

Cache Memory:

- 256K/512K cache with Pipelined Burst SRAM optional, cache module upgradeable to 512KB maximum.

Main Memory:

- Supports four memory banks using four 72-pin SIMM modules with 4M, 8M, 16M, 32M, and 64M FP / EDO DRAM, 512MB maximum.

Slots:

- Three 32-bit PCI bus slots and Four 16-bit ISA bus slots in possible combinations of: 4 ISA & 2 PCI, or 3 ISA & 3 PCI

On-Board Peripherals:

- PS/2 mouse optional
- 1 x 5-pin keyboard & mouse connector
- On-board VGA with 1MB / 2MB Share System Memory Architecture

On-board peripherals include two serial port, the UARTB can program to IrDA function or COMB, one parallel port, one FDC controller, a 2-channel PCI IDE controller, and an optional full duplex ESS1868™ audio chip which is Sound Blaster™ & Sound Blaster Pro™, OPL3™ compatible.

Battery:

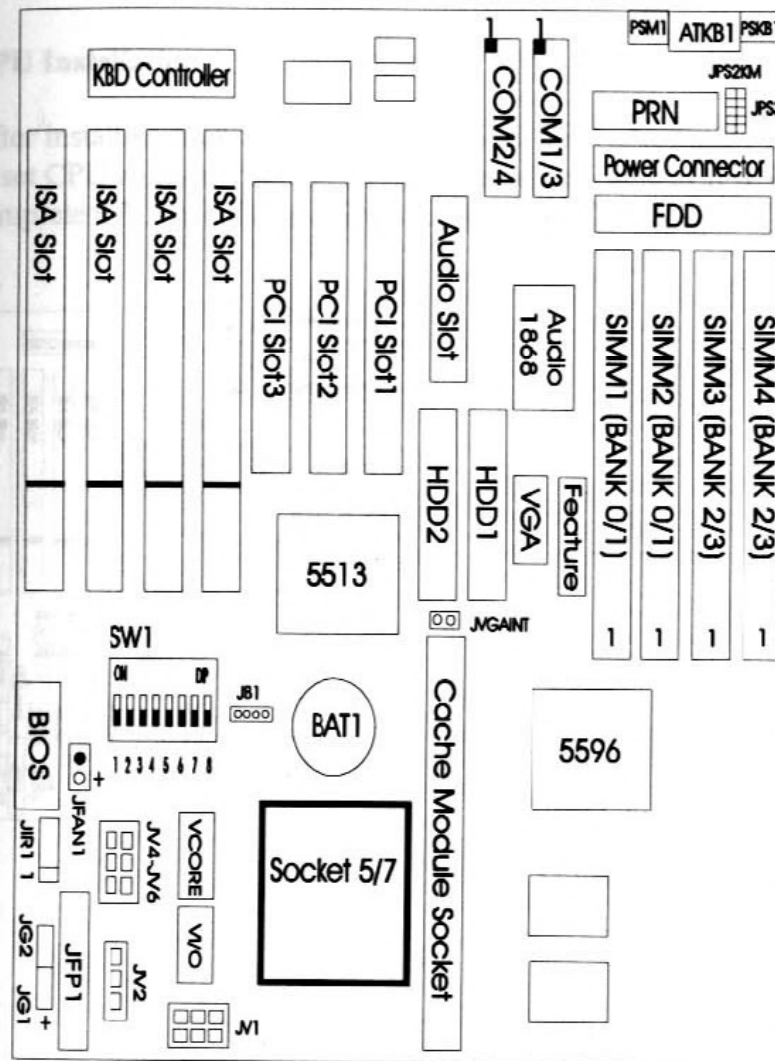
- 3V on-board Lithium battery

Dimensions:

