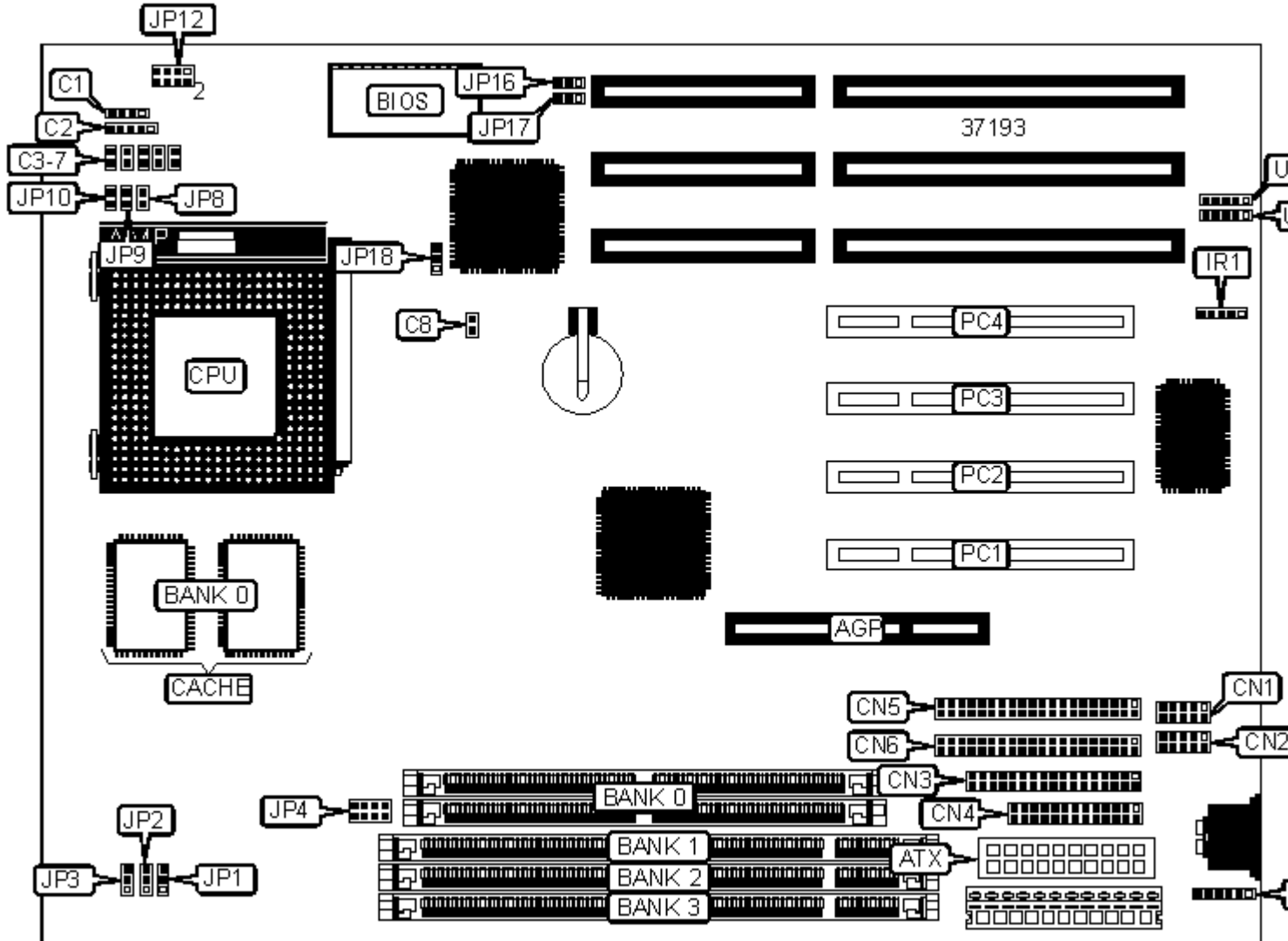


# M TECHNOLOGY, INC.

## R581A MUSTANG-AGP

Device Type	Mainboard
Processor	CX 6X86/IBM 6X86/CX 6X86L/IBM 6X86L/CX 686MX/IBM 6X86MX/ AM K5/AM K6/Pentium/Pentium MMX
Processor Speed	90/100/120/133/150/166/180/200/233/266MHz
Chip Set	SIS
Video Chip Set	None
Maximum Onboard Memory	768MB (EDO & SDRAM supported)
Maximum Video Memory	None
Cache	512/1024KB
BIOS	Award
Dimensions	270mm x 220mm
I/O Options	32-bit PCI slots (4), floppy drive interface, IDE interfaces (2), parallel port, PS/2 mouse interface, serial ports (2), IR connector, USB connectors (2), ATX power connector
NPU Options	None



Purpose	Location	Purpose	Location
AGP slot	AGP	Serial port 1	CN2
ATX power connector	ATX	Floppy drive interface	CN3
Speaker	C1	Parallel port	CN4
Power LED & keylock	C2	IDE interface 2	CN5
Soft off power supply	C3	IDE interface 1	CN6
Turbo switch	C4	PS/2 mouse interface	CN7
Turbo LED	C5	IR connector	IR1
IDE interface LED	C6	32-bit PCI slots	PC1 – PC4
Reset switch	C7	USB connector 1	USB1
Soft off power supply	C8	USB connector 2	USB2
Serial port 2	CN1		

#### USER CONFIGURABLE SETTINGS

Function		Label	Position
»	CMOS memory normal operation	JP18	Pins 1 & 2 closed
	CMOS memory clear	JP18	Pins 2 & 3 closed

