Declaration of conformity

FC

Trade Name:	QDI Computer (U. S . A.) Inc.
Model Name:	PlatiniX 1D
Responsible Party:	QDI Computer (U. S. A.) Inc.
Address:	41456 Christy Street
	Fremont, CA 94538
Telephone:	(510) 668-4933
Facsimile:	(510) 668-4966
Equipment Classification:	FCC Class B Subassembly
Type of Product:	Mainboard
Manufacturer:	**Quantum Designs (HK) Inc.**
Address:	20th Floor, Devon House, Taikoo Place
	979 King's Road, Quarry Bay, HONG
	KONG

Supplementary Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to
the following two conditions : (1) this device may not cause harmful interfer-
ence, and (2) this device must accept any interference received, including
interference that may cause undesired operation.
Tested to comply with FCC standards.

Signature : _Kru Wlmyl_   Date :   2001

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CONTENTS

⚠ Note:

This manual is suitable for mainboards of PlatiniX 1D series. Each mainboard is carefully designed for the PC user who wants diverse features.

P1D: without onboard Audio and onboard LAN
P1D-A: with onboard Audio
P1D-L: with onboard LAN
P1D-AL: with onboard Audio and onboard LAN

⚠ Caution

Be sure to add some Silicone Grease between the CPU and the heatsink of FAN to keep them fully contact , meanwhile to meet the heat sink requirement.

Chapter 1
Introduction

Overview

PlatiniX 1D series mainboard utilizes Intel® 845DDR chipset, 845DDR consists of two components: the 82845 Memory Controller Hub(MCH) and the 82801BA I/O Controller Hub2(ICH2), providing a fully compatible, high performance and cost-effective mATX platform. The mainboard provides 400 MHz system bus to support Intel® Pentium 4 socket 478 processors and it supports PC200/PC266DDR SDRAM with the largest memory size up to 2GB. The new integrated technologies, together with AGP 4X support, AC'97 Audio, 4 USB ports, and Ultra DMA100/66/33, give customers an advanced, multimedia solution at an reasonable price. It also provides advanced features such as Wake up by USB devices, Wake-on-LAN, Wake-on-Modem and ACPI functions. Suspend to RAM, the optimal implementation of the Advanced Configuration and Power Interface (ACPI) specification, makes the PC's power consumption drop to the lowest possible level and enable quick wakeup. ManageEasy, our system management application is also supplied to enable remote monitoring and configuration of the system. BootEasy, lets the PC boot freely and rapidly.

Key Features

Form factor

- mATX form factor of 244mm x 224mm

Microprocessor

- Supports Intel® Pentium 4(Willamette) socket 478 processors at 1.4/1.5/1.6/1.7/1.8/1.9/2.0 GHz and above
- Supports Intel® Pentium 4(Northwood) socket 478 processors at 2.0/2.2GHz and above
- Supports 400MHz host bus speed

System memory

- Provides two 184-pin DDR DIMM sockets
- Supports PC-200/266 DDR SDRAM
- Supports 64/128/256/512Mb SDRAM technology
- The largest total memory is up to 2GB

Onboard IDE

- Supports Independent timing of up to 4 drives
- Supports Ultra ATA 100/66/33, PIO mode
- Two fast IDE interfaces supporting four IDE devices including IDE hard disks and CD

USB Ports

- 2 USB Host Controllers with total of 4 ports
- USB 1.1 compliant
- Supports wake-up from S1 (power on suspend), S3 (Suspend to RAM,depends on device)

Onboard I/O

- One floppy port supporting up to two 3.5˝ or 5.25˝ floppy drives with 360K/720K/1.2M/ 1.44M/2.88M format
- Two high speed 16550 compatible UARTs (COM1/COM2/COM3/COM4 selective) with 16 byte send/receive FIFO
- One parallel port supports SPP/EPP/ECP mode
- Infrared interface
- All I/O ports can be enabled/disabled in the BIOS setup

Onboard LAN (Optional)

- 10/100 Mbit/sec Ethernet support
- 10/100M LAN interface built-in on board

Onboard Audio

(available on P1D-A,P1-AL)

- AC'97 2.1 Specification Compliant
- Provides onboard Line-in Jack, Microphone-in Jack, Speaker-out Jack with onboard amplifier and MIDI/Joystick Connector

AGP Interface

- AGP Connector supports AGP 2.0 including AGP 4x data transfers

BIOS

- Licensed advanced AWARD(phoenix) BIOS
- Supports Flash RAM with plug and play ready
- Supports IDE CD-ROM or SCSI boot up

Advanced features

- PCI 2.2 Specification Compliant
- Provides Trend ChipAwayVirus On Guard
- Supports Windows 98/2000/ME soft-off
- Supports Wake-on-LAN and Wake-on-Modem
- Supports Keyboard Password Power-on function
- Supports system monitoring(monitors CPU and system temperatures, system voltages, fan speed)
- Providing QDI innovations such as SpeedEasy, RecoveryEasy, BIOS-ProtectEasy(to protect the system BIOS from being attacked by severe virus such as CIH), LogoEasy, ManageEasy, BootEasy,StepEasy II(optional)

Green function

- Supports ACPI (Advanced Configuration and Power Interface) and ODPM (OS Directed Power Management)
- Supports ACPI power status: S0 (full-on), S1 (power on suspend), S3 (Suspend to RAM), S4(Suspend to Disk ,depends on OS) and S5 (soft-off)

Expansion slots

- 1 AGP slot
- 3 PCI slots
- 1 CNR slot

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Chapter 2

Installation Instructions

This section covers External Connectors and Jumper Settings. Refer to the mainboard layout chart for locations of all jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular state of the jumpers, connectors and ports are illustrated in the following figures. Before setting the jumpers or inserting these connectors, please pay attention to the directions.

