Slots:

- Three 32-bit Master PCI Bus slots and four 16-bit ISA bus slots. One shared slot that can be used as ISA or PCI.

On-Board Peripherals:

- On-Board peripherals include:
  - —1 floppy port supports 2 FDD
  - —2 serial ports (ComA + ComB)
  - —1 Parallel port supports ECP or EPP mode
  - —2 PCI Bus Master IDE ports (up to four IDE HDD)
  - —USB (Reserved)

Dimensions:

- 26 cm(L) × 22 cm(W) × 4 layer PCB
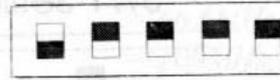
Mounting:

- 7 mounting holes

System Board Layout

MS-5137

2.1.1.1   INTEL P54C CPU SPEED SETTING

CPU SPEED	SW1 Settings
75MHZ	ON / OFF — 1 2 3 4 5 6
90MHZ	ON / OFF — 1 2 3 4 5 6
100MHZ	ON / OFF — 1 2 3 4 5 6
120MHZ	ON / OFF — 1 2 3 4 5 6
133MHZ	ON / OFF — 1 2 3 4 5 6
150MHZ	ON / OFF — 1 2 3 4 5 6
166MHZ	ON / OFF — 1 2 3 4 5 6
200MHZ	ON / OFF — 1 2 3 4 5 6
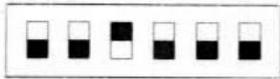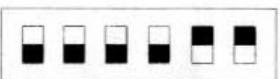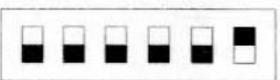
2.1.1.2   CYRIX 6x86 CPU SPEED SETTING

CPU SPEED	SW1 Settings
P120+ (100MHZ)	ON / OFF — 1 2 3 4 5 6
P133+ (110MHZ)	ON / OFF — 1 2 3 4 5 6
P150+ (120MHZ)	ON / OFF — 1 2 3 4 5 6
P166+ (133MHZ)	ON / OFF — 1 2 3 4 5 6
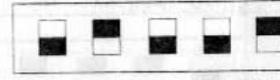
2.1.1.3   AMD 5k86 CPU SPEED SETTING

CPU SPEED	SW1 Settings
P75 (75MHZ)	ON / OFF — 1 2 3 4 5 6
P90 (90MHZ)	ON / OFF — 1 2 3 4 5 6
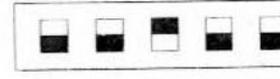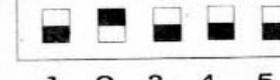
Note 1: *The 4 Host Clock Frequencies that the system supports*
are 50MHz, 55MHz, 60MHz, and 66.6MHz.(By
adusting pins 1,2,3,and 4 of SW1 the Host Clock
Frequency can be selected). See the following chart to
set the different Host Clock frequencies.

| HOST CLK	SW1 Settings
50MHz	
55MHz	
60MHz	
66MHz	

Note 2: *Pins #5 and #6 of the DIP Switch SW1 are used to set*
the Core/Bus (Fraction) ratio of the CPU. The actual
core speed of the CPU is the Host Clock Frequency
multiplied by the Core/Bus ratio. For example:

if   Host Clock   =   66.6MHz
        Core/Bus ratio =   3/2
then   CPU core speed = Host Clock x Core/Bus ratio
                      = 66.6MHz   x 3/2
                      = 100MHz

CORE / BUS RATIO	SW1 Settings
3 / 2	
2 / 1	
5 / 2	
3 / 1	

Note 3:*The PCI Bus Clock is the Host Clock Frequency divided by*

2.1.2 CPU Voltage Setting: J7,J9,J11,J12
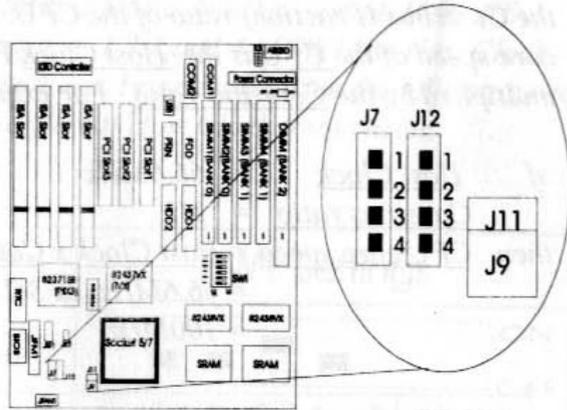
For jumper J7 ,J9,J11,and J12 select either 3.38V or 3.5V power source for the P54C.

For jumper J7 ,J9,J11,and J12 select 2.8V (VCORE) power source for the P55C.

