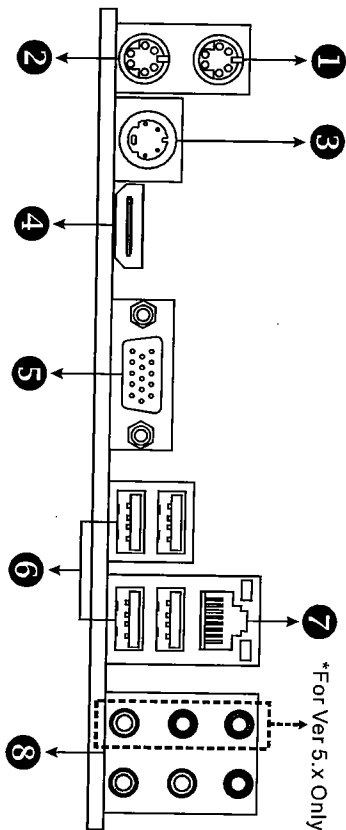


1.3 MOTHERBOARD FEATURES

	TF7025-M2	TF7025-M2
Socket AM2	Socket AM2	Socket AM2
AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron processors	AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron processors	AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron processors
AMD 64 Architecture enables 32 and 64 bit computing	AMD 64 Architecture enables 32 and 64 bit computing	AMD 64 Architecture enables 32 and 64 bit computing
Supports Hyper Transport and Cool'nQuiet	Supports Hyper Transport and Cool'nQuiet	Supports Hyper Transport and Cool'nQuiet
Supports up to 1 GHz Bandwidth	Supports up to 1 GHz Bandwidth	Supports up to 1 GHz Bandwidth
Support HyperTransport	Support HyperTransport	Support HyperTransport
GeForce 7050PV/NF630a	GeForce 7025/NF630a	GeForce 7025/NF630a
ITE 8716F	ITE 8716F	ITE 8716F
Provides the most commonly used legacy Super I/O functionality.	Provides the most commonly used legacy Super I/O functionality.	Provides the most commonly used legacy Super I/O functionality.
Low Pin Count Interface	Low Pin Count Interface	Low Pin Count Interface
Environment Control Initiatives, H/W Monitor	Environment Control Initiatives, H/W Monitor	Environment Control Initiatives, H/W Monitor
Fan Speed Controller	Fan Speed Controller	Fan Speed Controller
ITE's "Smart Guardian" function	ITE's "Smart Guardian" function	ITE's "Smart Guardian" function
DDR2 DIMM Slots x 4	DDR2 DIMM Slots x 4	DDR2 DIMM Slots x 4
Max Memory Capacity 4GB	Max Memory Capacity 4GB	Max Memory Capacity 4GB
Each DIMM supports 256/512MB & 1GB DDR2	Each DIMM supports 256/512MB & 1GB DDR2	Each DIMM supports 256/512MB & 1GB DDR2
Dual Channel Mode DDR2 memory module	Dual Channel Mode DDR2 memory module	Dual Channel Mode DDR2 memory module
Supports DDR2 400/ 533 / 667 / 800	Supports DDR2 400/ 533 / 667 / 800	Supports DDR2 400/ 533 / 667 / 800
Registered DIMM and ECC DIMM is not supported	Registered DIMM and ECC DIMM is not supported	Registered DIMM and ECC DIMM is not supported
Integrated in GeForce 7050PV/NF630a Chipset	Integrated in GeForce 7025/NF630a Chipset	Integrated in GeForce 7025/NF630a Chipset
Max Shared Video Memory is 256MB	Max Shared Video Memory is 256MB	Max Shared Video Memory is 256MB
Integrated IDE Controller	Integrated IDE Controller	Integrated IDE Controller
Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,	Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,	Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,
Integrated Serial ATA Controller	Integrated Serial ATA Controller	Integrated Serial ATA Controller
Data transfer rates up to 3 Gb/s.	Data transfer rates up to 3 Gb/s.	Data transfer rates up to 3 Gb/s.
SATA Version 2.0 specification compliant.	SATA Version 2.0 specification compliant.	SATA Version 2.0 specification compliant.
Realtek RTL 8111B / 8101E (optional)	Realtek RTL 8111B / 8101E (optional)	Realtek RTL 8111B / 8101E (optional)
10 / 100 Mb/s / 1Gb/s auto negotiation (Gigabit bandwidth is for RTL 8111B only)	10 / 100 Mb/s / 1Gb/s auto negotiation (Gigabit bandwidth is for RTL 8111B only)	10 / 100 Mb/s / 1Gb/s auto negotiation (Gigabit bandwidth is for RTL 8111B only)
Half / Full duplex capability	Half / Full duplex capability	Half / Full duplex capability

