M762A
Series

(Industrial Board)

INSTALLATION GUIDE

600C002762AA0

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Installation Guide Revision A.0
January 2002

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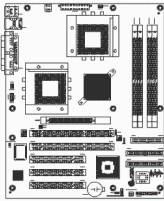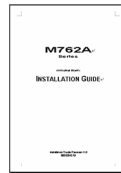## 1.1   Unpacking M762A Series

1. Take out the M762A series unit from the carton box, check if the unit is properly secure in the plastic bag.

2. Check the contents of the carton box:

◆ Industrial Board   ◆ Installation Guide

◆ Floppy ribbon cable   ◆ ATA-66/100 HDD ribbon cable
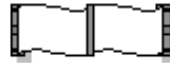
◆ Driver & PC-Cillin Utility

3. Optional Cable
   ◆ External USB cable (optional)
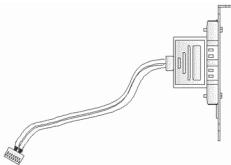
1.2 Description

The M762A series combines the high performance and exceptional value of AMD-760™MPX chipset with a full-featured, new generation, dual processors server board. The AMD-760™MPX chipset is a high performance dual processor core logic solution for AMD Athlon™ MP processors. The AMD-762™ system controller support for DDR memory technology and AGP 4X graphics interface. The AMD-762™ chipset has re-engineered the Value PC, providing next generation features. The M762A is with onboard one 10/100 Base-TX Ethernet controller. In the meantime, M762A provide two 64-Bit/66MHz PCI slots for high-end Desktop, Workstation and Server class platforms.

The AMD® 768™ peripheral bus controller, that IDE support ATA/66 or ATA/100 and four USB ports. The M762A meets the performance, stability and reliability requirements.

The industrial board - M762A is suitable and valuable for all the Server platform applications, which also well support with the Windows® 95/98/2000/SE/ME and Windows® NT operation system.

1.3 Features

1.3.1 Chipset Features
The M762A used the AMD-760™MPX chipset. Feature of chipset as below:

◆ High performance 2-way multiprocessor core logic solution for AMD® Athlon™ and Duron™ class processors

◆ The chipset's performance is attributed to an enhanced Athlon™ System Bus and support for DDR (Double Data Rate) memory technology.

◆ Multi-Processor Extended performance above the AMD-760MPX™ Chipset.

◆ Extended performance is offered by the 66MHz/64bit/32bit PCI bus and feature-rich Southbridge offering PCI-to-PCI bridging capability along.

◆   Together, these components provide a powerful solution for high-end-
     Desktop, Workstation and Server class platforms.

1.3.2   Ultra ATA/66/100

The AMD® 768™ peripheral bus controller provides two channel Ultra ATA-
33/66/100 Bus Master IDE controller, that support Ultra ATA-33/66/100
protocols, perfect for such demanding applications as real-time video,
multimedia, and high performance operating system. A new IDE cable is
required for Ultra ATA-33/66/100. This cable is an 80-conductor cable;
however the connectors are, of course, backwards compatible with ATA-
33.

1.3.3   Hardware Monitoring

Hardware monitoring allows you to monitor various aspects of your
systems operations and status. The features include CPU temperature,
voltage and RPM of fan.

1.3.4   I/O Shield Connector

The board is equipped with an I/O back panel. Please use the appropriate
I/O shield (figure 1).
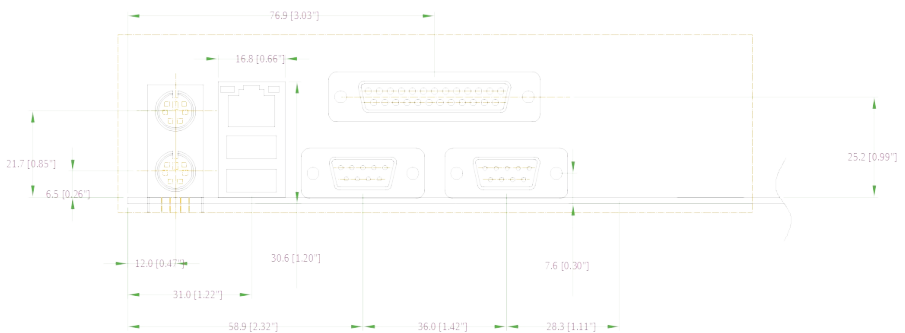
Figure 1: I/O back panel layout

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1.3.5   Power-On/Off (Remote)

The board has a single 20-pin connector for ATX power supplies. For ATX power supplies that support the Remote On/Off feature, this should be connected to the systems front panel for system Power On/Off button. The systems power On/Off button should be a momentary button that is normally open.

The board has been designed with "Soft Off" functions. You can turn Off the system from one of two sources: The first is the front panel Power On/Off the button, and the other is the "Soft Off" function (coming from the M/B   onboard circuit controller) that can be controlled by the operating system such as Windows® 95/98/SE/ME or Windows® 2000.

1.3.6   M762A Series Overview

Function / Model	M762A
◆ Chipset	AMD-760™MPX (762+768)
◆ LCD Function	/
◆ VGA Function	/
◆ SCSI Function	/
◆ Ethernet Function	•
◆ Two EIDE Interface	•
◆ One Floppy Interface	•
◆ Two Serial, One Parallel	•
◆ Four USB port (Two for Optional)	•
◆ 32-bit/33MHz Slot	3
◆ 64-bit/66MHz Slot	2
◆ AGP Slot	1

1.3.7   System Block Diagram

M762A Frame
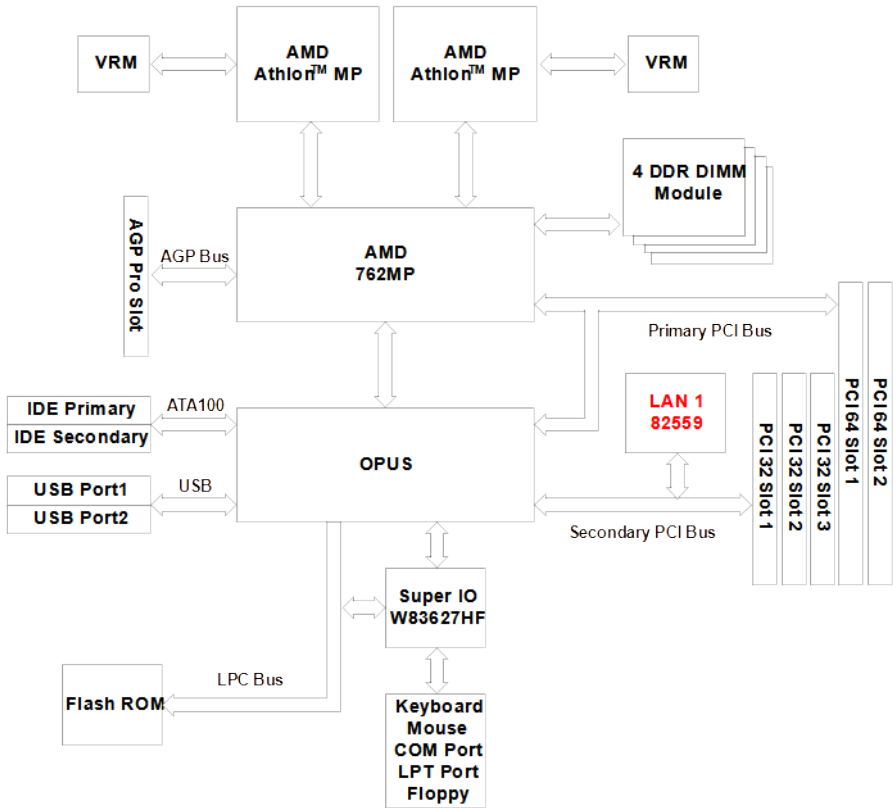
Figure 2: System Block Diagram

1.4   Specifications

◆ **Processor:**
- Dual AMD® Athlon™ MP processor
- System bus frequency at 200/266 MHz

