GA-9ITDW

Dual Xeon™ (Nocona)

Processor Motherboard

USER'S MANUAL

Dual Xeon™ (Nocona)Processor Motherboard
Rev. 1001

Table of Content

Item Checklist

- ☑ The GA-9ITDW motherboard
- ☑ U320 SCSI cable x 1
- ☑ IDE to SATA HDD Power cable x 2
- ☑ CD for motherboard driver & utility
- ☑ I/O Shield x1
- ☑ Serial ATA cable x 2
- ☑ PATA (2 cables) & FDD cable set x 1
- ☑ COM port cable with bracket x 1
- ☑ GA-9ITDW user's manual

WARNING!

Computer motherboards and expansion cards contain very delicate Integrated Circuit (IC) chips. To protect them against damage from static electricity, you should follow some precautions whenever you work on your computer.

1. Unplug your computer when working on the inside.
2. Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case.
3. Hold components by the edges and try not touch the IC chips, leads or connectors, or other components.
4. Place components on a grounded antistatic pad or on the bag that came with the components whenever the components are separated from the system.
5. Ensure that the ATX power supply is switched off before you plug in or remove the ATX power connector on the motherboard.

Installing the motherboard to the chassis...

If the motherboard has mounting holes, but they don't line up with the holes on the base and there are no slots to attach the spacers, do not become alarmed you can still attach the spacers to the mounting holes. Just cut the bottom portion of the spacers (the spacer may be a little hard to cut off, so be careful of your hands). In this way you can still attach the motherboard to the base without worrying about short circuits. Sometimes you may need to use the plastic springs to isolate the screw from the motherboard PCB surface, because the circuit wire may be near by the hole. Be careful, don't let the screw contact any printed circuit write or parts on the PCB that are near the fixing hole, otherwise it may damage the board or cause board malfunctioning.

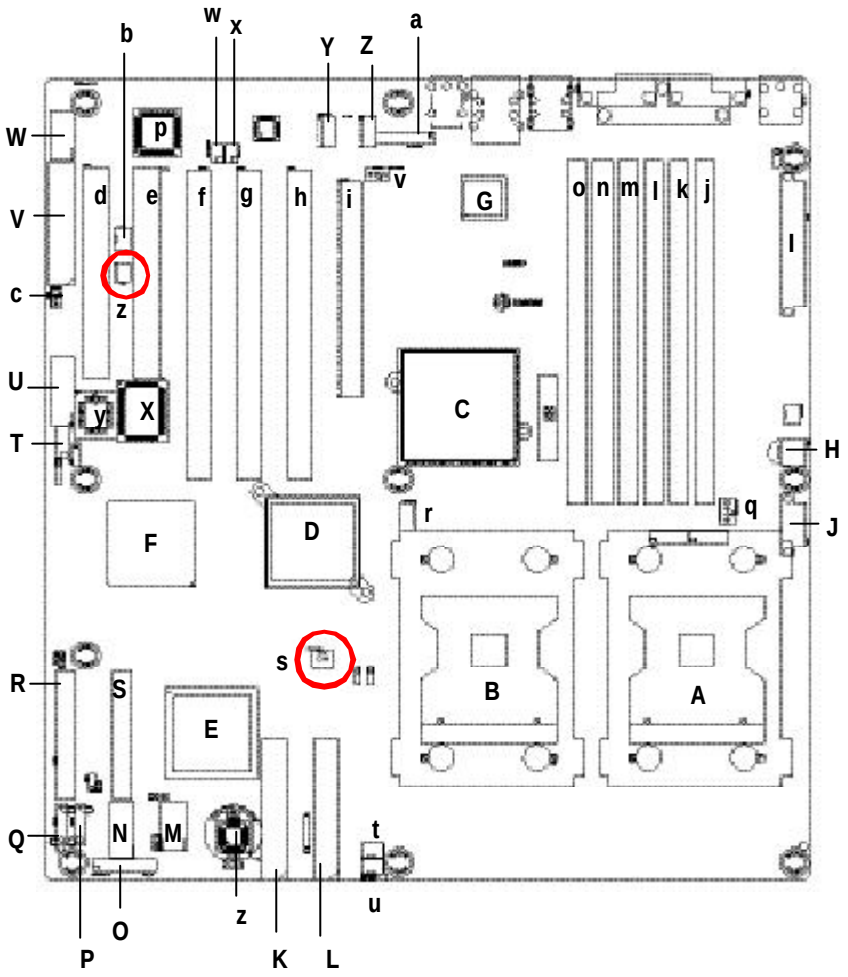
Chapter 1 Introduction

Features Summary

Form Factor	• 30.5cm x 33cm Extend ATX size form factor, 8 layers PCB.
Motherboard	• GA-9ITDW Motherboard
CPU	• Dual socket 604 for Intel® FC-PGA Xeon™(Nocona) processor suopprts from 2.8G to 4.0 G and upper • Intel® Xeon (Nocona) CPUs supports 800 MHz FSB • 2nd cache depend on CPU
Chipset	• Intel E7525 Chipset • ICH5R I/O Controller Hub • Intel 6700 PXH
Memory	• 6 x 240-pin DDRII DIMM sockets • Supports 6 ECC Registered DIMM DDRII 400 • Supports up to 16GB DRAM (Max) • Supports only 1.8V DDRII DIMM
I/O Control	• IT8712 F
Slots	• 1 PCI-X slot supports 64/133MHz (3.3V) • 2 PCI-X slot supports 64~100MHz (3.3V) • 1 PCI-E X16 slot (Gfx) • 2 PCI slot support 32/33MHz
On-Board IDE	• 2 IDE controllers on the Intel ICH5R Controller Hub provides IDE HDD/CD-ROM (IDE1, IDE2) with PIO, Bus Master (ATA100) operation modes.
On-Board Peripherals	• 1 Floppy port supports 2 FDD with 360K, 720K,1.2M, 1.44M and 2.88M bytes. • 1 Parallel port supports Normal/EPP/ECP mode • 2 Serial port (COM) • 8 x USB 2.0 • 1 x RJ45 LAN port • 3 x IEEE 1394a
Hardware Monitor	• CPU/System Fan Revolution Detect • CPU shutdown when overheat • System Voltage Detect • CPU/System temperature detect

Audio	• ALC 655
IEEE1394A	• TI TSB43AB23
SCSI Controller	• Adaptec 7902W chipset • Supports Host RAID RAID 0, 1 and 10 data protection • Mirroring supports automatic background rebuilds • Features LBA and Extended Interrupt 13 drive translation in controller onboard BIOS
On-Board RAID	• Intel ICH5R chipset supports SATA RAID 0,1 • Adaptec 7902W chipset supports Host RAID 0,1, 10
On-Board LAN	• Broadcom BCM5751
On-Board USB 2.0	• Built in ICH5R Controller Hub
PS/2 Connector	• PS/2 Keyboard interface and PS/2 Mouse interace
BIOS	• Lincensed AWARD on 4MB Flash RAM • Supports multi boot function • User setting for hardware monitoring • Supports PXE
Additional Features	• PS/2 Keyboard power on by password • PS/2 Mouse power on • External Modem wake up • STR(Suspend-To-RAM) • Wake on LAN (WOL) • AC Recovery • Poly fuse for USB device / keyboard over-current protection

GA-9ITDW Motherboard Layout



A.	CPU0 (Install First)	**a.**	F_Audio1(Audio connector)
B.	CPU1	**b.**	WOR1 (Wake On Ring)
C.	Intel E7525	**c.**	WOL1
D.	Intel 6700 PXH	**d.**	PCI1
E.	ICH5R	**e.**	PCI2
F.	Adaptec 7902W	**f.**	PCI3
G.	Broadcom BCM5751	**g.**	PCI4
H.	ATX1 (SSI power connector)	**h.**	PCI5
I.	ATX2 (SSI power connector)	**i.**	PCIE1
J.	ATX3 (SSI power connector)	**j.**	DDR1
K.	IDE1	**k.**	DDR2
L.	IDE2	**l.**	DDR3
M.	F_USB1(USB Connector)	**m.**	DDR4
N.	F_USB2(USB Connector)	**n.**	DDR5
O.	F_Panel (Front Panel)	**o.**	DDR6
P.	SATA1	**p.**	TI TSB43AB23
Q.	SATA0	**q.**	CPU_FAN0 (CPU FAN)
R.	SCSI 1 (SCSI Connector)	**r.**	CPU_FAN1 (CPU FAN)
S.	SCSI 2 (SCSI Connector)	**s.**	PXH_FAN1
T.	IR1	**t.**	FRONT_FAN (System FAN)
U.	F1_1394(Front IEEE 1394)	**u.**	SYS_FAN (System FAN)
V.	FDD1 (Floppy connector)	**v.**	SYS_FAN3 (System FAN)
W.	COM2B	**w.**	SPDIF_IO_1
X.	IT8712 F	**x.**	SUR_CEN1
Y.	AUX_IN1	**y.**	BIOS
Z.	CD_IN1	**z.**	CI1

Chapter 2 Hardware Installation Process

To set up your computer, you must complete the following steps:

Step 1- Install the Central Processing Unit (CPU)

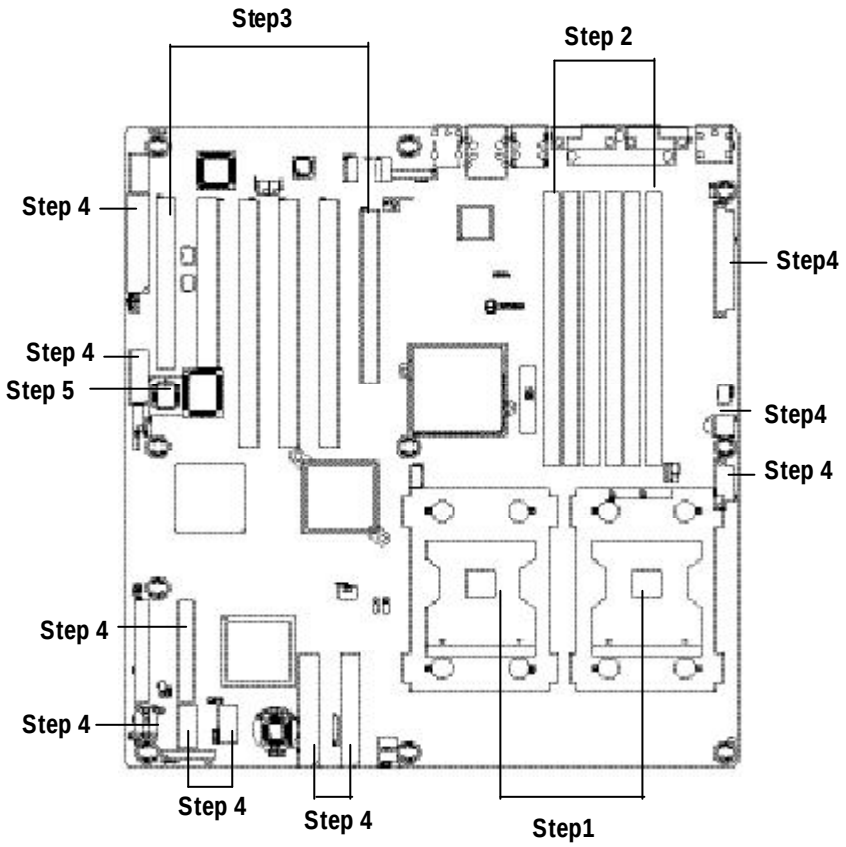
Step 2- Install memory modules

Step 3- Install expansion cards

Step 4- Connect ribbon cables, cabinet wires, and power supply

Step 5- Setup BIOS software

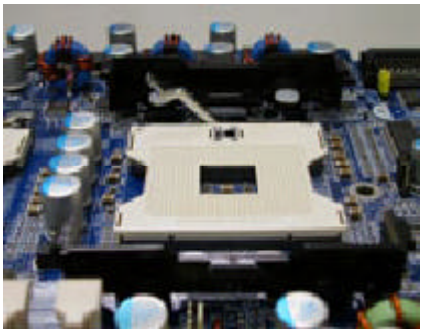
Step 6- Install supporting software tools



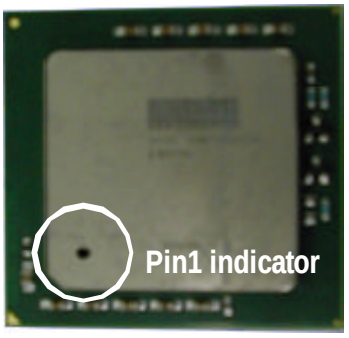
Step 1: Install the Central Processing Unit (CPU)

Before installing the processor , adhere to the following warning:

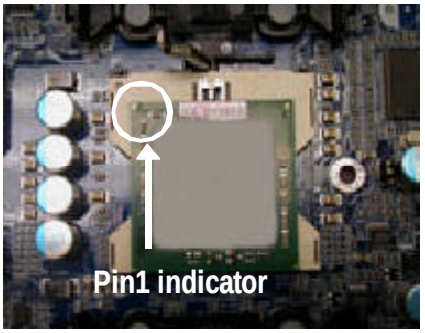
If you do not match the CPU socket Pin 1 and CPU cut edge well, it will cause improper installation. Please change the insert orientation. Please make sure the CPU type is supported by the motherboard.



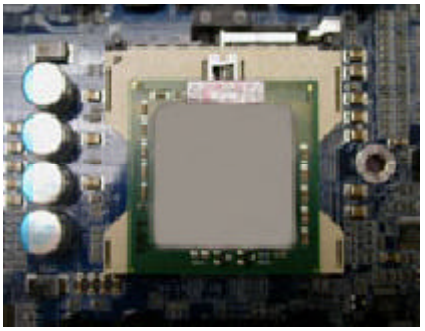
1. Angling the rod to 65-degree maybe feel a kind of tight, and then continue pull the rod to 90-degree when a noise "cough" made.