2.1.3 CPU Fan Power Connector (JFAN1)

JFAN1 connector supports +12V voltage for CPU fan use.
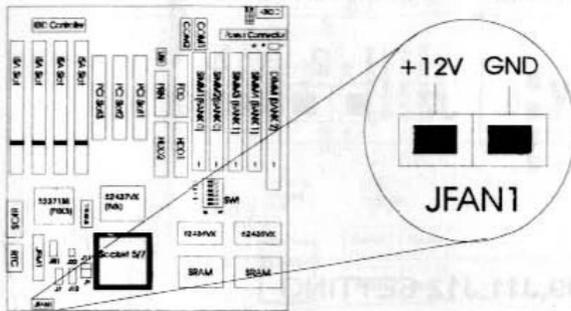
2.2 Memory Installation

Memory Bank Configuration

The system board supports a maximum of 128M of memory, and provides four 72-pin SIMMs (Single In-line Memory Module) and one 168-pin DIMM sockets. Each bank supports 4M, 8M, 16M, and 32M. That is, 2MB and 16MB is the minimum and maximum for one 72-pin single side memory module. And 4MB and 32MB is the minimum and maximum for one 72-pin single side memory module. This board supports 4 RAS. Each RAS supports memory ranging from 4MB to
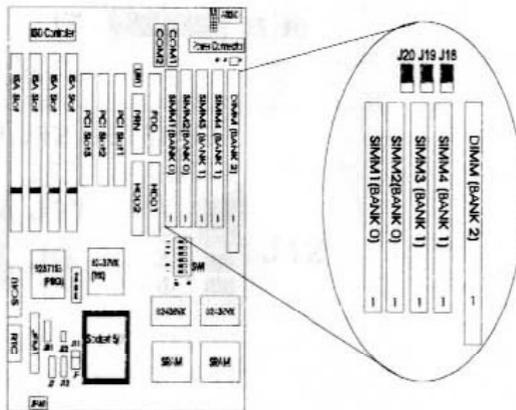
32MB.
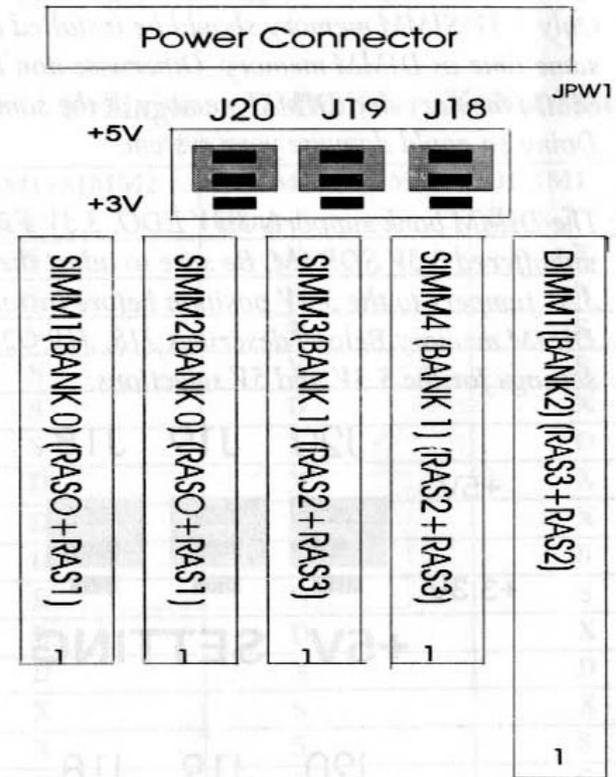
Note 1: DIMM1 and 3.3V jumper (J18, J19, J20) are optional. Default setting is 5V.

Note 2: Make sure the SIMM banks are using the same type and equal size and density memory. Both 3.3V and 5V SIMM memory can be used, but only 3.3V SIMM memory should be used if DIMM memory is installed in the system.

Note 3:To operate properly at least two 72-pin SIMM module must be installed in the same bank or the one 168-pin DIMM module must be installed. The system cannot operate with only one 72-pin SIMM module installed.

Note 4: Only 3.3V SIMM memory should be installed at the same time as DIMM memory. Otherwise don't install SIMM memory and DIMM memory at the same time. Doing so could damage your system.

Note 5: The DIMM bank supports 3.3V EDO, 3.3V FP, and unbuffered 3.3V SDRAM. Be sure to adust the J18, J19, J20 jumpers to the 3.3V position before installing DIMM memory.Below, describes J18, J19, J20 jumper settings for the 3.3V and 5V selections.