◆ **Chipset:**
- AMD-760™MPX Chipsets
- AMD-762™ System Controller (Northbridge)
- AMD-768™ Peripheral Bus Controller (Southbridge)

◆ **DRAM Module:**
- 184pin DDR Memory
- x 4 for PC2100 DDR memory sockets
- Support DDR up to 3.5GB

◆ **Ethernet Function:**
- Intel® 82559 Ethernet controller
- For 10/100Base-TX Ethernet
- Onboard RJ-45 Ethernet connectors

◆ **Expansion Slot:**
- 32-bits33MHz PCI slot x 3
- 64-bits66MHz PCI slot x 2
- AGP slot x 1

◆ **Onboard I/O:**
- On-Chip I/O integrated with K/B, Mouse, FDD, Parallel and Serial, Fast IR and Power-ON controllers

◆ **Onboard IDE:**
- PCI rev2.2 Compliant
- PCI Bus IDE Port with PIO /Ultra DMA-100 x 2 (Up to 4 Devices)

◆ **I/O Connector:**
- PS/2 Mouse and PS/2 style Keyboard
- 2 Serial Port, COM1 and COM2 for RS-232
- 1 Parallel Port
- 1 RJ-45 Ethernet Connector

◆ **USB Ports:**
- USB connector x 4 (2 for Opt. by cable)

◆ **BIOS:**
- Award Plug & Play BIOS

◆ **Extended Function:**
- Supports exclusive USDM (Unified System Diagnostic Manager) and Hardware Monitoring Function by W83627HF-AW
- Supports Wake-On-LAN Function

◆ **Form Factor:**
- 12" x 9.6" (305 x 244mm) ATX Size

◆ **Weight:**
- 1.72lb (780 g.w.) --- M762A

INSTALLATIONS

2.1   System Installation

2.1.1   CPU Installation

Carefully follow the steps below in order to install the CPU:

1. Check and confirm that the jumpers are correctly set for the CPU you are going to install (figure 3).

2. Lift the releasing lever of the Socket 462.

3. Align the pins of the CPU against the pinholes of the Socket 462. Be sure to pay attention to the orientation of the CPU.
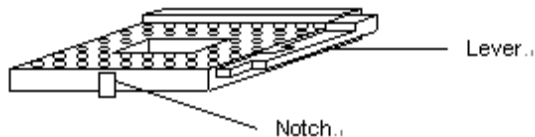
Figure 3: CPU Socket

4. Push down the CPU into the Socket 462.

5. Push down the release lever and lock it against the key hook.

6. Hook the hole in ZIF clip for the CPU cooling fan onto the notch on the socket 462.

7. Place the CPU cooling fan atop the CPU surface.

8. Push down the opposite side of the ZIF clip and hook it.

9. Slide the head of the clip to left and lock it.

10. Connect the cooling fan cable to the socket as shown below. Be careful not to place the cable on the CPU cooling fan.

Removing a CPU:
1. Before removing the CPU, turn off the M762A series power; then wait for about 20 minutes until the heat radiation plate of the cooling fan and the CPU cools down.

2. To remove the CPU, lift the releasing lever of the Socket 462.

Note: The CPU and the heat radiation plate are hot. They may cause burns.

To remove the CPU, reverse the installation steps.

2.1.2   Memory Module Installation

Figure 4 display the notch marks and what they should look like on your DIMM memory module.

DIMMs have184-pins and two notches, that will match with the onboard DIMM socket. DIMM modules are installed by placing the chip firmly into the socket at a 90-degree angle and pressing straight down (figure 5) until it fits tightly into the DIMM socket.
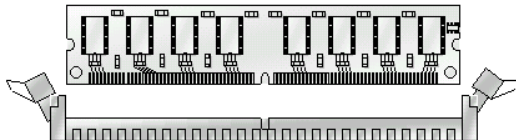
Figure 4: DIMM Memory and 184-pins Socket
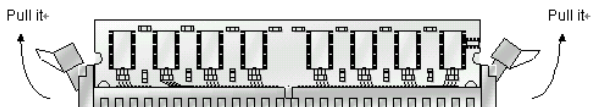
Figure 5: Memory Installation

Carefully follow the steps below in order to install the DIMMs:

1. To avoid generating static electricity and damaging the DIMM, ground yourself by touching a grounded metal surface or using a ground scrap before you touch the DIMM.

2. Do not touch the connector of the DIMM. Dirt residue may cause a malfunction.

3. Hold the DIMM with its notch to the front side of the M762A series and insert it completely into the socket. A DIMM should be inserted into the inner socket first. Guiding the hole at each end of the DIMM over the retaining post at each end of the DIMM socket.

4. If you install two DIMMs, install the second DIMM using the same procedure as above.

5. If DIMM does not go in smoothly, do not force it. Pull it all the way out and try again.

6. Make sure the DIMM is properly installed and locked by the tabs on both sides of the socket.

Removing a DIMM:
To remove the DIMM, use your fingers or a small screwdriver to carefully push away the plastic tabs that secure the DIMM at each end. Lift it out of the socket.

Make sure you store the DIMM in an anti-static bag.

2.1.3   Setting Jumpers and DIP Switches

There are jumpers and DIP-switches on the system board of the M762A series. You can set the jumpers to make the necessary operations.
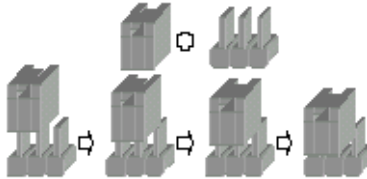
Figure 6: Jumper Connector

For any three-pin jumpers (figure 6), the jumper setting is 1-2 when the jumper connects pins 1 and 2. The setting is 2-3 when pins 2 and 3 are connected and so on. You see a number " 1 " and a " 3 " printed on the circuit board to identify these pins. And also, there is a second way of indication – one of the lines surrounding jumpers is thick, which indicates pin NO.1.

To move a jumper from one position to another, use needle-nose pliers or tweezers to pull the pin cap off the pins and move it to the desired position.

2.2 Board Layout
Jumper & Connector Location

M762A REV1.0
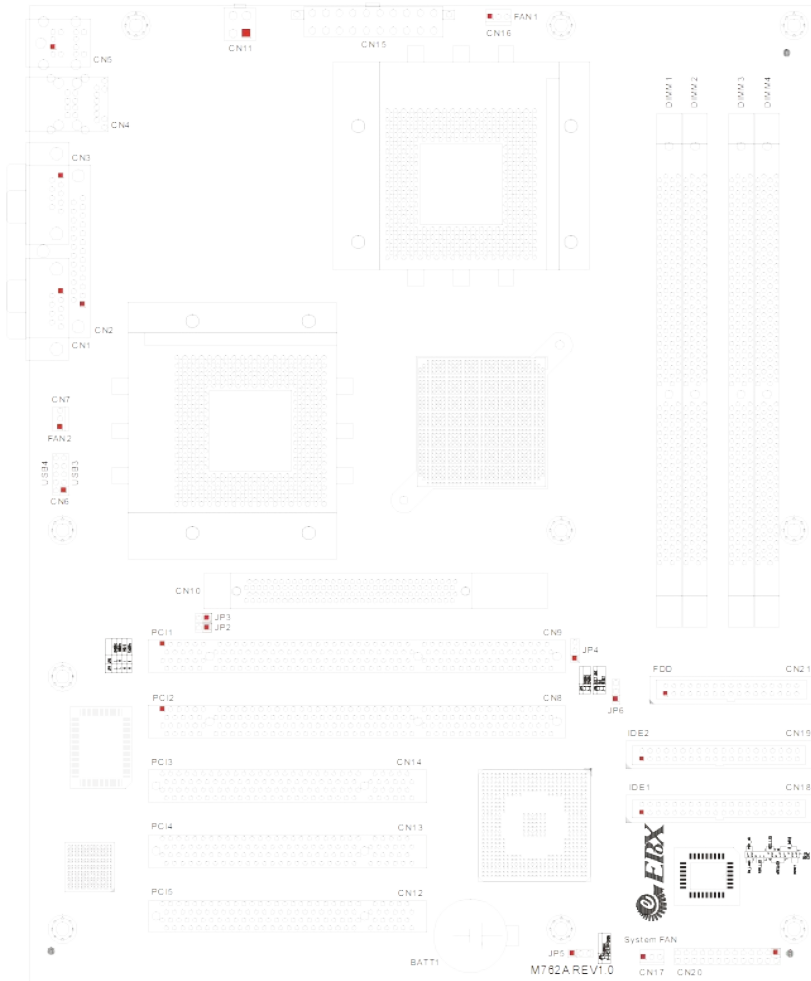
2.3   Jumper Setting

Table for Jumper Location Description:
Use the information in the following table to change the jumpers and the DIP
switches.