2. CPU Top View



3. Locate Pin 1 in the socket and look for a (golden) cut edge on the CPU upper corner. Then insert the CPU into the socket.

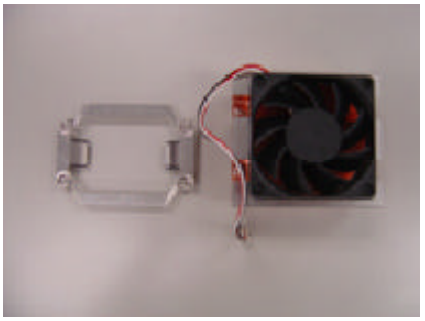


4. Press down the CPU socket lever and finish CPU installation.

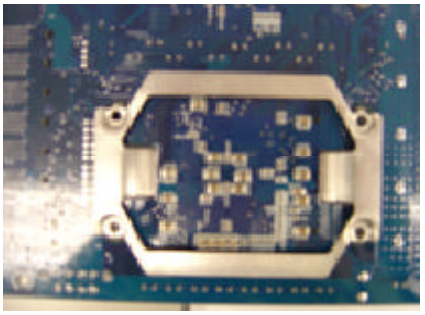
Step 1-2:CPU Heat Sink Installation

Before installing the CPU Heat Sink , adhere to the following warning:

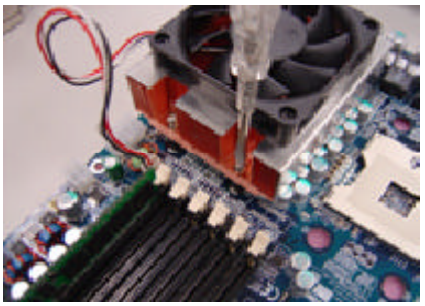
1.Please use Intel approved cooling fan.
2.We recommend you to apply the thermal tape to provide better heat conduction between your CPU and heatsink.
(The CPU cooling fan might stick to the CPU due to the hardening of the thermal paste. During this condition if you try to remove the cooling fan, you might pull the processor out of the CPU socket alone with the cooling fan, and might damage the processor. To avoid this from happening, we suggest you to either use thermal tape instead of thermal paste, or remove the cooling fan with extreme caution.)
3.Make sure the CPU fan power cable is plugged in to the CPU fan connector, this completes the installation.
Please refer to CPU heat sink user's manual for more detail installation procedure.



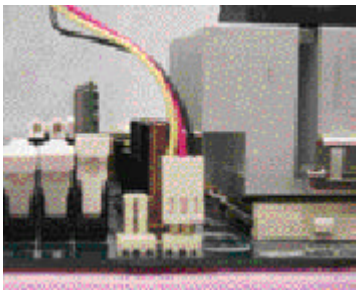
1. Heat sink installation kit.



2. Turn the mother bord to the backside. Lock the retention module on the mother board
Make sure the position of the 4 holes on the retention module match exactly the position on the motherboard.



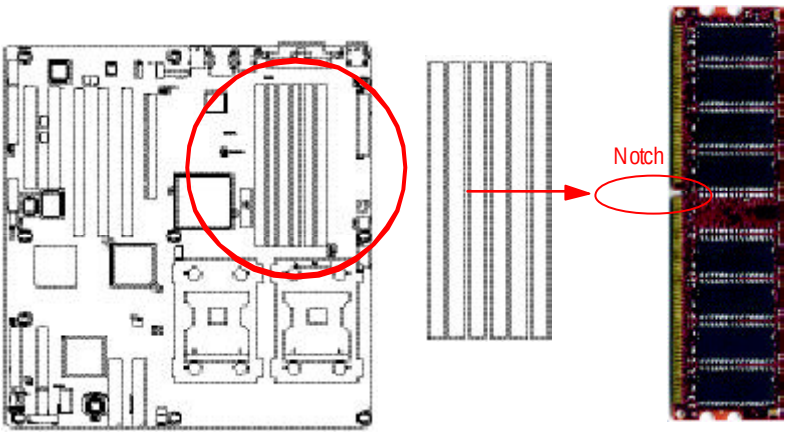
3. Fasten the heatsink supporting-base onto the CPU socket on the mainboard.



4. Make sure the CPU fan is plugged to the CPU fan connector, than install complete.

Step 2: Install memory modules

Before installing the processor and heatsink, adhere to the following warning:
When DIMM LED is ON, do not install/remove DIMM from socket.
Please note that the DIMM module can only fit in one direction due to the one notches. Wrong orientation will cause improper installation. Please change the insert orientation.
The motherboard has 6 dual inline memory module (DIMM) sockets. The BIOS will automatically detects memory type and size. To install the memory module, just push it vertically into the DIMM socket .The DIMM module can only fit in one direction due to the notch. Memory size can vary between sockets.



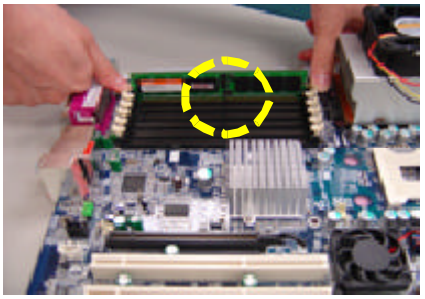
DDR2

DDR2 Introduction

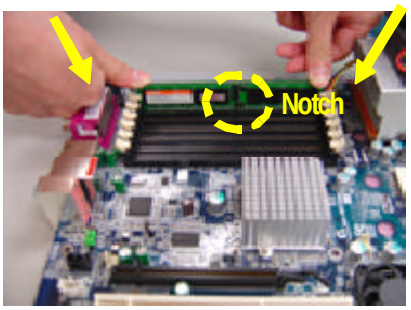
DDR2-SDRAM is considered an evolutionary upgrade over existing DDR memory. It maintains the same core functions, transferring 64 bits of data twice every clock cycle for an effective transfer rate twice that of the front-side bus (FSB) of a computer system, and an effective bandwidth equal to its speed x 8.

DDR2 introduces some new features which allow it to ramp up to much higher speeds (with correspondingly higher bandwidth) and higher memory densities, all the while using less power. DDR2 memory uses a new form factor, a 240 pin DIMM (Dual Inline Memory Module) which is not compatible with current DDR memory slots. Upcoming chipsets by Intel and other manufacturers will support DDR2 specifically, and are not backwards compatible.

1. The DIMM slot has a notch, so the DIMM memory module can only fit in one direction.



2. Insert the DIMM memory module vertically into the DIMM slot. Then push it down.
   DDR1/3/5 are Channel A, DDR2/4/6 are Channel B.
   Please note that DIMM must be populated in order starting at the nearest slot from the ATX power.



3. Close the plastic clip at both edges of the DIMM slots to lock the DIMM module.
   Reverse the installation steps when you wish to remove the DIMM module.

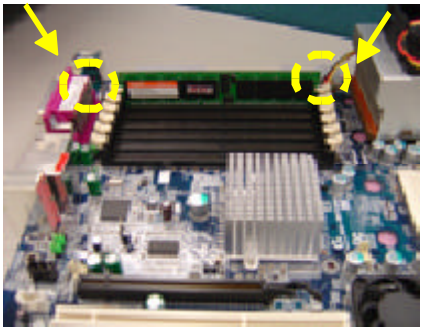


Table 1. Supported DIMM Module Type

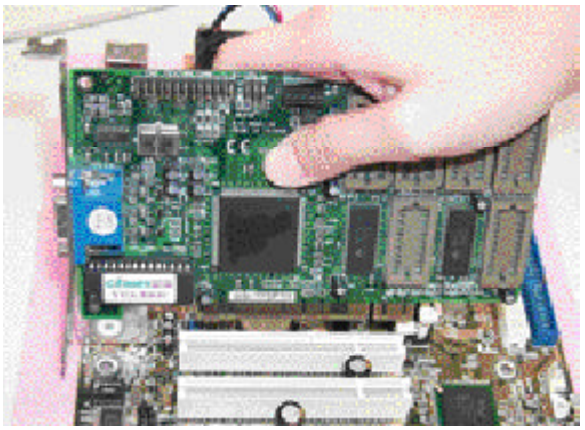
Technology	Organization	SDRAM Chips/DIMM
256MB	8MB x 8 x 4 bks	8
	16MB x 4 x 4bks	16
512MB	16MB x 8 x 4bks	8
	32MB x 4 x 4bks	16
1GB	32MB x 8 x 4bks	8
	64MB x 4 x 4bks	16

Table 2. DIMM Placement DDR2-400

DIMM Configuration	DIMM1	DIMM2	DIMM3
1 Single Rank	Empty	Empty	Single Rank
1 Dual Rank	Empty	Empty	Dual Rank
2 Single Rank	Empty	Single Rank	Single Rank
1 Dual Rank, 1 Single Rank	Empty	Single Rank	Dual Rank
2 Dual Rank	Empty	Dual Rank	Dual Rank
3 Single Rank	Single Rank	Single Rank	Single Rank
1 Dual Rank, 2 Single Rank	Single Rank	Single Rank	Dual Rank

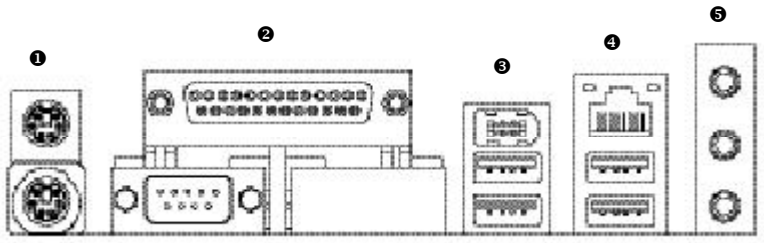
Step 3: Install expansion cards

1. Read the related expansion card's instruction document before install the expansion card into the computer.
2. Remove your server's chassis cover, necessary screws and slot bracket from the computer.
3. Press the expansion card firmly into expansion slot in motherboard.
4. Be sure the metal contacts on the card are indeed seated in the slot.
5. Replace the screw to secure the slot bracket of the expansion card.
6. Replace your computer's chassis cover.
7. Power on the computer, if necessary, setup BIOS utility of expansion card from BIOS.
8. Install related driver from the operating system.



Step 4: Connect ribbon cables, cabinet wires, and power supply

Step 4-1 : I/O Back Panel Introduction



❶ PS/2 Keyboard and PS/2 Mouse Connector

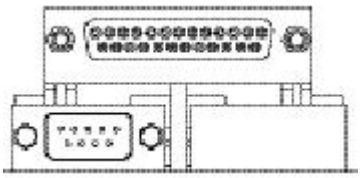
PS/2 Mouse Connector
(6 pin Female)

PS/2 Keyboard Connector
(6 pin Female)

➢ This connector supports standard PS/2 keyboard and PS/2 mouse.

❷ Parallel Port, Serial Port (COMA)

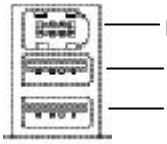
Parallel Port
(25 pin Female)



COM
Serial Ports (9 pin Male)

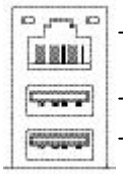
➢ This connector supports 1 standard COM port and 1 Parallel port. Device like printer can be connected to Parallel port ; mouse and modem etc can be connected to Serial port.

❸ USB / 1394 Connectors



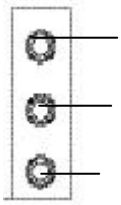
➢ Connects the IEEE1394 devices to this connector.

❹ USB/LAN Connecotrs



➢ Before you connect your device(s) into USB connector(s), please make sure your device(s) such as USB keyboard, mouse, scanner, zip, speaker..etc. Have a standard USB interface. Also make sure your OS supports USB controller. If your OS does not support USB controller, please contact OS vendor for possible patch or driver upgrade. For more information please contact your OS or device(s) vendors.

❺ Audio Connector



➢ After install onboard audio driver, you may connect speaker to Line Out jack, micro phone to MIC In jack. Device like CD-ROM , walkman etc can be connected to Line-In jack.

Please note:

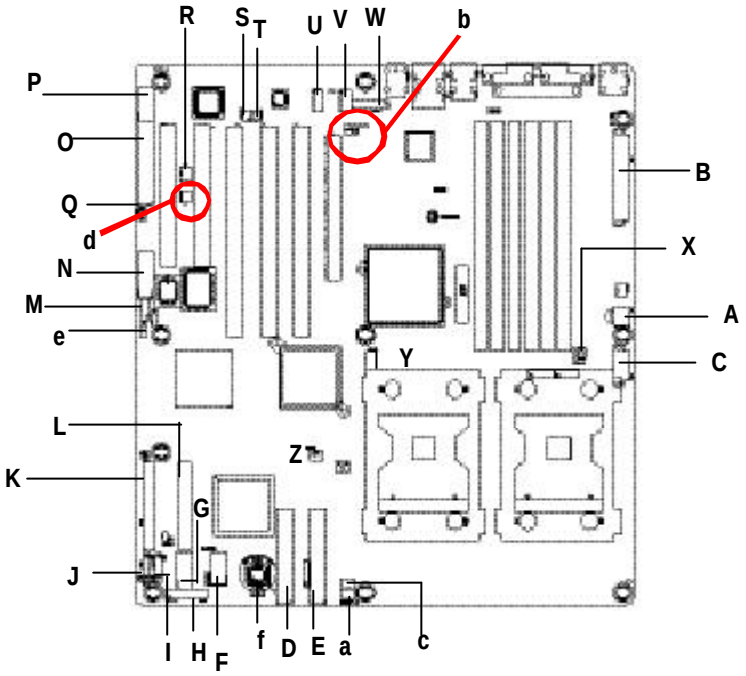
You are able to use 2-/4-/6- channel audio feature by S/W selection.

If you want to enable 6-channel function, you have 2 choose for hardware connection.

