

S815ED

User's Manual Version 1.0

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Chapter 1

1.1 Introduction

The S815ED motherboard is designed for use Intel PIII Front Side Bus Frequency 133MHz CPU, which utilize the Socket-370 design and the memory size expandable to 512MB.

This motherboard use the newest Intel I82815 chipset, applying 66/100/133MHz Front Side Bus frequency and 100/133MHz memory interface delivers a clear upgrade path to the future generation of 133MHz processors, PC-100/PC-133 SDRAM. The S815ED motherboard offers ULTRA ATA 100 to provide speedier HDD throughout that boosts overall system performance.

It is ideal for multi-tasking and fully supporting MS-DOS, Windows, Windows NT , Windows ME, Windows 2000, Novell, OS/2, Windows95/98, Windows 98SE, Windows XP, UNIX, Liunx , SCO UNIX etc. This manual also explains how to install the mainboard for operation, and how to setup your CMOS configuration with the BIOS setup program.

1.2 Package Contents

- HDD UDMA66/100 Cable.
- FDD Cable.
- Flash Memory written for BIOS update.
- USB2 Cable **(Optional)**.
- Fully Setup CD Driver built in utility(Ghost, Anitivirus, Adobe Acrobat).
- Manual.

1.3 Features

CPU Processor

- Socket 370 CPU
 - Dual Intel Pentium III® & Pentium III FC-PGA2 Processor.
 - Intel Celeron® & Celeron FC-PGA2 Processor.
 - ☆ Pentium III FC-PGA2 (With 256K L2 Cache) & Celeron, Celeron FC-PGA2 Processor doesn't support SMP.
 - ☆ Pentium III FC-PGA2(With 512K L2 Cache) can support SMP.

Note:

You must use two of same frequency processors, when installing dual processors, otherwise your system could be damaged or working unstable.

Chipset

- Intel I82815 North Bridge.
- Intel I82801BA South Bridge.

SDRAM Memory

- Supports 32/128/256/512....MB DIMM module socket.
- Supports Synchronous SDRAM(3.3V)
- Supports a maximum memory size of 512MB with SDRAM.

Bus Slots

- Provide three ISA slot.
- Four 32-bit PCI bus.

Universal Serial Bus

- Supports two back Universal Serial Bus(USB)Ports and two front Universal serial Bus(USB)Ports.

Flash Memory

- Support 4 or 2MB flash memory.
- Support ESCD Function.

1.3 Features

BIOS

- The mainboard BIOS provides Plug & Play BIOS which detects the peripheral devices and expansion cards of the board automatically.
- BIOS support CD-ROM, SCSI, LAN BOOT, Temperature sensor, LAN, Modem, Alarm Bus CLK setup with BIOS.
- The mainboard provides a Desktop Management Interface (DMI) function which records your mainboard specifications.

IDE Built-in On Board

- Supports four IDE devices.
- Supports PIO Mode 5, Master Mode, high performance hard disk drives.
- Support Ultra DMA 33/66/100 Bus Master Mode.
- Supports IDE interface with CD-ROM.
- Supports high capacity hard disk drives.
- Support LBA mode.

Hardware Monitor Function

- CPU Fan Speed Monitor.
- CPU Temperature Monitor.
- System Voltage Monitor.

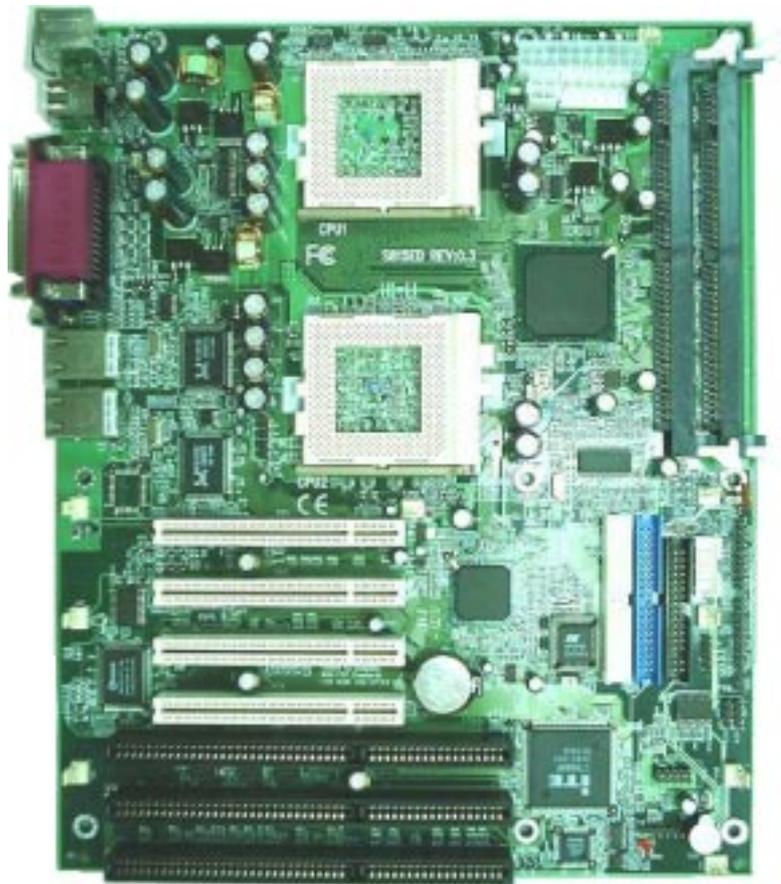
Network

- Dual REALTEK RTL8139C Fast Ethernet Controller.
 - Support 10/100Mb/s operation.
 - Support wake on LAN function and remote wake up.

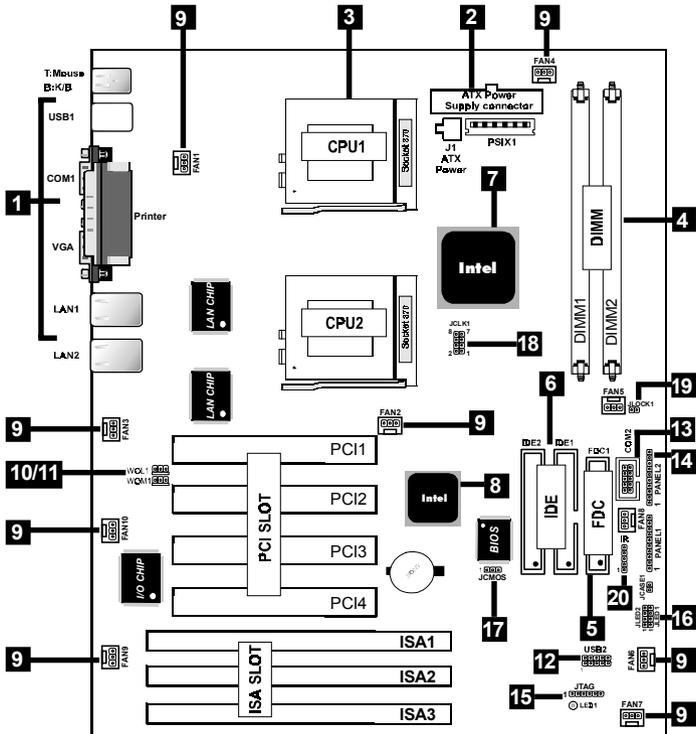
Onboard Watch DOG Controller.

- ALTERA 3032(3.3V) CPLD.

1.4 S815ED Motherboard Layout



1.4 S815ED Layout



1. Back Panel I/O Connectors (Mouse, Keyboard, USB1, Printer, COM1, VGA, LAN1, LAN2)
2. ATX Power Connectors (ATX/J1/PSIX1)
3. Dual CPU Processors (Socket 370)
4. SDRAM Memory Sockets (DIMM1/DIMM2)
5. Floppy Connector

6. IDE Connectors (IDE1/IDE2)
7. North Bridge (Intel 82815)
8. South Bridge (Intel 82801BA)
9. Fan Connectors (Fan1~Fan10)
10. Wake-On-LAN Connector (WOL1)
11. Wake-On-Modem Connector (WOM1)
12. Front USB2 Connector
13. Front COM2 Connector
14. Front Panel Connectors (PANEL1/PANEL2)
15. PLDs Programming Logic Device (JTAG)
16. LAN LED1/LED2 Connectors (JLED1/JLED2)
17. CMOS Function Selection (JCMOS)
18. CPU Clock Freq. Setting (JCLK1)
19. BIOS Lock & CMOS Lock(JLOCK1)
20. IR Connector

1.5 CPU Installation

The motherboard operates with Dual Socket 370 for Intel PIII™ processor. The CPU should always have a Heat Sink and cooling fan attached to prevent overheating.