Jumpers	Functions
JP2 & JP3	CPU Frequency Setting Select
JP4	FSB Setting Select
JP5	Clear CMOS Setting Select
JP6	Watchdog Timer Setting Select

　　　　In order to set up the correct configuration, here is the description about how to set the jumpers to enable/disable or change functions. All jumpers' location please refer to jumper location diagram.

✷ CPU Frequency Setting Select: JP2 & JP3

Function	JP2	JP3
100 MHz (Default)	L	L
66 MHz	L	H
Reserved	H	L
133 MHz	H	H

● **Location:**
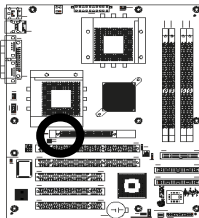
✷ FSB Setting Select: JP4

Function	JP4
100 MHz (Default)	1-2
133 MHz	2-3

● **Location:**
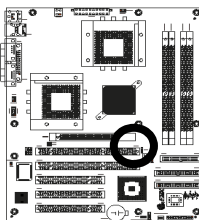
✳ **Clear CMOS Setting Select: JP5**

Function	JP5
Normal (Default)	1-2
Clear CMOS	2-3

● **Location:**
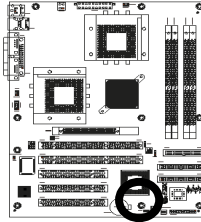
✳ **Watchdog Timer Setting Select: JP6**

Function	JP6
NMI	1-2
Reset System (Default)	2-3

● **Location:**
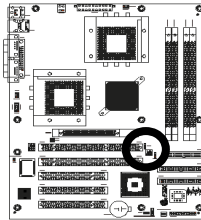
2.4   Connector's Description
Connector Location
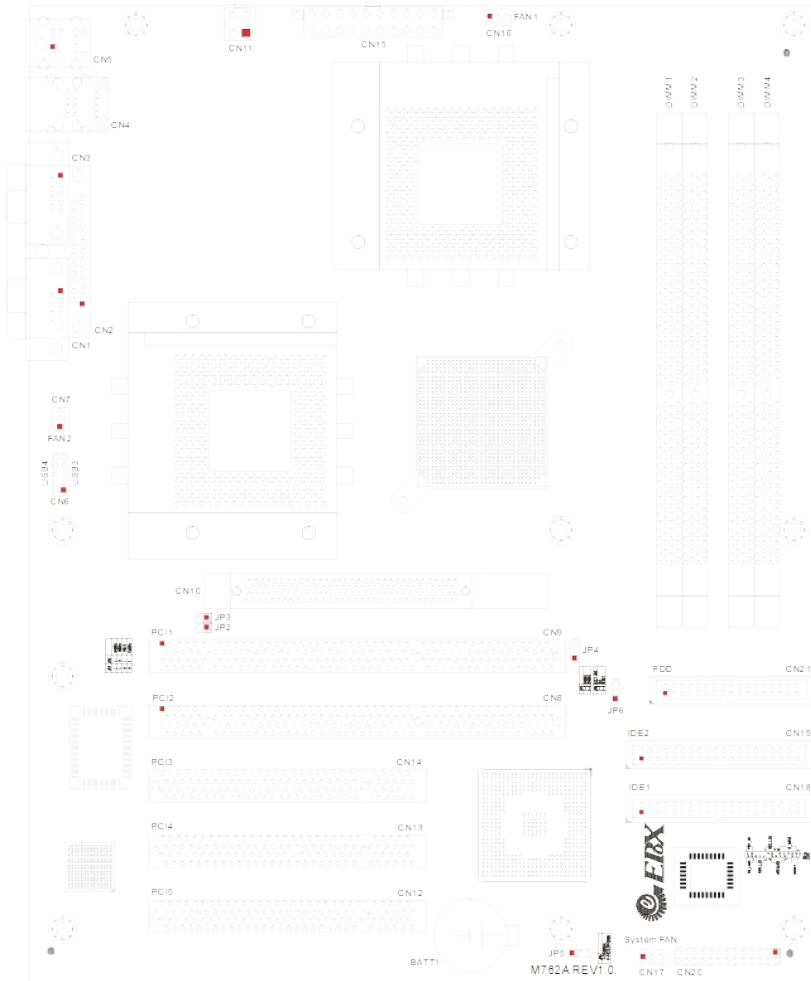
Table for Connector's Location Description:

Use the information in the following table to change the connector.

Connectors	Functions
CN1	COM1 RS-232 Serial Port Connector
CN2	Parallel Port Connector
CN3	COM2 RS-232 Serial Port Connector
CN4	LAN1 (Intel® 82559) RJ45 & USB 1/2 Connector
CN5	PS/2 Keyboard & Mouse Connector
CN6	USB 3/4 (Pin-Header) Connector
CN7	CPU2 Fan Power Connector
CN11	ATX 12V Power Connector
CN15	ATX Power Connector
CN16	CPU1 Fan Power Connector
CN17	System Fan Power Connector
CN18	IDE1 Primary IDE Connector
CN19	IDE2 Secondary IDE Connector
CN20	System Panel Indicate Connector
CN21	Floppy Disk Connector

◆ **COM1 RS-232 Serial Port Connector (D-Sub 9-pin Male): CN1**

Pin #	Assignment	Pin #	Assignment
1	DCD (Data Carrier Detect)	6	DSR (Data Set Ready)
2	RXD (Receive Data)	7	RTS (Request to Send)
3	TXD (Transmit Data)	8	CTS (Clear to Send)
4	DTR (Data Terminal Ready)	9	RI (Ring Indicator)
5	DCD (Data Carrier Detect)		

● **Figure:**
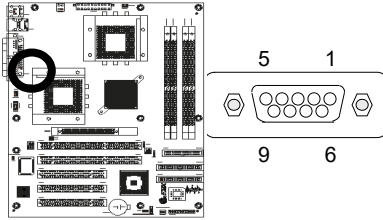
◆ **Parallel Port Connector (D-Sub 25-pin Male): CN2**

Pin #	Assignment	Pin #	Assignment
1	Line Printer Strobe	14	Auto Feed
2	PD 0, Parallel Data 0	15	Error
3	PD 1, Parallel Data 1	16	Initialize
4	PD 2, Parallel Data 2	17	Select
5	PD 3, Parallel Data 3	18	Ground
6	PD 4, Parallel Data 4	19	Ground
7	PD 5, Parallel Data 5	20	Ground
8	PD 6, Parallel Data 6	21	Ground
9	PD 7, Parallel Data 7	22	Ground
10	ACK, Acknowledge	23	Ground
11	Busy	24	Ground
12	Paper Empty	25	Ground
13	Select	26	N/A

● **Figure:**
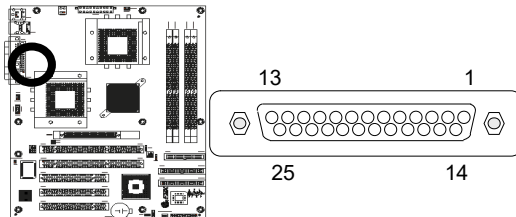
◆ **COM2 RS-232 Serial Port Connector (D-Sub 9-pin Male): CN3**