Method1:

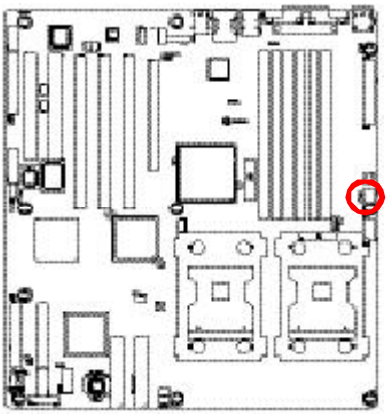
Connect "Front Speaker" to "Line Out"
Connect "Rear Speaker" to "Line In"
Connect "Center and Subwooferr" to "MIC In ".

Step 4-2 :Connectors Introduction

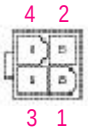


A) ATX1	Q) WOL1
B) ATX2	R) WOR1
C) ATX3	S) SPDIF_IO_1
D) IDE1	T) SUR_CEN1
E) IDE2	U) AUX_IN1
F) F_USB1	V) CD_IN1
G) F_USB2	W) F_Audio1
H) F_Panel	X) CPU_FAN0
I) SATA1	Y) CPU_FAN1
J) SATA0	Z) PXH_FAN1
K) SCSI1	a) SYS_FAN
L) SCSI2	b) SYS_FAN3
M) IR1	c) FRONT_FAN
N) F1_1394	d) CI1
O) FDD1	e) SCSILED1
P) COM2B	f) Battery

A) ATX 1



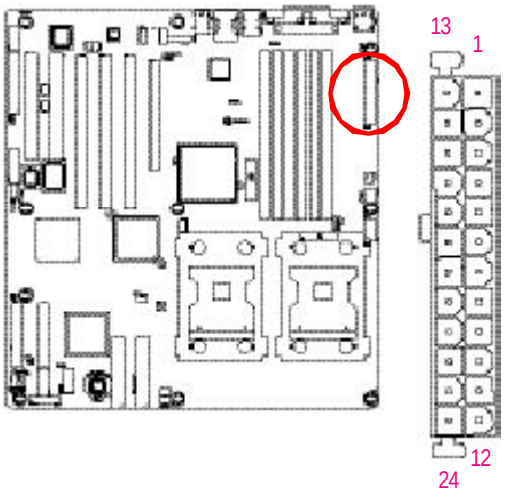
➢ This connector (ATX +12V) is used only for CPU0 Core Voltage.



Pin No.	Definition
1	GND
2	GND
3	P12V-CPU0
4	P12V-CPU0

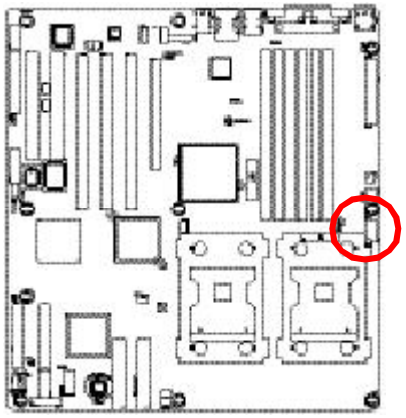
B) ATX2 (ATX Power Connector)

AC power cord should only be connected to your power supply unit after ATX power cable and other related devices are firmly connected to the mainboard.

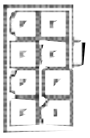


PIN No.	Definition
1	+3.3V
2	+3.3V
3	GND
4	+5V
5	GND
6	+5V
7	GND
8	POK
9	5VSB
10	+12V
11	+12V
12	+3.3V
13	+3.3V
14	-12V
15	GND
16	PSON
17	GND
18	GND
19	GND
20	-5V
21	+5V
22	+5V
23	+5V
24	GND

C) ATX3



➢ This connector (ATX +12V) is used for both CPU1/0 Core Voltage.

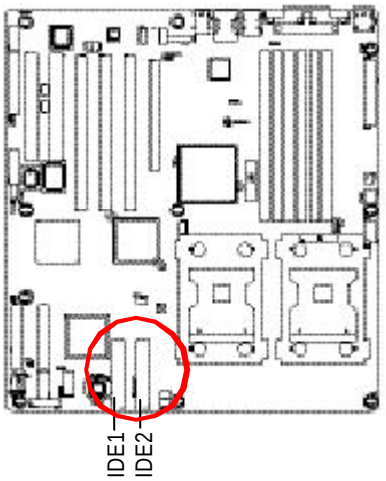


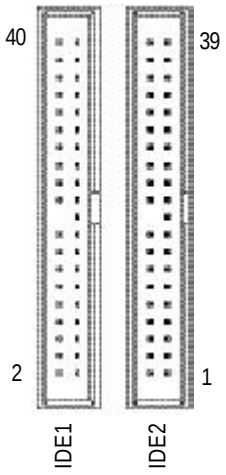
1

Pin No.	Definition
1	GND
2	GND
3	GND
4	GND
5	P12V_CPU1
6	P12V_CPU1
7	P12V_CPU0
8	P12V_CPU0

D / E) IDE1 / IDE2 Connector(Primary/Secondary]

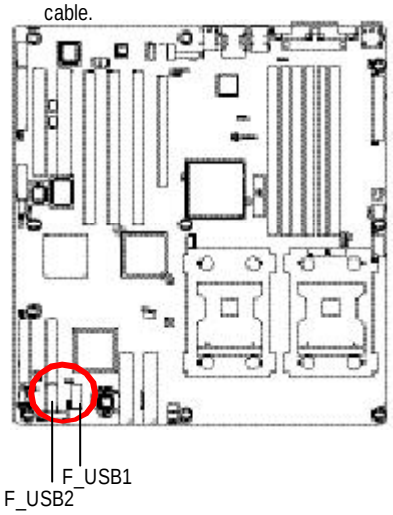
Please connect first harddisk to IDE1 and connect CDROM to IDE2. The red stripe of the ribbon cable must be the same side with the Pin1.

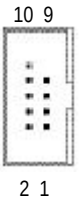




F) F_USB1 (Front USB1 Connector, Yellow)

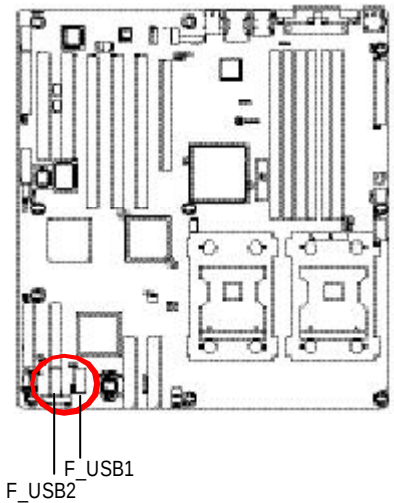
Be careful with the polarity of the front USB connector. Check the pin assignment while you connect the front USB cable. Please contact your nearest dealer for optional front USB cable.

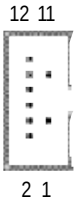




Pin No.	Definition
1	USB3_OC#2_FB (USB power)
2	USB3_OC#2_FB(USB power)
3	USB_ICH_P4N_IND
4	USB_ICH_P5N_IND
5	USB_ICH_P4P_IND
6	USB_ICH_P5P_IND
7	GND
8	GND
9	PIN Removed
10	NC

G) F_USB2 (Front USB2 Connector, Black)

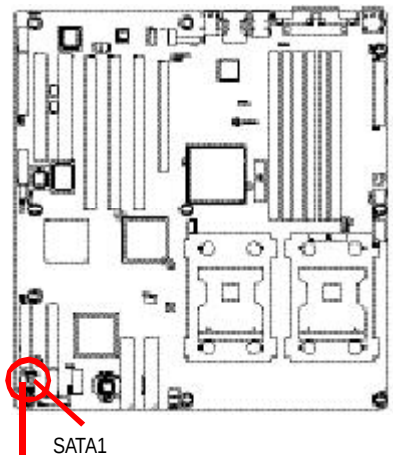




Pin No.	Definition
1	Pin Removed
2	NC
3	USB4_OC#3_FB(USB power)
4	USB4_OC#3_FB(USB power)
5	USB_ICH_P6N_IND
6	USB_ICH_P7N_IND
7	USB_ICH_P6P_IND
8	USB_ICH_P7P_IND
9	GND
10	GND
11	Pin Removed
12	N/C

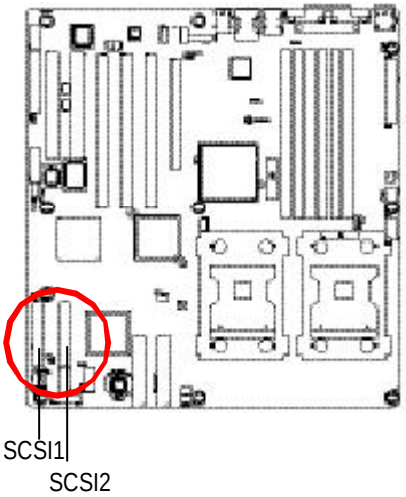
I / J) SATA1/SATA2 (Serial ATA Connectors)

You can connect the Serial ATA device to this connector, it provides you high speed transfer rates (150MB/sec).



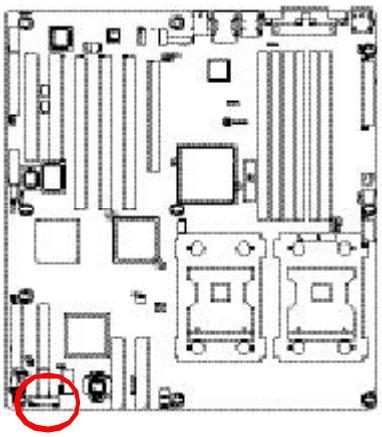
Pin No.	Definition
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

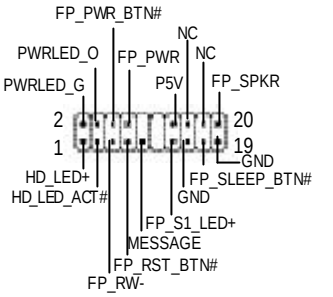
K /L) SCSI1 / SCSI2 (SCSI Connector)



H) F_Panel (2X10 Pins connector)

Please connect the power LED, PC speaker, reset switch and power switch of your chassis front panel to the F_PANEL connector according to the pin assignment above.



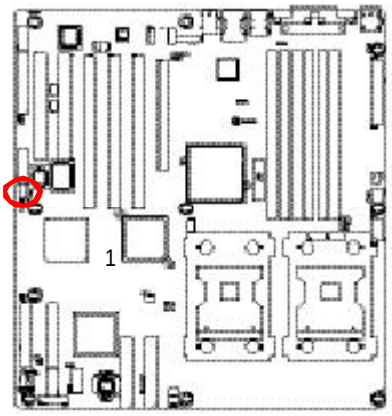


Pin No	Signal Name	Description
1	HD_LED+	Hard Disk LED anode (+)
2	PWRLED_G	Power LED Signal anode (+)
3	HD_LED_ACT#	Hard Disk LEDcathode(-)
4	PWRLED_O	Power LED Signal cathode(-)
5	FP_RW-	Front Panel Reset Switch cathode(-)
6	FP_PWR_BTN#	Front Panel Power On/Off Button Signal anode (+)
7	FP_RST_BTN#	Front Panel Reset Switch anode (+)
8	FP_PWR-	Front Panel Power On/Off Button cathode(-)
9	MESSAGE	MESSAGE signal
10	KEY	KEY
11	KEY	KEY
12	KEY	KEY
13	FP_S1_LED+	Green LED anode (+)
14	P5V	Extend speaker power
15	GND	Green LED cathode(-)
16	NC	No Connect
17	FP_SLEEP_BTN#	Front Panel Sleep Button Signal anode (+)
18	NC	No Connect
19	GND	Front Panel Sleep Button Signal cathode(-)
20	FP_SPKR	External speaker connector

M) IR1

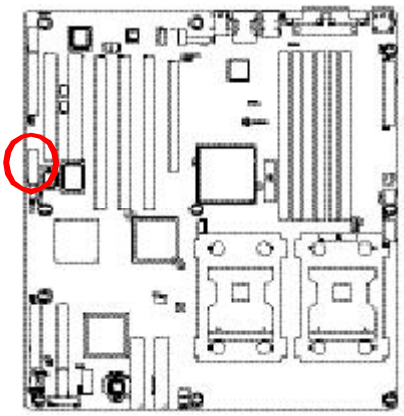
Make sure the pin 1 on the IR device is aling with pin one the connector. To enable the IR/CIR function on the board, you are required to purchase an option IR module.

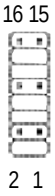
To use IR function only, please connect IR module to Pin1 to Pin5.



Pin No.	Definition
1	P5V
2	NC
3	IRRX
4	GND
5	IRTX
6	NC
7	CIRRX
8	+5V_SB
9	CIRTX
10	NC

N)F1_1394 (Front IEEE 1394 connector)

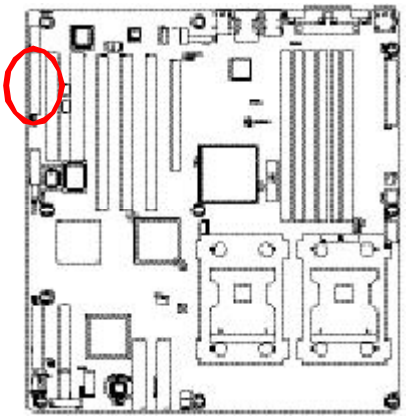


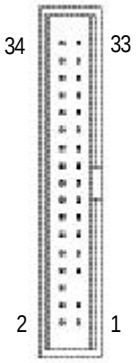


Pin No.	Definition
1	P12V
2	P12V
3	FTPA1+
4	FTPA1-
5	GND
6	GND
7	FTPB1+
8	FTPB1-
9	P12V
10	Pin Removed
11	FTPA2+
12	FTPA2-
13	GND
14	Pin Removed
15	FTPB2+
16	FTPB2-

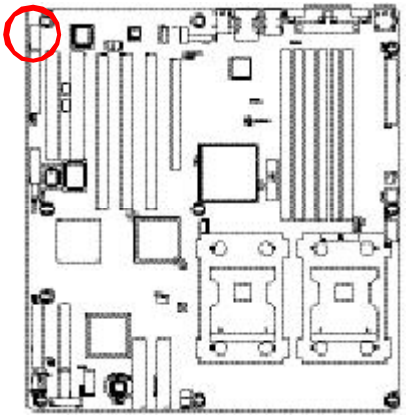
O) FDD1 (Floppy Connector)

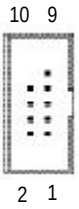
Please connect the floppy drive ribbon cables to FDD. It supports 360K,720K,1.2M,1.44M and 2.88Mbytes floppy disk types. The red stripe of the ribbon cable must be the same side with the Pin1.