External Connectors

PS/2 Keyboard/Mouse Connector
PS/2 keyboard connector is for the usage of PS/2 keyboard. If using a standard AT size keyboard, an adapter should be used to fit this connector. PS/2 mouse connector is for the usage of PS/2 mouse.

PS/2 Mouse connector
PS/2 Keyboard connector

USB1, USB2 and LAN Connectors
Two USB ports are for connecting USB devices. The RJ-45 connector is for onboard LAN, (LAN connector is optional).

LAN
USB1
USB2

Warning

Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, otherwise your mainboard and expansion cards might be seriously damaged.

Line-in jack, Microphone-in jack, Speaker-out jack and MIDI/Joystick Connector (available on P1D-A,P1D-AL)

The Line-in jack can be connected to devices such as a cassette or minidisc player to playback or record. The Microphone-in jack can be connected to a microphone for voice input. The Speaker-out jack allows you to connect speakers or headphones for audio output from the internal amplifier.The MIDI/Joystick connector allows you to connect a game joystick or a MIDI device.

MIDI/Joystick

Speaker out   Line in   Microphone in
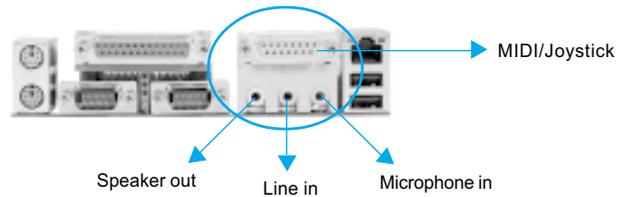
Parallel Port, Serial Port Connectors (UART1, UART2)

The parallel port connector can be connected to a parallel device such as a printer. The serial port UART1,2 connectors can be connected to a serial port device such as a serial port mouse. You can enable/disable them and choose the IRQ or I/O address in "Integrated Peripherals" from AWARD BIOS SETUP.

Parallel Port

UART1

UART2

USB3, 4 Connectors

Besides USB1 and USB2 ports on the back panel,the mainboard also has a 10-pin header on board which may connect to front panel USB cable to provide additional 2 USB Ports.

1	
+5V	GND
D0-	GND
D0+	D1+
GND	D1-
GND	+5V
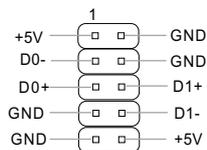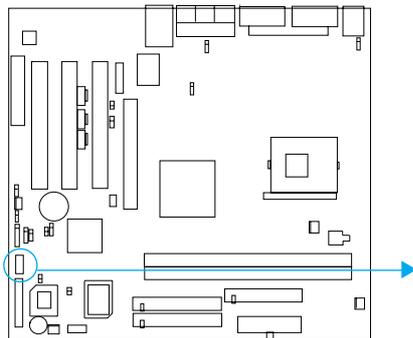
USB3,4

ATX12V Power Supply Connector & Power Switch (POWER SW)

Be sure to connect the power supply plug to this connector in its proper orientation. The power switch (POWER SW) should be connected to a momentary switch. When poweri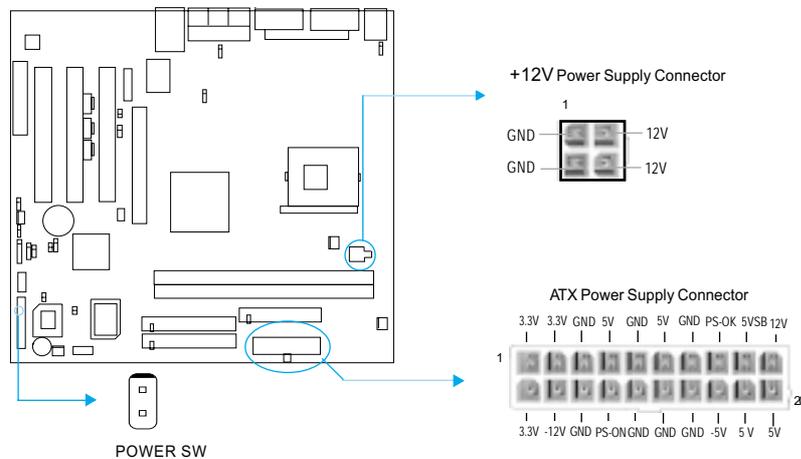ng up your system, first turn on the mechanical switch of the power supply (if one is provided), then push once the power switch. When powering off the system, you needn't turn off the mechanical switch, just **Push once** the power switch. PlatiniX 1D series mainboard only support ATX12V power.

+12V Power Supply Connector

1

GND ——— 12V
GND ——— 12V

ATX Power Supply Connector

3.3V 3.3V GND 5V   GND 5V   GND PS-OK 5VSB 12V

1

20

3.3V -12V GND PS-ON GND GND GND -5V 5V 5V

POWER SW

Note   If you change "Soft-off by PWR-BTTN" from default "Instant-off" to "Delay 4 Sec" in the "POWER MANAGEMENT SETUP" section of the BIOS, the power switch should be pressed for morethan 4 seconds before the system powers down.