Pin #	Assignment	Pin #	Assignment
1	DCD (Data Carrier Detect)	6	DSR (Data Set Ready)
2	RXD (Receive Data)	7	RTS (Request to Send)
3	TXD (Transmit Data)	8	CTS (Clear to Send)
4	DTR (Data Terminal Ready)	9	RI (Ring Indicator)
5	DCD (Data Carrier Detect)		
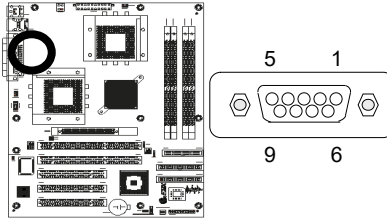
● **Figure:**

✳ **USB1 / USB2 Connector (4-pin Female): CN4**

Pin #	Assignment	Pin #	Assignment
1a	Vcc via Ploy-fuse	1b	Vcc via Poly-fuse
2a	USBPO	2b	USBP1
3a	USBP0 +	3b	USBP1 +
4a	Signal ground	4b	Signal ground

● **Figure:**
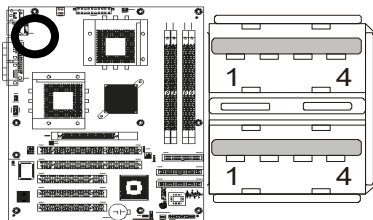
◆ **LAN1 (82559) Connector (RJ-45 Phone–jacket): CN4**

Pin #	Assignment	Pin #	Assignment
1	Transmit output (+)	5	NC
2	Transmit output (-)	6	Receive input (-)
3	Receive input (+)	7	NC
4	NC	8	NC

● **Figure:**
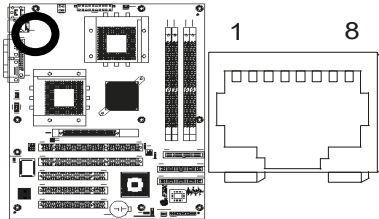
◈ **PS/2 Mouse Connector (6-pin Purple Mini Din): CN5**

Pin #	Assignment	Pin #	Assignment
1	Mouse data	2	NC
3	Ground	4	+5V
5	Mouse clock	6	NC

● **Figure:**
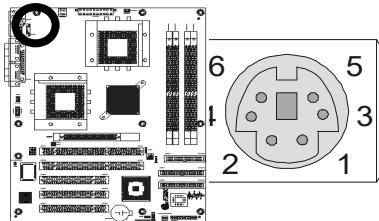
✱ **PS/2 Keyboard Connector (6-pin Green Mini Din): CN5**

Pin #	Assignment	Pin #	Assignment
1	Keyboard data	2	NC
3	Ground	4	+5V
5	Keyboard clock	6	NC

● **Figure:**
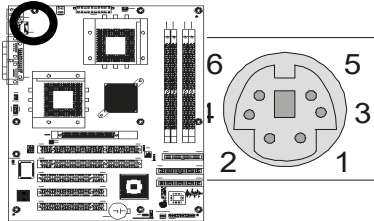
✱ **USB3 / USB4 Connector (10-pin Pin-Header): CN6**

Pin #	Assignment	Pin #	Assignment
1	VCC	2	Ground
3	USB3 0-	4	Ground
5	USB3 0+	6	USB4 0+
7	Ground	8	USB4 0-
9	Ground	10	VCC

● **Figure:**
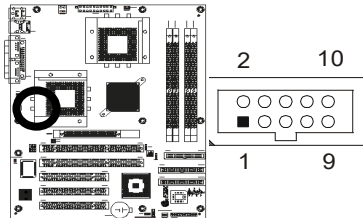
◆ **CPU2 Fan Power Connector: CN7**

Pin #	Assignment
1	Sense
2	+12V
3	Ground
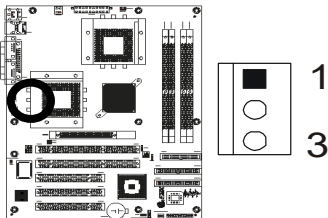
● **Figure:**

◆ **ATX 12V Power Connector: CN10**

Pin #	Assignment	Pin #	Assignment
1	Ground	2	Ground
3	12V	4	12V

● **Figure:**
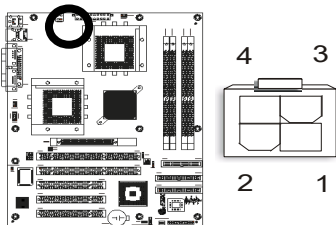
❋ ATX Power Connector: CN15

Pin #	Assignment	Pin #	Assignment
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PS-ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PW-OK	18	-5V
9	5VSB	19	+5V
10	+12v	20	+5V

● **Figure:**
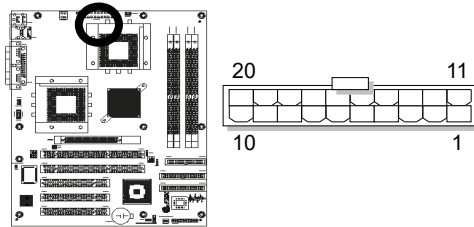
◆ CPU1 Fan Power Connector: CN16

Pin #	Assignment
1	Sense
2	+12V
3	Ground

● **Figure:**

23
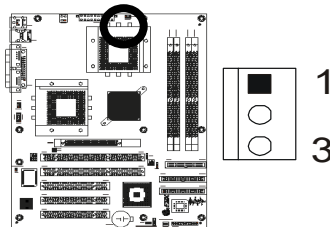
◆ **System Fan Power Connector: CN17**

Pin #	Assignment
1	Sense
2	+12V
3	Ground

● **Figure:**
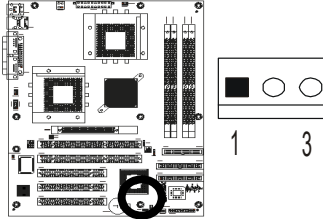
◆ **Primary IDE Connector (40-pin 2.54mm Pitch Pin-Header with Housing): CN18**

Pin #	Assignment	Pin #	Assignment
1	Reset IDE	2	Ground
3	Host Data 7	4	Host Data 8
5	Host Data 6	6	Host Data 9
7	Host Data 5	8	Host Data 10
9	Host Data 4	10	Host Data 11
11	Host Data 3	12	Host Data 12
13	Host Data 2	14	Host Data 13
15	Host Data 1	16	Host Data 14
17	Host Data 0	18	Host Data 15
19	Ground	20	+5V
21	DRQ 0	22	Ground
23	Host IOW	24	Ground
25	Host IOR	26	Ground
27	IOCHRDY	28	Host ALE
29	DACK 0	30	Ground
31	IRQ 14	32	No Connect
33	Address 1	34	No Connect
35	Address 0	36	Address 2
37	Chip Select 0	38	Chip Select 1
39	Activity	40	Ground

● **Figure:**
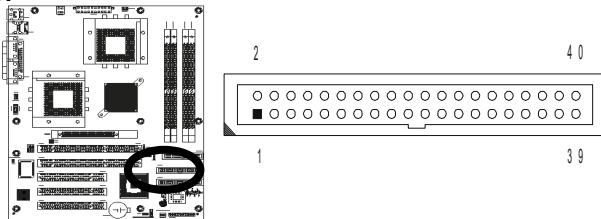
◆ **Secondary IDE Connector (40-pin 2.54mm Pitch Pin-Header with Housing): CN19**

Pin #	Assignment	Pin #	Assignment
1	Reset IDE	2	Ground
3	Host Data 7	4	Host Data 8
5	Host Data 6	6	Host Data 9
7	Host Data 5	8	Host Data 10
9	Host Data 4	10	Host Data 11
11	Host Data 3	12	Host Data 12
13	Host Data 2	14	Host Data 13
15	Host Data 1	16	Host Data 14
17	Host Data 0	18	Host Data 15
19	Ground	20	+5V
21	DRQ 1	22	Ground
23	Host IOW	24	Ground
25	Host IOR	26	Ground
27	IOCHRDY	28	Host ALE
29	DACK 1	30	Ground
31	IRQ 15	32	No Connect
33	Address 1	34	No Connect
35	Address 0	36	Address 2
37	Chip Select 0	38	Chip Select 1
39	Activity	40	Ground