- 28 cm x 22 cm x 4 layers

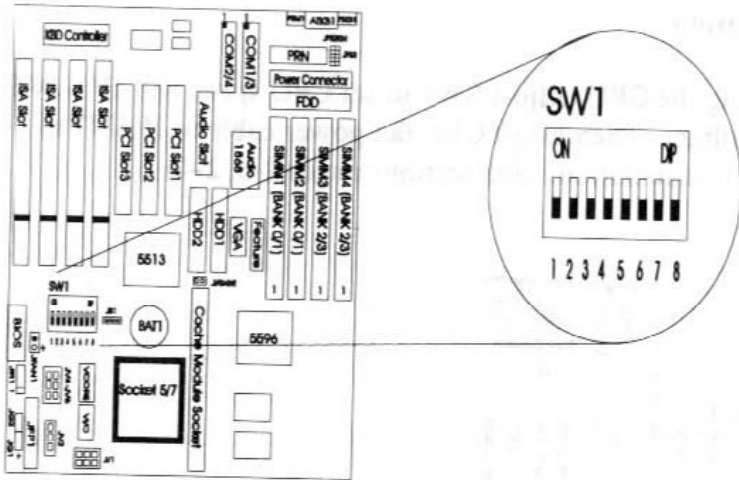
Mounting: 7 mounting holes

System Board Layout



CPU Speed Setting (SW1)

Adjust SW1 (Dip switch) to set CPU speed. Figure 2-1 shows the location of SW1.



INTEL P54C/P55C CPU SPEED SETTING

CPU Speed	SW1 Settings
75MHZ ①	 ON OFF 1 2 3 4 5 6 7 8
75MHZ ②	 ON OFF 1 2 3 4 5 6 7 8
90MHZ	 ON OFF 1 2 3 4 5 6 7 8
100MHZ	 ON OFF 1 2 3 4 5 6 7 8
120MHZ	 ON OFF 1 2 3 4 5 6 7 8
133MHZ	 ON OFF 1 2 3 4 5 6 7 8
150MHZ	 ON OFF 1 2 3 4 5 6 7 8
166MHZ	 ON OFF 1 2 3 4 5 6 7 8
200MHZ	 ON OFF 1 2 3 4 5 6 7 8

Note: 1 With this 75MHz setting the PCI Bus is running at 25MHz.

Note: 2 With this 75MHz setting the PCI Bus is running at 33MHz.

CYRIX 6x86 CPU SPEED SETTING

CPU Speed	SW1 Settings
P120+ (100MHZ)	
P133+ (110MHZ)	
P150+ (120MHZ)	
P166+ (133MHZ)	

Note: SW1 PIN 1 set to "off", the Cache Mode is Toggle. SW 1 PIN 1 set to "on" the Cache Mode is Linear. CYRIX CPU uses Linear mode which is better, and the BIOS "Linear Mode SRAM Support" must enabled.

Note: If you use the CYRIX CPU you must be sure that the onboard voltage is 4.8V or above. If not your system will be unstable.

AMD 5k86/k5CPU SPEED SETTING

CPU Speed	SW1 Settings
P75 (75MHZ)	
P90 (90MHZ)	
P100 (100MHZ)	

Host Clock:

The 5 Host Clock Frequencies that the system supports are 50MHz, 55MHz, 60MHz, 66.6MHz and 75MHz.(By adjusting pins 5, 6, 7, and 8 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 Sync	
50 Async	
55MHz	
60MHz	
66MHz	
75MHz Async	

Note 1: SW1 Pin 8 is used for setting the SIS5596 PCI to run in the asynchronous mode.

Note 2: With the Host Clock set at 50MHz Sync the Synchronous PCI bus is running at 25Mhz.

With the Host Clock set at 50MHz Async the Asynchronous PCI Bus is running at 33MHz.

Note 3: With the Host Clock set at 75MHz the PCI Bus is running at 32MHz.