Hard Disk LED Connector (HD_LED)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk. The connector has an orientation. If one way doesn't work, try the other way.

Reset Switch (RESET)

The connector connects to the case's reset switch. Press the switch once, the system resets.

Speaker Connector (SPEAKER)

The connector can be connected to the speaker on the case.

Power LED Connector (PWR LED)

When the system is in S0 status, the LED is on. When the system is in S1 status, the LED is blink; When the system is in S3,S4, S5 status, the LED is off. The connector has an orientation.

GREEN LED Connector (GREEN LED)

When the system is in S0,S1,S4 ,S5 status, the LED is off,When the system is in S3 status, the LED is on.
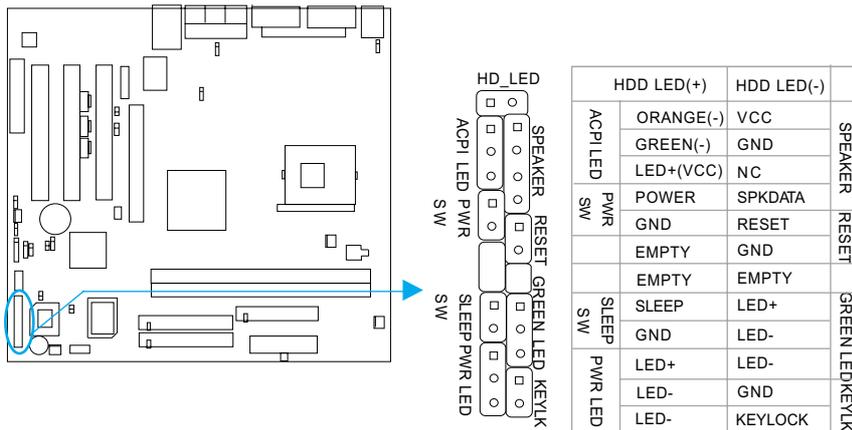
ACPI LED Connector (ACPI LED)

The ACPI LED is a dual-color light with three pins. Pin1and Pin2 drive different color lights. If Pin1 drives the orange light , then, Pin2 drives the green light, the following status will come out. When the system is in S0 status, the LED is green on. When the system is in S1 status, the LED is green blink. When the system is in S3 status, the LED is orange on. When the system is in S4, S5 status, the LED is off.

Hardware Green Connector (SLEEP SW)

Push once the switch connected to this header, the system enters suspend mode.

Key Lock Connector (KEYLK)

The connector can be connected to the keyboard lock switch on the case for locking the keyboard.

	HDD LED(+)	HDD LED(-)	
ACPI LED	ORANGE(-)	VCC	SPEAKER
	GREEN(-)	GND	
	LED+(VCC)	N C	
PWR SW	POWER	SPKDATA	RESET
	GND	RESET	
	EMPTY	GND	
	EMPTY	EMPTY	GREEN LEDKEYLK
SLEEP SW	SLEEP	LED+	
	GND	LED-	
PWR LED	LED+	LED-	
	LED-	GND	
	LED-	KEYLOCK	

Infrared Header (IrDA)

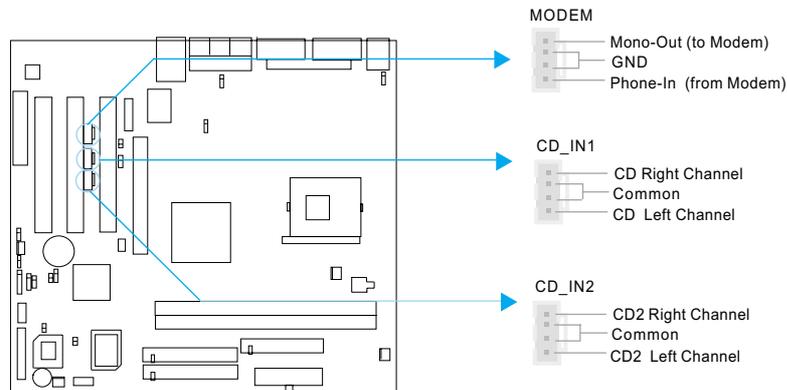This connector supports wireless transmitting and receiving. Before using this function, configure the settings for IR Address, IR Mode and IR IRQ from the "INTEGRATED PERIPH-ERALS" section of the BIOS.

1	VCC
2	NC
3	IRRX
4	GND
5	IRTX
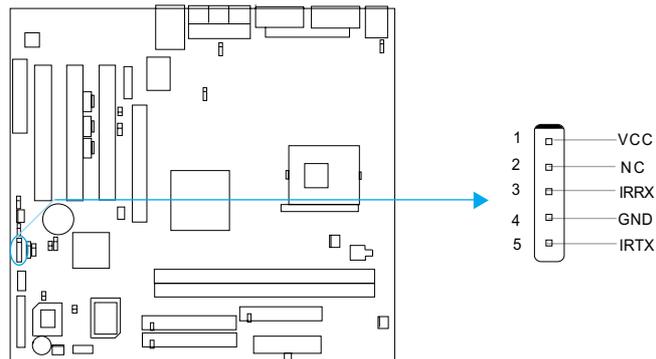
Audio Connectors (CD_IN1, CD_IN2, MODEM)
### (Available on P1D-A/AL)

CD_IN1 and CD_IN2 are Sony standard CD audio connectors, they both can be connected to a CD-ROM drive through a CD audio cable. The MODEM connector allows the onboard audio to interface with a voice modem card with a similar connector. It allows connecting the mono_in (such as a phone) or mono_out (such as a speaker) between the onboard audio and the voice modem card.