● **Figure:**
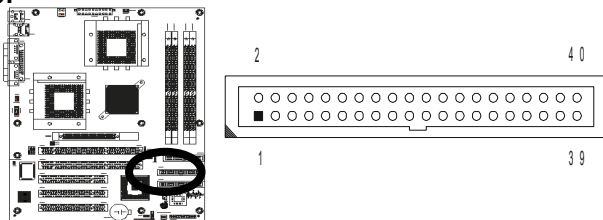
✤ **System Panel Indicate Connector: CN20**

Pin #	Assignment	Pin #	Assignment
IR		**RESET**	
1	+5V	2	RESET+
3	FIRTX	4	RESET-
5	IRRX	**SPEAKER**	
7	Ground	8	SPKR (Default)
9	IRTX	10	BUZZ (Default)
HDD LED		12	Ground
13	HDLED+	14	+5V
15	HDLED-	**PWR LED**	
PWR ON		18	PWLED+
23	PWRBT+	20	NC
25	PWRBT-	22	PWLED-
		KEYLOCK	
		24	KBLOCK
		26	Ground

● **Figure:**
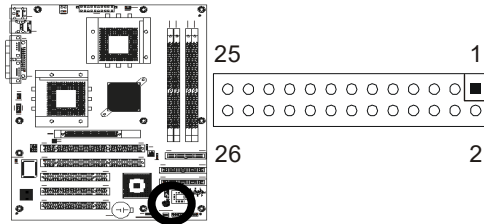
◆ **Floppy Disk Connector (34-pin 2.54mm Pitch Pin-Header with Housing): CN21**

Pin #	Assignment	Pin #	Assignment
1	Ground	2	Drive Density Selection
3	Ground	4	No Connect
5	Ground	6	Drive Density Selection
7	Ground	8	Index
9	Ground	10	Motor Enable 0
11	Ground	12	Drive Select 1
13	Ground	14	Drive Select 0
15	Ground	16	Motor Enable 1
17	Ground	18	Direction
19	Ground	20	Step
21	Ground	22	Write Data
23	Ground	24	Write Gate
25	Ground	26	Track 00
27	Ground	28	Write Protect
29	Ground	30	Read Data
31	Ground	32	Side 1 Select
33	Ground	34	Diskette Change

● **Figure:**
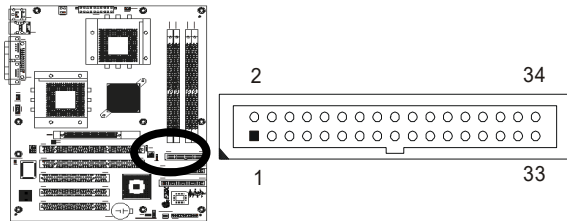
AWARD BIOS SETUP

3.1 BIOS Instructions

Award's ROM BIOS provides a built-in Setup program, which allows user to modify the basic system configuration and hardware parameters. The modified data will be stored in a battery-backed CMOS, so that data will be retained even when the power is turned off. In general, the information saved in the CMOS RAM will stay unchanged unless there is a configuration change in the system, such as hard drive replacement or a device is added.

It is possible for the CMOS battery to fail, this will cause data loss in the CMOS only. If this does happen you will need to reconfigure your BIOS settings.

3.2 Main Menu

Once you enter the AwardBIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

CMOS Setup Utility - Copyright © 1984 - 2001	
Standard CMOS Feature	Frequency/Voltage Control
Advanced BIOS Feature	Load Fail-Safe Defaults
Advanced Chipset Feature	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PnP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving
Esc: Quit	↑ ↓ ← →: Select Item
F10: Save & Exit Setup	
Time, Date, Hard Disk Type….	

Note: that a brief description of each highlighted selection appears at the bottom of the screen.

Setup Items:
The main menu includes the following main setup categories. Recall that some systems may not include all entries.

Standard CMOS Features:
Use this menu for basic system configuration. See Section 2 for the details.

Advanced BIOS Features:
Use this menu to set the Advanced Features available on your system. See Section 3 for the details.

Advanced Chipset Features:
Use this menu to change the values in the chipset registers and optimize your system's performance. See section 4 for the details.

Integrated Peripherals:
Use this menu to specify your settings for integrated peripherals. See section 4 for the details.

Power Management Setup:
Use this menu to specify your settings for power management. See section 5 for the details.

PnP / PCI Configuration:
This entry appears if your system supports PnP / PCI. See section 6 for the details.

PC Health Status:
Use this menu to show your system temperature, speed and voltage status.

Frequency/Voltage Control:
Use this menu to specify your settings for frequency/voltage control. See section 7 for the details.

Load Fail-Safe Defaults:
Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate. See section 8 for the details.

Load Optimized Defaults:
Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs. See section 8 for the details.

Supervisor / User Password:
Use this menu to set User and Supervisor Passwords. See section 9 for the details.

Save & Exit Setup:
Save CMOS value changes to CMOS and exit setup. See section 10 for the details.

Exit Without Save:
Abandon all CMOS value changes and exit setup. See section 10 for the details.

3.3 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

Standard CMOS Features

		Item Help
Date: (mm:dd:yy)	Web, Sep 5	
Time: (hh:mm:ss)	2001	_____
	16:19:20	
➢ IDE Primary Master		Menu Level ➢
➢ IDE Primary Slave	2557 MB	
➢ IDE Secondary Master	None	Change the day, month, year and
➢ IDE Secondary Slave	None	century
	None	
Drive A		
Drive B	1.44M, 3.5 in.	
	None	
Video		
Halt On	EGA/VGA	
	All, But	
Based Memory	Keyboard	
Extended Memory		
Total Memory	640K	
	130048K	
	131072K	

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help

F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

Date: Options Month/DD/YYYY
Set the system date. Note that the 'Day' automatically changes when you set the date.

Time: Options HH : MM : SS
Set the system time.

IDE Primary Master: Options are in its sub menu (described in Table 3)
Press <Enter> to enter the sub menu of detailed options.

IDE Primary Slave: Options are in its sub menu (described in Table 3)
Press <Enter> to enter the sub menu of detailed options.

IDE Secondary Master: Options are in its sub menu (described in Table 3)
Press <Enter> to enter the sub menu of detailed options.

IDE Secondary Master: Options are in its sub menu (described in Table 3)
Press <Enter> to enter the sub menu of detailed options.

Drive A/ Drive B: Options None 360K, 5.25 in/1.2M, 5.25 in/720K, 3.5 in/ 1.44M, 3.5 in/2.88M, 3.5 in
Select the type of floppy disk drive installed in your system.

Video: Options EGA/VGA/CGA 40/CGA 80/MONO
Select the default video device.

Halt On: Options All Errors/No Errors/All, but Keyboard/All, but Diskette/All,
but Disk/Key
Select the situation in which you want the BIOS to stop the POST process and notify you.

Base Memory: Option N/A
Displays the amount of conventional memory detected during boot up.

Extended Memory: Option N/A
Displays the amount of extended memory detected during boot up

Total Memory: Option N/A
Displays the total memory available in the system

3.4   IDE Adapters

The IDE adapters control the hard disk drive. Use a separate sub menu to configure each hard disk drive.

```
          CMOS Setup Utility – Copyright © 1984 - 2001 Award Software
                              IDE Primary Master
┌────────────────────────────────────────────┬──────────────────────────┐
│ IDE HDD Auto-Detection      Press Enter      │         Item Help        │
│                                              │ ──────────────────────── │
│ IDE Primary Master          Auto 2557 MB     │ Menu Level    ➢➢         │
│ Access Mode                 Auto             │                          │
│                                              │ To auto-detect the HDD's size, │
│ Cylinder                    4956             │ head... on this channel  │
│ Head                        16               │                          │
│ Precomp                     0                │                          │
│ Landing Zone                4955             │                          │
│ Sector                      63               │                          │
├──────────────────────────────────────────────────────────────────────┤
│ ↑↓←→Move   Enter: Select   +/-/PU/PD: Value  F10: Save   ESC: Exit  F1: General │
│ Help                                                                    │
│  F5: Previous Values   F6: Fail-safe defaults      F7: Optimized Defaults │
└──────────────────────────────────────────────────────────────────────┘
```

IDE HDD Auto-detection: Options Press Enter
Press Enter to auto-detect the HDD on this channel.   If detection is successful, it fills the remaining fields on this menu.

IDE Primary Master: Options None, Auto and Manual
Selecting "Manual" lets you set the remaining fields on this screen. Selects the type of fixed disk. "User Type" will let you select the number of cylinders, heads, etc. Note: PRECOMP=65535 means NONE !

Capacity: Options Auto Display your disk drive size
Disk drive capacity (Approximated). Note that this size is usually slightly greater than the size of a formatted disk given by a disk-checking program.

Access Mode: Options Normal, LBA, Large and Auto
Choose the access mode for this hard disk

The following options are selectable only if the 'IDE Primary Master' item is set to "Manual"

Cylinder: Options Min = 0, Max = 65535
Set the number of cylinders for this hard disk.

Head: Options Min = 0, Max = 255
Set the number of read/write heads

Precomp: Options Min = 0, Max = 65535
**** **Warning**: Setting a value of 65535 means no hard disk

Landing zone: Options Min = 0, Max = 65535
****

Sector: Options Min = 0, Max = 255
Number of sectors per track

3.5 Advanced BIOS Features

This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing and security.

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Advanced BIOS Features

Virus Warning	Enabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	
Quick Power On Self Test	Enabled	Menu Level ➢
First Boot Device	Floppy	
Second Boot Device	HDD-0	Allow you to choose the VIRUS
Third Boot Device	LS120	warning feature for IDE Hard Disk
Boot Other Device	Enabled	boot sector protection. If this
Swap Floppy Drive	Disabled	function is enabled and someone
Boot Up Floppy Seek	Enabled	attempt to write data into this area,
Boot Up NumLock Status	On	BIOS will show a warning message
Gate A20 Option	Fast	on screen and alarm beep
Typematic Rate Setting	Disabled	
X Typematic Rate (Chars/Sec)	6	
X Typematic Delay (Msec)	250	
Security Option	Setup	
MPS Version Control For OS	[1.4]	
OS Select For DRAM > 64MB	Non-OS2	
Video BIOS Shadow	Enabled	
Small Logo (EPA) Show	Disabled	

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help
F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

Virus Warning:
Allow you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.

Enabled---Activates automatically when the system boots up causing a

warning message to appear when anything attempts to access the boot sector or hard disk partition table.

Disabled---No warning message will appear when anything attempts to

access the boot sector or hard disk partition table.

CPU Internal Cache:
This item allows you to enable/disable CPU Internal Cache.
    The choice: Enabled, Disabled.

External Cache:
This item allows you to enable/disable External Cache.
    The choice: Enabled, Disabled.

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

First/Second/Third/Other Boot Device:
The BIOS attempts to load the operating system from the devices in the sequence selected in these items.
    The choice: Floppy, LS/ZIP, HDD, SCSI, CDROM and Disabled.

Swap Floppy Drive:
If the system has two floppy drives, you can swap the logical drive name assignments.
    The choice: Enabled, Disabled.

Boot Up Floppy Seek:
Seeks disk drives during boot up. Disabling speeds boot up.
    The choice: Enabled, Disabled.

Boot Up NumLock Status:
Select power on state for NumLock.
    The choice: Enabled, Disabled.

Gate A20 Option:
Select if chipset or keyboard controller should control GateA20.
    Normal---A pin in the keyboard controller controls GateA20
    Fast---Lets chipset control GateA20

Typematic Rate Setting:
Keystrokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected.
The choice: Enabled/Disabled.

Typematic Rate (Chars/Sec):
Sets the number of times a second to repeat a keystroke when you hold the key down.
The choice: 6, 8, 10, 12, 15, 20, 24 and 30.

Typematic Delay (Msec):
Sets the delay time after the key is held down before it begins to repeat the keystroke.
The choice: 250, 500, 750 and 1000.

Security Option:
Select whether the password is required every time the system boots or only when you enter setup.
System---The system will not boot and access to Setup will be denied if
the correct password is not entered at the prompt.
Setup---The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

Note: To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

MPS Version Control For OS:
Select the operating system that is MPS Version Control for OS.
The choice: 1.4, 1.1.

OS Select For DRAM > 64MB:
Select the operating system that is running with greater than 64MB of RAM on the system.
The choice: Non-OS2, OS2.

Video BIOS Shadow:
This item allows you to change the Video BIOS location from ROM to RAM.
Video Shadow will increase the video speed. The default is enabled.
	The choice: Enabled, Disabled.

Small Logo (EPA) Show:
Set the Logo (EPA) show or not.
	The choice: Enabled, Disabled.

3.6 Advanced Chipset Features

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communications between the conventional ISA bus and the PCI bus. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

```
          CMOS Setup Utility – Copyright © 1984 – 2001 Award Software
                           Advanced Chipset Features
┌─────────────────────────────────────────────┬──────────────────────────────┐
│ System BIOS Cacheable        Disabled        │          Item Help           │
│ Video RAM Cacheable          Disabled        │ ──────────────────────────── │
│ Memory Hole At 15M-16M       Disabled        │                              │
│ AGP Aperture Size (MB)       128             │ Menu Level    ➢              │
│ AGP ISA Aliasing             Enabled         │                              │
│ AGP Fast Write               Enabled         │                              │
│ AGP Data Transfer Mode       4X              │                              │
│ AGP Always Compensate        Enabled         │                              │
│ AGP Secondary Lat Timer      20h             │                              │
│ SDRAM ECC Setting            Disabled        │                              │
│ Super Bypass Mode            Enabled         │                              │
│ Post Memory Write Enabled    Disabled        │                              │
│ DDR SDRAM Timing by          Auto            │                              │
│ X Idle Cycle Limit           8 Cycle         │                              │
│ X Page Hit Limit             8 Cycle         │                              │
│ X Trc Cycle                  8 Cycle         │                              │
│ X Trp Cycle                  3 Cycle         │                              │
│ X Tras Cycle                 7 Cycle         │                              │
│ X CAS Latency Cycle          2 Cycle         │                              │
│ X Trcd Cycle                 3 Cycle         │                              │
├─────────────────────────────────────────────┴──────────────────────────────┤
│  ↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General │
│ Help                                                                        │
│  F5: Previous Values    F6: Fail-safe defaults      F7: Optimized Defaults  │
└─────────────────────────────────────────────────────────────────────────────┘
```

System BIOS Cacheable:
Selecting "Enabled" allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.
     The choice: Enabled, Disabled.

Video RAM Cacheable:
Select "Enabled" allows caching of the video RAM, resulting in better system performance.
The choice: Enabled, Disabled.

Memory Hole At 15M-16M:
You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.
The choice: Enabled, Disabled.

AGP Aperture Size (MB):
This field determines the effective size of the Graphic Aperture used for a particular GMCH configuration. It can be updated by the GMCH-specific BIOS configuration sequence before the PCI standard bus enumeration sequence takes place. If it is not updated then a default value will select an aperture of maximum size.
The choice: 4, 8, 16, 32, 64, 128 and 256

AGP ISA Aliasing:
When set, this bit forces the AMD-762™ system controller to alias ISA addresses, which means that address bits [15:10] are not used in decoding. When clear, no ISA aliasing is performed and address bits [15:10] are used for decoding.
The choice: Enabled, Disabled.

AGP Fast Write:
AGP fast writes are enabled by a combination of this bit and the Fast_Writes enable bit in the AGP Command register.
The choice: Enabled, Disabled.

AGP Data Transfer Mode:
This field indicates that the AMD-762™ system controller supports 1X, 2X and 4X transfers.
The choice: 1X, 2X and 4X.

AGP Always Compensate:
When set, dynamic compensation is performed by AGP on an ongoing basis at regular intervals.
    The choice: Enabled, Disabled.

SDRAM ECC Setting:
When set 00=ECC disabled, no error detection or correction is performed, 01=EC_HiPerf mode enabled, Error checking and status reporting is enabled.   Data detined for the PCI/AGP and memory (RMR) is not corrected.
    The choice: Enabled, Disabled.

Super Bypass Mode:
When set the AMD-762™ system controller internally bypasses certain memory pipe stages for optimal performance. This bit may be set only if both of the following are true.
    The choice: Enabled, Disabled.

Idle Cycle Limit:
This bit field controls the number of idle cycles to wait before precharging an idle bank. Idle cycles are defined as cycles in which no valid requests are asserted.
    The choice: 0, 8, 12, 16, 24, 32, 48 and Disabled.

Page Hit Limit:
This bit field controls the number of consecutive page hit requests to allow before choosing a non-PH request.
    The choice: 1, 4, 8 and 16.

Trc Cycle:
This bit field indicates the Trc timing value (bank cycle time: minimum time from activate to activate of same bank).
    The choice: 3, 4, 5, 6, 7, 8, 9 and 10.

Trp Cycle:
This bit field indicates the Trp timing value (precharge time: time from precharge to activate on the same bank).
    The choice: 1, 2, 3 and 4.

Tras Cycle:
This bit field indicates the Tras timing value (minimum bank active time: time from activate to precharge of same bank).
    The choice: 2, 3, 4, 5, 6, 7, 8 and 9.

CAS Latency Time:
When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.
    The choice: 2, 3.

Trcd Cycle:
This bit field indicates the Trcd timing value (RAS to CAS latency, delay from active to RD/WR command).
    The choice: 1, 2, 3 and 4.

3.7 Integrated Peripherals

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Integrated Peripherals

IDE Read/Write Prefetch	Enabled	Item Help
IDE Primary Master PIO	Auto	
IDE Primary Slave PIO	Auto	
IDE Secondary Master PIO	Auto	Menu Level ➢
IDE Secondary Slave PIO	Auto	If your IDE hard drive supports
IDE Primary Master UDMA	Auto	block mode select Enabled for
IDE Primary Slave UDMA	Auto	automatic detection of the optimal
IDE Secondary Master UDMA	Auto	number of block read/write per
IDE Secondary Slave UDMA	Auto	sector the drive can support
On-Chip Primary PCI IDE	Enabled	
On-Chip Secondary PCI IDE	Enabled	
Init Display First	PCI Slot	
IDE HDD Block Mode	Disabled	
KBC Input Clock	8MHz	
Power On Function	Button Only	
X KB Power On Password	Enter	
X Hot Key Power On	Ctrl-F1	
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
UART Mode Select	Normal	
X RxD, TxD Active	Hi, Lo	
X IR Transmission Delay	Enabled	
X UR2 Duplex Mode	Half	
X Use IR Pins	IR-Rx2Tx2	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
X EPP Mode Select	EPP1.7	
X ECP Mode Use DMA	3	

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help

F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

IDE Primary/Secondary Master/Slave PIO:
The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3 and Mode 4.

IDE Primary/Secondary Master/Slave UDMA:
Ultra DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33, select "Auto" to enable BIOS support.
The choice: Auto, Disabled.

On-Chip Primary/Secondary PCI IDE:
The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select "Enabled" to activate each channel separately.
The choice: Enabled, Disabled.

Init Display First:
This item allows you to decide to active whether PCI Slot or on-chip VGA first.
The choice: PCI Slot, Onboard.

IDE HDD Block Mode:
Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support.
The choice: Enabled, Disabled

KBC Input Clock:
This item allows you to adjust the keyboard input clock.
The choice: 8MHz, 12MHz.

Power On Function:
You can use this item to select operating Power On the system.
The choice: Button Only

KB Power ON Password:
You can use this item to limit operating KB Power On system.
The choice: Enter

Hot Key Power ON:
You can use this item to select operating Hot Key to Power On system.
The choice: Ctrl-F1

Onboard FDC Controller:
Select "Enabled" if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install and-in FDC or the system has no floppy drive, select Disabled in this field.
The choice: Enabled, Disabled.

Onboard Serial Port 1/Port 2:
Select an address and corresponding interrupt for the first and second serial ports.
The choice: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled and Auto.

UART Mode Select:
This item allows you to select UART mode.
The choice: IrDA, ASKIR and Normal.

RxD, TxD Active:
This item allows you to determine the active of RxD, TxD.
The Choice: "Hi, Hi", "Lo, Lo", "Lo, Hi" and "Hi, Lo".

IR Transmission delay:
This item allows you to enable/disable IR transmission delay.
The choice: Enabled, Disabled.

UR2 Duplex Mode:
This item allows you to select the IR half/full duplex function.
The choice: Half, Full.

Use IR Pins:
This item allows you to select IR transmission routes, one is RxD2m, TxD2 (COM Port) and the other is IR-Rx2Tx2.
The choice: IR-Rx2Tx2, RxD2 and TxD2.

Onboard Parallel Port:
This item allows you to determine access onboard parallel port controller with which I/O address.
The choice: 3BC/IRQ7, 378/IRQ7, 278/IRQ5 and Disabled.

Parallel Port Mode:
Select an operating mode for the onboard parallel (printer) port. Select Normal, Compatible, or SPP unless you are certain your hardware and software both support one of the other available modes.
    The choice: SPP, EPP, ECP and ECP+EPP.

EPP Mode Select:
Select EPP port type 1.7 or 1.9.
    The choice: EPP1.7, 1.9.

ECP Mode Use DMA:
Select a DMA channel for the parallel port for use during ECP mode.
    The choice: 3, 1.

3.8 Power Management Setup

The Power Management Setup allows you to configure you system to most effectively save energy while operating in a manner consistent with your own style of computer use.

CMOS Setup Utility – Copyright © 1984 – 2001 Award Software
Power Management Setup

		Item Help
ACPI Function	Enabled	
ACPI Suspend Type	S1 (POS)	_____
Run VGABIOS if S3 Resume	Auto	
Power Management	User Define	Menu Level ➢
Video Off Method	DPMS Support	
Suspend Type	PwrOn Suspend	
Standby Mode	Disabled	
HDD Power Down	Disabled	
HDD Down In Suspend	Disabled	
Soft-Off by PBTN	Instant-Off	
PWRON After PWR-Fail	Off	
Wake-Up by PCI card	Disabled	
RI Resume/WOL	Disabled	
MODEM Use IRQ	3	
RTC Resume	Disabled	
X Date (of Month) Alarm	0	
X Time (hh:mm:ss) Alarm	0 : 0 : 0	
Reload Global Timer Events		
IRQ3 (COM2)	Disabled	
IRQ4 (COM1)	Disabled	
IRQ5 (LPT2)	Disabled	
IRQ6 (Floppy Disk)	Disabled	
IRQ7 (LPT1)	Disabled	
IRQ8 (RTC Alarm)	Disabled	
IRQ9 (IRQ2 Redir)	Disabled	
IRQ10 (Reserved)	Disabled	
IRQ11 (Reserved)	Disabled	
IRQ12 (PS/2 Mouse)	Disabled	
IRQ13 (Coprocessor)	Disabled	
IRQ14 (Hard Disk)	Disabled	
IRQ15 (Reserved)	Disabled	

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help

F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

ACPI Function:
This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI).
The choice: Enabled, Disabled.

ACPI Suspend Type:
This item allows you to suspend type of ACPI.
The choice: S1 (POS).

Run VGABIOS If S3 Resume:
This item allows you to select run VGABIOS on S3 mode.
The choice: Auto

Power Management:
This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

1. HDD Power Down
2. Doze Mode
3. Suspend Mode

Min. Power Saving:
Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and HDD Power Down = 15 min.

Max. Power Saving:
Maximum power management -- **ONLY AVAILABLE FOR SL CPU's**. Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.

User Defined:
Allow you to set each mode individually. When not disabled, each of the ranges is from 1 min. to 1 hr. except for HDD Power Down, which ranges from 1 min. to 15 min. and disable.

Video Off Method:
This determines the manner in which the monitor is blanked.

V/H SYNC+Blank:
This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen:
This option only writes blanks to the video buffer.

DPMS:
Initial display power management signaling.

Suspend Type:
Select the Suspend Type.
The choice: PWRON Suspend, Stop Grant.

Standby Mode:
When "Enabled" and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full speed.
The choice: Enabled, Disabled.

HDD Power Down:
When "Enabled" and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.
The choice: Enabled, Disabled.

HDD Down In Suspend:
This determines the manner in which the HDD is active.
The choice: Enabled, Disabled.

Soft-Off by PBTN:
Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."
The choice: Delay 4 Sec, Instant-Off.

Wake-Up by PCI Card:
An input signal from PME on the PCI card awakens the system from a soft off state.
    The choice: Enabled, Disabled.

RI Resume/WOL:
An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.
    The choice: Enabled, Disabled.

MODEM Use IRQ:
This determines the IRQ in which the MODEM can use.
    The choice: 3, 4, 5, 7, 9, 10, 11 and NA.

RTC Resume:
When "Enabled", your can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.
    The choice: Enabled, Disabled.

PM Events:
PM events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything, which occurs to a device, which is configured as Enabled, even when the system is in a power down mode.

IRQ3 (COM2)
IRQ4 (COM1)
IRQ5 (LPT2)
IRQ6 (Floppy Disk)
IRQ7 (LPT1)
IRQ8 (RTC Alarm)
IRQ9 (IRQ2 Redir)
IRQ10 (Reserved)
IRQ11 (Reserved)
IRQ12 (PS/2 Mouse)
IRQ13 (Coprocessor)
IRQ14 (Hard Disk)
IRQ15 (Reserved)

3.9   PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or **P**ersonal **C**omputer **I**nterconnect, is a system, which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components.   This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

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PnP/PCI Configurations

		Item Help
PNP OS Installed	No	
Reset Configuration Data	Disabled	
Resources Controlled By	Auto (ESCD)	Menu Level ➢
X IRQ Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	Default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help
F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

PNP OS Installed:
This item allows you to determine install PnP OS or not.
     The choice: Yes, No.

Reset Configuration Data:
Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot.
     The choice: Enabled, Disabled.

Resource controlled by:

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®95. If you set this field to "Manual" choose specific resources by going into each of the sub menu that follows this field (a sub menu is preceded by a "➢").

The choice: Auto (ESCD), Manual.

IRQ Resources:

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

PCI/VGA Palette Snoop:

Leave this field at "Disabled".

The choice: Enabled, Disabled.

3.10 PC Health Status

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PC Health Status

		Item Help
CPU Warning Temperature	Disabled	
Current System Temp.	30°C / 86°F	
Current CPU1 Temp.	53°C / 127°F	Menu Level ➢
Current CPU2 Temp.	48°C / 120°F	
Current CPU1 Fan Speed	5152RPM	
Current CPU2 Fan Speed	4833RPM	
Current Chassis Fan Speed	4182RPM	
Vcore (V)	2.48V	
Vdimm (V)	2.48V	
3.3V	3.21V	
+ 5 V	4.99V	
+12 V	11.73V	
-12 V	-11.78V	
- 5 V	-5.04V	
VBAT (V)	3.02V	
5VSB (V)	4.94V	
Shutdown CPU Temperature	Disabled	

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help
F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

CPU Warning Temperature:
This item will prevent CPU from overheating.
      The choice: 30-120, Disabled.

Current System Temp:
Show you the current system temperature.

Current CPU1/CPU2 Temp:
Show you the current CPU1/CPU2 temperature.

Current CPU1/CPU2 Fan Speed:
Show you the current CPU1/CPU2 fan operating speed.

Current Chassis Fan Speed:
Show you the current Chassis fan operating speed.

IN0/1/2 (V):
Show you the voltage of Vin (0)/(1)/(2).

3.3V/+5V/+12V/-12V/-5V:
Show you the voltage of 3.3V/+5V/+12V/-12V/-5V.

Shutdown CPU Temperature:
This item allows you to set up the CPU shutdown Temperature. This item is only effective under Windows® 98 ACPI mode.
> The choice: Disabled, 60°C / 140°F, 65°C / 149°F, 70°C / 159°F and 75°C / 167°F.

3.11 Frequency/Voltage Control

CMOS Setup Utility – Copyright © 1984 - 2001 Award Software
Frequency/Voltage Control

Auto Detect DIMM/PCI CLK	Enabled	Item Help
Spread Spectrum	Disabled	
CPU Clock	133	Menu Level ➢

↑↓←→Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help
 F5: Previous Values   F6: Fail-safe defaults   F7: Optimized Defaults

Auto Detect DIMM/PCI CLK:
When "Enabled", this item will auto detect if the DIMM and PCI socket have devices and will send clock signal to DIMM and PCI devices. When disabled, it will send the clock signal to DIMM and PCI socket.
    The choice: Enabled, Disabled.

Spread Spectrum:
This item allows you to enabled or disabled the Spread Spectrum.
    The choice: Enabled, Disabled.

CPU Clock:
This item allows you to select CPU Clock.
    The choice: 66 ~ 166MHz.

3.12 Load Fail-Safe Defaults

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Fail-Safe Defaults (Y/N)? N

Pressing 'Y' loads the BIOS default values for the most stable, minimal-performance system operations.

3.13 Load Optimized Defaults

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N)? N

Pressing 'Y' loads the default values that are factory settings for optimal performance system operations.

3.14 Supervisor/User Password Setting

You can set either supervisor or user password, or both of then. The differences between are:

Set Supervisor Password: can enter and change the options of the setup menus.

Set User Password: just can only enter but do not have the right to change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

<p style="text-align:center">ENTER PASSWORD:</p>

Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

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

<p style="text-align:center">PASSWORD DISABLED.</p>

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require the BIOS to request a password every time your system is rebooted. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option (see Section 3). If the Security option is set to "System", the password will be required both at boot and at entry to Setup. If set to "Setup", prompting only occurs when trying to enter Setup.

3.15 Exit Selecting

Save & Exit Setup
Pressing <Enter> on this item asks for confirmation:

Save to CMOS and EXIT (Y/N)? Y

Pressing "Y" stores the selections made in the menus in CMOS – a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

Exit Without Saving
Pressing <Enter> on this item asks for confirmation:

Quit without saving (Y/N)? Y

This allows you to exit Setup without storing in CMOS any change. The previous selections remain in effect. This exits the Setup utility and restarts your computer.

SECTION 4

DRIVER UTILITY INSTALLATION

4.1 M762A Driver Installation

◆ Easy Driver Installation:

Step 1: To put the utilities into the CD-ROM, then it will auto run and show the software of installation.

Step 2: Click the **AMD MP Chipset Driver Installation**.

Step 3: To click that enables the **AMD Chipset INF Files** to be recognized
by listed operating systems. This installer will unpack updated
.INF
files into a specified folder. Supported operating systems:
Microsoft Windows® 95 OSR 2.1+, Windows® 98 / 98SE /
98ME and Windows® NT2000 operating systems. This procedure
will Re-start the system.

Step 4: Install the driver of features:

(1) LAN Function Driver Installation:
◆ If your product is "M762A", please click the **INTEL® 82559 (LAN1) Driver** to install the LAN function.

Note: If user cannot install CD-Driver, that user may copy file of driver to Hard
Disk,
then click the "Setup" file to install.

Step 5: Return the **Main menu** figure to choice the other software.

Step 6: To click the **Additional Software** into the **NORTON GHOST ANTIVIRUS** or **PC-CILLIN 2000** and follow the setup to finish the installation. Please do make sure to update the virus definition code regularly to protect your system from virus damage.