#### SIMM CONFIGURATION

Size	Bank 0
8MB	(2) 1M x 36
16MB	(2) 2M x 36
32MB	(2) 4M x 36
64MB	(2) 8M x 36

Note: Board accepts EDO memory.

#### DIMM CONFIGURATION

Size	Bank 1	Bank 2	Bank 3
8MB	(1) 1M x 64	None	None

16MB	(1) 2M x 64	None	None
16MB	(1) 1M x 64	(1) 1M x 64	None
24MB	(1) 2M x 64	(1) 1M x 64	None
24MB	(1) 1M x 64	(1) 1M x 64	(1) 1M x 64
32MB	(1) 4M x 64	None	None
32MB	(1) 2M x 64	(1) 1M x 64	(1) 1M x 64
32MB	(1) 2M x 64	(1) 2M x 64	None
40MB	(1) 4M x 64	(1) 1M x 64	None
40MB	(1) 2M x 64	(1) 2M x 64	(1) 1M x 64

### DIMM CONFIGURATION (CON'T)

Size	Bank 0	Bank 1	Bank 2
48MB	(1) 4M x 64	(1) 1M x 64	(1) 1M x 64
48MB	(1) 4M x 64	(1) 2M x 64	None
48MB	(1) 2M x 64	(1) 2M x 64	(1) 2M x 64
56MB	(1) 4M x 64	(1) 2M x 64	(1) 1M x 64
64MB	(1) 8M x 64	None	None
64MB	(1) 4M x 64	(1) 2M x 64	(1) 2M x 64
64MB	(1) 4M x 64	(1) 4M x 64	None
72MB	(1) 8M x 64	(1) 1M x 64	None
72MB	(1) 4M x 64	(1) 4M x 64	(1) 1M x 64
80MB	(1) 8M x 64	(1) 1M x 64	(1) 1M x 64
80MB	(1) 8M x 64	(1) 2M x 64	None
80MB	(1) 4M x 64	(1) 4M x 64	(1) 2M x 64
88MB	(1) 8M x 64	(1) 2M x 64	(1) 1M x 64
96MB	(1) 8M x 64	(1) 2M x 64	(1) 2M x 64
96MB	(1) 8M x 64	(1) 4M x 64	None
96MB	(1) 4M x 64	(1) 4M x 64	(1) 4M x 64
104MB	(1) 8M x 64	(1) 4M x 64	(1) 1M x 64