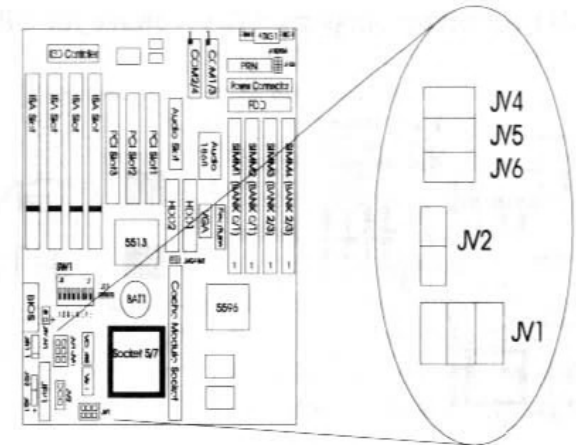
Core/Bus Ratio:

The Core/Bus Ratio setting can be set by adjusting pins 2, 3, and 4 of SW1. See the following chart for settings:

Core/Bus Ratio	ON OFF
1.5 X	 1 2 3 4 5 6 7 8
2 X	 1 2 3 4 5 6 7 8
2.5 X	 1 2 3 4 5 6 7 8
3 X	 1 2 3 4 5 6 7 8

CPU Voltage Setting: JV1-JV6

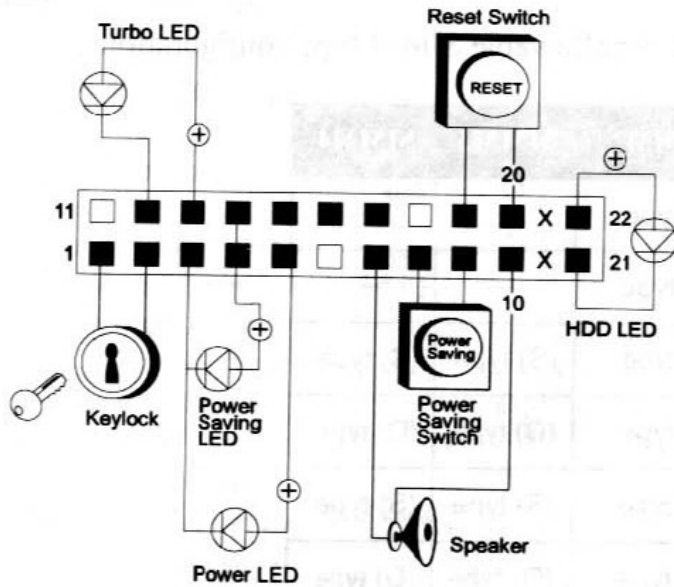
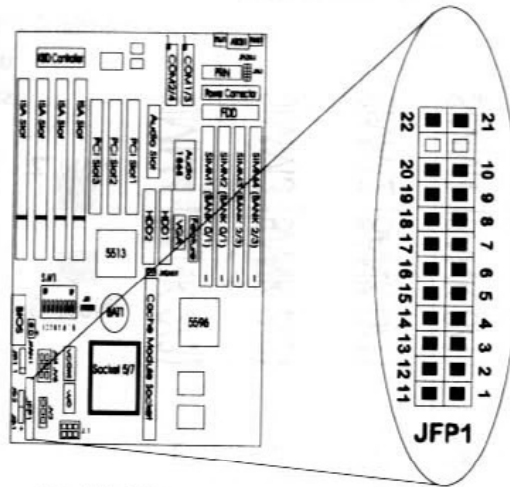
JV1-JV6 are used to set the correct voltage for the CPU. The Intel Pentium CPU has four different voltage settings: 2.8V/STD/VR/VRE. The 6x86 3.52V CPU and AMD 3.52V CPU should be set to VRE voltage.