	TF7050-M2	TF7025-M2
ALC888 (Ver 5.x) / ALC861VD (Ver 6.x)	ALC888 (Ver 5.x) / ALC861VD (Ver 6.x)	ALC888 (Ver 5.x) / ALC861VD (Ver 6.x)
7.1 channels audio out (Ver 5.x) / 5.1 channels audio out (Ver 6.x)	7.1 channels audio out (Ver 5.x) / 5.1 channels audio out (Ver 6.x)	7.1 channels audio out (Ver 5.x) / 5.1 channels audio out (Ver 6.x)
High Definition Audio	High Definition Audio	High Definition Audio
2 channels audio out for HDMI Audio		
PCI slot	x2	x2
PCI Express x16 slot	x1	x1
PCI Express x 1 slot	x1	x1
Floppy connector	x1	x1
Printer Port connector	x1	x1
IDE Connector	x1	x1
SATA Connector	x4	x4
Front Panel Connector	x1	x1
Front Audio Connector	x1	x1
CD-in Connector	x1	x1
S/PDIF out connector	x1	x1
S/PDIF in connector (Optional)	x1	x1
CPU Fan header	x1	x1
System Fan header	x3	x3
CMOS clear header	x1	x1
USB connector	x3	x3
Serial port Connector	x1	x1
Power Connector (24pin)	x1	x1
Power Connector (4pin)	x1	x1
PS/2 Keyboard	x1	x1
PS/2 Mouse	x1	x1
S-Video port	x1	x1
HDMI port	x1	x1
VGA port	x1	x1
LAN port	x1	x1
USB Port	x4	x4
Audio Jack (for Ver 5.x)	x6	x6
Audio Jack (for Ver 6.x)	x3	x3
Board Size	235 mm(W) x 244 mm(L)	235 mm(W) x 244 mm(L)
Special Features	RAID 0 / 1 / 5 / 0+1 support	RAID 0 / 1 / 5 / 0+1 support
OS Support	Windows 2000 / XP / VISTA BiosStar Reserves the right to add or remove support for any OS With or without notice.	Windows 2000 / XP / VISTA BiosStar Reserves the right to add or remove support for any OS With or without notice.

1.4 REAR PANEL CONNECTORS (FOR TF7050-M2)



1 PS/2 Mouse Port

2 PS/2 Keyboard Port

3 S-Video TV-Out Port

Transmit analog video signals to TV or any other display panels equipped with S-Video input.

4 HDMI Port

The High-Definition Multimedia Interface (HDMI) is an all-digital audio/video interface capable of transmitting uncompressed streams to an AV receiver or any compatible digital audio and/or video monitor, such as a digital television.

5 D-Sub VGA Port

Transmit analog video signals to computer monitor or any other display panels equipped with D-Sub VGA input.

6 USB 2.0 Port x 4

7 RJ-45 LAN Port

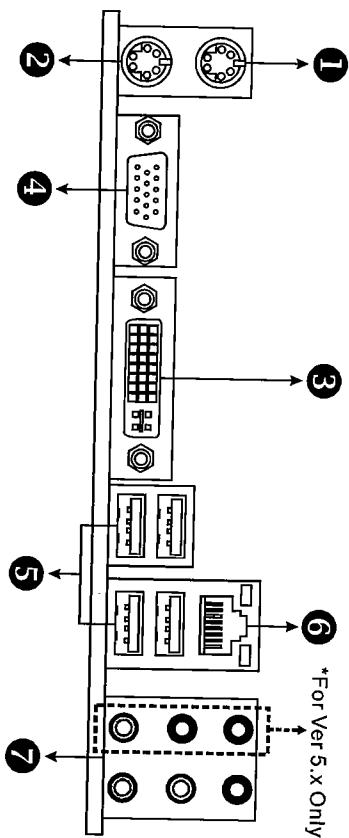
8 Audio Jack x 6 (for Ver 5.x) / Audio Jack x 3 (for Ver 6.x)

Port	2-Channel	4-Channel	6-Channel/8-Channel
Blue	Line-In	Line-In	Line-In
Green	Line-Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In
Orange			Center/Subwoofer
Black	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
Grey			Side Speaker Out

NOTE:

The GeForce 7050PV/NF630a chipset uses the same channel to control S-Video and D-Sub for transmitting analog video signals, so these ports cannot work simultaneously.