112MB	(1) 8M x 64	(1) 4M x 64	(1) 2M x 64
128MB	(1) 8M x 64	(1) 4M x 64	(1) 4M x 64
128MB	(1) 8M x 64	(1) 8M x 64	None
136MB	(1) 8M x 64	(1) 8M x 64	(1) 1M x 64
144MB	(1) 8M x 64	(1) 8M x 64	(1) 2M x 64
160MB	(1) 8M x 64	(1) 8M x 64	(1) 4M x 64
192MB	(1) 8M x 64	(1) 8M x 64	(1) 8M x 64

Note: Board accepts SDRAM memory.

#### DIMM VOLTAGE CONFIGURATION

Voltage	JP4
3.3v	Pins 5 & 6, 7 & 8 closed
5v	Pins 1 & 2, 3 & 4 closed

#### CACHE CONFIGURATION

Size	Bank 0
512KB	(2) 64K x 32
1MB	(2) 128K x 32

#### CPU SPEED SELECTION (CX 6X86)

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
150MHz	60MHz	2x	2 & 3	2 & 3	2 & 3	Closed	Open	Open
166MHz	66MHz	2x	1 & 2	2 & 3	2 & 3	Closed	Open	Open
200MHz	75MHz	2x	2 & 3	1 & 2	2 & 3	Closed	Open	Open

Note: Pins designated should be in the closed position.

#### CPU SPEED SELECTION (IBM 6X86)

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
150MHz	60MHz	2x	2 & 3	2 & 3	2 & 3	Closed	Open	Open

166MHz	66MHz	2x	1 & 2	2 & 3	2 & 3	Closed	Open	Open
200MHz	75MHz	2x	2 & 3	1 & 2	2 & 3	Closed	Open	Open

Note: Pins designated should be in the closed position.

<b>CPU SPEED SELECTION (CX 6X86L)</b>								
<b>CPU speed</b>	<b>Clock speed</b>	<b>Multiplier</b>	<b>JP1</b>	<b>JP2</b>	<b>JP3</b>	<b>JP8</b>	<b>JP9</b>	<b>JP10</b>
150MHz	60MHz	2x	2 & 3	2 & 3	2 & 3	Closed	Open	Open
166MHz	66MHz	2x	1 & 2	2 & 3	2 & 3	Closed	Open	Open
200MHz	75MHz	2x	2 & 3	1 & 2	2 & 3	Closed	Open	Open

Note: Pins designated should be in the closed position.

<b>CPU SPEED SELECTION (IBM 6X86L)</b>								
<b>CPU speed</b>	<b>Clock speed</b>	<b>Multiplier</b>	<b>JP1</b>	<b>JP2</b>	<b>JP3</b>	<b>JP8</b>	<b>JP9</b>	<b>JP10</b>
150MHz	60MHz	2x	2 & 3	2 & 3	2 & 3	Closed	Open	Open
166MHz	66MHz	2x	1 & 2	2 & 3	2 & 3	Closed	Open	Open
200MHz	75MHz	2x	2 & 3	1 & 2	2 & 3	Closed	Open	Open

Note: Pins designated should be in the closed position.

<b>CPU SPEED SELECTION (CX 6X86MX)</b>								
<b>CPU speed</b>	<b>Clock speed</b>	<b>Multiplier</b>	<b>JP1</b>	<b>JP2</b>	<b>JP3</b>	<b>JP8</b>	<b>JP9</b>	<b>JP10</b>
166MHz	60MHz	2.5x	2 & 3	2 & 3	2 & 3	Closed	Closed	Open
200MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	Closed	Closed	Open
200MHz	75MHz	2x	2 & 3	1 & 2	2 & 3	Closed	Open	Open
233MHz	66MHz	3x	1 & 2	2 & 3	2 & 3	Open	Closed	Open
233MHz	75MHz	2.5x	2 & 3	1 & 2	2 & 3	Closed	Closed	Open
266MHz	66MHz	3.5x	1 & 2	2 & 3	2 & 3	Open	Open	Open
266MHz	75MHz	3x	2 & 3	1 & 2	2 & 3	Open	Closed	Open

