) 256K x 36
20MB	(2) 512K x 36	(2) 2M x 36
24MB	(2) 1M x 36	(2) 2M x 36
32MB	(2) 4M x 36	None
32MB	(2) 2M x 36	(2) 2M x 36

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DRAM CONFIGURATION (CON'T)		
Size	**Bank 0**	**Bank 1**
34MB	(2) 256K x 36	(2) 4M x 36
36MB	(2) 4M x 36	(2) 512K x 36
40MB	(2) 1M x 36	(2) 4M x 36
48MB	(2) 2M x 36	(2) 4M x 36
64MB	(2) 8M x 36	None
64MB	(2) 4M x 36	(2) 4M x 36
66MB	(2) 256K x 36	(2) 8M x 36
68MB	(2) 8M x 36	(2) 512K x 36
72MB	(2) 1M x 36	(2) 8M x 36
80MB	(2) 8M x 36	(2) 2M x 36
96MB	(2) 4M x 36	(2) 8M x 36
128MB	(2) 8M x 36	(2) 8M x 36
136MB	(2) 16M x 36	(2) 1M x 36
144MB	(2) 16M x 36	(2) 2M x 36
160MB	(2) 16M x 36	(2) 4M x 36
192MB	(2) 16M x 36	(2) 8M x 36
256MB	(2) 16M x 36	(2) 16M x 36
264MB	(2) 32M x 36	(2) 1M x 36
272MB	(2) 32M x 36	(2) 2M x 36
288MB	(2) 32M x 36	(2) 4M x 36
320MB	(2) 32M x 36	(2) 8M x 36
384MB	(2) 32M x 36	(2) 16M x 36
512MB	(2) 32M x 36	(2) 32M x 36
Note: Board accepts EDO memory. Banks 0 & 1 are interchangeable.		

CACHE CONFIGURATION			
Size	**Bank 0**	**TAG**	**SL1**
256KB	(2) 32K x 32	(1) 32K x 8	Not installed
512KB	(2) 32K x 32	(1) 32K x 8	256KB module installed

CPU SPEED SELECTION (CYRIX)								
CPU speed	**Clock speed**	**Multiplier**	**JP16**	**JP17**	**JP18**	**JP42**	**JP43**	**JP44**
120MHz	50MHz	2x	Open	Closed	Open	Open	Closed	Open
133MHz	55MHz	2x	Closed	Closed	Closed	Open	Closed	Open
150MHz	60MHz	2x	Closed	Open	Open	Open	Closed	Closed
166MHz	66MHz	2x	Open	Open	Open	Open	Closed	Open

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CPU SPEED SELECTION (INTEL)								
CPU speed	**Clock speed**	**Multiplier**	**JP16**	**JP17**	**JP18**	**JP42**	**JP43**	**JP44**
75MHz	50MHz	1.5x	Open	Closed	Open	Open	Open	Open
90MHz	60MHz	1.5x	Closed	Open	Open	Open	Open	Closed
100MHz	66MHz	1.5x	Open	Open	Open	Open	Open	Open
120MHz	60MHz	2x	Closed	Open	Open	Open	Closed	Closed
133MHz	66MHz	2x	Open	Open	Open	Open	Closed	Open
150MHz	60MHz	2.5x	Closed	Open	Open	Closed	Closed	Closed
166MHz	66MHz	2.5x	Open	Open	Open	Closed	Closed	Open
180MHz	60MHz	3x	Closed	Open	Open	Closed	Open	Closed
200MHz	66MHz	3x	Open	Open	Open	Closed	Open	Open

CPU VOLTAGE SELECTION					
CPU type	**Voltage 1**	**Voltage 2**	**JP40**	**JP45**	**JP46**
P54C/CX M1	3.3v	N/A	1 & 2, 3 & 4, 5 & 6	Closed	Open
P54C/CX M1	3.45v	N/A	1 & 2, 3 & 4, 5 & 6	Open	Closed
P54C/CX M1	3.5v	N/A	1 & 2, 3 & 4, 5 & 6	Open	Open
P55C	3.3v	2.5v	Open	Closed	Open
P55C	3.45v	2.7v	Open	Open	Closed
P55C	3.5v	2.8v	Open	Open	Open
Note: Pins designated should be in the closed position.					

CPU VOLTAGE SELECTION (CON'T)					
CPU type	**Voltage 1**	**Voltage 2**	**JP47**	**JP48**	**JP49**	**JP50**
P54C/CX M1	3.3v	N/A	Open	N/A	N/A	N/A
P54C/CX M1	3.45v	N/A	Open	N/A	N/A	N/A
P54C/CX M1	3.5v	N/A	Closed	N/A	N/A	N/A
P55C	3.3v	2.5v	Open	Closed	Open	Open
P55C	3.45v	2.7v	Open	Open	Closed	Open
P55C	3.5v	2.8v	Closed	Open	Open	Closed

FLASH BIOS SELECTION		
Setting	**JP36**	**JP37**
Flash mode	Pins 1 & 2 closed	Pins 1 & 2 closed
+5v flash BIOS	Pins 2 & 3 closed	Pins 1 & 2 closed
+12v flash BIOS	Pins 2 & 3 closed	Pins 2 & 3 closed