CPU Voltage	JV1	JV2	JV4 JV5 JV6
STD.VR (3.3-3.45V)	 Short all	 3 2 1 Short 2-3	 Open all
VRE (3.45-3.6V)	 Short all	 3 2 1 Short 2-3	 Short JV5
P55C (2.6-2.8V)	 Open all	 3 2 1 Short 1-2	 Short JV6
(2.4-2.6V)	 Open all	 3 2 1 Short 1-2	 Short JV4
+0.1V (If JV5 is shorted, the total voltage will increase by 0.1 V)		 3 2 1 Short	 Short JV5

2.4 Case connector: JFP1

The Turbo LED, Hardware Reset, Key lock, Power LED, Power Saving LED, Sleep Switch, Speaker, and HDD LED all connect to the JFP1 connector block as below.

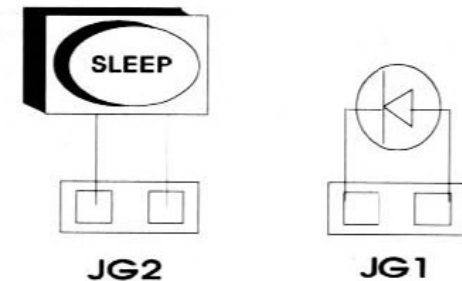
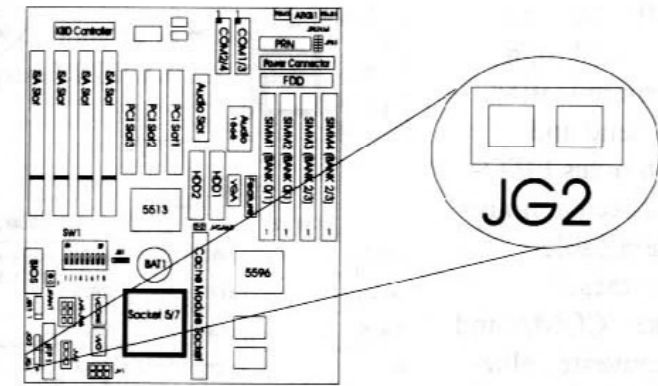


Note : This motherboard doesn't support a Turbo Switch Function.

2.5 Power Saving Switch Connector & Power Saving LED Connector: JG1 & JG2

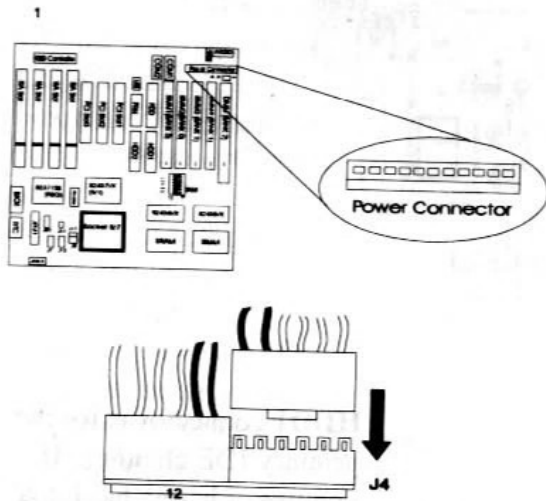
Attach a power saving switch to this connector. When the switch is pressed, the system immediately goes into suspend mode. Press any key and the system wakes up.

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



2.7 Power Supply Connector: J4

Be sure to attach the connectors with the two black wires at the center, as shown below.



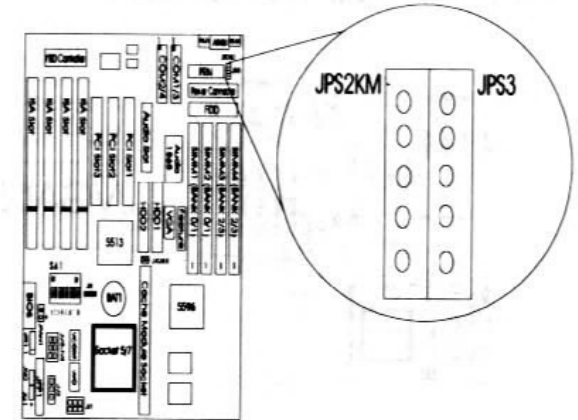
Pin	Description	Pin	Description
1	Power Good	7	Ground
2	+5V DC	8	Ground
3	+12V DC	9	-5V DC
4	-12V DC	10	+5V DC
5	Ground	11	+5V DC
6	Ground	12	+5V DC