J20   J19   J18

+5V

+3.3V

+5V SETTING

J20   J19   J18

+5V

+3.3V
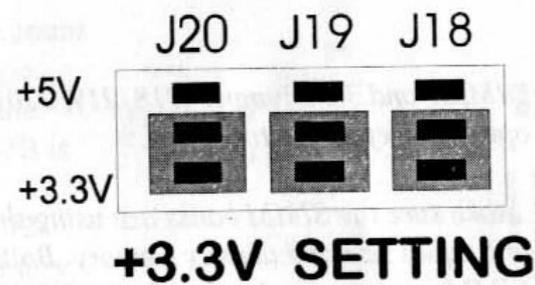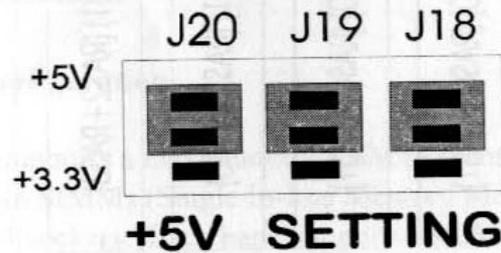
+3.3V SETTING

Note 6: This mainboard supports Table Free so memory can be installed on Bank 0 (SIMM1 + SIMM2),Bank 1 (SIMM3 + SIMM4), or Bank 2 (DIMM1).

Note 7: If the SIMM memory is 3.3V the following combinations are O.K. (Remember to adjust J18, J19, J20 to 3.3V settings.)

S=Single   D=Double   X=Not Installed

SIMM1+SIMM2 Bank 0	SIMM3+SIMM4 Bank 1	DIMM1 Bank 2
S	X	X
S	S	X
S	S	S
S	X	S
S	D	X
S	X	D
D	X	X
D	S	X
D	S	S
D	N	S
D	D	X
D	X	D
X	S	X
X	S	S
X	X	S
X	D	X
X	X	D

2.4 Case connector: (JFM1)

The Turbo LED, Turbo
Switch, Hardware Reset,
Key lock, Power LED,
Power Saving LED, Sleep
Switch, Speaker,and HDD
LED all connect to the
JFM1 connector block as
below.
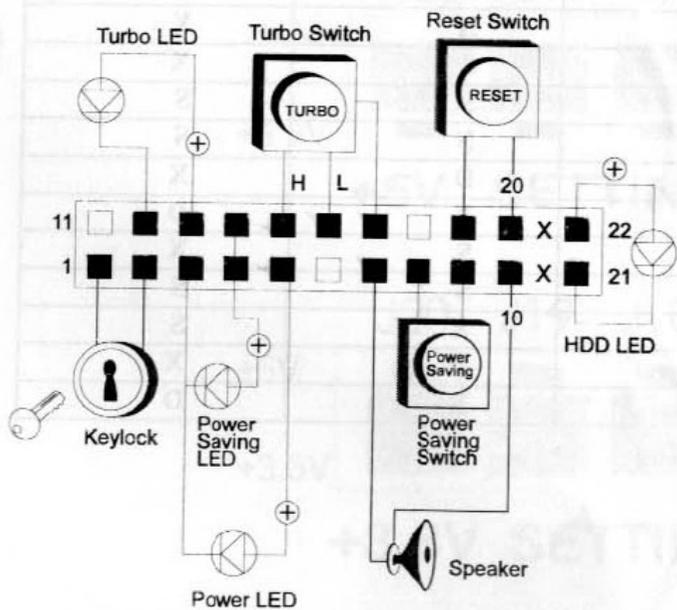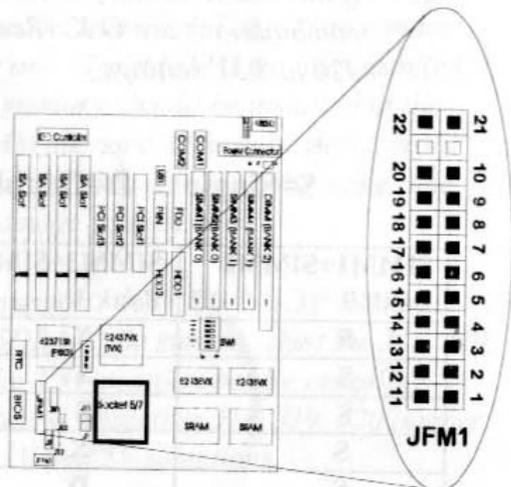
Note :   The hardware Turbo switch is not functional. The Turbo
LED is always ON and cannot be toggled.

2.5 Power Saving Switch Connector:

Attach a power saving switch to this connector. When the switch is
pressed, the system immediately goes into suspend mode. Press any
key and the system wakes up.

*Note: you should enable the Power Management Mode (At Bios
Setup) to use this function.*