1.5 REAR PANEL CONNECTORS (FOR TF7025-M2)



1 PS/2 Mouse Port

2 PS/2 Keyboard Port

3 DVI-D VGA Port

The Digital Visual Interface (DVI) is a video interface transmitting digital video signals to digital display devices such as flat panel LCDs or digital projectors. The DVI-D connector allows digital signals transmission only.

4 D-Sub VGA Port

Transmit analog video signals to computer monitor or any other display panels equipped with D-Sub VGA input.

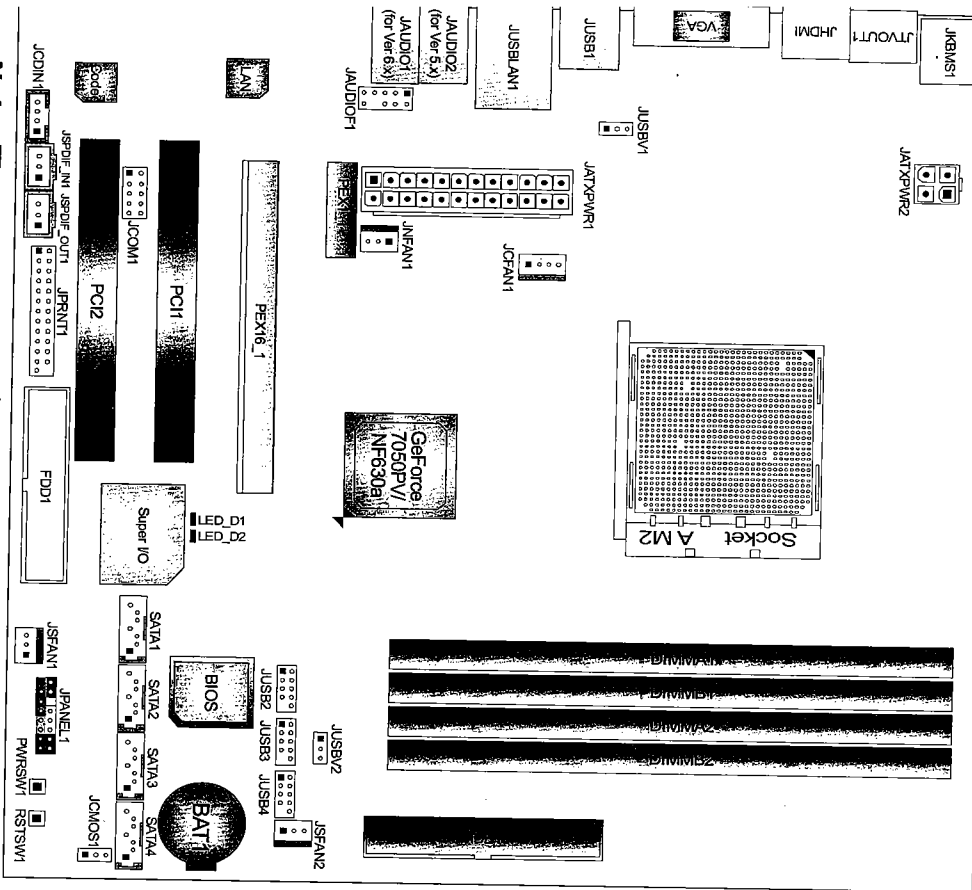
5 USB 2.0 Port x 4

6 RJ-45 LAN Port

7 Audio Jack x 6 (for Ver 5.x) / Audio Jack x 3 (for Ver 6.x)