MODEM
- Mono-Out (to Modem)
- GND
- Phone-In (from Modem)

CD_IN1
- CD Right Channel
- Common
- CD Left Channel

CD_IN2
- CD2 Right Channel
- Common
- CD2 Left Channel

Smart Card Reader Connector(SCR)(Optional)

The SCR Interface Connector is the interface between the motherboard and the Smart Card. The SCR includes a standard UART to control Smart Card interface handshaking and then performs data transfers. The SCR can be used for a broad range of applications in GSM, ID, pay TV, banking and so forth. It also provides a Smart Card clock divider for those ICC (Integrated Circuit Card) without internal clocks. If use this function, set "UART Mode Select" to SCR in the "INTEGRATED PERIPHERALS" section of the BIOS.
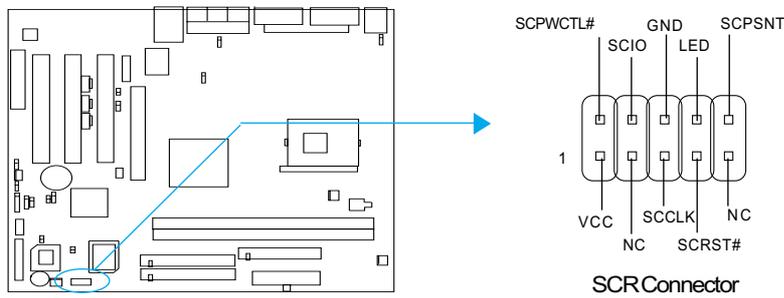
SCR Connector

## Fan Connectors (PWRFAN, CPUFAN, CHSFAN)

The fan speed of these three fans can be detected and viewed in "PC Health" section of the BIOS. These three fans will be automatically turned off after the system enters suspend mode.
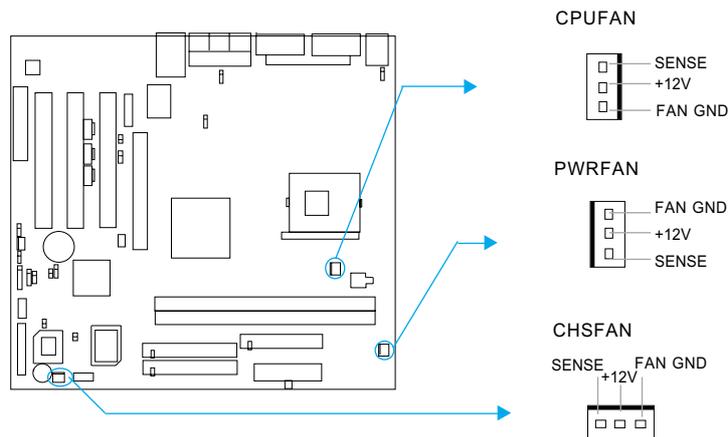
Wake-Up On LAN (WOL)

Through the Wake-Up On LAN function, a wake event occurring from the network can wake up the system. If this function is to be used, please be sure an ATX12V power, and a LAN adapter which supports this function is used. Then connect this header to the relevant connector on the LAN adapter, set "Wake-Up by Ring/ LAN" as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save and exit, then boot the operating system once to make sure this function takes effect.

1   +5VSB
     GND
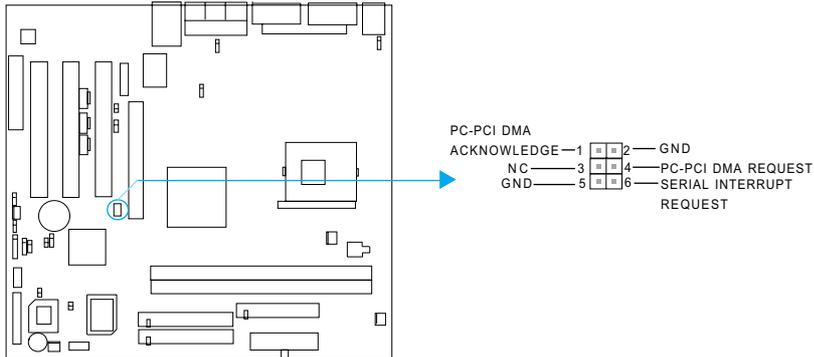   Signal for waking up
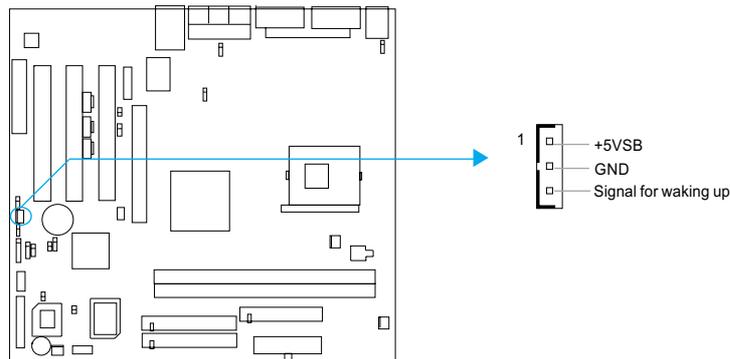
Wake-Up On Internal Modem (WOM)

Through this function, the system which is in the suspend or soft-off status can be waked up by a ring signal received from the internal modem. When this function is used, be sure an internal modem card which supports this function is used. Then connect this header to the relevant connector on the modem card, set "Wake-Up by Ring/LAN" as Enabled in the "Power Management Setup" section of the BIOS. Save and exit, then boot the operating system once to make sure this function takes effect.