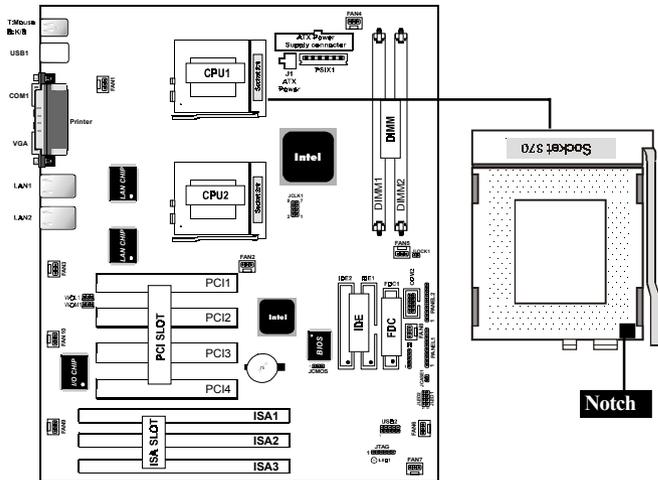
CPU Installation Procedures: Socket 370

1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.

3. Press the lever down to complete the installation.
4. **Make sure the spec of the heatsink is good enough or the processor and motherboard will damage.**
5. **2 same frequency of CPU recommended if you want to install dual CPU.**
6. **Please lock the fan on CPU very carefully, or you will damage the resistor array even circuit line on the mainboard.**

Note:

1. **When using signal processor, you must install at CPU1 socket.**
2. **The S815ED motherboard can't support above 1.85V CPU processors.**



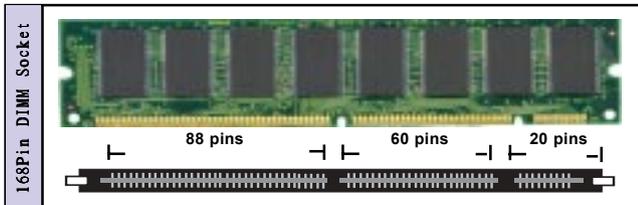
1.6 SDRAM Memory Installation

The motherboard supports a maximized 512MB memory. It provides two 168-pin unbuffered DIMM sockets. It supports 32MB to 512MB DIMM memory module.

SDRAM Installation Procedures:

1. The DIMM socket has a “Plastic Safety Tab” and the DIMM memory module has an asymmetrical notch”, so the DIMM memory module can only fit into the slot in one direction.
2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle then push down vertically to fit onto place.
3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.

Bank	Memory module
DIMM 1	32MB, 64MB, 128MB, 256MB, 512MB
(Bank 0-1)	168 pin, 3.3V SDRAM
DIMM 2	32MB, 64MB, 128MB, 256MB, 512MB
(Bank 2-3)	168 pin , 3.3V SDRAM
	Total System Memory (Max 512MB)



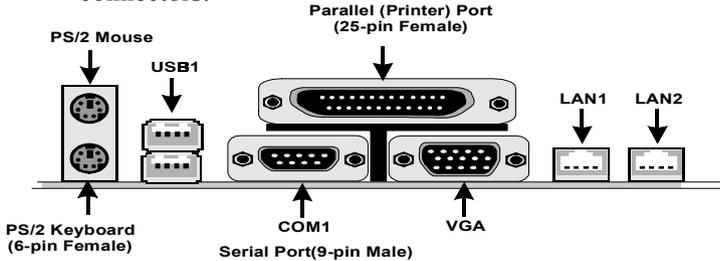
Note:

When you plug or unplug SDRAM module, you must check your power supply is off.

1.7 Connectors & Jumpers Setting

1.7.1 Back Panel I/O Connectors

The motherboard provides the following back panel connectors:

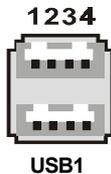


1.7.1.1 PS/2 Mouse / Keyboard CONN.

The motherboard provides a standard PS/2 mouse / Keyboard mini DIN connector for attaching a PS/2 mouse. You can plug a PS/2 mouse / Keyboard directly into this connector.

1.7.1.2 USB Connector: USB1

The motherboard provides a OHCI(Open Host Controller Interface)Universal Serial Bus Roots for attaching USB devices such as a keyboard, mouse and other USB devices. You can plug the USB devices directly into this connector.



Pin	Signal
1	+5V_SB
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	GND

1.7.1.3 The Serial Interface: COM1

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices can be connected to a serial port. The serial port can also be used to connect your computer system. If you like to transfer the contents of your hard disk to another system, it can be accomplished by serial port.

COM1



1.7.1.4 Parallel Interface Port

Unlike serial ports, parallel interface ports have been standardized and should not present any difficulty interfacing peripherals to your system. Sometimes called a Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system has a 25-pin, DB 25 connector.

1.7.1.5 VGA Port Connector

This connector is for output to VGA-compatible devices.

VGA



1.7.1.6 LAN Connectors

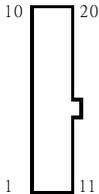
Onboard 10/100Mb PCI Fast Ethernet Network. The connector allows the motherboard to connect to a Local Area Network (LAN) through a network hub.

1.7.2 ATX Power Connectors: ATX/J1/PSIX1

ATX 4-pin power connector only support +12V voltage. These connectors connect to an ATX 12V power supply. The plugs from the power supply are designed to fit these connectors in only one orientation. Find the proper orientation and push down firmly until the connectors completely fit.



Pin J1	Signal	Pin J1	Signal
1	GND	2	GND
3	+12V	4	+12V



Pin ATX	Signal	Pin ATX	Signal
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	5V	14	PS-ON
5	GND	15	GND
6	5V	16	GND
7	GND	17	GND
8	PW-OK	18	-5V
9	5V_SB	19	5V
10	12V	20	5V



Pin PSIX1	Signal	Pin PSIX1	Signal
1	GND	2	GND
3	GND	4	+3.3V
5	+3.3V	6	+5V

Note:

Make sure that the ATX PIII power supply can take at least 1Amp load on the 5Volt standby lead (5VSB).

1.7.3 Floppy Disk Connector: FDC

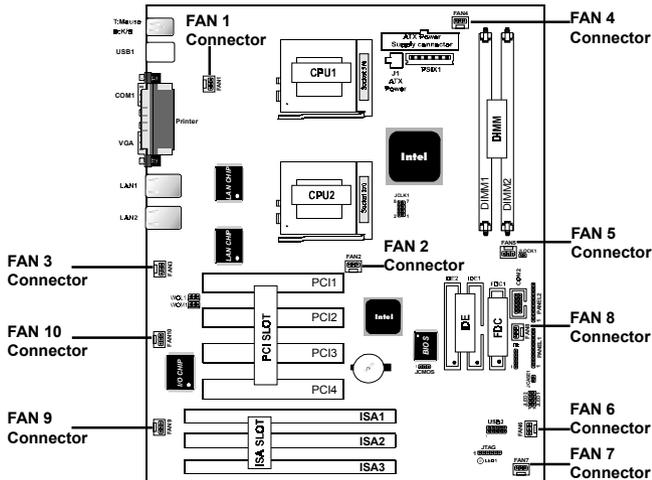
This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plugs on the other end to the floppy drives.

1.7.4 Hard Disk Connectors: IDE1/IDE2

These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk.

If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged).

1.7.5 Fan Connectors: Fan1~Fan10

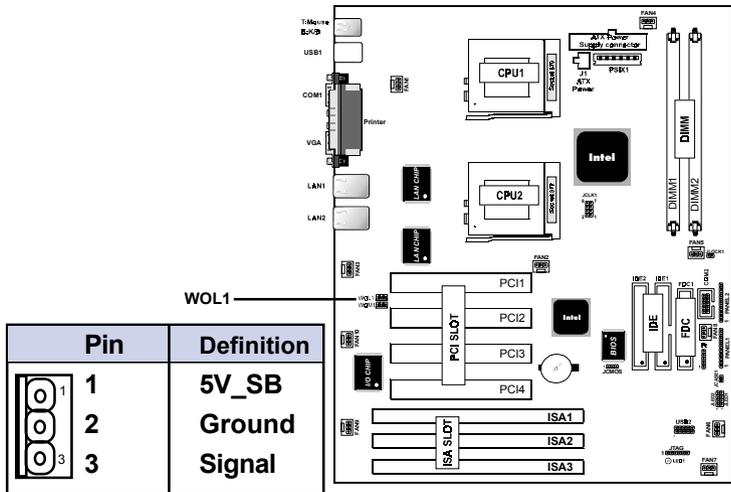


Pin	Fan1/2/3	Definition
0	1	Ground
0	2	+12VDC
0	3	Signal

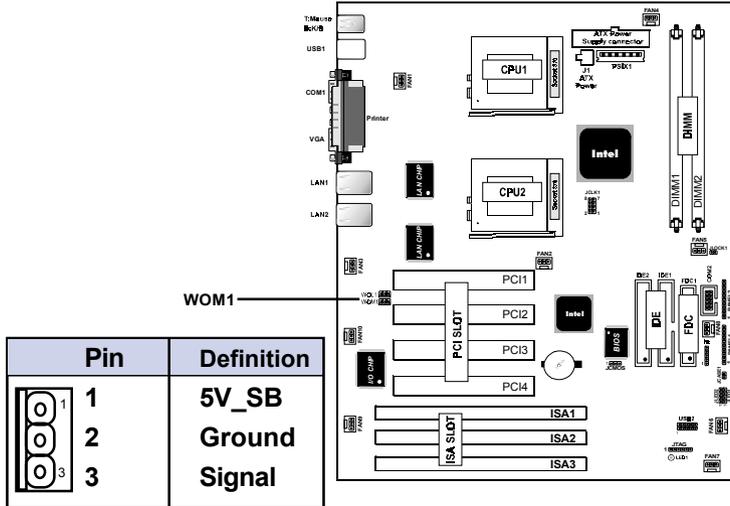
Pin	Fan4~10	Definition
0	1	Ground
0	2	+12VDC
0	3	NA

These connectors support cooling fans of 1Amp or less. Orientate the fans so that the heatsink fins allow airflow to go across the onboard heat sink(s) instead of the expansion slots. Depending on the fan manufacturer, the wiring and plug may be different. The red wire should be positive, while the black should be ground. Connect the fan's plug to the board taking into consideration the polarity of the this connector.