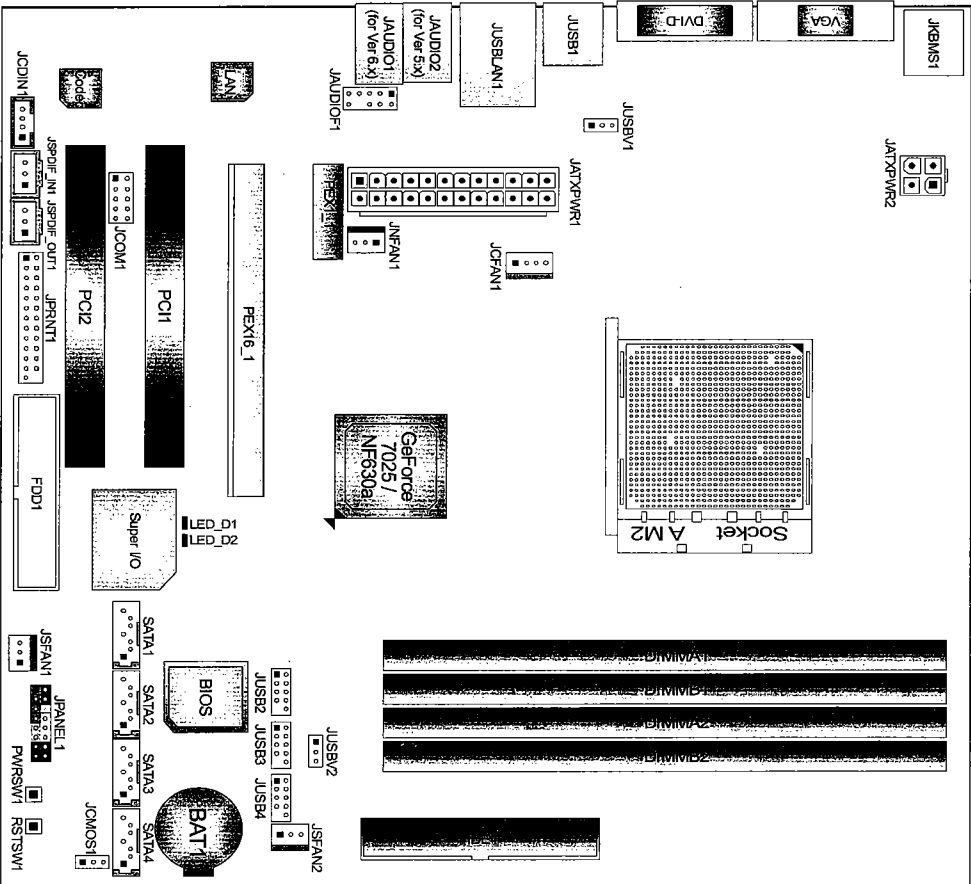
Port	2-Channel	4-Channel	6-Channel/8-Channel
Blue	Line-In	Line-In	Line-In
Green	Line-Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In
Orange			Center/Subwoofer
Black	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
Grey			Side Speaker Out

1.6 MOTHERBOARD LAYOUT (FOR TF7050-M2)



Note: ■ represents the 1st pin.

1.7 MOTHERBOARD LAYOUT (FOR TF7025-M2)



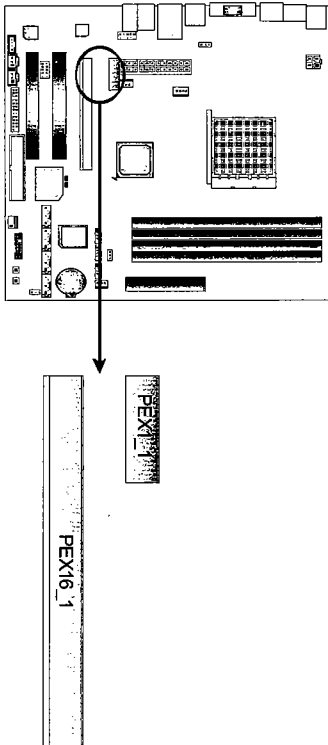
Note: ■ represents the 1st pin.

PEX16_1: PCI-Express x16 Slot

- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.