1   +5V standby
   Signal for waking up (active low)
     GND
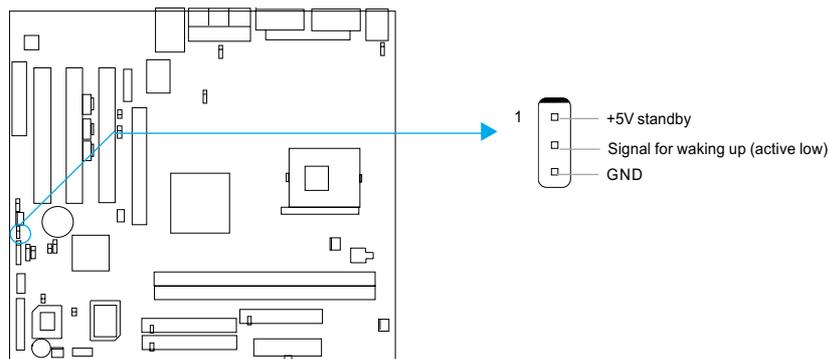
Sound Connector (PC-PCI)

This connector provides a bridge between the mainboard and PCI sound card to deliver sound compatibility under DOS real-mode environment.

```
PC-PCI DMA
ACKNOWLEDGE —1  2 — GND
       N C — 3   4 — PC-PCI DMA REQUEST
       GND — 5   6 — SERIAL  INTERRUPT
                     REQUEST
```

Chassis Security Switch (CHSSEC)

The connector connects to the chassis security switch on the case. The system can detect the chassis intrusion through the status of this connector. If the cased has been opened , the system will record the status and indicate the chassis has been opened. You can receive this information from QDI ManageEasy software.

```
1 — Indicate signal
  — GND
```
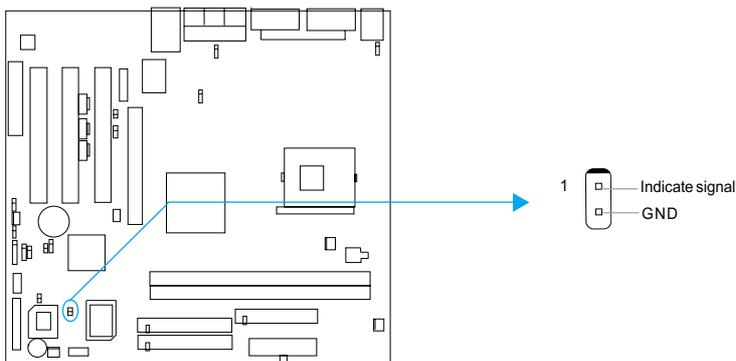
4 Pin SMBus Connector(SMBUS)

This connector allows you to connect SMBus devices. SMBus devices communicate through the SMBus with an SMBus host and/or other SMBus devices. The SMBus or System Management Bus is a specific implementation of I^2C bus, which is a multi-master bus, that is, multiple chips can be connected to the same bus and each one can act as a master by initiating data transfer.

1	SMBDATA
2	SMBCLK
3	GND
4	5VSB

SMBUS Connector
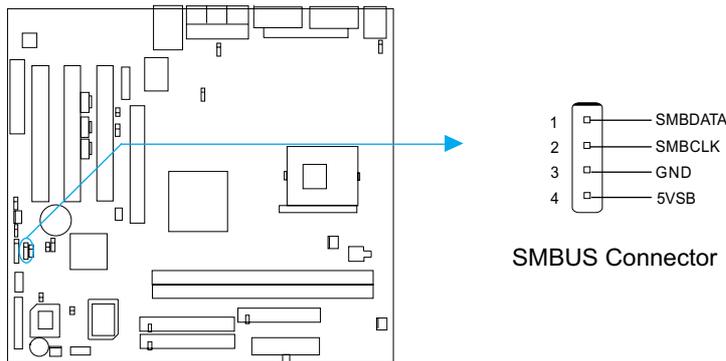
Communication and Networking Riser Interface Connector(CNR)

The mainboard provides this Communication and Networking Riser(CNR) interface which can support audio and/or modem functions . Furthermore, it provides a LAN interface for network-ing functions. What its superiority compared with AMR is being able to support plug-and-play function. Mechanically the CNR shares a PCI slot, thus when you insert the CNR card, the neighboring PCI slot cannot be used.
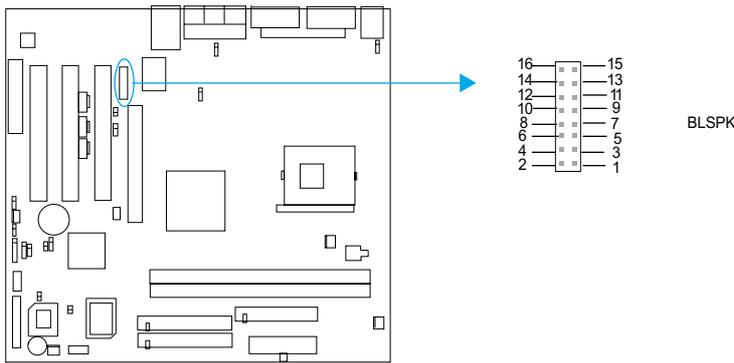