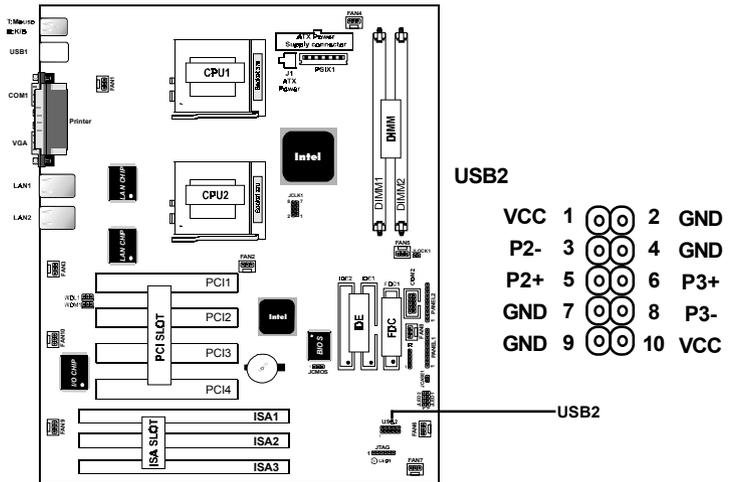
1.7.6 Wake-On-LAN Connector: WOL1



1.7.7 Wake-On-Modem Connector: WOM1



1.7.8 Front USB2 Connector: USB2



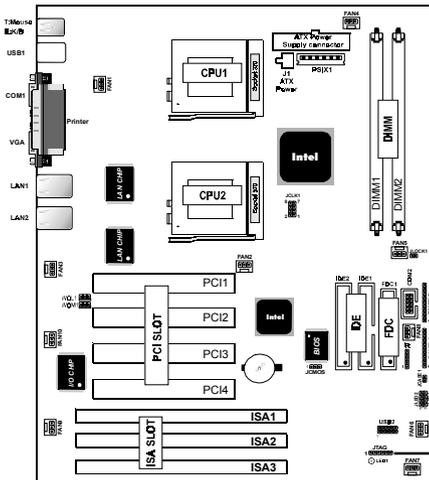
SMI Suspend Switch Lead (EXTSMI)

This allows the user to manually place the system into a suspend mode of Green mode. System activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure) connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the "Turbo Switch" instead since it does not have a function. If you want to use this connector, the "Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable.

Speaker Connector (SPEAKER)

The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the computer cannot use the video interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem.

1.7.10 PLDs Programming Logic Device: JTAG



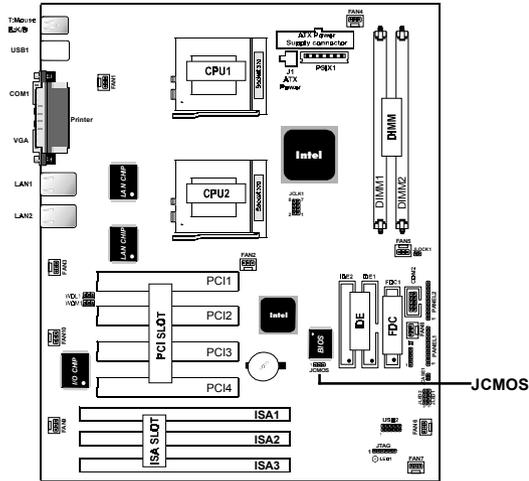
Note:
I/O address: 04F0H~04F1H

Pin	Definition
1	JTAGTDI
2	JTAGTDO
3	JTAGTMS
4	JTAGTCK
5	VCC5
6	GND

JTAG

1.7.11 CMOS Function Selection: JCMOS

A battery be used to retain the mainboard configuration in CMOS RAM.



Pin	Definition
1-2	Normal (Default)
2-3	Clear CMOS

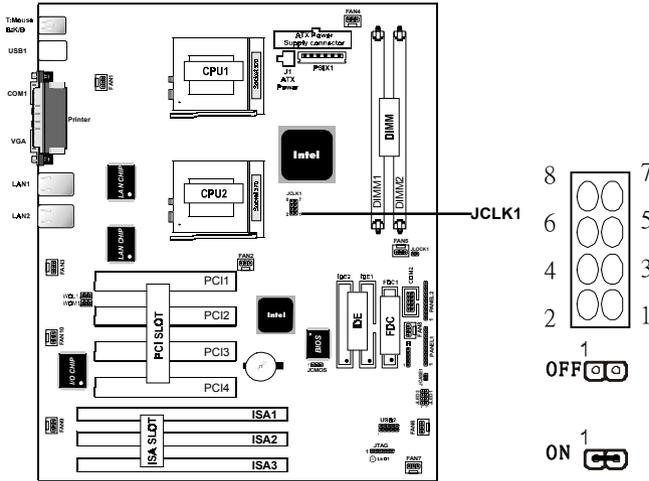
Note:

(Please follow the procedure below to clear CMOS data.)

- (1) Remove the AC power line.
- (2) JCMOS(2-3) Closed.
- (3) Wait five seconds.
- (4) JCMOS(1-2) Closed.
- (5) AC Power on.
- (6) Reset your desired password or clear CMOS data.

1.7.12 CPU Clock Freq. Setting: JCLK1

Overclocking is operating a CPU/Processor beyond its specified frequency. JCLK1 jumper is used for the CPU Front Side Bus Frequencies from 66MHz to 133MHz.



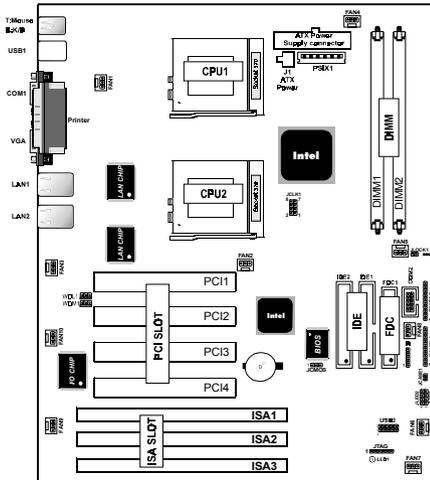
1-2	3-4	5-6	7-8	CPU/SDRAM(MHz)	PCI(MHz)
ON	ON	OFF	OFF	Auto*	Auto*
OFF	OFF	ON	ON	66/100	33.3
OFF	OFF	OFF	ON	100/100	33.3
OFF	OFF	ON	OFF	133/133	33.3
OFF	OFF	OFF	OFF	133/100	33.3

Default setting is Auto*

Note:

We don't recommend you overclocking, since it will make the CPU life short and get the risk of CPU damage.

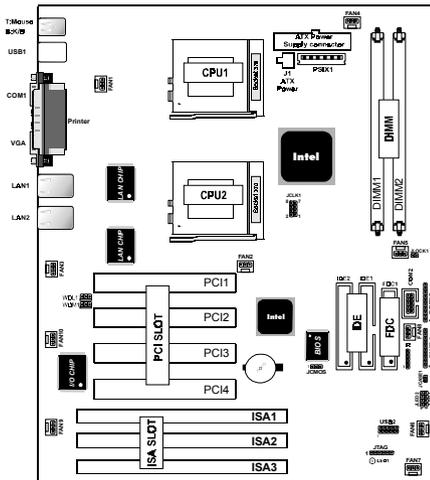
1.7.13 BIOS Lock & CMOS Lock: JLOCK1



Pin JLOCK1	Definition
On 	Enabled BIOS & CMOS write
Off 	Disabled BIOS & CMOS write protect

Note:
CMOS write protect function not include system timer.

1.7.14 LAN LED1/LED2 Connectors: JLED1/JLED2



Note:
The JLED1/2 connectors are LAN1/2 front panel LED.

Pin	Definition
1	SPLED1/2
2	+5V
3	LILED1/2
4	ACTLED1/2

Chapter 2

Introduction

This chapter discusses the Award Setup program built into the ROM BIOS. The Setup program allows the user to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the setup information when the power is turned off.

The Award BIOS installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Celeron/Coppermine PIII Processor. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

This AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD(Extended System Configuration Data)write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect)local bus specification.

APM Support

This AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management(APM) specification. Power management features are implemented via the System Management Interrupt(SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

DRAM Support

SDRAM (Synchronous DRAM) are supported.