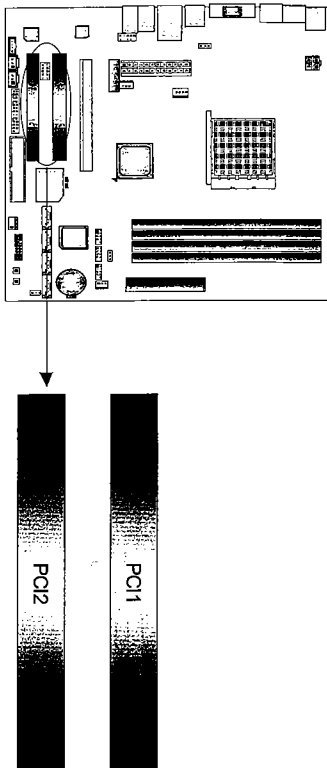
PEX1_1: PCI-Express x1 slots

- PCI-Express 1.0a compliant.
- Data transfer bandwidth up to 250MB/s per direction; 500MB/s in total.
- PCI-Express supports a raw bit-rate of 2.5GB/s on the data pins.
- 2X bandwidth over the traditional PCI architecture.



PCI1~PCI2: Peripheral Component Interconnect Slots

This motherboard is equipped with 2 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".



Pin opened



Pin closed

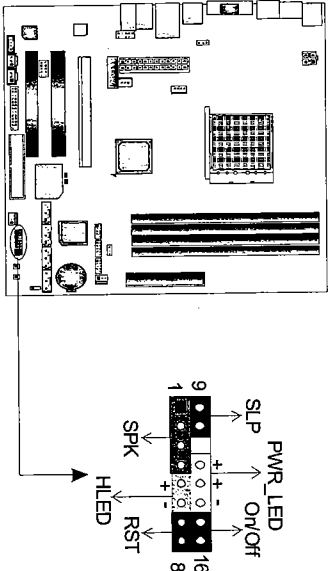


Pin1-2 closed

3.2 DETAIL SETTINGS

JFANEL1: Front Panel Header

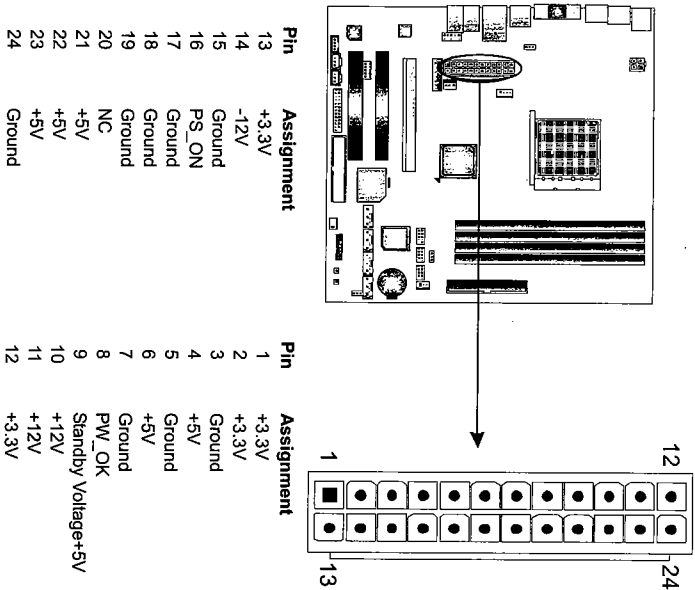
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button and speaker connection. It allows user to connect the PC case's front panel switch functions.



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V		9	Sleep control	Sleep button
2	N/A	Speaker Connector	10	Ground	
3	N/A		11	N/A	N/A
4	Speaker		12	Power LED (+)	
5	HDD LED (+)	Hard drive LED	13	Power LED (+)	Power LED
6	HDD LED (-)		14	Power LED (-)	
7	Ground	Reset button	15	Power button	
8	Reset control		16	Ground	Power-on button

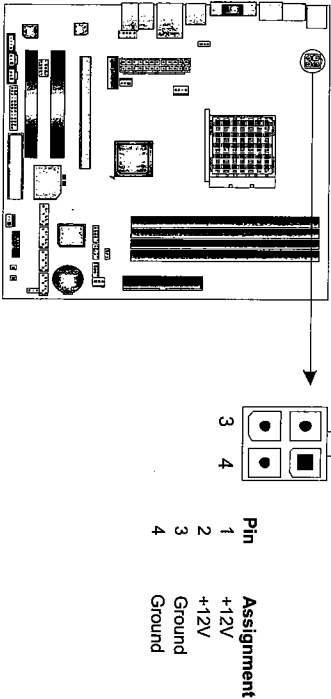
JATXPWR1: ATX Power Source Connector

This connector allows user to connect 24-pin power connector on the ATX power supply.