CNR Connector
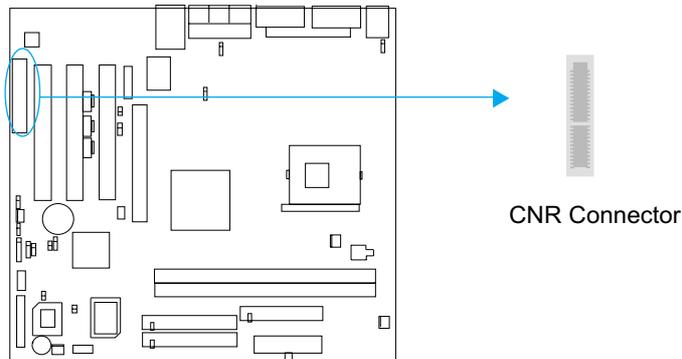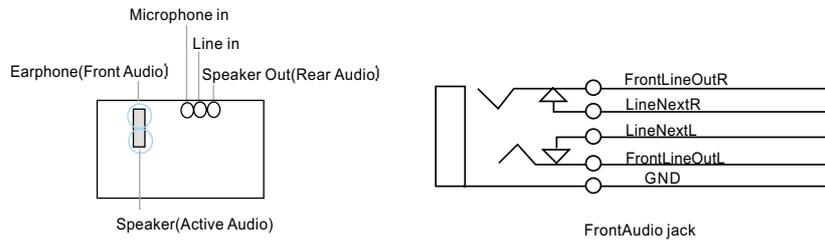
By using an audio codec, the AC'97 digital link providing by CNR allows for cost-effective, high-quality, integrated audio on the platform. AC'97 digital link also allows several external codecs to be connected to the ICH2. The digital link is expanded to support twoor three audio codecs for up to 6 channels of PCM audio output (full AC-3 decode) or a combination of an audio and modem codec.

Audio Interface (Optional)

The audio interface can provide 3 kinds of Audio output choics :the FrontAudio, the RearAudio and the ActiveAudio. Their priority level is as sequence. when the FrontAudio is available, the RearAudio and the ActiveAudio(in-case speaker)will be cut off. when the RearAudio is available, the ActiveAudio will be cut off. An onboard amplifier is needed for the case of earphone plugged into. when the FrontAudio jack is inexistence, Pin11 and Pin12, Pin13 and Pin14 must be short connected.

Microphone in

Line in

Earphone(Front Audio)   Speaker Out(Rear Audio)

FrontLineOutR
LineNextR
LineNextL
FrontLineOutL
GND

Speaker(Active Audio)

FrontAudio jack

16 — 15
14 — 13
12 — 11
10 — 9
8 — 7
6 — 5
4 — 3
2 — 1

BLSPK

Pin No.	Symbol	Pin No.	Symbol
1	Active LINE Out(R)	2	Active LINE Out(L)
3	GND (ALO)	4	GND (ALO)
5	GND(+12)	6	GND(+12)
7	+12V(1A)	8	(Cut away)
9	MIC	10	GND (MIC)
11	Front LINE Out(R)	12	LINE Next(R)
13	Front LINE Out(L)	14	LINE Next(L)
15	GND (FLO)	16	(Cut away)

Intruder Detect Switch(JINTR)(Reserved)

The connector connects to the chassis security switch on the case. The system can detect the chassis intrusion through the status of this connector.


```
1  □ ─── Indicate signal
   □ ─── GND
```
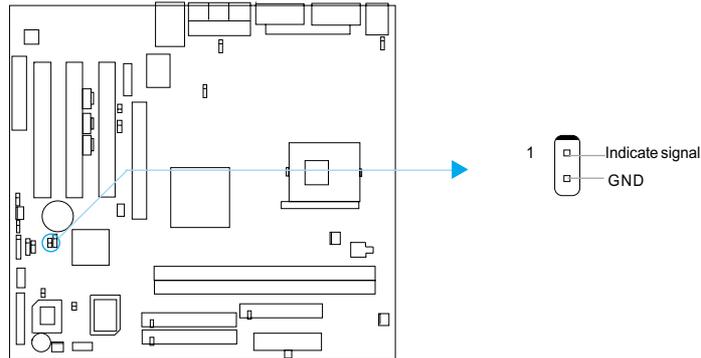
Main Expansion Slots and Connectors

| Slot/Port (Quantity)	Description
PCI(3)	PCI slots
CNR(1)	CNR slot
AGP(1)	AGP slot
IDE(2)	IDE ports
FLOPPY(1)	Floppy Drive port
DDR(2)	DDR sockets
USB(4)	USB connectors
UART(2)	UART connectors
PARALLEL(1)	Parallel connector
IrDA(1)	IrDA connector

Jumper Settings

Jumpers are located on the mainboard, they represent, clear CMOS jumper JCC, enable BIOS Protection function jumper JAV etc. Pin 1 for all jumpers are located on the side with a thick white line (Pin1→), refer to the mainboard's silkscreen. Jumpers with three pins will be shown as to represent pin1 & pin2 ("1-2")connected and to represent pin2 & pin3 ("2-3")connected.