P) COM2B



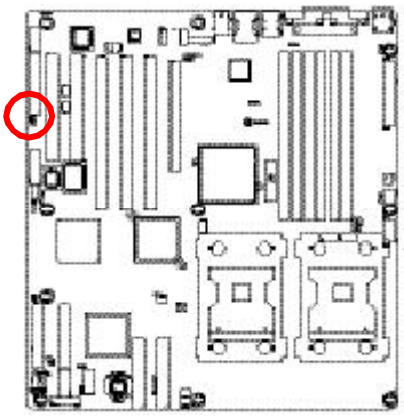


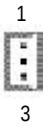
Pin No.	Definition
1	NDCDA2-
2	NSINA2
3	NSOUTA2
4	NDTRA2-
5	GND
6	NDSRA2-
7	NRTSA2-
8	NCTSA2-
9	NRIA2-
10	NC

Q) WOL1 (Wake on LAN)

This connector allows the remove servers to manage the system that installed this mainboard via your network adapter which also supports WOL.

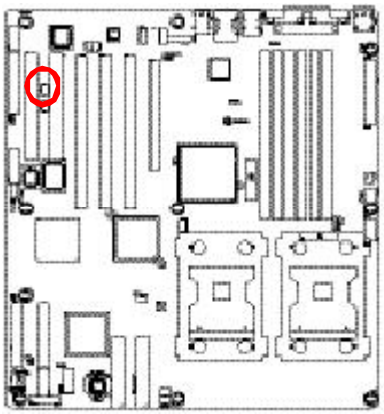
Note: If your are using this connector, please enter CMOS Setup, and set Wake Up On Ring function to "Enabled".





Pin No.	Definition
1	+5V SB
2	GND
3	Signal

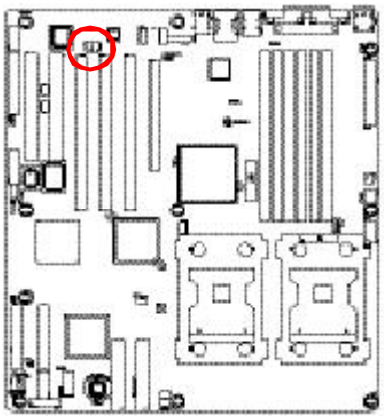
R) WOR1 (Wake on Ring)



Pin No.	Definition
1	Signal
2	GND

S)SPDIF_IO_1

The SPDIF output is capable of providing digital audio to external speakers or compressed AC3 data to an external Dolby Digital Decoder. Use this feature only when your stereo system has digital input function.

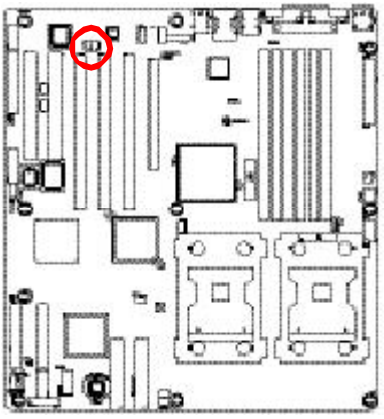


SPDIF

Pin No.	Definition
1	P5V
2	Pin Removed
3	SPDIFO
4	SPDIFI
5	GND
6	GND

T) SUR_CEN1

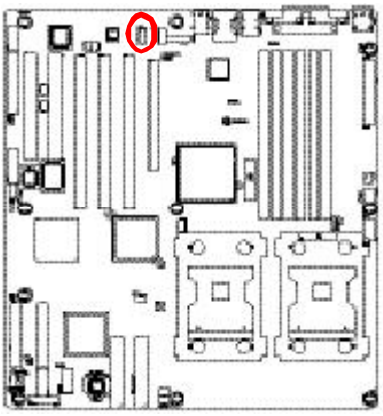
Please contact your nearest dealer for optional SUR_CEN cable.



Pin No.	Definition
1	SURR_OUT_L
2	SURR_OUT_R
3	AUDGND
4	Pin Removed
5	CENTER_OUT
6	LFE_OUT

U) AUX_IN1 (AUX In Connector)

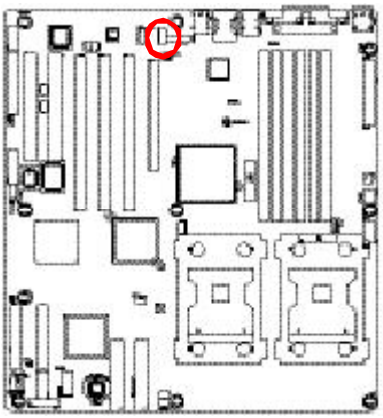
Connect other device(such as PCI TV Tunner audio out)to the connector.



Pin No.	Definition
1	AUX-L
2	GND
3	GND
4	AUX-R

V) CD_IN1 (CD IN,Black)

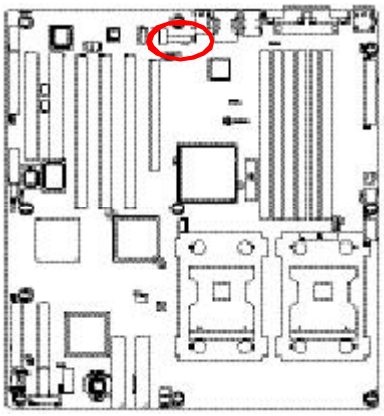
Connect CD-ROM or DVD-ROM audio out to the connector.



Pin No.	Definition
1	CD-L
2	GND
3	GND
4	CD_R

W) F_Audio1 (Front Audio connector)

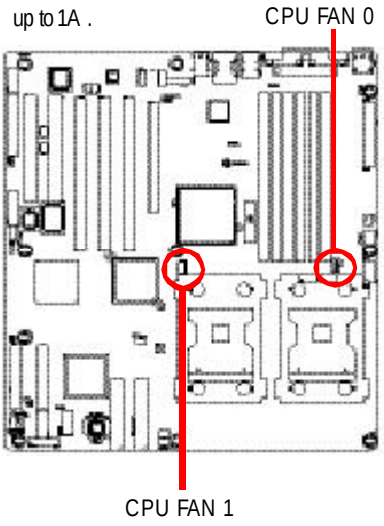
If you want to use Front Audio connector, you must remove 5-6, 9-10 Jumper. In order to utilize the front audio header, your chassis must have front audio connector. Also please make sure the pin assigment on the cable is the same as the pin assigment on the MB header. To find out if the chassis you are buying support front audio connector, please contact your dealer.



Pin No.	Definition
1	MIC
2	GND
3	REF
4	POWER
5	FrontAudio(R)
6	Rear Audio(R)
7	Reserved
8	No Pin
9	FrontAudio (L)
10	Rear Audio(L)

X / Y) CPU_FAN0 /1 (CPU Fan Connector)

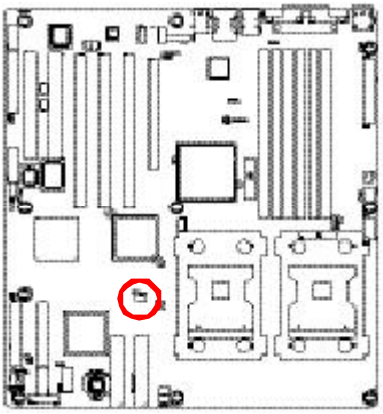
Please note, a proper installation of the CPU cooler is essential to prevent the CPU from running under abnormal condition or damaged by overheating. The CPU fan connector supports Max. current up to 1A .



Pin No.	Definition
1	GND
2	FAN_POWER (+12V)
3	FAN_TACH
4	FAN_PWM

Z) PXH_FAN1 (Intel 6700 PXH FAN connector)

If you installed wrong direction, the Chip Fan will not work. Sometimes will damage the Chip Fan. (Usually black cable is GND)

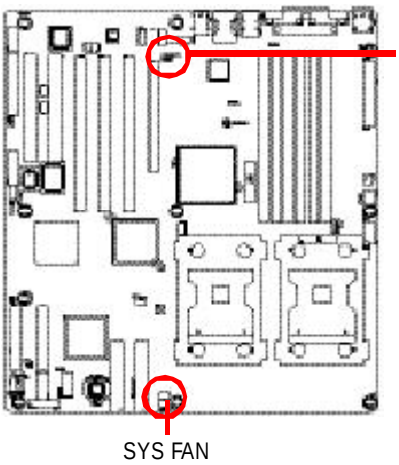


1

Pin No.	Definition
1	FAN_Power (+12V)
2	GND

a /b) SYS_FAN/3 (System Fan Connector)

This connector allows you to link with the cooling fan on the system case to lower the system temperature.



1
SYS FAN3

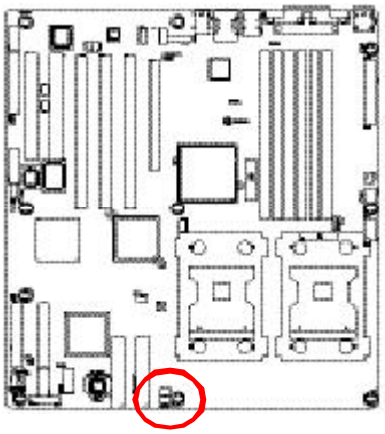
Pin No.	Definition
1	GND
2	FAN_Power (+12V)
3	FAN_TACH

1
SYS FAN

Pin No.	Definition
1	GND
2	FAN_Power (+12V)
3	FAN_TACH

c) FRONT FAN (Front Fan Connector)

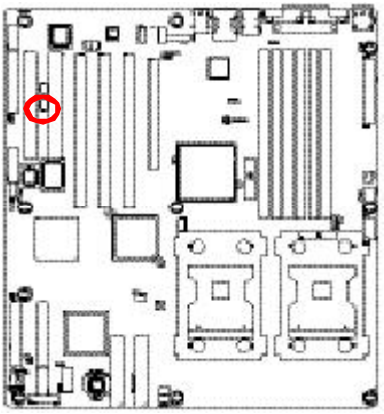
This connector allows you to link with the cooling fan on the system case to lower the system temperature.



Pin No.	Definition
1	GND
2	FAN_Power(+12V)
3	FAN_TACH

d) CI1 (CASE OPEN)

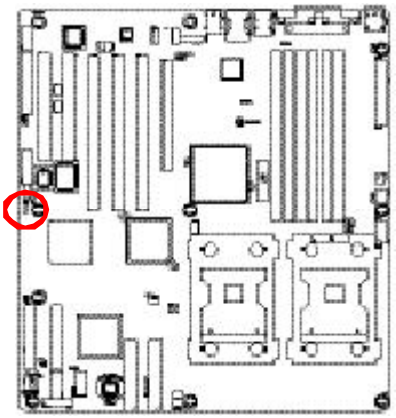
This 3 pin connector allows your system to enable or disable the “case open” item in BIOS if the system case begin remove.



Pin No.	Definition
1	GND
2	INTRUDER#
3	NC

e) SCSILED1

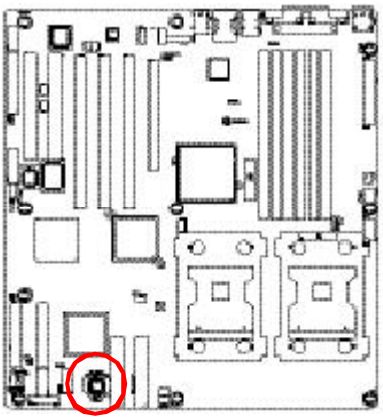
You can connect the SCSI indicative LED of your SCSI add-on card to this connector, which can indicate whether the SCSI device is active or not.

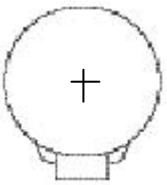


1

Pin No.	Definition
1	GND
2	SCSI_CONN_LED#
3	SCSI_CONN_LED#
4	GND

f) Battery



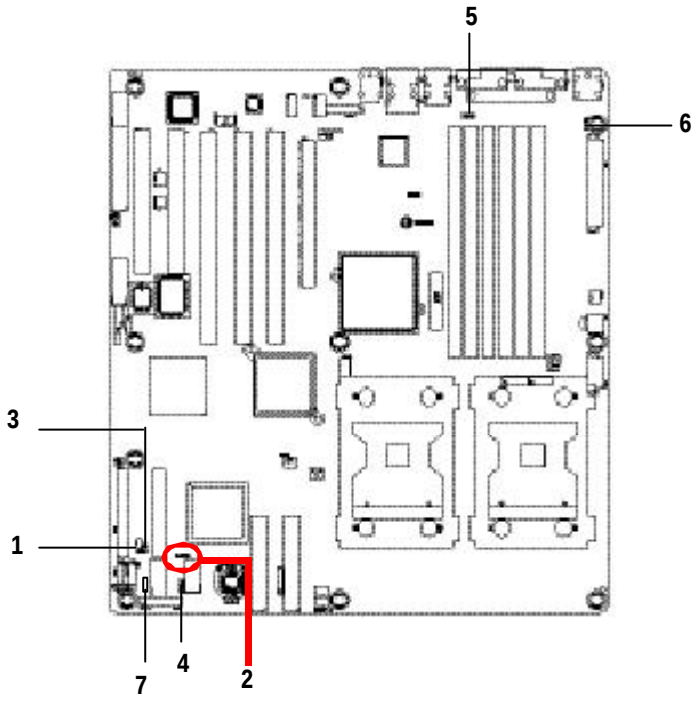


CAUTION

- ❖ Danger of explosion if battery is incorrectly replaced.
- ❖ Replace only with the same or equivalent type recommended by the manufacturer.
- ❖ Dispose of used batteries according to the manufacturer's instructions.