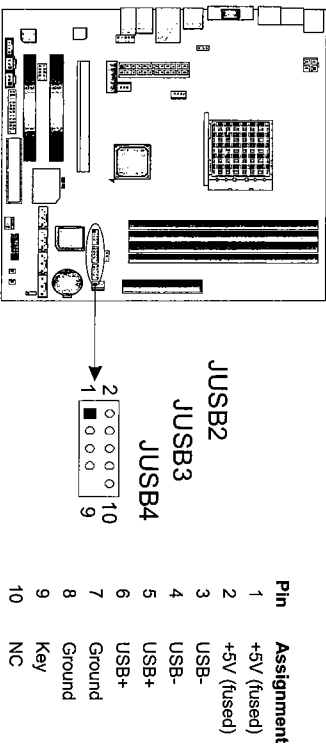
JATXPWR2: ATX Power Source Connector

By connecting this connector, it will provide +12V to CPU power circuit.



JUSB2/JUSB3/JUSB4: Headers for USB 2.0 Ports at Front Panel

This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



JUSBV1/JUSBV2: Power Source Headers for USB Ports

Pin 1-2 Close:

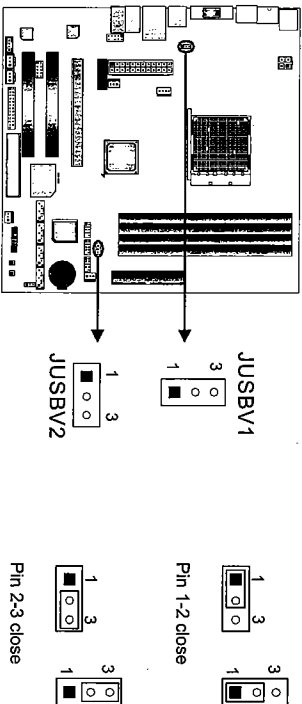
JUSBV1: +5V for USB ports at JUSB1/JUSBLAN1.

JUSBV2: +5V for USB ports at front panel (JUSB2/JUSB3/JUSB4).

Pin 2-3 Close:

JUSBV1: USB ports at JUSB1/JUSBLAN1 are powered by +5V standby voltage.

JUSBV2: USB ports at front panel (JUSB2/JUSB3/JUSB4) are powered by +5V standby voltage.

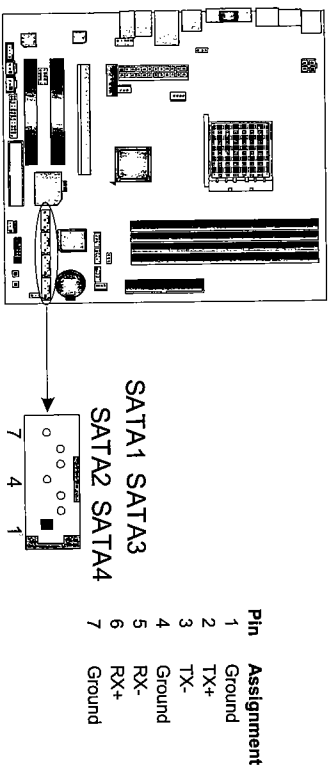


Note:

In order to support this function "Power-On system via USB device," "JUSBV1/ JUSBV2" jumper cap should be placed on Pin 2-3 individually.

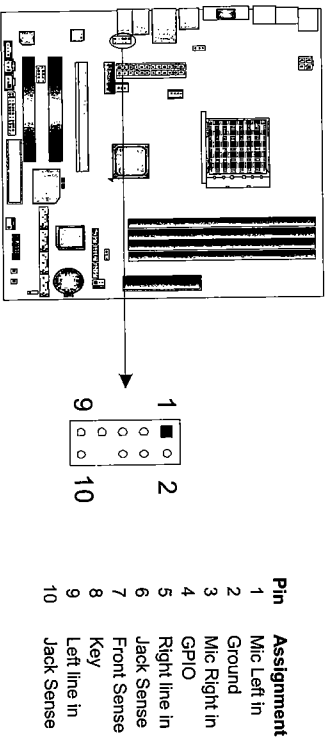
SATA1~SATA4: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 4 channels SATA interface.