Jumper	Symbol	Description	Represent
3-pin		1-2	set pin1 and pin2 closed
		2-3	set pin2 and pin3 closed
2-pin		close	set the pins closed
		open	set the pins opened

Enable/Disable onboard audio (JSD)

(P1D-A,P1D-AL available)

If you want to use the on-board audio, set JSD with pin2 & pin3 closed (default), Otherwise, set JSD with pin1 & pin2 closed for disabling this function.
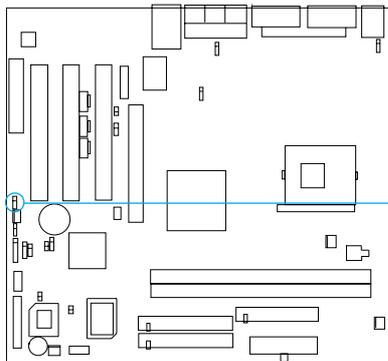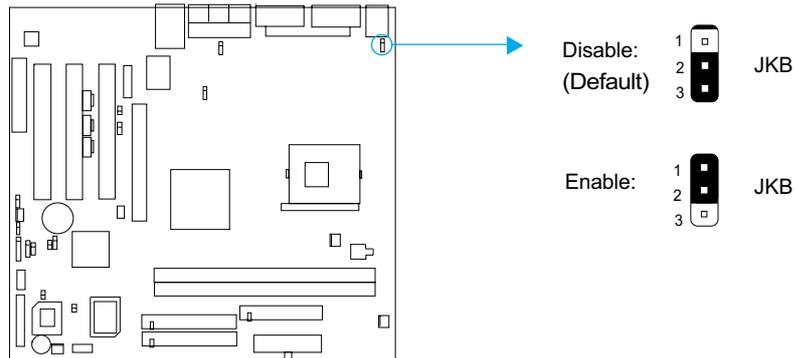
Enable onboard audio:
(Default)

JSD

1
2
3

Disable on-board audio:

JSD

1
2
3

Enable keyboard password power-on function (JKB)

The mainboard provides the advanced keyboard password power-on function. Before using this function, set JKB with pin1 & pin2 closed. Otherwise, set JKB with pin2 & pin3 closed for disabling.

Furthermore in order to implement this function, set "POWER ON Function" to Password and enter the keyboard power-on password in the "INTEGRATED PERIPHERALS" section of the BIOS. Save and exit, then power off your system. In this case, the power button's power-on function has been disabled.

Note:
1. If using this function, 5VSB line of the power supply should be capable of delivering enough current for all the devices connected to the keyboard port, if not, you will be unable to power up the system using the keyboard.
2. If you set JKB with pin2 & pin3 closed, set "POWER ON Function" to "BUTTON ONLY", don't set it to Password, or you'll be unable to power up your system by the keyboard or the power button.
3. If you encounter the above problems, clear CMOS and set the jumper and BIOS option again.

Clear CMOS (JCC)

If you want to clear CMOS, unplug the AC power supply first, close JCC (pin1 & pin2) once, set JCC back to the normal status with pin2 & pin3 connected, then power on the system.

Normal status:
(Default)

```
1 □
2 ■  JCC
3 ■
```

Clear CMOS:

```
1 ■
2 ■  JCC
3 □
```

(Unplug the AC power supply)
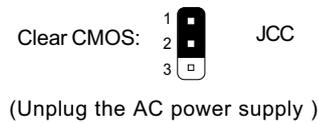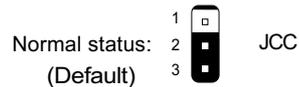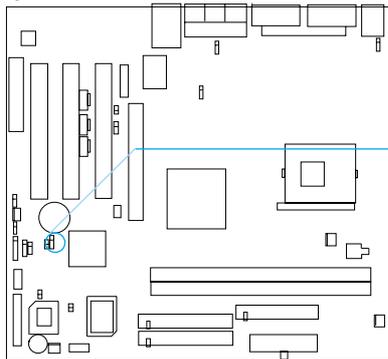
Overclocking Jumper Setting (JFSB)

Jumper labeled JFSB is located on the mainboard providing users with CPU overclocking feature. The host bus speed can be set as 100/133MHz or AUTO. Refer to the chart below for the location of these jumpers, and the table for information on how to set them..

```
1 □
2 □  JFSB
3 □
```
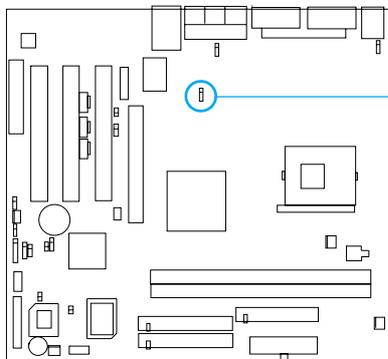
CPU FSB	100MHz	133MHz	AUTO
JFSB	2-3	OPEN	1-2 (default)

If CPU FSB is set as Auto (default), the system detects the CPU FSB (front side bus) automatically. If CPU FSB is set as 100MHz, the system will run at 100MHz even if a processor with 66MHz or 133MHz FSB is installed. Setting up to 133MHz using processors with 100MHz bus speed is also supported. However, whether or not the system can be overclocked depends on your processor's capability. Whether the processor is bus ratio locked or unlocked should also be taken into account. For bus ratio unlocked processor, this overclocking feature can be implemented by setting CPU FSB as 100/133MHz, meanwhile adjusting the bus ratio (multiplier) lower in "CPU SpeedEasy Setup" in AWARD BIOS CMOS Setup. You can also adjust the CPU frequency by running StepEasy II. We do not guarantee the overclocking system will be stable.