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (IBM 6X86MX)**

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
166MHz	60MHz	2.5x	2 & 3	2 & 3	2 & 3	Closed	Closed	Open
200MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	Closed	Closed	Open
200MHz	75MHz	2x	2 & 3	1 & 2	2 & 3	Closed	Open	Open
233MHz	66MHz	3x	1 & 2	2 & 3	2 & 3	Open	Closed	Open
233MHz	75MHz	2.5x	2 & 3	1 & 2	2 & 3	Closed	Closed	Open
266MHz	66MHz	3.5x	1 & 2	2 & 3	2 & 3	Open	Open	Open
266MHz	75MHz	3x	2 & 3	1 & 2	2 & 3	Open	Closed	Open

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (AM K5)**

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
90MHz	60MHz	1.5x	2 & 3	2 & 3	2 & 3	Open	Open	Open
100MHz	66MHz	1.5x	1 & 2	2 & 3	2 & 3	Open	Open	Open
166MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	Closed	Closed	Open

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (AM K6)**

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
166MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	Closed	Closed	Open
200MHz	66MHz	3x	1 & 2	2 & 3	2 & 3	Open	Closed	Open
233MHz	66MHz	3.5x	1 & 2	2 & 3	2 & 3	Open	Open	Open

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (INTEL)**

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
90MHz	60MHz	1.5x	2 & 3	2 & 3	2 & 3	Open	Open	Open
100MHz	66MHz	1.5x	1 & 2	2 & 3	2 & 3	Open	Open	Open

120MHz	60MHz	2x	2 & 3	2 & 3	2 & 3	Closed	Open	Open
133MHz	66MHz	2x	1 & 2	2 & 3	2 & 3	Closed	Open	Open
150MHz	60MHz	2.5x	2 & 3	2 & 3	2 & 3	Closed	Closed	Open
166MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	Closed	Closed	Open
180MHz	60MHz	3x	2 & 3	2 & 3	2 & 3	Open	Closed	Open
200MHz	66MHz	3x	1 & 2	2 & 3	2 & 3	Open	Closed	Open

Note: Pins designated should be in the closed position.

#### CPU SPEED SELECTION (INTEL MMX)

CPU speed	Clock speed	Multiplier	JP1	JP2	JP3	JP8	JP9	JP10
166MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	Closed	Closed	Open
200MHz	66MHz	3x	1 & 2	2 & 3	2 & 3	Open	Closed	Open
233MHz	66MHz	3.5x	1 & 2	2 & 3	2 & 3	Open	Open	Open

Note: Pins designated should be in the closed position.

#### CPU VOLTAGE SELECTION

Voltage	JP12
2.1v	Pins 1 & 2 closed
2.2v	Pins 3 & 4 closed
2.3v	Pins 1 & 2, 3 & 4 closed
2.4v	Pins 5 & 6 closed
2.5v	Pins 1 & 2, 5 & 6 closed
2.6v	Pins 3 & 4, 5 & 6 closed
2.7v	Pins 1 & 2, 3 & 4, 5 & 6 closed
2.8v	Pins 7 & 8 closed
2.9v	Pins 1 & 2, 7 & 8 closed
3.0v	Pins 3 & 4, 7 & 8 closed
3.1v	Pins 1 & 2, 3 & 4, 7 & 8 closed
3.2v	Pins 5 & 6, 7 & 8 closed

3.3v	Pins 1 & 2, 5 & 6, 7 & 8 closed
3.4v	Pins 3 & 4, 5 & 6, 7 & 8 closed
3.5v	Pins 1 & 2, 3 & 4, 5 & 6, 7 & 8 closed

<b>BIOS SELECTION</b>		
<b>Type</b>	<b>JP16</b>	<b>JP17</b>
1M/12v	Pins 1 & 2 closed	Pins 1 & 2 closed
1M/5v	Pins 2 & 3 closed	Pins 1 & 2 closed