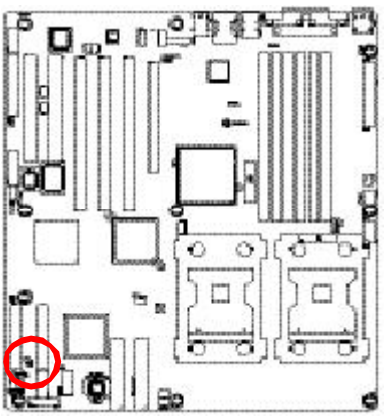
If you want to erase CMOS...
1.Turn OFF the computer and unplug the power cord.
2.Remove the battery, wait for 30 second.
3.Re-install the battery.
4.Plug the power cord and turn ON the computer.

Step 4-3 : Jumper Setting Introduction



1) JP2	5) PWR_JP2
2) JP3	6) PWR_JP3
3) JP5	7) PWR_JP4
4) PWR_JP1	

1) JP2 (Password Skip Function)



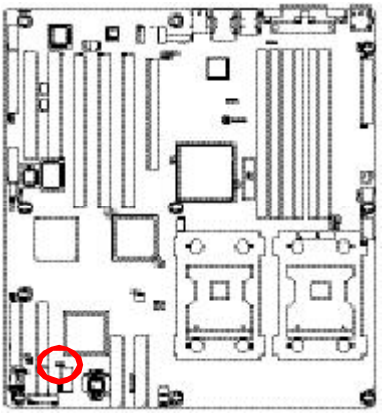
1  1-2 close: Normal (Default)

1  2-3 close: Skip Supervisor Password in BIOS setup menu

2) JP3 (Clear CMOS Function)

You may clear the CMOS data to its default values by this jumper.

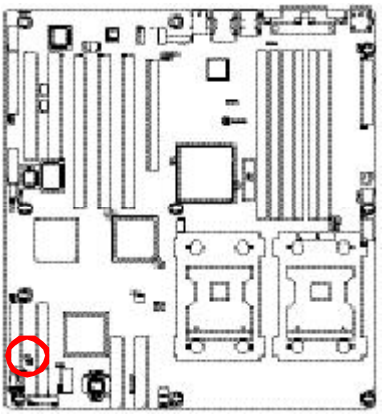
Default value doesn't include the "Shunter" to prevent from improper use this jumper. To clear CMOS, temporarily short 1-2 pin.



1  1-2 close: Clear CMOS

1  2-3 close: Normal

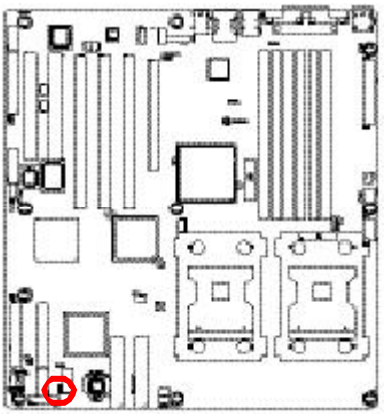
3) JP5 (Power LED ON/Off Function)



Close: Normal (Default)

Open: Disable Power LED indication

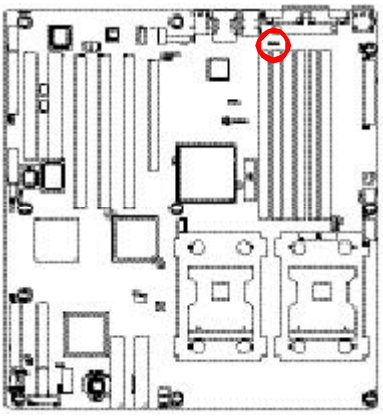
4) PWR_JP1 (F_USB1 connector USB power source selection)



1 1-2 close: P5V_DUAL (Default)

1 2-3 close: P5V

5) PWR_JP2 (USB_LAN1/USB_1394_1 connector USB power source selection)



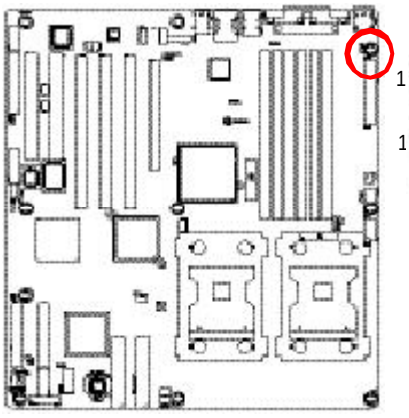
1

1-2 close: P5V_DUAL (Default)

2-3 close: P5V

1

6) PWR_JP3 (KB_MS1 connector PS2 Keyboard/Mouse power source selection)



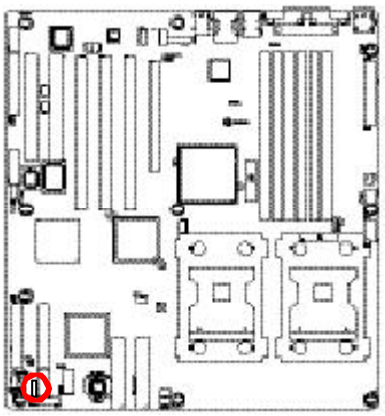
1

1-2 close: P5V_DUAL (Default)

1

2-3 close: P5V

7) PWR_JP4 (F_USB2 connector USB power source selection)



1 1-2 close: P5V_DUAL (Default)

1 2-3 close: P5V

Chapter 3 BIOS Setup

BIOS Setup is an overview of the BIOS Setup Program. The program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off.

ENTERING SETUP

Power ON the computer and press <F2> immediately will allow you to enter Setup.

CONTROL KEYS

<↑>	Move to previous item
<↓>	Move to next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<Esc>	Main Menu - Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu
<+/PgUp>	Increase the numeric value or make changes
<-/PgDn>	Decrease the numeric value or make changes
<F1>	General help, only for Status Page Setup Menu and Option Page Setup Menu
<F2>	Reserved
<F3>	Reserved
<F4>	Reserved
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Reserved
<F7>	Load the Optimized Defaults
<F8>	Reserved
<F9>	Reserved
<F10>	Save all the CMOS changes, only for Main Menu

GETTING HELP

Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Status Page Setup Menu / Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

- **Main**

  This setup page includes all the items in standard compatible BIOS.

- **Advanced**

  This setup page includes all the items of AWARD special enhanced features.
  (ex: onboard device enable/disable, power management)

- **Security**

  Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.

- **PC Health Status**

  This setup page displays the System auto detect Temperature, voltage, fan speed.

- **Defaults**

  Load Optimized Defaults option and loads preset system parameter values to set the system in its highest performance configurations.

- **Exit**

  Save CMOS value settings to CMOS and exit setup or abandon all CMOS value changes and exit setup.

Main

Once you enter Award BIOS Setup Utility, the Main Menu (Figure 1) will appear on the screen. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

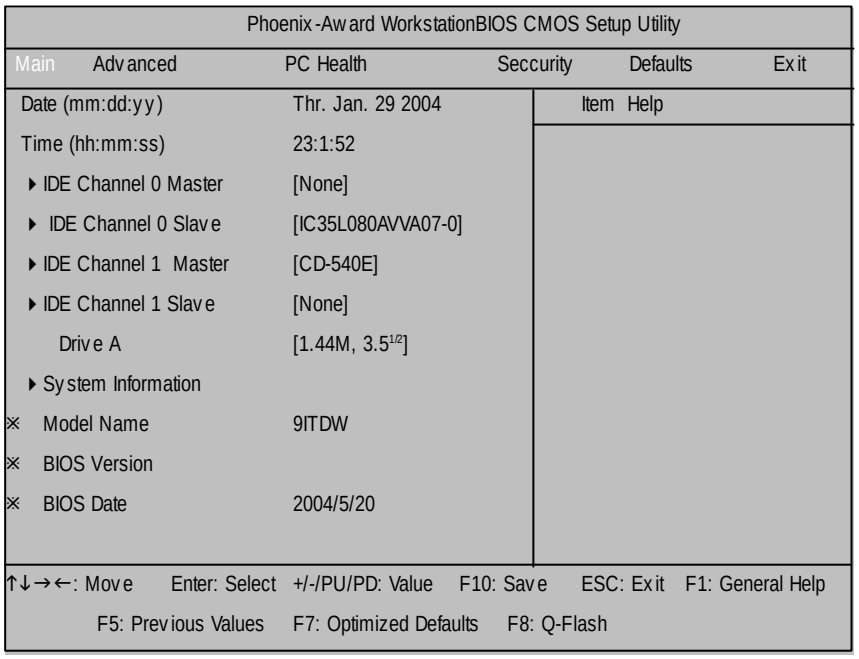


Figure 1: Main

☞ Date

The date format is <date> <month>, <day>, <year>.

- ⏩ Date The date, Monday to Sunday.
- ⏩ Month The month, Jan. Through Dec.
- ⏩ Day The day, from 1 to 31 (or the maximum allowed in the month)
- ⏩ Year The year, from 1999 through 2098

Note that ※ indicates Display ONLY

☞ Time

The times format is setin <hour>, <minute> and <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

☞ IDE HDD Auto Detection

Press [Enter] to auto-detect the HDD's size, head, etc on this channel.

☞ IDE Channel 0 Master, Slave / Channel 1 Master, Slave

The category identifies the types of hard disk from drive C to F that has been installed in the computer. There are two types: **auto type**, and **manual type**. Manual type is user-definable; Auto type that will automatically detect HDD type.

Note that thespecifications of your drive must match with the drive table. The hard diskwill not work properly if you enter improper information for this category.

If you select User Type, related information will be asked to enter to the following items. Enter the information directly from the keyboard andpress <Enter>. Such information should be provided in the documentation form your hard disk vendor or the system manufacturer.

- **Access Mode**

  This option allows user to set hard drive parameters.

  Option: CHS, LBA, Large, Auto (Default Value)

⏩ Capacity	Displays the capacity of HDD
⏩ Cylinder	Number of cylinders
⏩ Heads	Number of heads
⏩ Precmp	Write precomp
⏩ Landind Zone	Landing zone
⏩ Sectors	Number of sectors

If a hard disk has not been installed, select NONE and press <Enter>.

☞ Drive A

The category identifies the types of floppy disk drive A that has been installed in the computer.

⏩ None	No floppy drive installed
⏩ 360K, $5^{1/4}$ in.	5.25 inch PC-type standard drive; 360K byte capacity.
⏩ 1.2M, $5^{1/4}$ in.	5.25 inch AT-type high-density drive; 1.2M byte capacity (3.5 inch when 3 Mode is Enabled).
⏩ 720K, $3^{1/2}$ in.	3.5 inch double-sided drive; 720K byte capacity
⏩ 1.44M, $3^{1/2}$ in.	3.5 inch double-sided drive; 1.44M byte capacity.
⏩ 2.88M, $3^{1/2}$ in.	3.5 inch double-sided drive; 2.88M byte capacity.

☞ System Information

This category includes the information of processor type, speed, total memory and LAN MAC Address.

Advanced

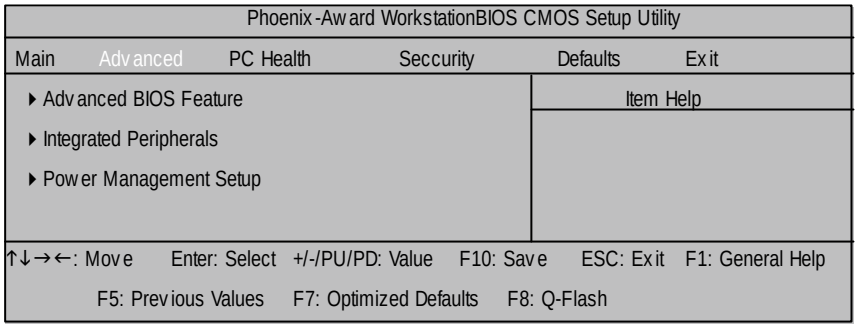


Figure 2: Advanced

Advanced BIOS Feature

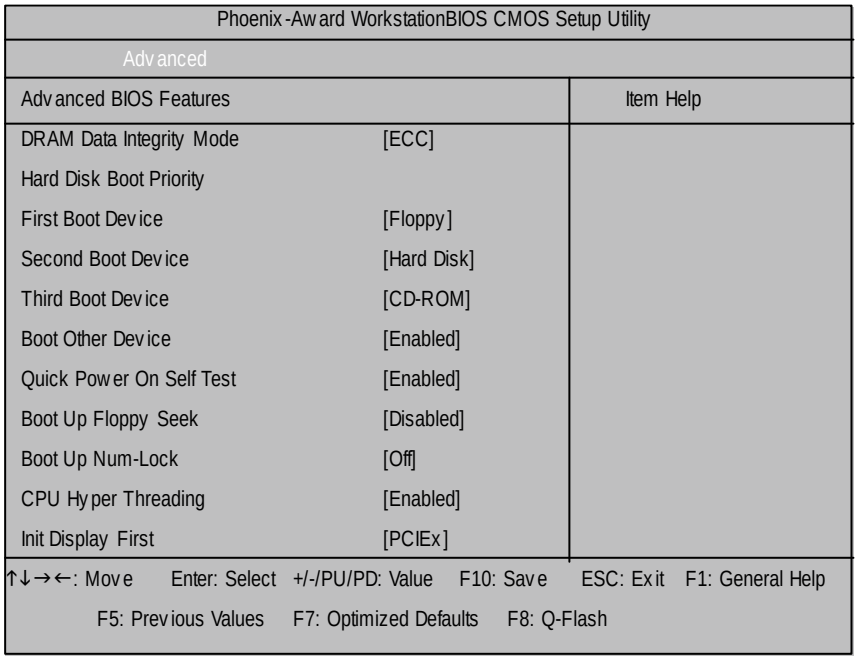


Figure 2-1: Advanced BIOS Features

☞ DRAM Data Integrity Mode

⏩ ECC Set DRAM mode at ECC.