PS/2 Mouse Connector: JPS2KM

Keyboard Connector: JPS3

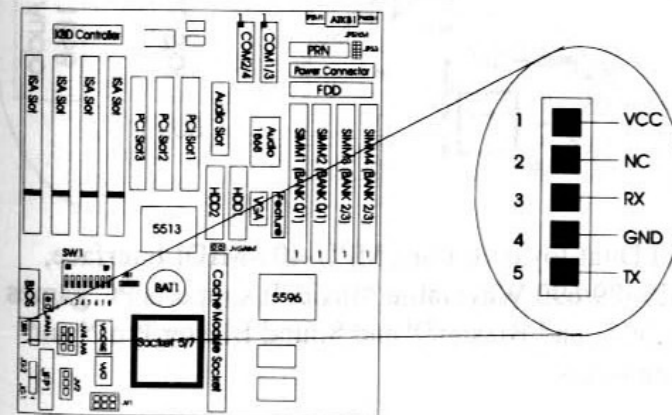
JPS2KM and JPS3 are 5-pin connectors. See description below.

Pin 1	VCC
Pin 2	NC
Pin 3	Ground
Pin 4	Clock
Pin 5	Data



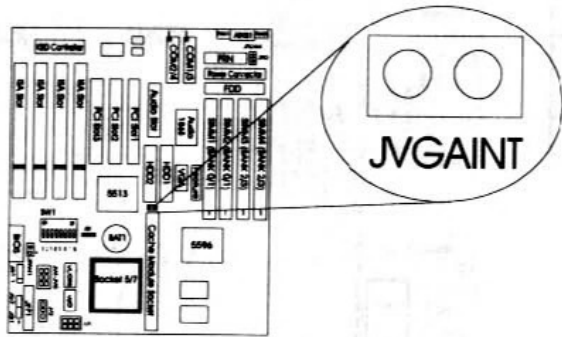
IrDA Infrared Module Connector: JIR1

The system board provides a 5-pin infrared connector JIR1 as an optional module for wireless transmitting and receiving.



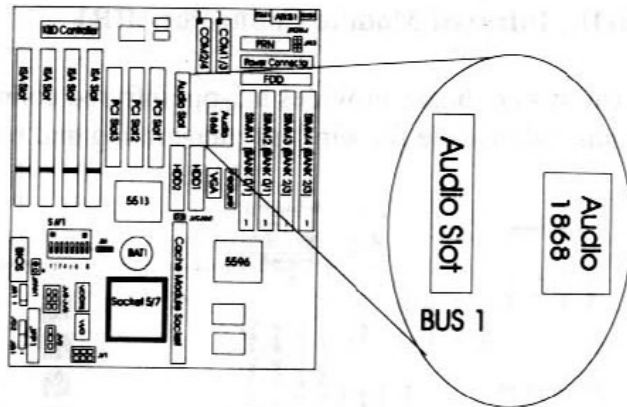
VGA INTA Jumper: JVGAINT

If you want to use the the onboard VGA Interrupt, short the JVGAINT, and in the BIOS Features Setup Enable "Assign IRQ for VGA." INTA can't use PCI Slot 1.



Audio Bus Slot: BUS1

The Audio function is optional. It uses the ESS1868™ audio chip and it supports full duplex function which allows you to record and play back at the same time. It comes



with an Integrated Dual Joystick Port, MPU-401 MIDI Interface, and an optional ES689/690 Wavetable Music. It supports PC games and applications for Sound Blaster™ and Sound Blaster Pro™ and OPL3™ FM synthesizers.

6x86 CPU+ ESS1868: SL4

When using an ESS Sound Card and a Cyrix CPU at the same time, the ESS Sound Card must be installed to SL4 of ISA Slot.