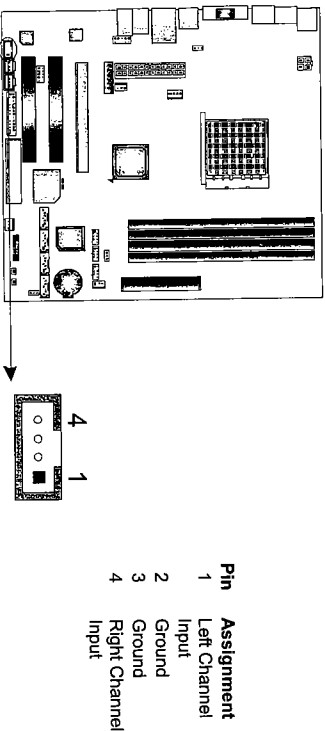
JAUDIOF1: Front Panel Audio Header

This header allows user to connect the front audio output cable with the PC front panel. It will disable the output on back panel audio connectors.



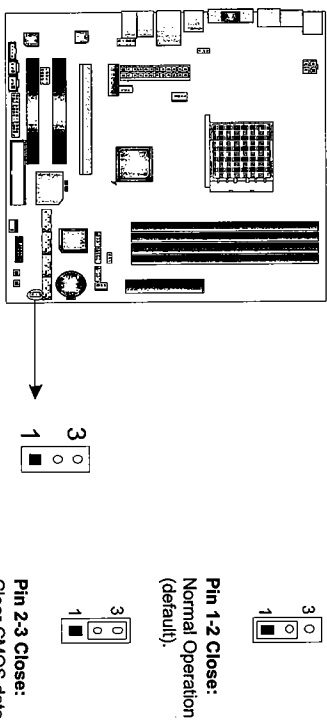
JCDIN1: CD-ROM Audio-in Connector

This connector allows user to connect the audio source from the variety devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV tuner card etc..



JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.

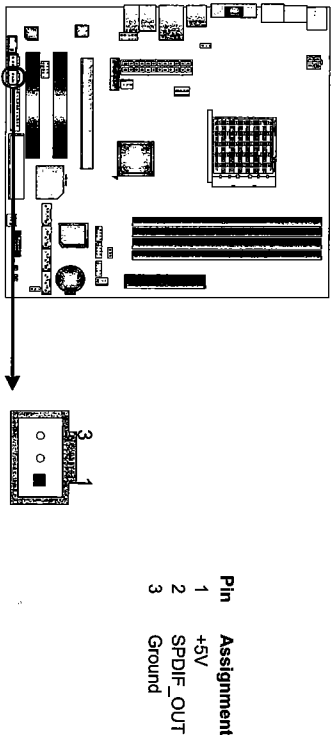


※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to "Pin 2-3 close".
3. Wait for five seconds.
4. Set the jumper to "Pin 1-2 close".
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

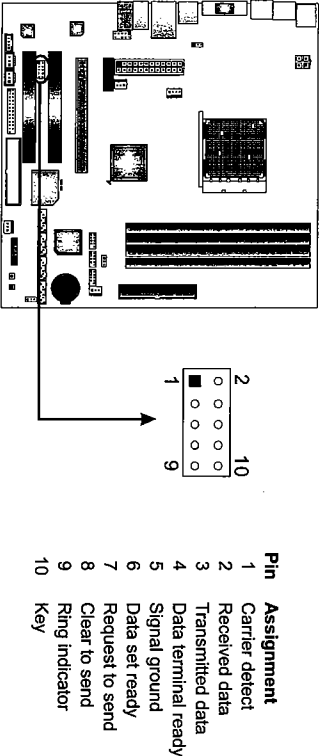
JSPDIF_OUT1: Digital Audio-out Connector

This connector allows user to connect the PCI bracket SPDIF output header.



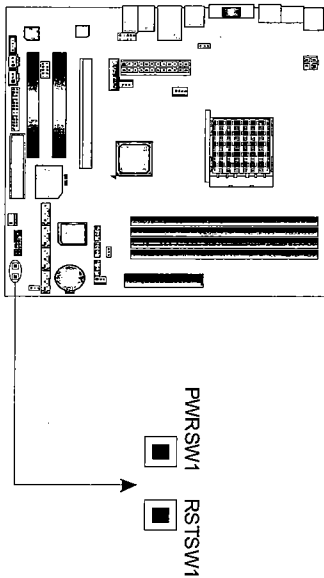
JCOM1: Serial port Connector

The motherboard has a Serial Port Connector for connecting RS-232 Port.