☞ Hard Disk Boot Priority

These three fields determines which type of device the system attempt to boot from after **BIOS Post** completed. Specifies the boot sequence from the available devices. If the first device is not a bootable device, the system will seek for next available device.

- **First/ Second/ Third Boot Device**

  Select the first/second/t\hird boot device

  ⏩ Floppy Select your boot device priority by Floppy.
  ⏩ LS120 Select your boot device priority by LS120.
  ⏩ Hard Disk Select your boot device priority by Hard Disk.
  ⏩ CDROM Select your boot device priority by CDROM.
  ⏩ ZIP100 Select your boot device priority by ZIP100.
  ⏩ USB-FDD Select your boot device priority by USB-FDD.
  ⏩ USB-ZIP Select your boot device priority by USB-ZIP.
  ⏩ USB-CDROM Select your boot device priority by USB-CDROM.
  ⏩ LAN Select your boot device priority by LAN.
  ⏩ Disabled Select your boot device priority by Disabled.

- **Boot Other Device**

  Select the specified boot device priority.

  ⏩ Enabled Enable the specified boot device.
  ⏩ Disabled Disable the specified boot device.

☞Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power on the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

⏩Enabled	Enables quick POST.(Default value)
⏩Disabled	Normal POST.

☞Boot Up Floppy Seek

During POST, BIOS will determine the floppy disk drive installed is 40 or 80 tracks. 360K type is 40 tracks 720K, 1.2M and 1.44M are all 80 tracks.

⏩Enabled	BIOS searches for floppy disk drive to determine it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks. (Default value)
⏩Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360K.

☞Boot Up Num-Lock

⏩ON	Set this option "On" to turn the NumLock On at a system boot. (Default value)
⏩OFF	Disables this function.

☞CPU Hyper Threading

⏩Enabled	Enables Hyper-Threading Technology Feature when using Windows XP and Linux 2.4x operating systems that are optimized for Hyper-Threading technology. (Default value)
⏩Disabled	Disables Hyper-Threading Technology when using other operating systems.

☞Init Display First

This feature allows you to select the first initation of the monitor display from which card, when you install an AGP VGA card and a PCI VGA card on board.

⏩PCIEx	Set Init Display First to PCI Express Slot. (Default value)
⏩PCI Slot	Set Init Display First to PCI Slot.

Integrated Peripherals

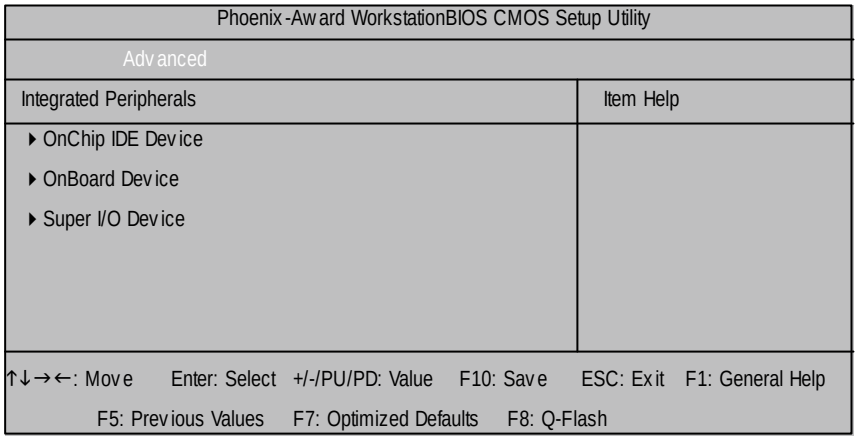


Figure 2-2: Integrated Peripherals

OnChip IDE Device

Phoenix-Award WorkstationBIOS CMOS Setup Utility		
Advanced		
OnChip IDE Device		Item Help
IDE HDD Block Mode	[Enabled]	
IDE DMA transfer access	[Enabled]	
OnChip Primary PCI IDE	[Enabled]	
IDE Primary Master PIO	[Auto]	
IDE Primary Slave PIO	[Auto]	
IDE Primary Master UDMA	[Auto]	
IDE Primary Slave UDMA	[Auto]	
OnChip Secondary PCI IDE	[Enabled]	
IDE Secondary Master PIO	[Auto]	
IDE Secondary Slave PIO	[Auto]	
IDE Secondary Master UDMA	[Auto]	
IDE Secondary Slave UDMA	[Auto]	
*** On-Chip Serial ATA ***		
SATA Mode	[RAID]	
x On-Chip Serial ATA	[Enabled Mode]	
x Serial ATA Port 0 Mode	SATA0 master	
Serial ATA Port 1 Mode	SATA1 master	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F7: Optimized Defaults F8: Q-Flash		

Figure 2-2-1: OnChip IDE Device

☞ IDE HDD Block Mode

If your IDE hard drive supports block mode, select [Enabled] for automatic detection of the optimal number if block read/writes per sector the drive can supprit.

- ⏩Enabled Hard Drive supports Block Mode.
- ⏩Disabled Disable this function.

☞ **IDE DMA Transfer Access**

- Enabled — Enable IDE DMA transfer access. (Default value)
- Disabled — Disable this function.

☞ **OnChip Promary PCI IDE**

- Enabled — Enable the function of On-chip primary PCI IDE. (Defualt value)
- Disabled — Disable this function.

☞ **IDE Primary Master PIO**

- Auto — Auto detect the IDE primary master PIO. (Default value)
- Mode 0 — Select Mode 0 as IDE primary master PIO.
- Mode 1 — Select Mode 1 as IDE primary master PIO.
- Mode 2 — Select Mode 2 as IDE primary master PIO.
- Mode 3 — Select Mode 3 as IDE primary master PIO.
- Mode 4 — Select Mode 4 as IDE primary master PIO.

☞ **IDE Primary Slave PIO**

- Auto — Auto detect the IDE primary slave PIO. (Default value)
- Mode 0 — Select Mode 0 as IDE primary slave PIO.
- Mode 1 — Select Mode 1 as IDE primary slave PIO.
- Mode 2 — Select Mode 2 as IDE primary slave PIO.
- Mode 3 — Select Mode 3 as IDE primary slave PIO.
- Mode 4 — Select Mode 4 as IDE primary slave PIO.

☞ **IDE Primary UDMA**

- Auto — Auto detect the IDE Primary Ultra DMA in the specified IDE channel. (Default)
- Disabled — Disable this function.

☞ **IDE Primary Slave UDMA**

- Auto — Auto detect the IDE Primary Slave Ultra DMA in the specified IDE channel. (Default)
- Disabled — Disable this function.

☞ OnChip Secondary PCI IDE

- ⏩ Enabled — Enabled the function of Oc-chip secondary PCI IDE. (Default value)
- ⏩ Disabled — Disable this function.

☞ IDE Secondary Master PIO

- ⏩ Auto — Auto detect the IDE secondary master PIO. (Default value)
- ⏩ Mode 0 — Select Mode 0 as IDE secondary master PIO.
- ⏩ Mode 1 — Select Mode 1 as IDE secondary master PIO.
- ⏩ Mode 2 — Select Mode 2 as IDE secondary master PIO.
- ⏩ Mode 3 — Select Mode 3 as IDE secondary master PIO.
- ⏩ Mode 4 — Select Mode 4 as IDE secondary master PIO.

☞ IDE Secondary Slave PIO

- ⏩ Auto — Auto detect the IDE secondary slave PIO. (Default value)
- ⏩ Mode 0 — Select Mode 0 as IDE secondary slave PIO.
- ⏩ Mode 1 — Select Mode 1 as IDE secondary slave PIO.
- ⏩ Mode 2 — Select Mode 2 as IDE secondary slave PIO.
- ⏩ Mode 3 — Select Mode 3 as IDE secondary slave PIO.
- ⏩ Mode 4 — Select Mode 4 as IDE secondary slave PIO.

☞ IDE Secondary Master UDMA

- ⏩ Auto — Auto detect the IDE Primary Master Ultra DMA in the specified IDE channel. (Default value)
- ⏩ Disabled — Disable this function.

☞ IDE Secondary Slave UDMA

- ⏩ Auto — Auto detect the IDE Primary Slave Ultra DMA in the specified IDE channel. (Default value)
- ⏩ Disabled — Disable this function.

☞ On-Chip Serial ATA Setting

- **SATA Mode**

  This category can be adjust only when your system is enhanced the SATA controller.

  - ⏩IDE SATA as IDE mode. (Default value)
  - ⏩RAID SATA as RAID mode.

- **On-Chip Serial ATA**

  - ⏩Auto Auto arrange by BIOS.
  - ⏩Combined Mode PATA and SATA are combined. Max. of 2 IDE drives in each channel.
  - ⏩Enhanced Mode Enable both SATA and PATA. Max. of 6 IDE drives are supported. (Default value)
  - ⏩SATA Only SATA is operating in legacy mode.
  - ⏩Disabled Disable this function.

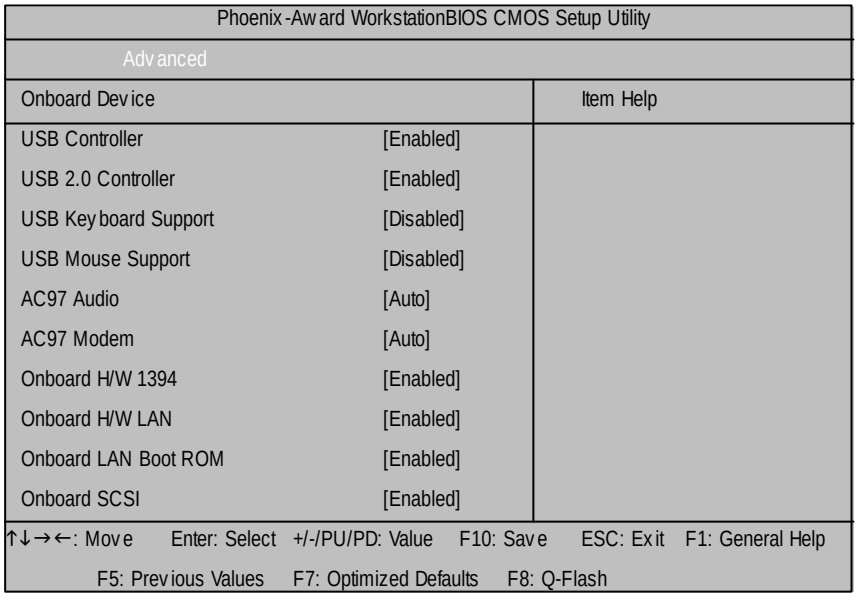
- **Serial ATA Port 0 Mode**

  - ⏩Primary Master Set Serial ATA Port 0 as Primary Master. (Default)
  - ⏩Primary Slave Set Serial ATA Port 0 as Primary Slave.
  - ⏩Secondary Master Set Serial ATA Port 0 as Secondary Master.
  - ⏩Secondary Slave Set Serial ATA Port 0 as Secondary Slave.
  - ⏩SATA0 Master Set Serial ATA Port 0 as SATA0 Master.
  - ⏩SATA1 Master Set Serial ATA Port 0 as SATA1 Master.

- **Serial ATA Port 1 Mode**

  - ⏩Primary Slave Set Serial ATA Port 1 as Primary Slave. (Default)
  - ⏩Primary Slave Set Serial ATA Port 1 as Primary Slave.
  - ⏩Secondary Master Set Serial ATA Port 1 as Secondary Master.
  - ⏩Secondary Slave Set Serial ATA Port 1 as Secondary Slave.
  - ⏩SATA0 Master Set Serial ATA Port 1 as SATA0 Master.
  - ⏩SATA1 Master Set Serial ATA Port 1 as SATA1 Master.

Onboard Device



Phoenix-Award WorkstationBIOS CMOS Setup Utility		
Advanced		
Onboard Device		Item Help
USB Controller	[Enabled]	
USB 2.0 Controller	[Enabled]	
USB Keyboard Support	[Disabled]	
USB Mouse Support	[Disabled]	
AC97 Audio	[Auto]	
AC97 Modem	[Auto]	
Onboard H/W 1394	[Enabled]	
Onboard H/W LAN	[Enabled]	
Onboard LAN Boot ROM	[Enabled]	
Onboard SCSI	[Enabled]	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F7: Optimized Defaults F8: Q-Flash		

Figure 2-2-2: Onboard Device

☞USB Controller

- ⏩Enabled Enable USB Controller function. (Default value)
- ⏩Disabled Disable USB Controller function.

☞USB 2.0 Controller

This item provide the function for user to enable/disable EHCI controller only. THis BIOS itself may / may not have high speed USB support built-in, the support will be automatically turn on when high speed device were attached.

- ⏩Enabled Enable USB 2.0 Controller function. (Default)
- ⏩Disabled Disable USB 2.0 Controller function.

☞USB Keyboard Support

- ⏩Enabled — Enable USB Keyboard Support.
- ⏩Disabled — Disable USB Keyboard Support. (Default value)

☞USB Mouse Support

- ⏩Enabled — Enable USB Mouse Support.
- ⏩Disabled — Disable USB Mouse Support. (Default value)

☞AC97 Audio

- ⏩Auto — Auto-detect AC97 Audio (Default value)
- ⏩Disabled — Disable AC97 Audio.

☞AC97 Modem

- ⏩Auto — Auto-detect AC97 modem (Default value)
- ⏩Disabled — Disable AC97 modem.

☞Onboard H/W 1394

- ⏩Enabled — Enable onboard H/W 1394. (Default value)
- ⏩Disabled — Disable this function.

☞Onboard H/W LAN

- ⏩Enabled — Enable onboard H/W LAN. (Default value)
- ⏩Disabled — Disable this function.