Enable Front/Back Panel USB Device Wake-up Function (JFUSB/JUSB)

The mainboard provides the advanced USB device wake-up function. The system can be waked up from its power saving including ACPI S3 by activating USB device. Before using this function, set JFUSB/JUSB with pin1 & pin2 closed. Otherwise, set JFUSB/JUSB with pin2 & pin3 closed for disabling. Furthermore, the item "Wake-Up From S3 by USB"in BIOS setup should also be set corespondingly to enable or disable this function.
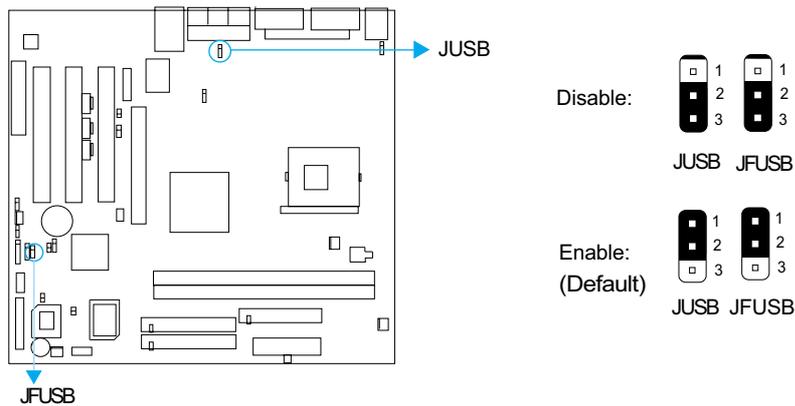
BIOS Protection Jumper (JAV)

The BIOS of the mainboard is inside the FWH. If the jumper JAV is set as closed, you will be unable to flash the BIOS to the mainboard. However in this status, the system BIOS is protected from being attacked by serious virus such as CIH virus.
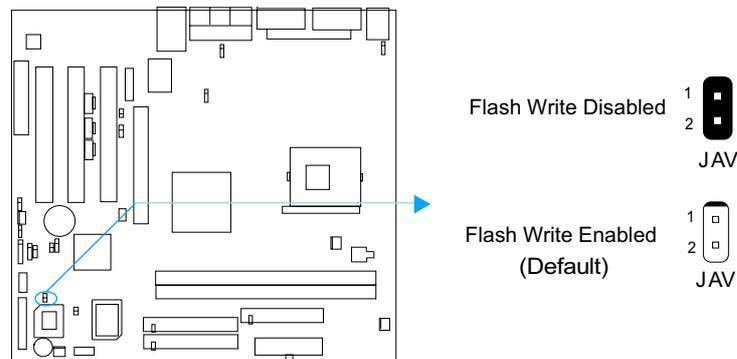

The mainboard provides the BootEasy function.If you want to use this function,Please set the jumper JAV as open under PC will boot-up in normal way conditions. Refer to the BootEasy introduction.

Enable/Disable onboard LAN (JLAN)

(Available on P1D-L/AL)

This Jumper allows you to use the onboard LAN function. Before using this function,set JLAN with pin1 and pin2 closed.Otherwise set JLAN with pin2 and pin3 closed for disabling.

Disable: 1
             2
             3   JLAN
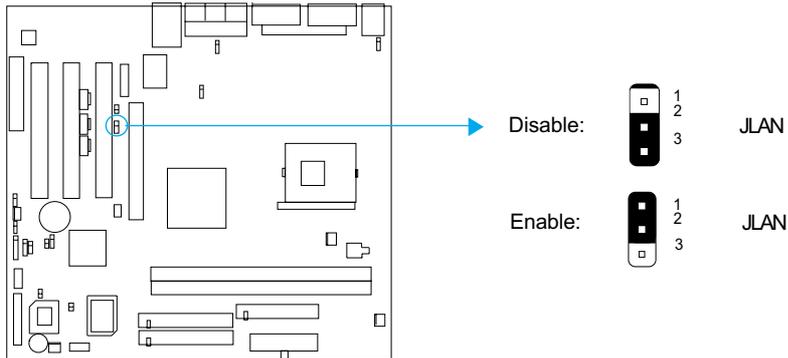
Enable: 1
             2
             3   JLAN

Wake-Up On LAN (JP5)

(Available on P1D-L/AL)

This Jumper allows you to enable or disable the onboard LAN wake up function.If you wish to use wake on LAN function,set the jumper JP5 as closed.Otherwise ,set JP5 as opened for disabling this function.Before using this function, set "Wake-Up by Ring/ LAN" as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save and exit, then boot the operating system once to make sure this function takes effect.

JP5

Enabled   1
           2

JP5

Disabled   1
           2