On-Board Buttons

There are 2 on-board buttons.



PWRSW1:

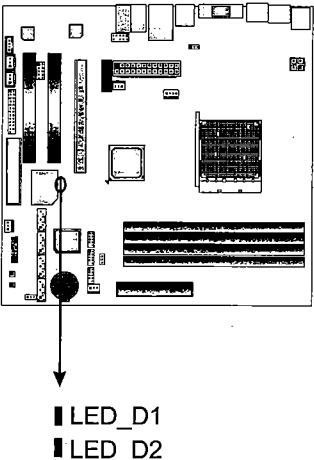
This is an on-board Power Switch button.

RSTSW1:

This is an on-board Reset button.

On-Board LED Indicators

There are 2 LED indicators on the motherboard to show system status.



LED_D1 and LED_D2:

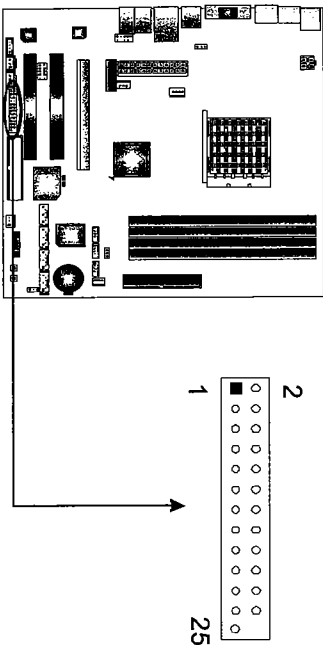
These 2 LED indicate system power on diagnostics.

Please refer to the table below for different messages:

LED_D1	LED_D2	Message
ON	ON	Normal
ON	OFF	Memory Error
OFF	ON	VGA Error
OFF	OFF	Abnormal: CPU / Chipset error.

JPRNT1: Printer Port Connector

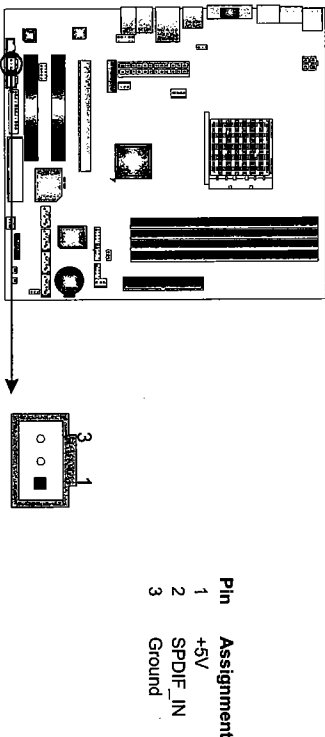
This header allows you to connector printer on the PC.



Pin	Assignment	Pin	Assignment
1	-Strobe	14	Ground
2	-ALF	15	Data 6
3	Data 0	16	Ground
4	-Error	17	Data 7
5	Data 1	18	Ground
6	-Init	19	-ACK
7	Data 2	20	Ground
8	-ScItin	21	Busy
9	Data 3	22	Ground
10	Ground	23	PE
11	Data 4	24	Ground
12	Ground	25	SCLT
13	Data 5	26	Key

JSPDIF_IN1: Digital Audio-out Connector (Optional)

This connector allows user to connect the PCI bracket SPDIF input header.



Pin	Assignment
1	+5V
2	SPDIF_IN
3	Ground

CHAPTER 4: RAID FUNCTIONS

4.1 OPERATION SYSTEM

- Supports Windows XP Home/Professional Edition, and Windows 2000 Profession;

4.2 RAID ARRAYS

RAID supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times in many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

RAID 0+1: RAID 0+1 combines the techniques used in RAID 0 and RAID 1.

RAID 5: RAID 5 provides fault tolerance and better utilization of disk capacity.

4.3 HOW RAID WORKS

RAID 0:

The controller "stripes" data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- **Drives:** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- **Uses:** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- **Benefits:** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- **Drawbacks:** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- **Fault Tolerance:** No.