☞Onboard LAN Boot ROM

Decide whether to invoke the boot ROM of the onboard chip.

- ⏩Enabled — Invoke the boot ROM of the onboard chip.
- ⏩Disabled — Disable this function. (Default value)

☞Onboard H/WSCSI

- ▸▸Enabled Enable onboard H/W SCSI. (Default value)
- ▸▸Disabled Disable this function.

Super I/O Device

Phoenix-Award WorkstationBIOS CMOS Setup Utility		
Advanced		
Super I/O		Item Help
Onboard FDC Controller	[Disabled]	
Onboard Serial Port 1	[3F8/IRQ4]	
Onboard Serial Port 2	[2F8/IRQ3]	
UART Mode Select	[Normal]	
x UR2 Duplex Mode	Half	
Onboard Parallel Port	[378/IRQ7]	
Parallel Port Mode	[SPP]	
xECP Mode Use DMA	3	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F7: Optimized Defaults F8: Q-Flash		

Figure 2-2-3: Super I/O Device

☞Onboard FDC Controller

- ⏩Enabled Select "enabled" to active Onboard Floppy Controller. (Default value)
- ⏩Disabled Disable this function.

☞Onboard Serial Port 1

- ⏩Auto BIOS will automatically setup the port 1 address.
- ⏩3F8/IRQ4 Enable onboard Serial port 1 and set IO address to 3F8.
- ⏩2F8/IRQ3 Enable onboard Serial port 1 and set IO address to 2F8.
- ⏩3E8/IRQ4 Enable onboard Serial port 1 and set IO address to 3E8. (Default value)
- ⏩2E8/IRQ3 Enable onboard Serial port 1 and set IO address to 2E8.
- ⏩Disabled Disable onboard Serial port 1.

☞Onboard Serial Port 2

- ⏩Auto — BIOS will automatically setup the port 2 address.
- ⏩3F8/IRQ4 — Enable onboard Serial port 2 and set IO address to 3F8.
- ⏩2F8/IRQ3 — Enable onboard Serial port 2 and set IO address to 2F8. (Default value)
- ⏩3E8/IRQ4 — Enable onboard Serial port 2 and set IO address to 3E8.
- ⏩2E8/IRQ3 — Enable onboard Serial port 2 and set IO address to 2E8.
- ⏩Disabled — Disable onboard Serial port 2.

☞UART Mode Select

- ⏩Normal — Using as standard serial port. (Default value)
- ⏩IrDA — Using as IR and set to IrDA mode.
- ⏩ASKIR — Using as IR and set to ASKIR mode.
- ⏩SCR — Using as Smart Card Interface.

☞UR2 Duplex Mode

This entry can be adjust when user select [IrDA] in UART Mode Selection.

- ⏩Full — IR function Duplex Full.
- ⏩Half — IR function Duplex Half.

☞Onboard Parallel Port

- ⏩378/IRQ7 — Enable onboard LPT port and set address to 378/IRQ7. (Default value)
- ⏩278/IRQ5 — Enable onboard LPT port and set address to 278/IRQ5.
- ⏩3BC/IRQ7 — Enable onboard LPT port and set address to 3BC/IRQ7.
- ⏩Disabled — Disable onboard LPT port.

☞Parallel Port Mode

⏩SPP	Using Parallel port as Standard Parallel Port. (Default value)
⏩EPP	Using Parallel port as Enhanced Parallel Port.
⏩ECP	Using Parallel port as Extended Capabilities Port.
⏩ECP+EPP	Using Parallel port as ECP & EPP mode.
⏩Normal	Using Parallel port as Normal.

☞ECP Mode Use DMA

This option is only available if the setting for the Parallel Port Mode option is ECP. This option sets the DMA channel used by parallel port.

The options: 0,1,2,3 (Default value)

Power Management Setup

Phoenix-Award WorkstationBIOS CMOS Setup Utility		
Advanced		
Power Management Setup		Item Help
ACPI Function	[Enabled]	
ACPI Susoend Type	[S3(STR)]	
Soft Off by PWR-BTTN	[Instant-Off]	
PME Event Wake Up	[Disabled]	
Wakeup On Ring	[Disabled]	
PWRON After PWR-Fail	[Off]	
Resume By Alarm	[Disabled]	
x Date (of Month) Alarm	0	
x Time (hh: mm: ss)	0:0:0	
POWER ON Function	[Any Key]	
x KB Power On Password	Enter	
x Hot Key Power On	Ctrl + F1	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F7: Optimized Defaults F8: Q-Flash		

Figure 2-3: Power Management Setup

☞ ACPI Function

- ⏩ Enabled — Enable ACPI function. (Default Value)
- ⏩ Disabled — Disable this function.

☞ ACPI Suspend Type

- ⏩ S1(POS) Set suspend type to Power On Suspend under ACPI OS.
- ⏩ S3 (STR) Set suspend type to RAM under ACPI OS. (Default Value)

☞ Soft-off by PWR-BTTN

- ⏩ Instant-off Press power button then Power off instantly. (Default)
- ⏩ Delay 4 Sec. Press power button 4 sec to Power off. Enter suspend if button is pressed less than 4 sec.

☞ PME Event Wake Up

- ⏩ Enabled Enable PME Event wake up function. (Default value)
- ⏩ Disabled Disable PME event wake up function.

☞ Wake Up On Ring

- ⏩ Disabled Disable Wake Up On Ring function. (Default value)
- ⏩ Enabled Enable Wake Up On Ring function.

☞ Resume by Alarm

You can set "Resume by Alarm" item to enabled and key in Data/time to power on system.

- ⏩ Disabled Disable this function. (Default)
- ⏩ Enabled Enable alarm function to POWER ON system.

If RTC Alarm Lead To Power On is Enabled.

Date (of Month) Alarm : Everyday, 1~31

Time (hh: mm: ss) Alarm : (0~23) : (0~59) : (0~59)

☞ Power On Function

⏩ Password	Enter from 1 to 5 characters to set the Keyboard Power On Password.
⏩ Hot Key	Press specified Hot Keys (Described in the following category) to power on system.
⏩ Mouse Move	Move mouse to power system.
⏩ Mouse Click	Mouse double click to power system.
⏩ Any Key	Press any key to power on system. (Default value)
⏩ BUTTON ONLY	Press the power button to power on system.
⏩ Keyboard 98	if your keyboard has "keyboard 98" button, you can press the key to power on your system.

▶ KB Power ON Password

This entry can be adjust when user select [Password] at Power On Function.

Press [Enter] to set password.

▶ Hot Key Power ON

This entry can be adjust when user select [Hot Key] at Power On Function.

The hot keys options are: [Ctrl-F1], [Ctrl-F2], [Ctrl-F3], [Ctrl-F4], [Ctrl-F5], [Ctrl-F6], [Ctrl-F7], [Ctrl-F8], [Ctrl-F9], [Ctrl-F10], [Ctrl-F11] and [Ctrl-F112].

This Default setting is [Ctrl-F1].

PC Health

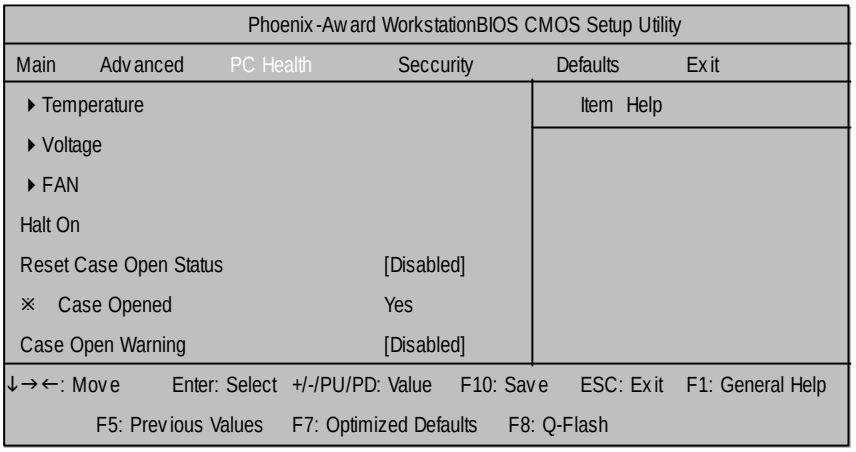


Figure 3: PC Health

☞ **Temperature**

⏩Display the current CPU0/1 temperature, SCSI controller, PXH controller and LAN controller ambient temperature.

☞ **Voltage: CPU0/1 VCORE /FSB VTT/ DDR2 VTT/ +1.8V / +1.5V / +3.3V / +5V / +12V / 3.3VSB / 5VSB / Battery**

⏩Detect system's voltage status automatically.

☞ **FAN (RPM)**

⏩Display the current CPUs and System 1/2/3 FAN speed.

☞ Halt On

The category determines whether the computer will stop if an error is detected during power up.

⏩NO Errors	The system boot will not stop for any error that may be detected and you will be prompted.
⏩All Errors	Whenever the BIOS detects a non-fatal error the system will be stopped. (Defaults)
⏩All, But Keyboar	The system boot will not stop for a keyboard error; it will stop for all other errors.
⏩All, But Diskette	The system boot will not stop for a disk error; it will stop for all other errors.
⏩All, But Disk/Key	The system boot will not stop for a keyboard or disk error; it will stop for all other errors.

☞Reset Case Open Status

☞Case Open

If the case is closed, "Case Opened" will show "No".

If the case have been opened, "Case Opened" will show "Yes".

If you want to reset "Case Opened" value, set "Reset Case Open Status" to "Enabled" and save CMOS, your computer will restart.

The option: Enabled, Disabled (Default value)

☞ Case Open Warning

Set this option to Enabled to active warning beep sound when the system chassis is opened.

⏩Enabled	Enable case open warning.
⏩Disabled	Disable this function. (Default value)

Security

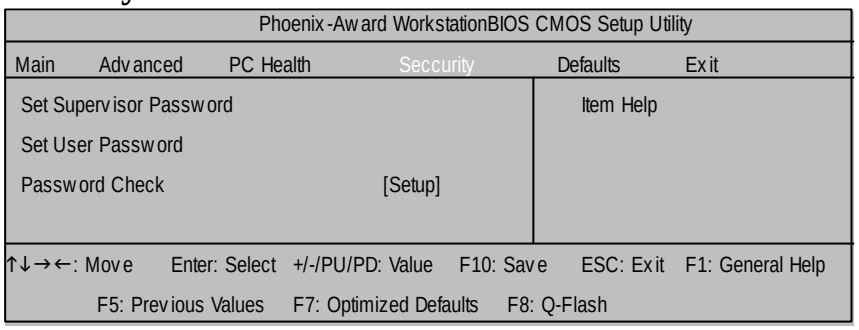


Figure 4: Security

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

Type the password, up to eight characters, and press <Enter>. You will be asked to confirm the entered password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable password, just press <Enter> when you are prompted to enter password. A message "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

The BIOS Setup program allows you to specify two separate passwords:

SUPERVISOR PASSWORD and a USER PASSWORD. When disabled, anyone may access all BIOS Setup program function. When enabled, the Supervisor password is required for entering the BIOS Setup program and having full configuration fields, the User password is required to access only basic items.

If you select "System" at "Password Check" in Advance BIOS Features Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu.

If you select "Setup" at "Password Check" in Advance BIOS Features Menu, you will be prompted only when you try to enter Setup.

☞ Password Check

Select whether the password is required every time when the system boots or only when user enter the setup.

Defaults

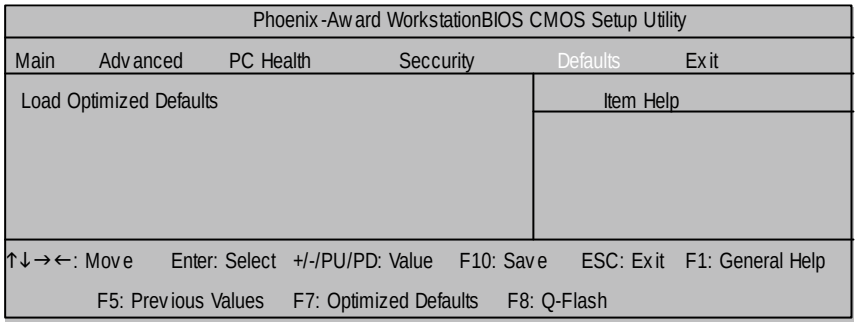


Figure 5: Defaults

☞**Load Optimized Defaults**

When you press <Enter> on this item, you will get a confirmation dialog box with a message as below:

Exit

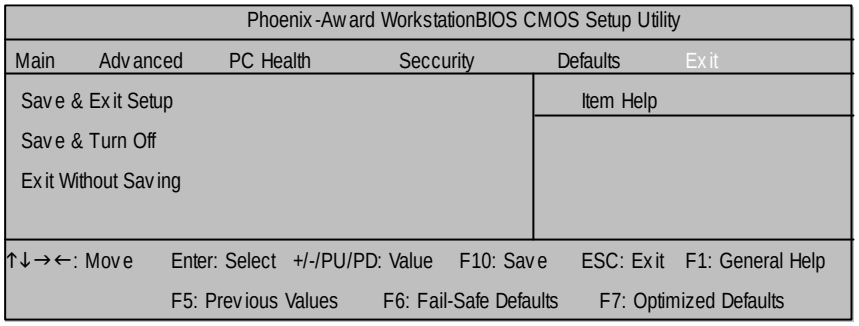


Figure 6: Exit

☞Save & Exit Setup

Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS.

Type "N" will return to Setup Utility.

☞Save & Turn Off

Type "Y" will quit the Setup Utility and save the user setupvalue to RTC CMOS and turn of power automatically.

Type "N" will return to Setup Utility.