Support CPU

This AWARD BIOS supports the Intel Celeron/Coppermine PIII Processor.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter>to select, use the <PgUp>and <PgDn>keys to change entries, press<F1>for help and press <Esc>to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

Note:

(BIOS version 1.0 is for reference only. If there is a change in BIOS version, please use the actual version on the BIOS.)

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left(menu bar)
Right arrow	Move to the item on the right(menu bar)
Esc	Main Menu: Quit without saving changes Submenus: Exit Current page to the next higher level menu
Move Enter	Move to item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+Key	Increase the numeric value or make changes
-Key	Decrease the numeric value or make changes
Esc Key	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
F1 Key	General help on Setup navigation keys.
F5 Key	Load previous values from CMOS
F6 Key	Load the fail-safe defaults from BIOS default table
F7 Key	Load the optimized defaults
F10 Key	Save all the CMOS changes and exit

2.1 Main Menu

Once you enter AWARD BIOS CMOS Set up Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup function. Use the arrow keys to select among the items and press<Enter> to accept and enter the sub-menu.

“WARNING”

The information about BIOS defaults on manual (Figure 1,2,3,4,5,6,7,8,9,10,11,12,13,14)is just for reference, please refer to the BIOS installed on the board for updated information.

© Figure 1. Main Menu

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	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 F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

Standard CMOS Features

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

Advanced BIOS Features

This setup page includes all the items of the BIOS special enhanced features.

Advanced Chipset Features

This setup page includes all the items of the Chipset special enhanced features.

Integrated Peripherals

This selection page includes all the items of the IDE hard drive and Programmed Input/Output features.

Power Management Setup

This setup page includes all the items of the power management features.

PnP/PCI Configurations

This setup page includes the user defined or default IRQ Setting.

PC Health Status

This page shows the hardware Monitor information of the system.

Frequency / Voltage Control

This setup page controls the CPU's clock and frequency ratio.

Load Fail-Safe Defaults

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

Load Optimized Defaults

These settings are more likely to configure a workable computer when something is wrong. If you cannot boot the computer successfully, select the BIOS Setup options and try to diagnose the problem after the computer boots. These settings do not provide optional performance.

Set Supervisor Password

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

Set User Password

You can specify both a User and a Supervisor password. When you select either password option, you are prompted for a 1-6 character password. Enter the password and then retype the password when prompted.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

2.2 Standard CMOS Features

This item in the Standard CMOS Setup Menu is 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.

© Figure 2. Standard CMOS Features

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software

Standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2002	Item Help
Time (hh:mm:ss)	11:26:10	
IDE Primary Master	None	Menu Level
IDE Primary Slave		Change the day,
IDE Secondary Master		month,year
IDE Secondary Master	None	and century.
Drive A	1.44M,3.5 in	
Drive B	None	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total	1024K	

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

Main Menu Selections

This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	Month DD YYYY	Set the system,date. Note that the 'Day' automatically changes when you set the data.
IDE Primary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Primary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
Drive A Drive B	None 360K,5.25in 1.2M,5.25in 720K,3.5in 1.44M,3.5in 2.88M,3.5in	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

Item	Options	Description
Halt On	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.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of conventional memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software IDE

Primary Master

IDE HDD Auto-Detection	Press Enter	Item Help
IDE Primary Master Access Mode	Auto	Menu Level
	Auto	
Capacity	13022MB	
Cylinder	25232	
Head	16	
Precomp	0	
Landing Zone	25231	
Sector	61	

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

2.3 Advanced BIOS Features

© Figure 3. Advanced BIOS Features

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Advanced BIOS Features

Virus Warning	Disabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	Menu Level
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	Allows you to
Quick Power On Self Test	Enabled	choose the
First Boot Device	Floppy	VIRUS warning
Second Boot Device	HDD-0	feature for IDE
Third Boot Device	LS120	Hard Disk boot
Fourth Other Device	Disabled	sector protection.
Swap Floppy Drive	Disabled	If this function
Boot Up Floppy Seek	Enabled	is enabled and
Boot Up NumLock Status	On	someone attempts
Gate A20 Option	Fast	to write data into
Typematic Rate Setting	Disabled	this area, BIOS
Typematic Rate (Chars/Sec)	6	will show a
Typematic Delay (Msec)	250	warning message
Security Option	Setup	on screen and
MPS Version Control For OS	1.4	alarm beep
OS Select For DRAM >64MB	Non-OS2	
HDD S.M.A.R.T. Capability	Disabled	
Report No FDD For WIN 95	No	
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

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

The Choices: Disabled(default), Enabled.

CPU Internal Cache

These two categories speed up memory access. However, it depends on CPU/chipset design.

Enabled (default) Enabled cache.

Disabled Disabled cache.

External Cache

This fields allow you to Enable or Disable the CPU'S "Level 2" secondary cache. Caching allows better performance.

Enabled(default) Enabled cache.
Disabled Disabled cache.

CPU L2 Cache ECC Checking

The item allows you to enable/disable CPU L2 Cache ECC Checking.

The Choices: Enabled(default), 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 (default) Enabled quick POST.
Disabled Normal POST.

First/Secondary/Third Boot Device

This BIOS attempts to load the operating system from the devices in the sequence selected in these items.

The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled.

Fourth Other Device

The Choices: Disabled(default), Enabled.

Swap Floppy Drive

If the system has two floppy drives, you can swap the logical drive name assignments.

The Choices: Disabled(default), Enabled.

Boot Up Floppy Seek

Seek disk drives during boot up. Disabled speeds boot-up.

The Choices: Enabled(default), Disabled.

Boot Up NumLock Status

Select power on state for Numlock.

- On (default)** Numpad is number keys.
Off Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

- Normal** A pin in the keyboard controller controls Gate A20.
Fast (default) Lets chipset control Gate A20.

Typematic Rate Setting

- Enabled** Enabled this option to adjust the keystroke repeat rate.
Disabled (default) Disabled.

Typematic Rate (Char/Sec)

Range between 6(**default**) and 30 characters per second. This option controls the speed of repeating keystrokes.

Typematic Delay (Msec)

This option sets the time interval for displaying the first and the second characters.

The Choices: 250(default), 500, 750, 1000.

Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

- System** The system will not boot and access to Setup will be denied if the correct password is not entered in prompt.

Setup (default)

The system will boot, but access to Setup will be denied if the correct password is not entered in prompt.

MPS Version Control For OS

The Choices: 1.4(default), 1.1.

OS Select For DRAM >64MB

Select the operating system that is running with greater than 64MB of RAM on the system.

The Choices: Non-OS2(default), OS2

HDD S.M.A.R.T. Capability

Enabled

Enabled HDD S.M.A.R.T. Capability.

Disabled (default)

Disabled HDD S.M.A.R.T. Capability.

Report No FDD For Window 95

No (default)

Assign IRQ6 For FDD.

Yes

FDD Detect IRQ6 Automatically.

Small Logo (EPA) Show

The Choices: Disabled(default), Enabled.

2.4 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 external cache. It also coordinates communications of 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 lost while using your system.

© Figure 4. Advanced Chipset Features

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Advanced Chipset Features

SDRAM CAS Latency/Time	3	Item Help
SDRAM Cycle Time Tras/Trc	Auto	
SDRAM RAS -to- CAS Delay	Auto	Menu Level
SDRAM RAS Precharge Time	Auto	
System BIOS Cacheable	Disabled	
Video BIOS Cacheable	Disabled	
Memory Hole At 15M-16M	Disabled	
CPU Latency Timer	Enabled	
Delayed Transaction	Enabled	
AGP Graphic Aperture Size	64MB	
Display Cache Frequency	100MHz	
System Memotry Frequency	Auto	
On-Chip Video Window Size	64MB	
Onboard Display Cache Setting		
CAS# Latency	3	
Paging Mode Control	Open	
RAS-to-CAS Override	by CAS# LT	
RAS# Timing	Fast	
RAS# Precharge Timing	Fast	

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

SDRAM CAS latency Time

- | | |
|--------------------|----------------------------|
| 3 (default) | Slower SDRAM DIMM Module. |
| 2 | Fastest SDRAM DIMM Module. |

SDRAM Cycle Time Tras/Trc

- | | |
|-----------------------|---|
| Auto (default) | Set SDRAM Tras/Trc Cycle time in 7/9 SCLKs. |
| 5/7 | Set SDRAM Tras/Trc Cycle time in 5/7 SCLKs. |

SDRAM RAS -to- CAS Delay

- | | |
|-----------------------|---------------------------------------|
| Auto (default) | Set SDRAM RAS -to- CAS delay 3 SCLKs. |
| 2 | Set SDRAM RAS -to- CAS delay 2 SCLKs. |

SDRAM RAS Precharge Time

- | | |
|-----------------------|------------------------------------|
| Auto (default) | Set SDRAM RAS Precharge Time to 3. |
| 2 | Set SDRAM RAS Precharge Time to 2. |

System BIOS Cacheable

When enabled, the access to the system BIOS ROM address at F0000H-FFFFFFH is cached.

The Choices: Disabled(default), Enabled.

Video BIOS Cacheable

Enabled	Enabled Video BIOS Cacheable.
Disabled (default)	Disabled Video BIOS Cacheable.

Memory Hole At 15-16M

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory's space below 16MB.

The Choices: Disabled(default), Enabled.

CPU Latency Timer

Enabled (default)	Enabled.
Disabled	Disabled.

Delayed Transaction

Enabled (default)	Slow speed ISA device in system.
Disabled	Disabled.

AGP Graphics Aperture Size

64MB (default)	AGP Graphics Aperture Size is 64 MB.
32MB	AGP Graphics Aperture Size is 32 MB.

Display Cache Frequency

The Choices: 100MHz(default), 133MHz.

Memory System Frequency

This option is support memory system frequency auto detect.

The Choices: Auto(default), 100MHz, 133MHz.

On-Chip Video Window Size

64MB (default)	Set Video Windows Size is 64 MB.
32MB	Set Video Windows Size is 32 MB.

CAS# Latency

The Choices: 3(default), 2.

Paging Mode Control

The Choices: Open(default), Close.

RAS-to-CAS Override

The Choices: by CAS# LT(default), Override.

RAS# Timing

The Choices: Fast(default), Slow.

RAS# Precharge Timing

The Choices: Fast(default), Slow.

2.5 Integrated Peripherals

© Figure 5. Integrated Peripherals

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Integrated Peripherals

On-Chip Primary PCI IDE	Enabled	Item Help
On-Chip Secondary PCI IDE	Enabled	
IDE Primary Master PIO	Auto	Menu Level
IDE Primary Slave PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Slave PIO	Auto	
IDE Primary Master UDMA	Auto	
IDE Primary Slave UDMA	Auto	
IDE Secondary Master UDMA	Auto	
IDE Secondary Slave UDMA	Auto	
USB Controller	Enabled	
USB Keyboard Support	Disabled	
Init Display First	PCI Slot	
IDE HDD Block Mode	Enabled	
Power On Function	Button Only	
KB Power On Password	Enter	
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	
RxD,TxD Active	Hi,Lo	
IR Transmission Delay	Enabled	
UR2 Duplex Mode	Half	
Use IR Pins	IR-Rx2Tx2	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
EPP Mode Type	EPP1.7	
ECP Mode Use DMA	3	
PWRON After PWR-Fail	OFF	

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

On-Chip Primary PCI IDE

Enabled (default)

Enabled onboard 1st channel
IDE port.

Disabled

Disabled onboard 1st channel
IDE port.

On-Chip Secondary PCI IDE

Enabled (default)	Enabled onboard 2nd channel IDE port.
Disabled	Disabled onboard 2nd channel IDE port.

IDE Primary Master PIO (for onboard IDE 1st channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

IDE Primary Slave PIO (for onboard IDE 2nd channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

IDE Secondary Master PIO (for onboard IDE 1st channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

IDE Secondary Slave PIO (for onboard IDE 2nd channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

IDE Primary Master UDMA

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disabled.

IDE Primary Slave UDMA**Auto (default)**

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

IDE Secondary Master UDMA**Auto (default)**

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

IDE Secondary Slave UDMA**Auto (default)**

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

USB Controller**Enabled (default)**

Enabled USB Controller.

Disabled

Disabled USB Controller.

USB Keyboard Support**Enabled**

Enabled USB Keyboard Support.

Disabled (default)

Disabled USB Keyboard Support.

Init Display First**PCI Slot (default)**

Set Init Display First to PCI Slot.

Onboard/AGP

Set Init Display First to onboard/AGP.

IDE HDD Block Mode**Enabled (default)**

Enabled.

Disabled

Disabled.

Power On Function

Password	Enter from 1 to 7 characters to set the Keyboard Power On Password.
Hot Key	Hot Key.
Mouse Left	Mouse Left.
Mouse Right	Mouse Right.
Any Key	Any Key.
Button Only (default)	Button Only.
Keyboard 98	If your keyboard has an Owner key button, you can press the key to power on your system.

KB Power On Password

Enter	Enter from 1 to 7 characters to set the keyboard Power On Password.
--------------	---

Hot Key Power On

Ctrl-F1 (default)	First you must choose the Power On by Hot Key function then Enter from 1 to 8 characters to set the Hot Key Power On your system.
Ctrl-F2	
Ctrl-F3	
Ctrl-F4	
Ctrl-F5	
Ctrl-F6	
Ctrl-F7	
Ctrl-F8	

Onboard FDC Controller

Enabled (default)	Enabled onboard FDC Controller.
Disabled	Disabled onboard FDC Controller.

Onboard Serial Port1

Select an address and corresponding interrupt for the first and second serial ports.

The Choices: **3F8/IRQ4**(default), Auto, (2F8/IRQ3), (3E8/IRQ4), (2E8/IRQ3), Disabled.

Onboard Serial Port 2

Auto	BIOS will automatically setup the Serial Port 2 address.
3F8/IRQ4	Enabled onboard Serial Port 2 and address is 3F8.
2F8/IRQ3 (default)	Enabled onboard Serial Port 2 and address is 2F8.
3E8/IRQ4	Enabled onboard Serial Port 2 and address is 3E8.
2E8/IRQ3	Enabled onboard Serial Port 2 and address is 2E8.
Disabled	Disabled.

UART Mode Select

This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.

The Choices: **Normal**(default), IrDA, ASKIR.

UR2 Duplex Mode

This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.

The Choices: **Half** (default), Full.

Onboard Parallel Port

This item allows you to select the I/O address with which to access the onboard parallel port controller.

The Choices: **378/IRQ7** (default), Disabled, 278/IRQ5, 3BC/IRQ7.

Parallel Port Mode

SPP (default)	Using Parallel port as Standard Parallel Port.
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.

EPP Mode Type

The Choices: EPP 1.7(default), EPP 1.9.

ECP Mode Use DMA

The Choices: 3(default), 1.

PWRON After PWR-Fail

This option will determine how the system will power on after a power failure.

The Choices: Off(default), On, Former-Str.

2.6 Power Management Setup

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

© Figure 6. Power Management Setup

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Power Management Setup

ACPI Function	Enabled	Item Help
ACPI Suspend Type	S1(POS)	
Run VGA BIOS if S3 Resume	Auto	Menu Level
Power Management	User Define	
Video Off Method	DPMS	
Video Off In Suspend	Yes	
Suspend Type	Stop Grant	
Modem Use IRQ	3	
Suspend Mode	Disabled	
HDD Power Down	Disabled	
Soft-Off by PWR-BTTN	Instant-Off	
Wake Up by PCI Card	Disabled	
Power On by Ring	Disabled	
Wake Up On LAN	Disabled	
USB KB Wake-up From S3(S4)	Disabled	
CPU Thermal-Throttling	50.0%	
Resume by Alarm	Disabled	
Data (of Month) Alarm	0	
Time (of hh:mm:ss) Alarm	0 0 0	
**Reload Global Timer Events **		
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
FDD,COM,LPT Port	Disabled	
PCI PIRQ[A-D]#	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 display status of the Advanced Configuration and Power Management (ACPI).

ACPI Suspend Type

The item allows you to select the suspend type under ACPI operating system.

The Choices: S1(POS) (default) Power on Suspend.

Power Management

This option allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

The Choices: User Define (default), Min Saving, Max Saving.

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 Support (default) Initial display power management signaling.

Video Off In Suspend

This field determines when to activate the video off feature for monitor power management.

The Choices: Yes(default), No.

Suspend Type

Stop Grant (default) Set Suspend type is stop grant.

PwrOn Suspend Set Suspend type is Power on Suspend.

Modem Use IRQ

This determines the IRQ, which can be applied in Modem use.

3 (default)
4/5/7/9/10/11/NA.

Suspend Mode

Disabled (default)	Disabled.
1 min - 1 Hour	Set the timer to enter Suspend Mode.

HDD Power Down

By default, this is “Disabled”, meaning that no matter the mode of the rest of system, the hard drive will remain ready. Otherwise, you have a range of choices from 1 to 15 minutes or Suspend. This means that you can select to have your hard disk drive be turned off after a selected number of minutes or when the rest of the system goes into a suspend mode.

Disabled (default)	Disabled.
1 - 15 mins	Enabled.

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has “hung”.

The Choices: Instant-Off(default), Delay 4 Sec.

Wake On by PCI Card

Enabled	Enabled.
Disabled (default)	Disabled.

Power On By Ring

Enabled	Enabled.
Disabled (default)	Disabled.

Wake Up On LAN

Enabled	Enabled.
Disabled (default)	Disabled.

USB KB Wake-Up From S3

Disabled (default) Disabled.
Enabled Enabled.

CPU Thermal-Throttling

50.0% (default)
**Monitor CPU Temp. will cause system to slow down
CPU Duty Cycle to 12.5% / 25.0% / 37.5% / 62.5% /
70.5% / 87.5%**

Resume by Alarm

Disabled (default) Disabled.
Enabled Enabled.

Primary IDE 0/1

Disabled (default) Disabled.
Enabled Enabled monitor Primary IDE
0/1 for Green event.

Secondary IDE 0/1

Disabled (default) Disabled.
Enabled Enabled monitor Secondary
IDE 0/1 for Green event.

FDD, COM, LPT Port

Disabled (default) Disabled.
Enabled Enabled monitor FDD, COM,
LPT Port.

PCI PIRQ[A-D]#

Disabled (default) Ignore PCI PIRQ[A-D]#
Active.
Enabled Monitor PCI PIRQ[A-D]#
Active.

2.7 PnP/PCI Configurations

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

© Figure 7. PnP/PCI Configurations

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PnP/PCI Configurations

PNP OS Installed	No	Item Help
Reset Configuration Data	Disabled	Menu Level
Resources Controlled By	Auto(ESCD)	
IRQ Resources	Press Enter	When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt
DMA Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
INT Pin 1 Assignment	Auto	
INT Pin 2 Assignment	Auto	
INT Pin 3 Assignment	Auto	
INT Pin 4 Assignment	Auto	
INT Pin 5 Assignment	Auto	
INT Pin 6 Assignment	Auto	
INT Pin 7 Assignment	Auto	
INT Pin 8 Assignment	Auto	

←→↑↓: 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

When set to YES, BIOS will only initialize the PnP cards used for booting(VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Windows 95. When set to No, BIOS will initialize all the PnP cards. Therefore for non-PnP operating system (DOS, Netware), this option must be set to No.

Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved at the system BIOS. If Disabled (Default) is chosen, the system's ESCD will update only when the new configuration varies from the last one. If Enabled is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

IRQ3	assigned to: 3~15, Auto
IRQ4	assigned to: 3~15, Auto
IRQ5	assigned to: 3~15, Auto
IRQ6	assigned to: 3~15, Auto
IRQ7	assigned to: 3~15, Auto
IRQ8	assigned to: 3~15, Auto
IRQ9	assigned to: 3~15, Auto
IRQ10	assigned to: 3~15, Auto
IRQ11	assigned to: 3~15, Auto
IRQ12	assigned to: 3~15, Auto
IRQ13	assigned to: 3~15, Auto
IRQ14	assigned to: 3~15, Auto
IRQ15	assigned to: 3~15, Auto

Resources Controlled By

By Choosing "Auto" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

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

DMA Resources

This sub menu can let you control the DMA resource.

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the write access to the VGA palette and registers the snoop data. In PCI based systems, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled (default)	Function Disabled.
Enabled	Function Enabled.

2.8 PC Health Status

◎ Figure 8. PC Health Status

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PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current CPU1 Temperature		Menu Level
Current CPU2 Temperature		
Current System Temp.		
Current CPU Fan1 Speed		
Current CPU Fan2 Speed		
Current CPU Fan3 Speed		
CPU(V)		
VTT(V)		
+3.3V		
+5V		
+12V		
-12V		
-5V		
VBAT(V)		
5VSB(V)		

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

Current Voltage(V) Vcore 3.3V/ +-12V/+-5V/5VSB/VBAT

Detect system's voltage status automatically.

Current CPU1, CPU2/System Temperature(°C /°F)

This field displays the current CPU temperature,if your computer contains a monitoring system.

Current CPU Fan1/Fan2/Fan3 Speed

These field displays the current speed of up to System Fans,if your computer contains a monitoring system.

CPU Warning Temperature(°C)**Disabled (default)**

Disabled.

50°C / 122°FMonitor CPU Temp.at 50°C /
122°F.**53°C / 127°F**Monitor CPU Temp.at 53°C /
127°F.**56°C / 133°F**Monitor CPU Temp.at 56°C /
133°F**63°C / 145°F**Monitor CPU Temp.at 63°C /
145°F**66°C / 151°F**Monitor CPU Temp.at 66°C /
151°F**70°C / 158°F**Monitor CPU Temp.at 70°C /
158°F

2.9 Frequency / Voltage Control

◎ Figure 9. Frequency / Voltage Control

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software

Frequency / Voltage Control

Auto Detect DIMM / PCI CLK	Enabled	Item Help
Spread Spectrum	Disabled	
Clock By Slight Adjust	133	Menu Level
CPU Clock Ratio	X3	

←→↑↓: 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

This item allows you to enable/disable auto detect DIMM / PCI CLOCK.

The Choices: Enabled(default), Disabled.

Spread Spectrum

This function is designed for the EMI test only.

The Choices: Disabled(default), Enabled.

Clock By Slight Adjust

This item allows you to select the CPU clock from 133MHz to 166MHz, 100MHz to 133MHz or 66MHz to 100MHz depending on the CPU Host Clock .

The Choices: Mix= 66(default), Max=166.

CPU Clock Ratio

This option will not be shown if you are using a CPU with the locked ratio.

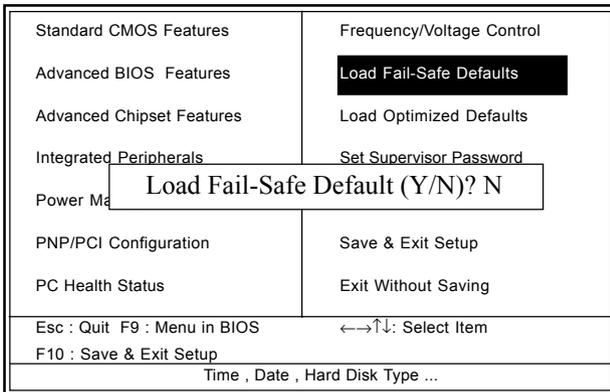
X3/X3.5/X4/X4.5/X5/X5.5/X6/X6.5/X7/X7.5/X8.

2.10 Load Fail-Safe Defaults

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

© Figure 10. Load Fail-Safe Defaults

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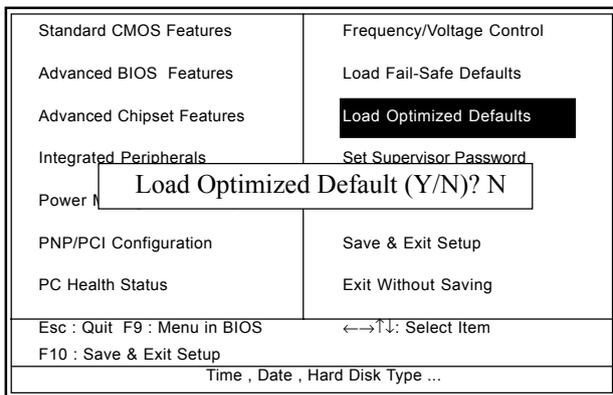
Pressing ‘Y’ loads the default values that are factory settings for optimal performance of system operations.

2.11 Load Optimized Defaults

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

© **Figure 11. Load Optimized Defaults**

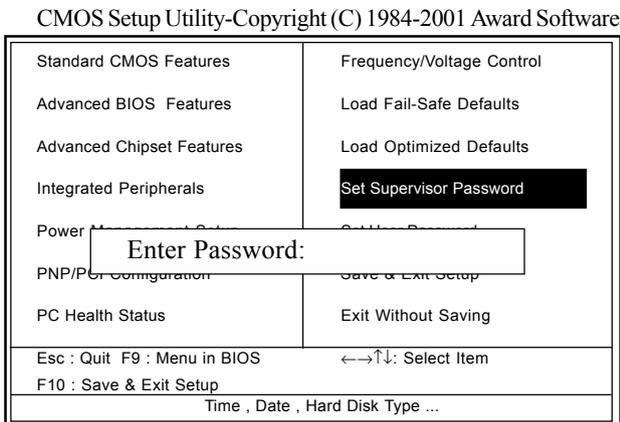
CMOS Setup Utility-Copyright (C) 1984-2001 Award Software



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

2.12 Set Supervisor / User Password

© Figure 12. Set Supervisor / User Password



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

Enter Password

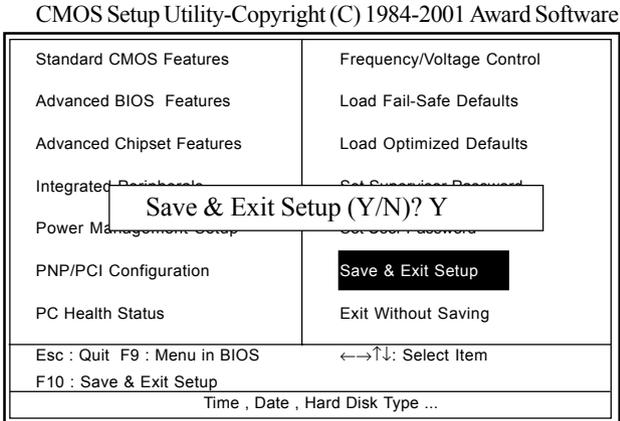
Type a password, up to eight characters, and press <Enter>. The password you type now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <ESC> to abort the selection and not enter a password. To disable the password, just press <Enter> when you are prompted to enter a password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.

Password Disabled

If you select “System” at the Security Option of BIOS Features Setup Menu, you will be prompted for the password every time when the system is rebooted, or any time when you try to enter Setup. If you select “Setup” at the Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

2.13 Save & Exit Setup

© Figure 13. Save & Exit Setup



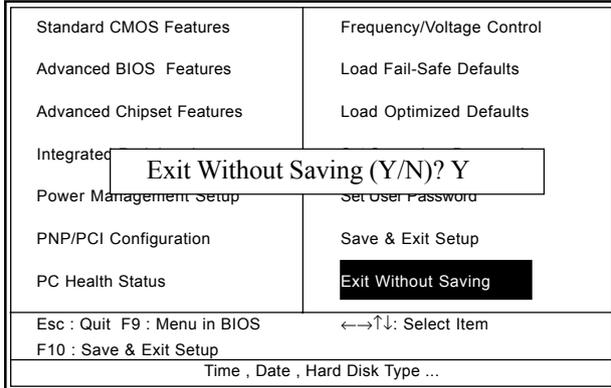
Typing “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

2.14 Exit Without Saving

© Figure 14. Exit Without Saving

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software



Typing “Y” will quit the Setup Utility without saving to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

Chapter 3

There are motherboard drivers and utilities included in ACORP Bonus CD disc. You don't need to install all of them in order to boot your system. But after you finish the hardware installation, you have to install your operation system first (such as windows 98) before you can install any drivers or utilities. Please refer to your operation system installation guide.

Note: Please follow recommended procedure after install Windows 2000 or Windows XP.

3.1 Auto-run Menu

You can use the auto-run menu of Bonus CD disc. Choose the utility or driver and select model name.



3.2 Installing Intelinf Driver

This item install the Intel Chipset Software installation Utility that enables Plug-n-Play INF support for Intel chipset components. This utility installs to the target system the Windows INF files that outline to the operating system how the chipset components will be configured.



(1)

Click "Driver" Item.



(2)

Click "Chipset" Item.

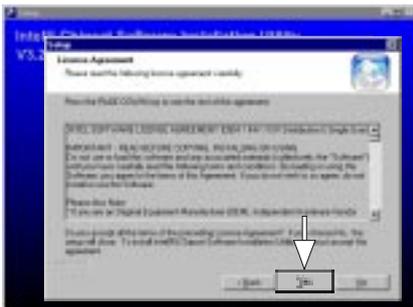


(3)

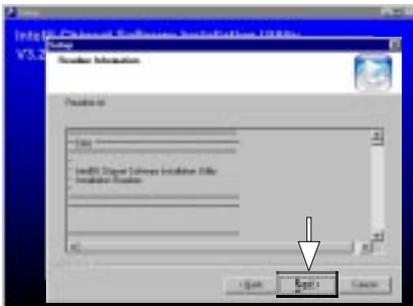
Click "Intel Chipsets Installation" Item.



(4)
Click "Next".



(5)
Click "Yes".



(6)
Click "Next".



(7)
Click "Finish".

Note:

Install the Intel INF Driver before installing the Intel Application Accelerator Driver.

3.3 Installing Application Accelerator Driver

This item install the Intel Application Accelerator for Microsoft Windows 98/98SE/ME/NT4.0/2000/XP. This program is designed to improve performance of the storage sub-system and overall system performance.



(1)
Click "Driver" Item.



(2)
Click "Chipset" Item.



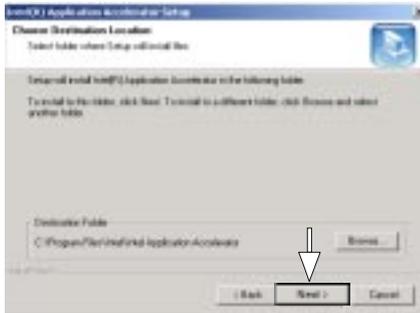
(3)
Click "Intel Application Accelerator" Item.



(4)
Click "Next".



(5)
Click "Yes".



(6)
Click "Next".



(7)
Click "Next".



(8)
Click "Finish".

3.4 Installing Audio Driver

This motherboard comes with an AC97 CODEC and the sound controller is in Intel South Bridge chipset. You can find the sound driver from the Bonus Pack CD disc auto-run menu.



(1)
Click
"Driver" Item.



(2)
Click "Audio" Item.



(3)
Click "ALC100" Item.



(4)
For Win NT
, Win 2000, WinXP
& Win 9X_ME system.
Select your O.S. system.



(5)
Click "Next".



(6)
Click "Finish".

S815ED System Compatibility Test Report

**** Note:**
 This test report is for your reference, we would like to suggest you to use these devices that we had approved.

A. CPU & Memory Compatibility Test Pass

CPU MEMORY	Celeron II 1200/100X1	TJUALATIN 1200/133X1	FC-PGA2 1000/133X2	TJUALATIN 1133/133X1	Coppermine 1000/133X2
TWINNOS NANYA-100	128MX1	128MX1	128MX1	128MX2	128MX1
VT56V6650COT-8BS (D)	D2 PASS	D1 PASS	D2 PASS	D1,2 PASS	D2 PASS
SILAN INFINEON-133	64MX2	64MX2	64MX2	64MX2	64MX2
HYB39S64800CT-7.5 (S)	D1,2 PASS	D1,2 PASS	D1,2 PASS	D1,2 PASS	D1,2 PASS
TRANSCEND MICRON-133	128MX1	128MX1	128MX1	128MX1	128MX2
48LC16M8A2 (S)	D1 PASS	D2 PASS	D1 PASS	D2 PASS	D1,2 PASS
TWINNOS SIEMENS-133	128MX1	128MX1	128MX2	128MX1	128MX1
HYB39S64800BT-7.5 (D)	D2 PASS	D1 PASS	D1,2 PASS	D2 PASS	D1 PASS

CPU MEMORY	Celeron II 1000/100X1	Celeron II 950/100X1	Celeron II 900/100X1	Celeron II 850/100X1	Coppermine 1100/100X2
TWINNOS WINBOND-133	256MX1	256MX1	256MX2	256MX1	256MX1
W981208AH-75 (D)	D2 PASS	D1 PASS	D1,2 PASS	D2 PASS	D1 PASS
TWINNOS HITACHI-100	128MX2	128MX1	128MX1	128MX1	128MX2
5264805FTTA60 (D)	D1,2 PASS	D2 PASS	D1 PASS	D2 PASS	D1,2 PASS
ARMAS NEC-133	128MX1	128MX2	128MX1	128MX1	128MX1
D45128163G5-A75-9JF (S)	D2 PASS	D1,2 PASS	D1 PASS	D2 PASS	D2 PASS
GENUINE TONICON-166	256MX1	256MX1	256MX2	256X1	256X1
TM31S128084B-6F (S)	D1 PASS	D2 PASS	D1,2 PASS	D1 PASS	D1 PASS

CPU MEMORY	Coppermine 933/133X2	Coppermine 866/133X2	Coppermine 850/133X2	Coppermine 700/100X2	Coppermine 800/100X2
SILAN SAMSUNG-133	128MX1	128MX1	128MX2	128MX1	128MX1
K4S6408320-TC75 (D)	D1 PASS	D2 PASS	D1,2 PASS	D1 PASS	D2 PASS
KINGSTON VALUE-133	256MX1	256MX2	256MX1	256MX1	256MX1
D168SP-75 (D)	D2 PASS	D1,2 PASS	D1 PASS	D2 PASS	D1 PASS
XANDER PQI-133	256MX2	256MX1	256MX1	256MX2	256MX1
PQ3S168Q75 (D)	D1,2 PASS	D1 PASS	D2 PASS	D1,2 PASS	D2 PASS
GENUINE HITACHI-133	128MX1	128MX1	128MX2	128MX1	128MX1
5264405FTT75 (D)	D1 PASS	D2 PASS	D1,2 PASS	D1 PASS	D1 PASS

CPU MEMORY	Coppermine 733/33X2	Coppermine 650/100X2	Celeron II 800/100X1	Celeron 766/66X1	Celeron 733/66X1
LEMEL PQI-166	128MX1	128MX1	128MX2	128MX1	128MX2
MP6828UMR-T6863 (S)	D2 PASS	D2 PASS	D1,2 PASS	D1 PASS	D1,2 PASS
ARMAS NEC-133	256MX2	256MX1	256MX1	256MX2	256XM1
D45128841G5-A75-9JF (D)	D1,2 PASS	D1 PASS	D2 PASS	D1,2 PASS	D1 PASS
TWINNOS HYUNDAI-133	256MX1	256MX2	256MX1	256MX1	256MX2
HY57V28820A (D)	D2 PASS	D1,2 PASS	D1 PASS	D2 PASS	D1,2 PASS
GENUINE TONICON-133	128MX1	128MX1	128MX1	128MX2	128MX1
TM31S128084P-TB (S)	D1 PASS	D2 PASS	D1 PASS	D1,2 PASS	D1 PASS

S815ED System Compatibility Test Report

CPU \ MEMORY	TUALATIN 1200/133X1	FC-PGA2 1000/133X2	Celeron II 1200/100X1	Celeron II 1000/100X1	Coppermine 1100/100X2
TRANSCEND MITSUBISHI-133	128MX1	128MX2	128MX1	128MX1	128MX2
M2V28S30ATP (D)	D2 PASS	D1,2 PASS	D1 PASS	D2 PASS	D1,2 PASS
TWINNOS MIRA-133	128MX2	128MX1	128MX2	128MX1	128MX1
D2V64S20DTP (D)	D1,2 PASS	D1 PASS	D1,2 PASS	D1 PASS	D2 PASS
KINGMAX-150	128MX1	128MX1	128MX2	128MX1	128MX1
KSV684T4A2A-06 (S)	D1 PASS	D2 PASS	D1,2 PASS	D1 PASS	D1 PASS
TWINNOS IBM-133	256MX1	256MX1	256MX1	256MX1	256MX2
0325804CT3A (S)	D2 PASS	D1 PASS	D2 PASS	D2 PASS	D1,2 PASS

CPU \ MEMORY	Celeron II 950/100X1	Coppermine 933/133X2	TUALATIN 1133/133X1	Celeron 700/66X1	Celeron II 850/100X1
SILAN MIRA-133	64MX2	64MX2	64MX2	64MX2	64MX2
P2V64S40DTP (S)	D1,2 PASS	D1,2 PASS	D1,2 PASS	D1,2 PASS	D1,2 PSSS
GENUINE MITSUBISHI-133	64MX2	64MX2	64MX2	D1,2 PASS	64MX2
M2V28S40ATP (S)	D1,2 PASS	D1,2 PASS	D1,2 PASS	D1,2 PASS	D1,2 PSSS
KINGMAX-133	128MX1	128MX1	128MX2	128MX1	128MX1
KSV684T4A1A-07 (S)	D2 PASS	D1 PASS	D1,2 PASS	D2 PASS	D1 PASS
TWINNOS IBM-133	512MX1	521MX1	512MX1	512MX1	512MX1
0325804CT3A (D)	D1 PASS	D2 PASS	D1 PASS	D1 PASS	D2 PASS

B. Onboard VGA Compatibility Test

CHIPSET	O.S Environment	3D MARK 2000 DEMO 1024 x 768 x 32 Bit	3D MARK 2000 BENCH 1024 x 768 x 16 Bit
Intel 82815	Win98 SE	PASS	517
	Win ME	PASS	561
	Win 2000	PASS	534
	Windows XP	PASS	531

C. Onboard LAN Compatibility Test

O.S. Environment	NetWare Link	NetWare file copy	Send / Receive Mail Through Netware	3D Game Netware (IPX) Player	3D Game Netware (TCP/IP) Player
Win 98SE	PASS	PASS	PASS	PASS	PASS
Win XP	PASS	PASS	PASS	PASS	PASS
Win NT	PASS	PASS			
Win ME	PASS	PASS			
Win 2000	PASS	PASS			

D. Other Peripherals Compatibility Test

USB Device	Vendor	Model	Result
Mouse	Microsoft	Optical USB Mouse	PASS
Keyboard	GENUINE	K371 Keyboard	PASS
ZIP	IOMEGA	Z100	PASS
Joystick	Microsoft	SideWinder Joystick	PASS
SCANNER	EPSON	PREFECTION 640U	PASS
Modem	ACORP	56Kfx Modem	PASS

S815ED System Compatibility Test Report

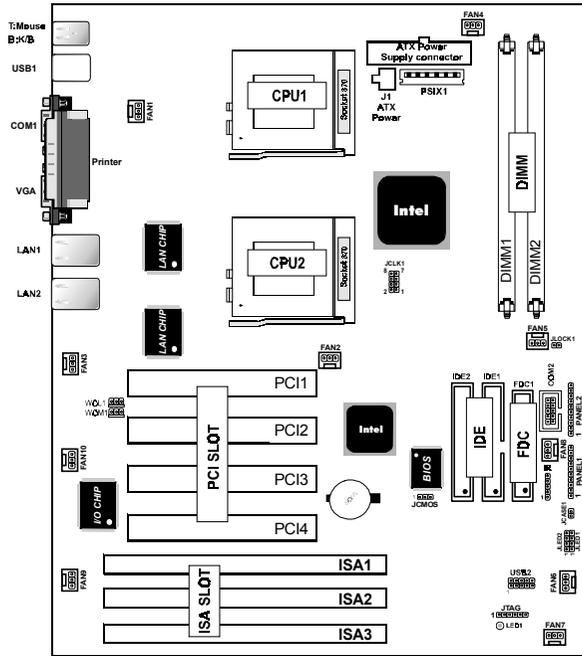
E. PCI/ISA Device Compatibility Test

Device Model	Slot	Vendor Model	O.S.	Driver Version	Result
LAN Card	PCI	Intel PILA8470B	Win XP	5.41.22.0	PASS
	PCI	D_Link DFE-530TX	Win 98SE	2.52	PASS
	PCI	3Com 3C905C-TX	Win 98SE	1.60.00.0000	PASS
	PCI	MPX EN5038B	Win XP	5.396.530.2001	PASS
	ISA	Realtek 8019AS	Win 98SE	4.10.2222	PASS
	ISA	Realtek 8019AS	Win XP	5.1.2535.0	PASS
SCSI Card	PCI	Tekram DC390U2W	Win 98se	3.22	PASS
	PCI	A-HA 29160UW	WinXP	5.1.2600	PASS
	PCI	Initio INIC-940	Win 98se	4.10.2222	PASS
Sound Card	PCI	YAMAHA YF-754	Win 98SE	4.07.00.2013	PASS
	PCI	ESS 1989S	Win 98SE	4.12.01.7135	PASS
	PCI	GENUINE C-Media 8783LX	Win XP	5.12.01.612	PASS
	ISA	YAMAHA YMF719E-S 9805	Win 98SE	4.10.2222	PASS
	ISA	YAMAHA YMF719E-S 9805	Win XP	5.1.2535.0	PASS
TV / FM Capture Card	PCI	ACORP BT878	Win 98SE	Version 4.1.8.8	PASS
VGA Card	PCI	S3 Trio64V2-DX/GX	Win 98SE	4.10.1715	PASS
	PCI	S3 Trio64V2-DX/GX	Win XP	5.1.2535.0	PASS
MODEM Card	PCI	ESS 2838S	Win 98SE	Version 4.43.022	PASS
	PCI	PC-Tel PCT789	Win XP	8.0.11.3	PASS
	PCI	Motorola SM56	Win 989SE	4.10.80.5	PASS
USB 2.0 Card	PCI	NEC USB2.0 (TAIWAN)	Win 98SE	1.0.0.0	PASS
	PCI	NEC USB 2.0	Win XP	5.1.2600.0	PASS
IEEE1394 Card	PCI	ACORP IEEE1394	Win 98SE	4.10.2222	PASS
	PCI	KOUWELL KW-582V2	Win XP	5.1.2535.0	PASS
	PCI	DOMEXDMX-5340	Win XP	5.1.2535.0	PASS

F. System Reliability Test

O.S. Environment	Test Software	Version	Loop times	Result
Win98 SE	Content Creation Winstone 2000 Test	1.0	72 Hours	7 Hours
	SysMark 2001	1.0	1 time	PASS
Win ME	3D Quake III Demo Test	1.0	8 Hours	14 Hours
Win NT 4.0	WinStone 99 All Test	1.3	72 time	26 Hours
Win 2000	Content Creation WinStone 2001 Test	1.0	72 Hours	16 Hours
Professional	Content Creation WinStone 2000 Test	1.0	5 time	PASS
Win XP	3D MARK 2001 Demo Test	1.0	8 Hours	14 Hours
Professional	Content Creation Winstone 2001 Test	1.0	5 time	PASS

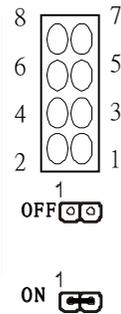
The S815ED Jumper Setting Summary



CPU Clock Frequency Setting: JCLK1

1-2	3-4	5-6	7-8	CPU/SDRAM(MHz)	PCI(MHz)
ON	ON	OFF	OFF	Auto*	Auto*
OFF	OFF	ON	ON	66/100	33.3
OFF	OFF	OFF	ON	100/100	33.3
OFF	OFF	ON	OFF	133/133	33.3
OFF	OFF	OFF	OFF	133/100	33.3

Default setting is Auto*



BIOS Lock & CMOS Lock: JLOCK1

Pin JLOCK1	Definition
On	Enabled BIOS & CMOS write
Off	Disabled BIOS & CMOS write protect

CMOS Function Selection: JCMOS

Pin	Definition
1-2	Normal (Default)
2-3	Clear CMOS

Fan Connectors: Fan1~Fan10

Pin Fan1/2/3	Definition
	1 Ground
	2 +12VDC
	3 Signal

Pin Fan4~10	Definition
	1 Ground
	2 +12VDC
	3 NA

Wake-On LAN Header: WOL1

Pin	Assignment
	1 5V_SB
	2 Ground
	3 Signal

Wake-On Modem Header: WOM1

Pin	Assignment
	1 5V_SB
	2 Ground
	3 Signal

Panel Connector: PANEL1/PANEL2