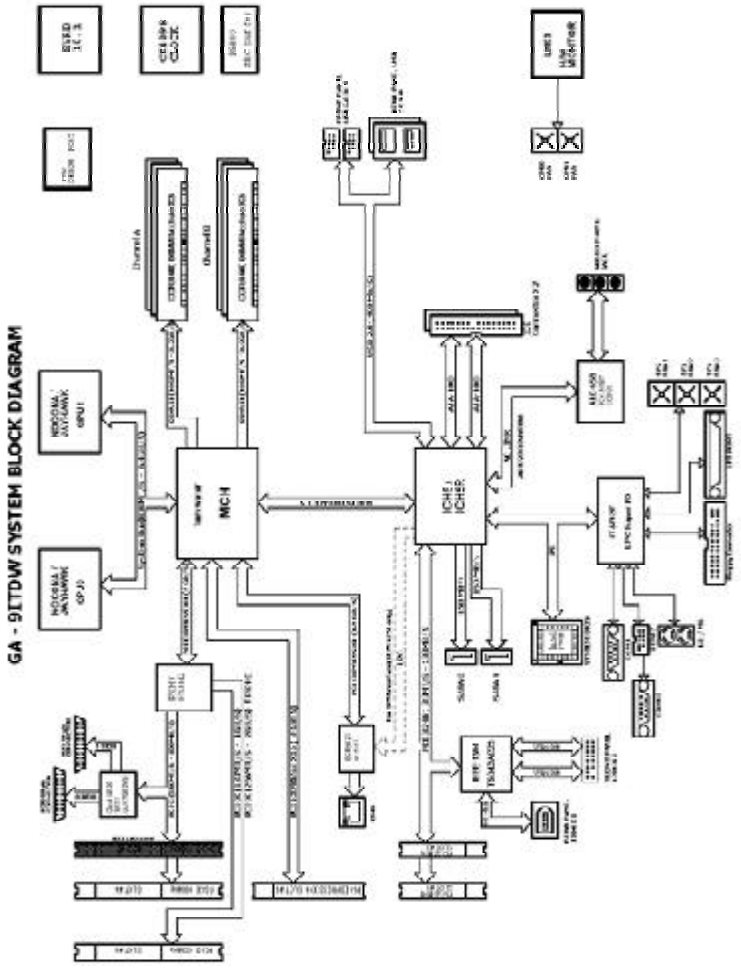
☞Exit Without Saving

Type "Y" will abandon all data and quit without saving.

Type "N" will return to Setup Utility.

Chapter 4 Technical Reference

Block Diagram



Chapter 5 Driver Installation

A. Intel Chipset Software Installation Utilities

Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show a series of Setup Wizard dialog boxes. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

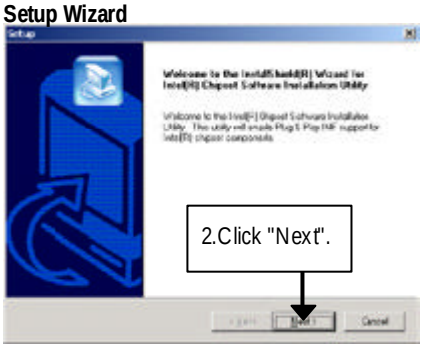
Installation Procedures:

1. The CD auto run program starts, **Double click** on "Intel Chipset Software Installation Utilities" to start the installation.
2. Then, a series of installation wizards appear. Follow up the wizards to install the drivers.
3. Setup completed, click "Finish" to restart your computer.

Auto Run windows

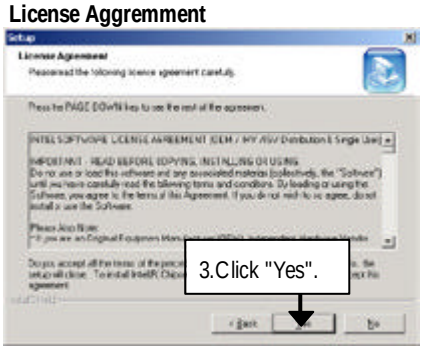
(1)

Setup Wizard



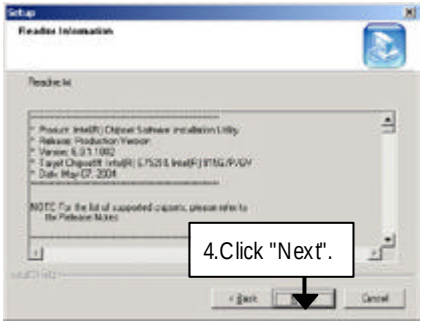
(2)

License Aggremment



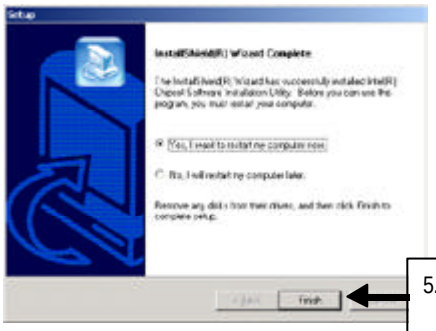
(3)

Readme Information



(4)

Installation Completed



5. Installation completed, Click "Finish" to restart computer.

(5)

B. Broadcom BCM5751 Driver Installation

Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show a series of Setup Wizard dialog boxes. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

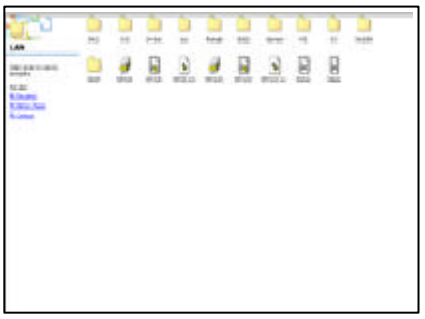
Installation Procedures:

1. The CD auto run program starts, **Double click** on "IBroadcom BCM5751 Driver" to start the installation.
2. Refer to your operating system and select the desired folder to install lan driver.

Auto Run windows

(1)

Broadcom BCM5751 Driver



(2)

C. Serial ATA RAID Driver Installation

Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show a series of Setup Wizard dialog boxes. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

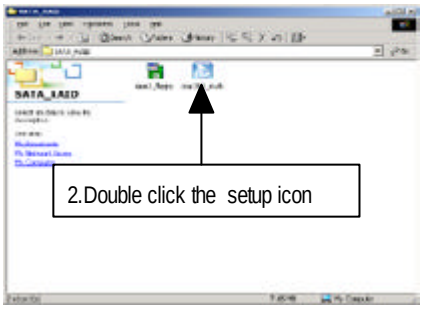
Installation Procedures:

1. The CD auto run program starts, **Double click** on "SATA RAID Driver" to start the installation.
2. Double click the setup icon, the system will start to install SATA RAID driver.
3. When the installation is completed, computer will restart automatically.

Auto Run windows

(1)

SATA RAID Driver Setup



(2)

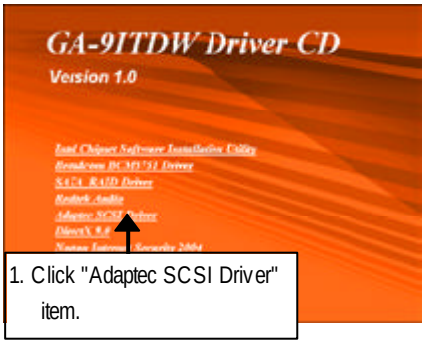
D. Adapetc SCSI Driver Installation

Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show a series of Setup Wizard dialog boxes. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

Installation Procedures:

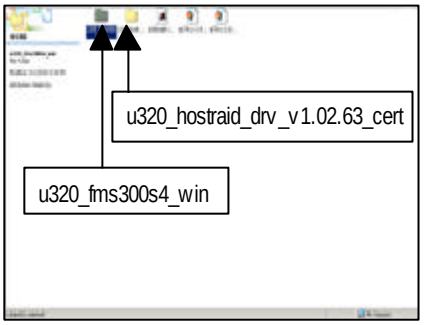
1. The CD auto run program starts, **Double click** on "Adaptec SCSI Driver" to start the installation.
2. SCSI Driver windows pops up. If you has enable the HOST RAID function, then select the u320_hostraid_drv_v1.02.63_cert folder to install required driver. For other SCSI driver, select u320_fms300s4_win folder to install relative driver.

Auto Run windows



(1)

SCSI Driver Installation



(2)

E. Realtek Audio Driver Installation

Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show the installation guide. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

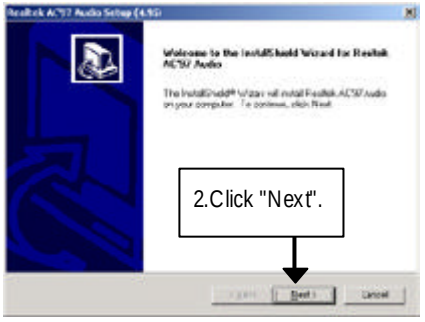
Installation Procedures:

1. The CD auto run program starts, **Double click** on "Realtek Audio" to start the installation.
2. Then, a series of installation wizards appear. Follow up the wizards to install the drivers.
3. Setup completed, click "Finish" to restart your computer.

Auto Run windows

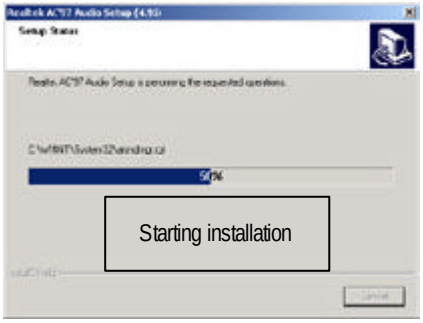
(1)

InstallShield Wizard



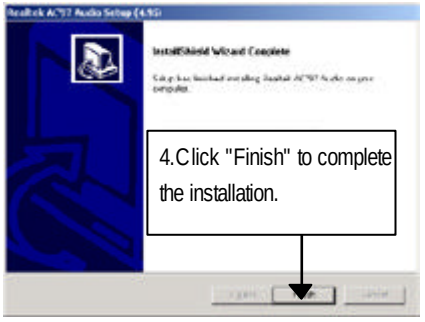
(2)

Starting Installaiton



(3)

Installaiton Wizard completed



(4)

F. DirectX 9.0 Driver Installation

Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show the installation guide. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

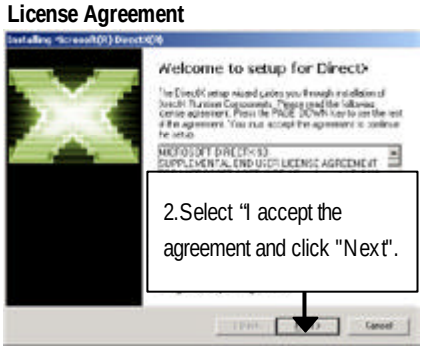
Installation Procedures:

1. The CD auto run program starts, **Double click** on "Directx9.0" to start the installation.
2. Then, a series of installation wizards appear. Follow up the wizards to install the drivers.
3. Setup completed, click "Finish" to restart your computer.

Auto Run windows

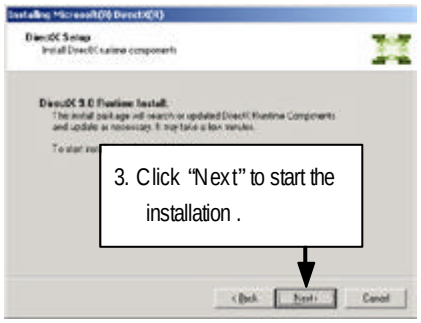
(1)

License Agreement



(2)

Starting Installaiton



(3)

Installaiton Wizard completed

(4)

Chapter 6 Appendix

Acronyms

Acronyms	Meaning
ACPI	Advanced Configuration and Power Interface
APM	Advanced Power Management
AGP	Accelerated Graphics Port
AMR	Audio Modem Riser
ACR	Advanced Communications Riser
BBS	BIOS Boot Specification
BIOS	Basic Input / Output System
CPU	Central Processing Unit
CMOS	Complementary Metal Oxide Semiconductor
CRIMM	Continuity RIMM
CNR	Communication and Networking Riser
DMA	Direct Memory Access
DMI	Desktop Management Interface
DIMM	Dual Inline Memory Module
DRM	Dual Retention Mechanism
DRAM	Dynamic Random Access Memory
DDR	Double Data Rate
ECP	Extended Capabilities Port
ESCD	Extended System Configuration Data
ECC	Error Checking and Correcting
EMC	Electromagnetic Compatibility
EPP	Enhanced Parallel Port
ESD	Electrostatic Discharge
FDD	Floppy Disk Device
FSB	Front Side Bus
HDD	Hard Disk Device
IDE	Integrated Dual Channel Enhanced
IRQ	Interrupt Request

Acronyms	Meaning
I/O	Input / Output
IOAPIC	Input Output Advanced Programmable Input Controller
ISA	Industry Standard Architecture
LAN	Local Area Network
LBA	Logical Block Addressing
LED	Light Emitting Diode
MHz	Megahertz
MIDI	Musical Instrument Digital Interface
MTH	Memory Translator Hub
MPT	Memory Protocol Translator
NIC	Network Interface Card
OS	Operating System
OEM	Original Equipment Manufacturer
PAC	PCI A.G.P. Controller
POST	Power-On Self Test
PCI	Peripheral Component Interconnect
RIMM	Rambus in-line Memory Module
SCI	Special Circumstance Instructions
SECC	Single Edge Contact Cartridge
SRAM	Static Random Access Memory
SMP	Symmetric Multi-Processing
SMI	System Management Interrupt
USB	Universal Serial Bus
VID	Voltage ID

Technical Support/RMA Sheet

Customer/Country:	Company:	Phone No.:
Contact Person:	E-mail Add. :	

Model name/Lot Number:	PCB revision:
BIOS version:	O.S./A.S.:

Hardware Configuration	Mfs.	Model name	Size:	Driver/Utility:
CPU				
Memory Brand				
Video Card				
Audio Card				
HDD				
CD-ROM / DVD-ROM				
Modem				
Network				
AMR / CNR				
Keyboard				
Mouse				
Power supply				
Other Device				

Problem Description: