

TECHNICAL MANUAL
Of
Intel Pine Trail-M & NM10 Chipset
Based
Mini-ITX M/B for ATOM Processor

NO.G03-NC9C-F

Revision: 1.0

Release date: September, 2010

Trademark:

- * Specifications and Information contained in this documentation are furnished for information use only, and are subject to change at any time without notice, and should not be construed as a commitment by manufacturer.

Environmental Protection Announcement

Do not dispose this electronic device into the trash while discarding. To minimize pollution and ensure environment protection of mother earth, please recycle.



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Environmental Safety Instruction

- Avoid the dusty, humidity and temperature extremes. Do not place the product in any area where it may become wet.
- 0 to 60 centigrade is the suitable temperature. (The figure comes from the request of the main chipset)
- Generally speaking, dramatic changes in temperature may lead to contact malfunction and crackles due to constant thermal expansion and contraction from the welding spots' that connect components and PCB. Computer should go through an adaptive phase before it boots when it is moved from a cold environment to a warmer one to avoid condensation phenomenon. These water drops attached on PCB or the surface of the components can bring about phenomena as minor as computer instability resulted from corrosion and oxidation from components and PCB or as major as short circuit that can burn the components. Suggest starting the computer until the temperature goes up.
- The increasing temperature of the capacitor may decrease the life of computer. Using the close case may decrease the life of other device because the higher temperature in the inner of the case.
- Attention to the heat sink when you over-clocking. The higher temperature may decrease the life of the device and burned the capacitor.

USER'S NOTICE

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Manual Revision Information

Reversion	Revision History	Date
1.0	First Edition	September, 2010

Item Checklist

- Motherboard
- Motherboard User's Manual
- DVD for motherboard utilities
- Cable(s)
- I/O Back panel shield

Chapter 1

Introduction of the Motherboard

1-1 Feature of motherboard

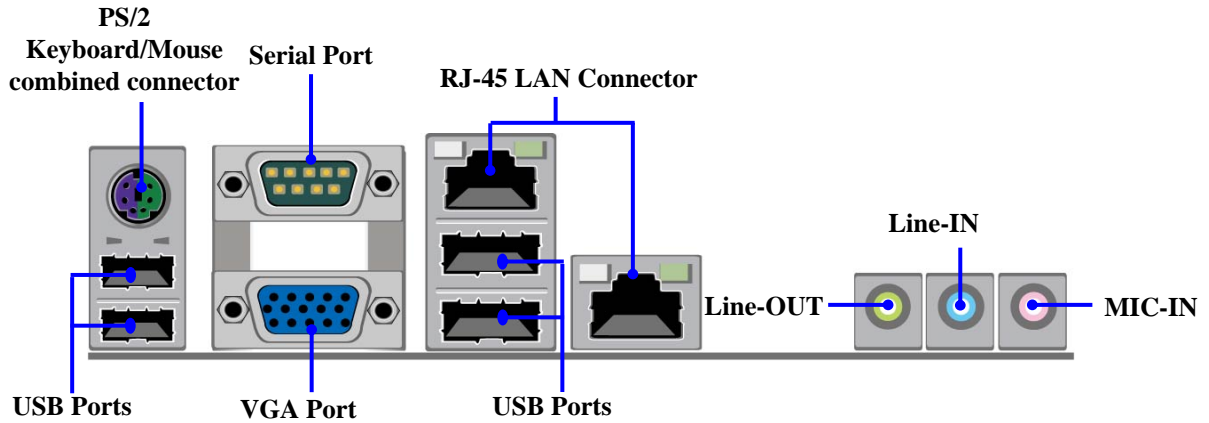
- Intel Pine Trail-M and NM10 chipset.
- Onboard Intel Atom CPU, with low power consumption never denies high performance.
- Support CPU CLK 166 MHz
- Support SO-DIMM DDRIII 667 up to 2GB.
- Support PCI slot and mini-PCIE slot
- Onboard dual Realtek RTL 8111E Gigabit Ethernet LAN chip.
- Integrated VIA 1705 6-channel HD audio CODEC.
- Support USB2.0 data transport demands.
- Support RS232/422/485 and watchdog.

1-2 Specification

Spec	Description
Design	<ul style="list-style-type: none">● Mini-ITX form factor; PCB size: 17.0x17.0cm
Chipset	<ul style="list-style-type: none">● Intel Pine Trail-M+NM10 Chipset
Embedded CPU	<ul style="list-style-type: none">● ATOM CPU
Memory Socket	<ul style="list-style-type: none">● SO-DIMM DDRIII slot x 2● Support DDRIII 667 MHz SO-DIMM memory Modules● Memory capacity expandable to 2GB
Expansion Slot	<ul style="list-style-type: none">● 32-bit PCI slot x 1● Mini-PCIE slot x1
Integrate IDE	<ul style="list-style-type: none">● One PCI IDE controller that supports PCI Bus Mastering, ATA PIO/DMA and the ULTRA DMA 100/66 functions that deliver the data transfer rate up to 100 MB/s
Dual LAN Chip	<ul style="list-style-type: none">● Integrated with two Realtek RTL8111E PCI-E Gigabit LAN chips● Support Fast Ethernet LAN function of providing 10Mb/100Mb/1000Mb Ethernet data transfer rate
Audio Chip	<ul style="list-style-type: none">● VIA 1705 6-channel Audio Codec integrated● Audio driver and utility included
BIOS	<ul style="list-style-type: none">● AMI 8MB DIP Flash ROM
Multi I/O	<ul style="list-style-type: none">● PS/2 keyboard/ mouse combined connector x1● Serial port connector x1● VGA port connector x1● USB port connector x4● RJ-45 LAN connector x2● Audio connector x1 (Line-in, Line-out, MIC)● SATAII Connector x4● Front panel audio header x1● Serial port header x1● USB header x2● RS232/422/RS485 header x1

- LVDS header x1
- LVDS Inverter x1
- GPIO header x1
- Parallel header x1

1-3 Layout Diagram



Jumper

Jumper	Name	Description
JBAT	CMOS RAM Clear Function Setting	2-pin Block
JP1	K/B, USB1 Power On Function Setting	3-pin Block
JP2	LVDS PVCC 5V/3.3V Select	3-pin Block
JP3	Inverter12V/5V Select	3-pin Block
JP5	USB 2/3 Power On Function Setting	3-pin Block
JP6	Mini PCI-E Power VCC3.3V /Dual 3.3V	3-pin Block
JP9	Power RS232 Function Select	6 pin Block
JP10	COM2 RS232/422/485 Function Select	6 pin Block

Connectors

Connector	Name	Description
ATXPWR	ATX Power Connector	24-pin Connector
KB & MS combined connector from UK1	PS2 Keyboard & Mouse Connector	6-pin Female
VGA	Video Graphic Attach Connector	15-pin Female
COM1	Serial Port COM Connector	9-pin Connector
LAN from UL1, LAN1	RJ-45 LAN Connectors	8-pin Connectors
USB from UK1, UL1	USB Port Connectors	4-pin Connectors
LINE-OUT	Audio Line Out Connector	1 Phone JACK
LINE-IN	Audio Line In /MIC Connector	1 Phone JACK
MIC-IN	Audio MIC Audio Connector	1 Phone JACK
SATA1,2,3,4	Serial ATAII Connector	7-pin Connector

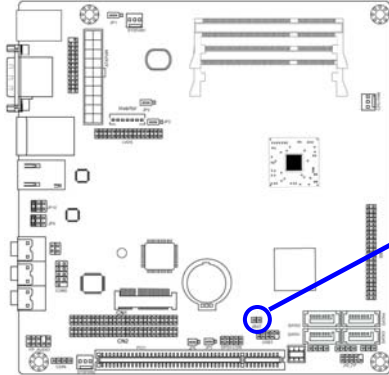
Headers

Header	Name	Description
FP-AUDIO1	Front panel audio Header	9-pin block
CDIN	CD Audio-In Header	4-pin Block
LVDS	LVDS Header	32-pin Block
INVERTER	LVDS Inverter Connector	7-pin Block
COM2	Serial Port Header	9-pin Block
TX-RXCOM	RS 232/422/485 port headers	4-pin block
USB3	USB Header	9-pin Block
USB2	USB Header	4-pin Block
JW_FP (PWR LED/ HD LED/ /Power Button /Reset)	Front Panel Header (PWR LED/ HD LED/ Button /Reset)	9-pin Block
PWR LED	Power LED	3-pin Block
SPEAK	Speaker Header	4-pin Block
CPUFAN,SYSFAN1/2	FAN Speed Headers	3-pin Block
GPIO-CON	GPIO Header	10-pin Block
IDE	IDE Hard Disk Drive header	44-pin block
PARALLEL	Parallel Port Header	25-pin Block
CN1; CN2	Jetway Daughter Card Connector	50-pin *2 Block

Chapter 2 Hardware Installation

2-1 Jumper Setting

(1) Clear CMOS (2-pin): JBAT

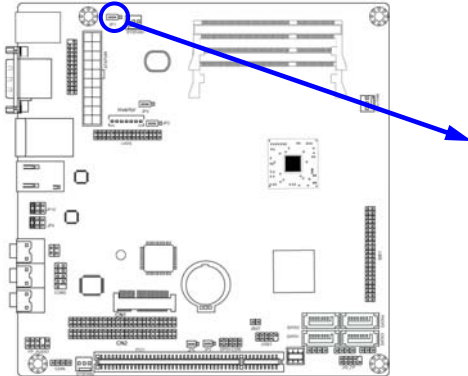


JBAT

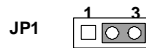
1-2 Open: Normal 1-2 Short: Clear CMOS

CMOS Clear Setting

(2) K/B, USB Power on Function Setting: JP1

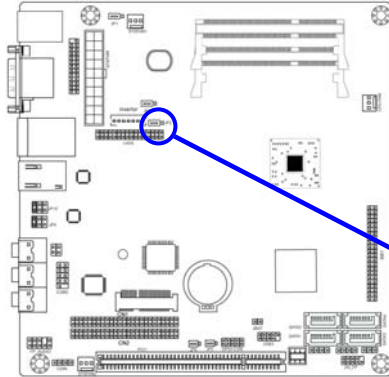


1-2 Closed: K/B, USB POWER-ON Disacled(default)

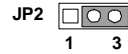


2-3 closed:K/B, USB POWER-ON Enabled

(3) LVDS PVCC 5V / 3.3V Function Setting (3-pin): JP2

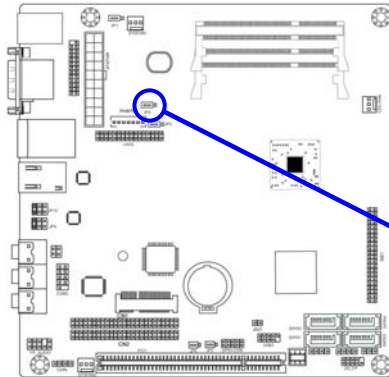


1-2 closed: LVDS PVCC 5V



2-3 closed : LVDS PVCC 3.3V

(4) Inverter 5V/12V Select (3-pin):JP3

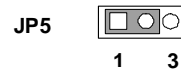
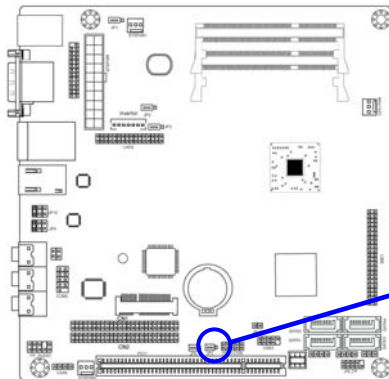


1-2 closed
Inverter 12V selected



2-3 closed
Inverter 5V select

(5) USB2/3 Power On Function Setting: JP5

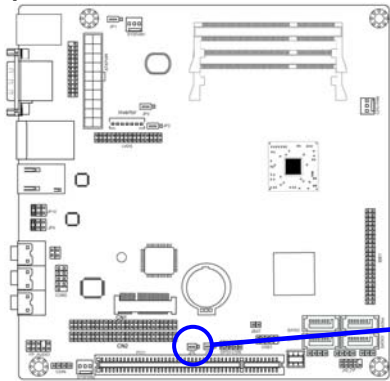


1-2 closed : USB 2/3 Header POWER-ON Disacted(default)



2-3 closed: USB 2/3 Header POWER-ON Enabled

(6) Mini PCI-E Power VCC3.3V/ Dual 3.3 V Function Select: JP6



JP6



1 3

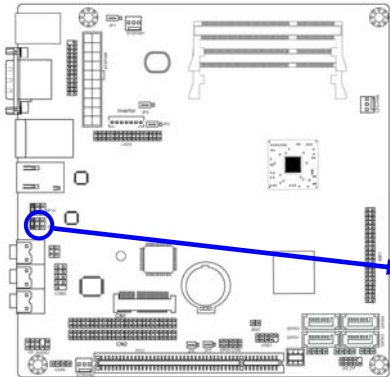


1 3

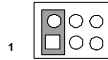
1-2 closed : MINI PCI-E
VCC= VCC3.3V

2-3 closed : MINI PCI-E
VCC= Dual 3.3V

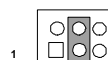
(7) COM2 Pin9 function select: JP9



JP9



1



1



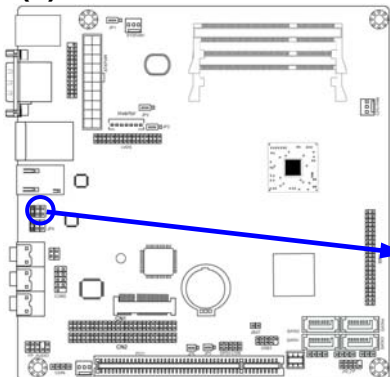
1

1-2 closed : RS232

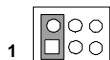
3-4 closed : +12V

5-6 closed : +5V

(8) COM2 Port RS232/485/422 Function Select: JP10



JP10



1



1



1

1-2 closed : RS232

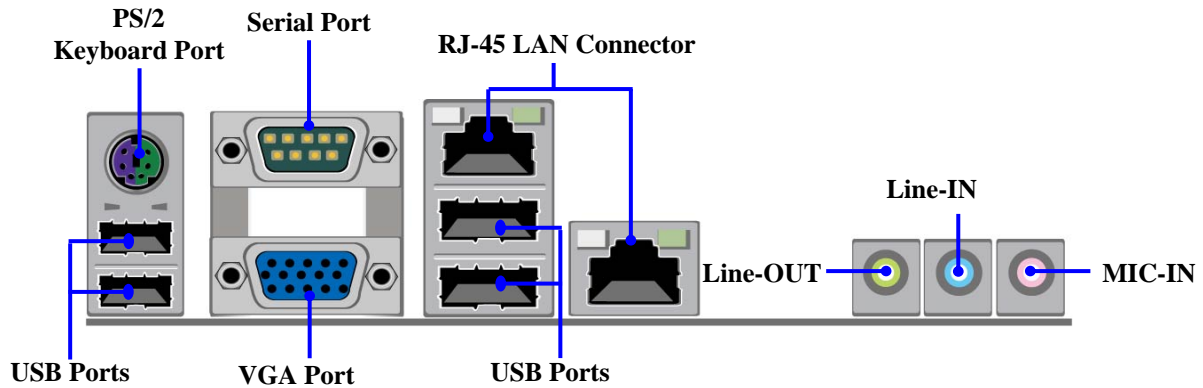
3-4 closed : RS485

5-6 closed : RS422

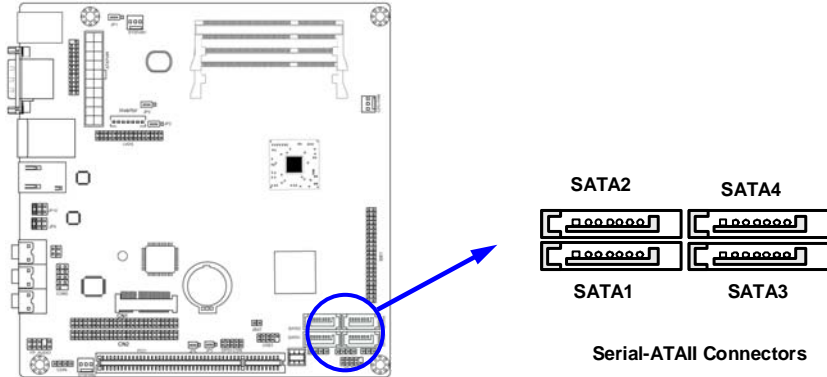
2-2 Connectors and Headers

2-2-1 Connectors

(1) I/O Panel Connector:



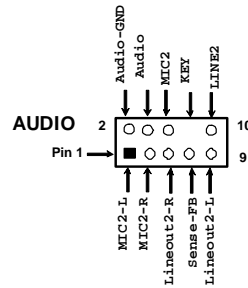
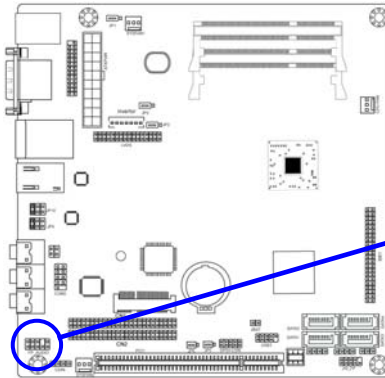
(2) Serial-ATAII Port connector: SATA1/SATA2/SATA3/SATA4



2-2-2 Headers

(1) Front Panel Audio Header (9-pin): FP_AUDIO1

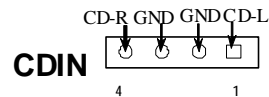
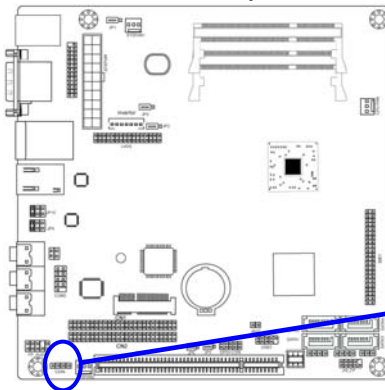
This header connects to front panel Line-out, MIC-In connector with cable.



Line-Out, MIC Headers

(2) CD AUDIO-In Headers (4-pin): CDIN

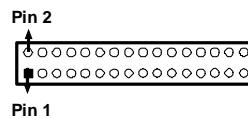
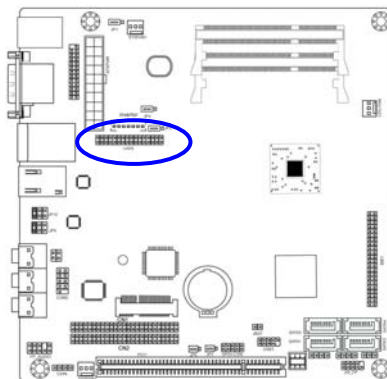
CDIN are the connectors for CD-Audio Input signal. Please connect it to CD-ROM CD-Audio output connector.



CD Audio-In Headers

(3) LVDS Headers (32 Pin) : LVDS

Pin NO.	Pin Define	Pin NO.	Pin Define
Pin 1	NC	Pin 2	NC
Pin 3	NC	Pin 4	NC
Pin 5	NC	Pin 6	NC
Pin 7	NC	Pin 8	NC
Pin 9	NC	Pin 10	NC
Pin 11	LVDS_DDC_DATA	Pin 12	LVDS_DDC_CLK
Pin 13	GND	Pin 14	GND
Pin 15	GND	Pin 16	GND
Pin 17	NC	Pin 18	NC
Pin 19	LVDS_CLKAP	Pin 20	LVDS_CLKAN
Pin 21	LVDSA_DATAP2	Pin 22	LVDSA_DATAN2
Pin 23	LVDSA_DATAP1	Pin 24	LVDSA_DATAN1
Pin 25	LVDSA_DATAP0	Pin 26	LVDSA_DATAN0
Pin 27	PVDD	Pin 28	PVDD
Pin 29	PVDD	Pin 30	PVDD
Pin 31	GND	Pin 32	GND



LVDS Header

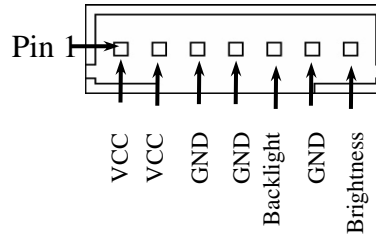
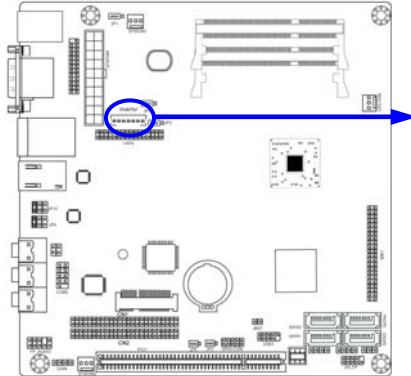
(4) LVDS Inverter headers: INVERTER

Pin 1 and pin2: VCC of inverter

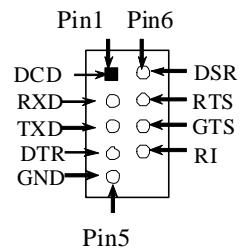
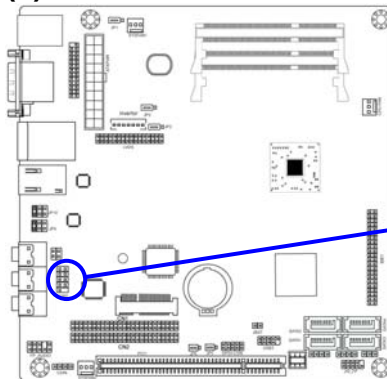
Pin3, pin4 and pin6: GND

Pin5: Backlight

Pin7: Brightness

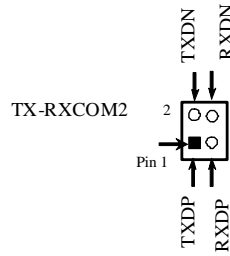
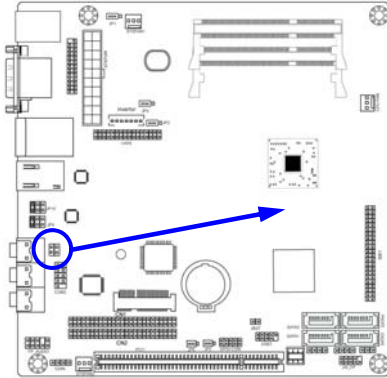


(5) Serial Port Connectors (9-Pin female): COM2



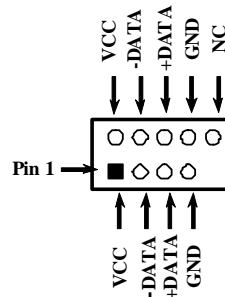
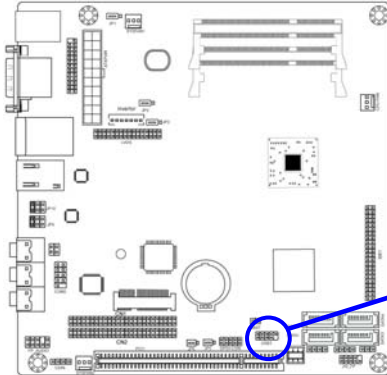
Serial COM Port 9-pin Block

(6) RS232/422/485 Header: TX-RXCOM



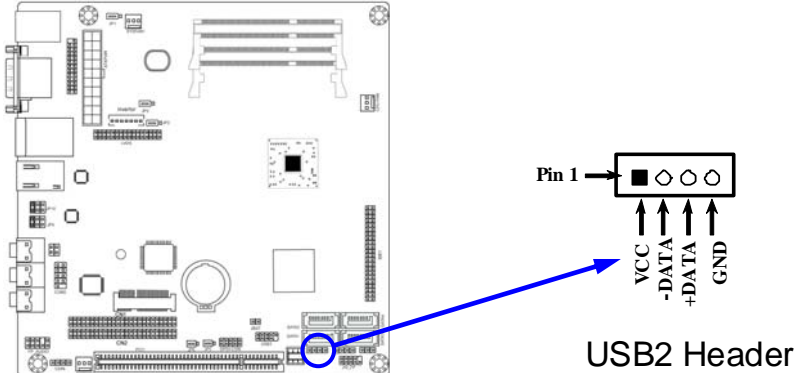
TX-RXCOM Header

(7) USB Port Headers (9-pin): USB3



USB3 Header

(7) USB Port Headers (4-pin): USB2

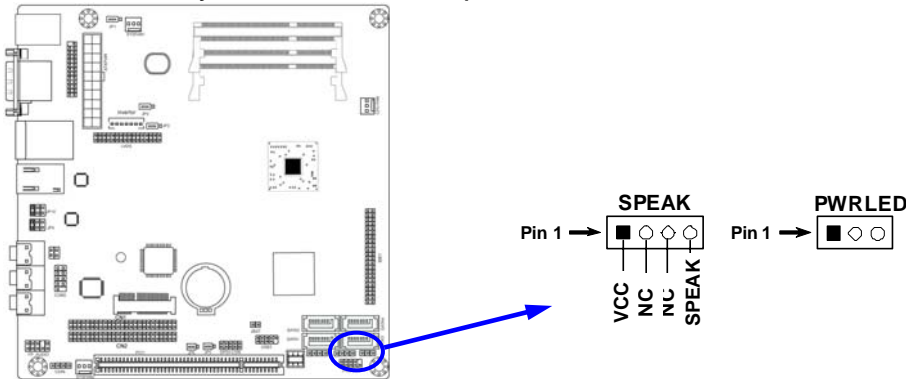


(8) Speaker connector: SPEAK

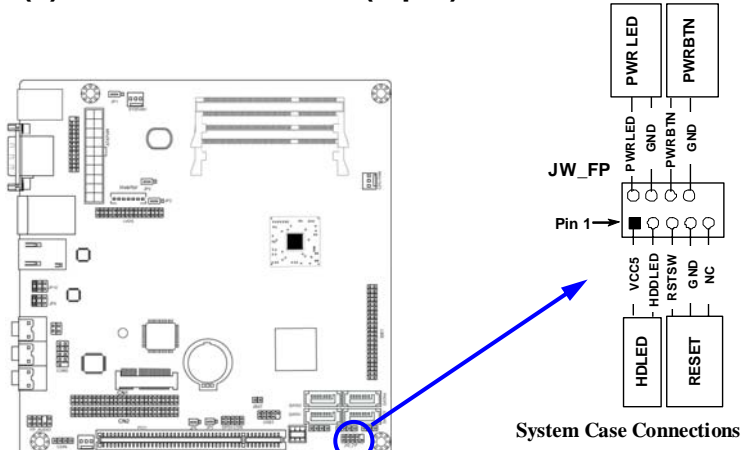
This 4-pin connector connects to the case-mounted speaker. See the figure below.

(9) Power LED: PWR LED

The Power LED is light on while the system power is on. Connect the Power LED from the system case to this pin header.



(9) Front Panel Header(9-pin): JW-FP

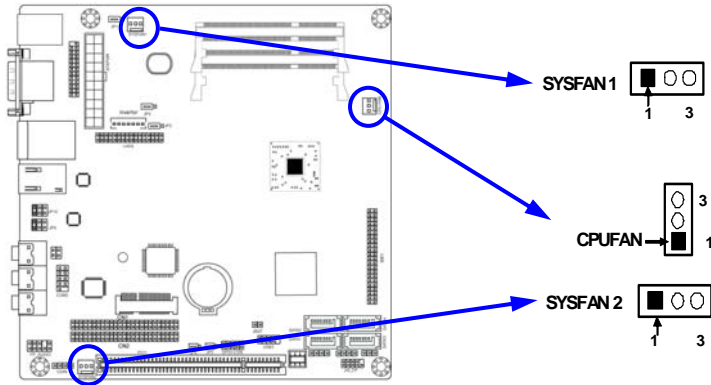


(10) FAN Speed Headers (3-pin): CPUFAN, SYSFAN1, SYSFAN2

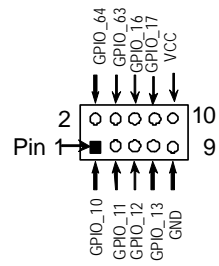
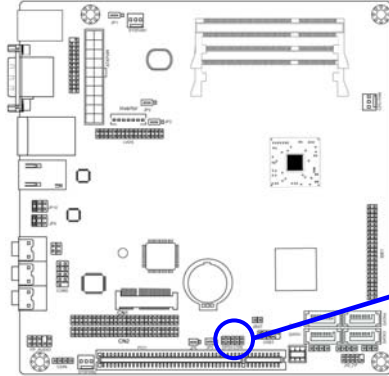
Pin1: GND

Pin2: +12V fan power

Pin3: Fan Speed



(11) GPIO Header (10-pin): GPIO_CON



GPIO_CON Header

Chapter 3

Introducing BIOS

Notice! The BIOS options in this manual are for reference only. Different configurations may lead to difference in BIOS screen and BIOS screens in manuals are usually the first BIOS version when the board is released and may be different from your purchased motherboard. Users are welcome to download the latest BIOS version form our official website.

The BIOS is a program located on a Flash Memory on the motherboard. This program is a bridge between motherboard and operating system. When you start the computer, the BIOS program will gain control. The BIOS first operates an auto-diagnostic test called POST (power on self test) for all the necessary hardware, it detects the entire hardware device and configures the parameters of the hardware synchronization. Only when these tasks are completed done it gives up control of the computer to operating system (OS). Since the BIOS is the only channel for hardware and software to communicate, it is the key factor for system stability, and in ensuring that your system performance as its best.

In the BIOS Setup main menu of Figure 3-1, you can see several options. We will explain these options step by step in the following pages of this chapter, but let us first see a short description of the function keys you may use here:

- Press <Esc> to quit the BIOS Setup.
- Press ↑↓←→ (up, down, left, right) to choose, in the main menu, the option you want to confirm or to modify.
- Press <F10> when you have completed the setup of BIOS parameters to save these parameters and to exit the BIOS Setup menu.
- Press Page Up/Page Down or +/- keys when you want to modify the BIOS parameters for the active option.

3-1 Entering Setup

Power on the computer and by pressing immediately allows you to enter Setup. If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the “RESET” button on the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt> and <Delete> keys. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to

Press to enter Setup

3-2 Getting Help

Main Menu

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

Status Page Setup Menu/Option Page Setup Menu

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

3-3 The Main Menu

Once you enter AMI ® BIOS CMOS Setup Utility, the Main Menu (Figure 3-1) will appear on the screen. The Main Menu allows you to select from fourteen setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

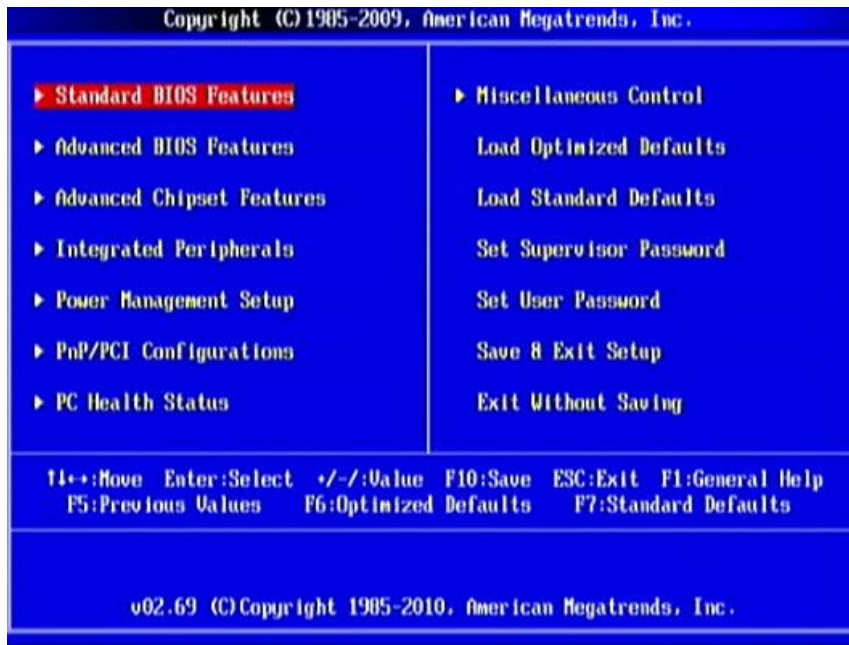


Figure 3-1

Standard BIOS Features

Use this Menu for basic system configurations.

Advanced BIOS Features

Use this menu to set the Advanced Features available on your system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management Setup

Use this menu to specify your settings for power management.

PnP/PCI Configurations

Use this menu to specify your settings for PnP and PCI configurations.

PC Health Status

This entry shows your PC health status.

Miscellaneous Control

Use this menu to specify your settings for Miscellaneous Control.

Load Optimized Defaults

Use this menu to load the BIOS default values these are setting for optimal performances system operations for performance use.

Load Standard Defaults

Use this menu to load the BIOS default values for the minimal/stable performance system operation

Set Supervisor Password

Use this menu to set supervisor password.

Set User Password

Use this menu to set user password.

Save & Exit Setup

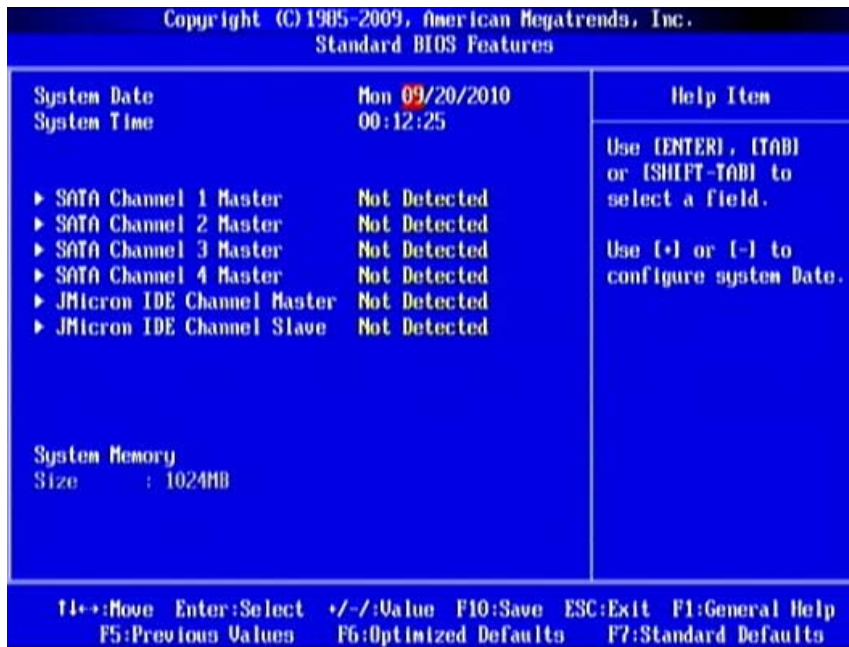
Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

3-4 Standard BIOS Features

The items in Standard CMOS Setup Menu are divided into several 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.



Date

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

Day Day of the week is from Sun to Sat, determined by BIOS. Read-only.

Month The month is from Jan. through Dec.

Date The date from 1 to 31 can be keyed by numeric function keys.

Year The year depends on the year of the BIOS.

Time

The time format is <hour><minute><second>.

SATA Channel 1/2/3/4 Master

JMicron IDE Channel Master/Slave

While entering setup, BIOS auto detects the presence of harddisk devices. This displays the status of auto detection of harddisk devices.

Type: The optional settings are: Not Installed; Auto; CD/DVD and ARMD

LBA/Large Mode: The optional settings are Auto; Disabled.

Disabled: disables LBA mode.

Auto: enables LBA Mode if the devices support it and the device is not already formatted with LBA Mode disabled.

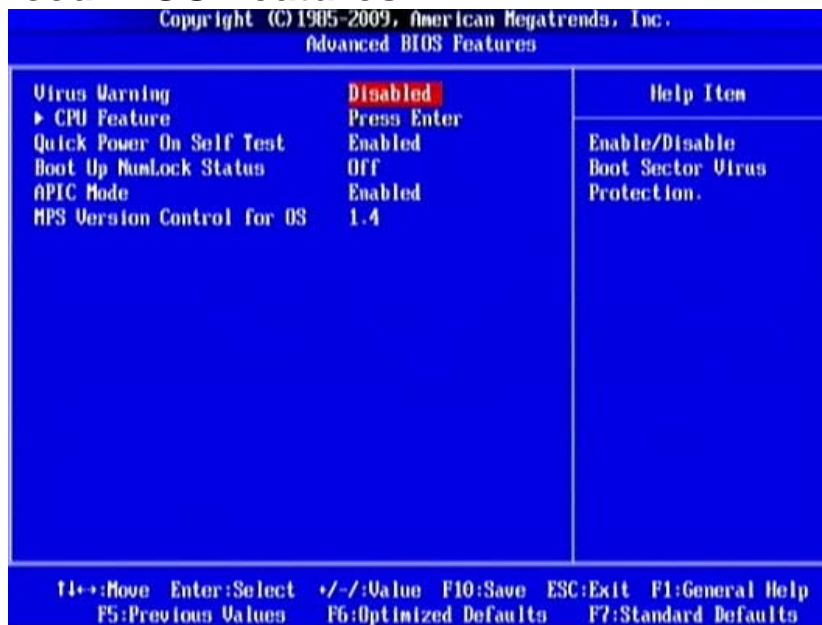
Block (Multi-Sector Transfer): The optional settings are: Disabled and Auto.

Disabled: The Data transfer from and to the device occurs one sector at a time.

Auto: The Data transfer from and to the device occurs multiple sectors at a time if the device supports it.

32 Bit Data Transfer: the optional settings are: Disabled and Enabled.

3-5 Advanced BIOS Features



Virus Warning

The selection 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.

Disabled (default) No warning message to appear when anything attempts to access the boot sector or hard disk partition table.

Enabled Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector of hard disk partition table.

Quick Power On Self Test

Allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system. The option setting is Disabled or Enabled.

Boot Up NumLock Status

The default value is On.

On (default) Keypad is numeric keys.

Off Keypad is arrow keys.

APIC Mode

Use this item to include ACPI APIC table pointer to RSDT pointer list. The optional settings are: Disabled; Enabled.

MPS Version Control for OS

This option is only valid for multiprocessor motherboards as it specifies the version of The Multiprocessor Specification (MPS) that the motherboard will use.

3-5-1 CPU Feature



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CPU Feature

		Help Item
Hyper-Threading Technology	Enabled	Enabled for Windows XP and Linux4 (OS optimized for Hyper-Threading Technology) and disabled for other OS (OS not optimized for Hyper-Threading Technology)
Limit CPU MaxVal	Disabled	
Execute-Disable Bit Capabili	Enabled	

F4+>:Move Enter:Select +/-:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

Hyper Threading Technology

Enabled for Windows XP and Linux4(OS optimized for Hyper Threading Technology) and disabled for other OS (OS not optimized for Hyper –Threading Technology)

Limit CPU MaxVal

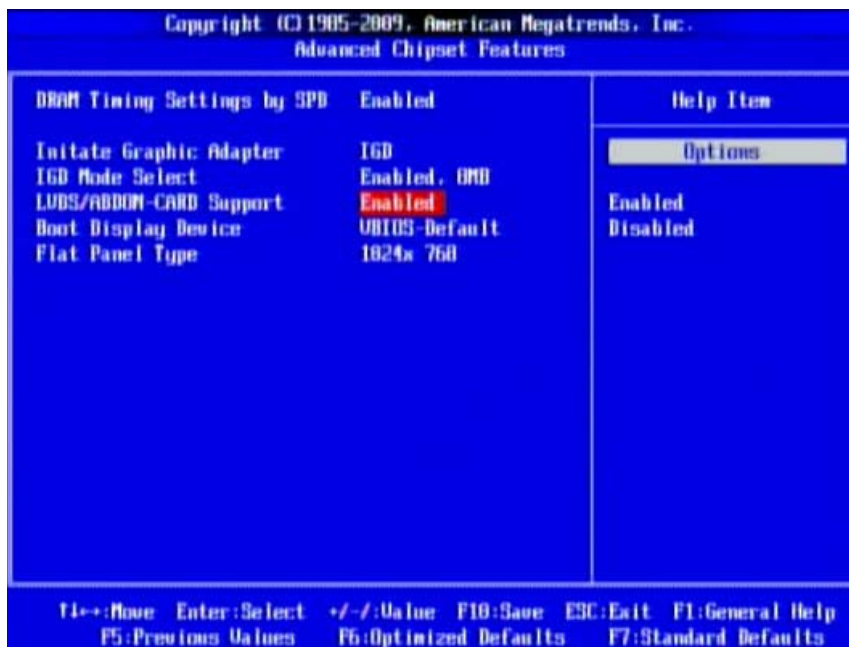
The optional settings are: Disabled; Enabled.

Execute-Disable Bit Capabill

The optional settings are: Disabled; Enabled. When disabled, force the XD feature Flag to always return 0.

3-6 Advanced Chipset Features

The Advanced Chipset Features Setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.



DRAM Timing Settings by SPD

The optional settings are: Disabled; Enabled.

Initate Graphic Adapter

The optional settings are: 1GD; PCI/IGD. Select which graphic controller to use as the primary boot device.

IGD Mode Select

The optional settings are: Disabled; Enabled, 8MB. Select the amount of system memory used by the internal graphic device.

LVDS/ADDON-CARD Support

The optional settings are: Disabled; Enabled. The default setting is: Disabled. When set as Enabled, the following subitems appear:

Boot Display Device

The optional settings are: VBIOS Default; CRT; LVDS/ADDON-CARD; CRT+LVDS.

Flat Panel Type

Use this item to select flat panel resolution.

3-7 Integrated Peripherals



3-7-1 Onboard SATA Function



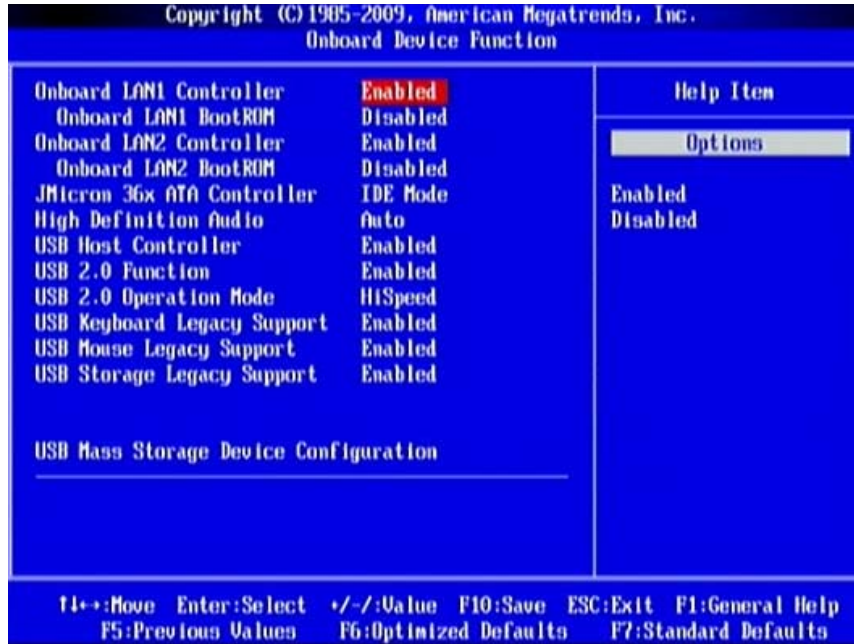
Configure SATA as

The optional settings are: IDE; AHCI.

SATA Run Mode Configuration

The optional settings are: Compatible; Enhanced.

3-7-2 Onboard Device Function



Onboard LAN1 Controller/ Onboard LAN2 Controller

The optional settings are: Enabled; Disabled.

Onboard LAN1 Boot ROM/ Onboard LAN2 Boot ROM

The optional settings are: Enabled; Disabled.

JMicron 36x ATA Controller

The optional settings are: Disabled; IDE Mode; RAID+IDE Mode; AHCI+IDE Mode.

High Definition Audio

This item allows you to decide to auto /disable the chipset family to support HD Audio.

The settings are: Auto, Disabled.

USB 2.0 Operation Mode

The settings are: FullSpeed; HiSpeed.

USB 2.0 Function / USB Keyboard Legacy/USB Mouse Legacy /USB Storage Legacy Support

Select enabled if your system contains a Universal Serial Bus (USB) controller and you have a USB mouse /keyboard/ storage device. The settings are: Enabled, Disabled.

3-7-3 Onboard Super IO Function

Copyright (C) 1985-2009, American Megatrends, Inc.		
Onboard Super IO Function		
		Help Item
Serial Port1 Address	3F8/IRQ4	Allows BIOS to Select Serial Port1 Base Addresses.
Serial Port2 Address	2F8/IRQ3	
Serial Port2 Mode	Normal	
Serial Port2 RS485 Select	Disabled (RS232)	
Parallel Port Address	378	
Parallel Port Mode	Normal	
WatchDog Timer Control	Disabled	

↑←→:Move Enter:Select +/=:Value F10:Save ESC:Exit F1:General Help
 F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

Serial Port 1 Address

The optional settings are : Disabled, 3F8/IRQ4, 3E8/IRQ4 , 2E8/IRQ3.

Serial Port 2 Address

The optional settings are : Disabled, 2F8/IRQ3, 3E8/IRQ4 , 2E8/IRQ3.

Serial Port 2 Mode

The optional settings are: Normal, IrDA(1.6us), IrDA(3/16 bit)

Serial Port 2 RS485 Select

The optional settings are : Disabled(RS232); Enabled(RS485)

Parallel Port Address

Use this item to allow BIOS to select parallel port base addresses

The optional settings are: Disabled; 378; 278; 3BC

Parallel Port Mode

The optional settings are: Normal; Bi-Directional; ECP; EPP; ECP & EPP.

Watchdog Timer Select

This item is used to activate the watchdog function. The optional settings are: Enabled; Disabled.

When set as Enabled, The following subitems shall appear:

WatchDog Timer Val: User can typing a numbering the range of 4 to 255.

WatchDog Timer Unit: The optional settings are: Sec.; Min. .

3-8 Power Management Setup

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



ACPI Suspend Type

Users can select the ACPI state used for system suspend. The optional settings are: S1(POS); S3(STR).

Video Power Down Mode

The optional settings are: Disabled; Standby; Suspend.

Suspend Time Out

Use this item to select the specified time for system to go into suspend. The optional settings are: Disabled;1Min,2 Min;4 Min;8 Min;10 Min;20 Min;30 Min;40 Min;50 Min;60 Min.

Power Button Mode

Use this item to decide whether system go into on/off or suspend when power button is pressed. The optional settings are: On/Off; Suspend.

ERP (EUP) Function

The optional settings are: Disabled; Enabled.

3-9 PnP/PCI Configurations



IRQ Resources

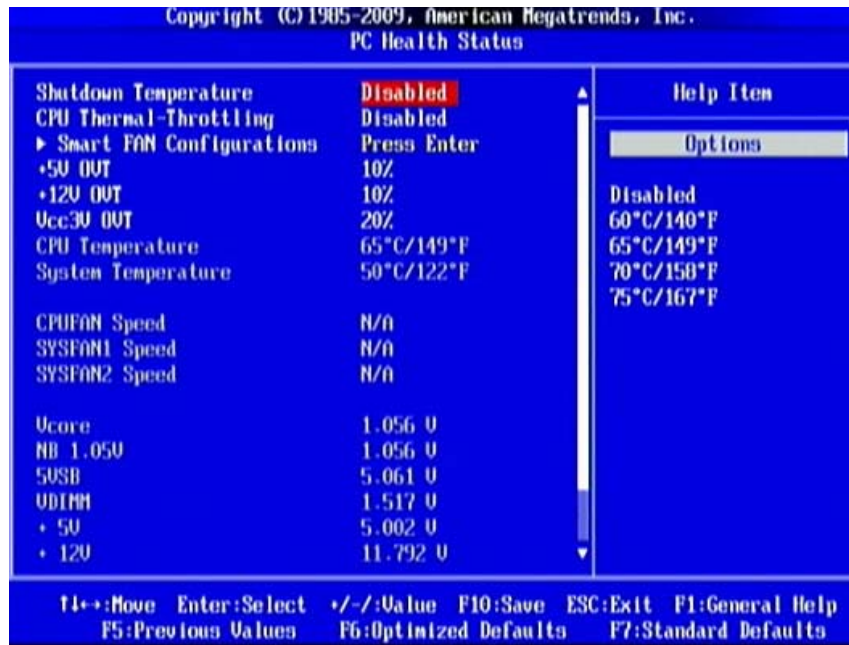
Names the interrupt request (IRQ) line assigned to the USB on your system. Activity of the selected IRQ always awakens the system.

PCI/VGA Palette Snoop

This item is designed to overcome problems that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

3-10 PC Health Status

This section shows the Status of you CPU, Fan, and Warning for overall system status. This is only available if there is Hardware Monitor onboard.



Shutdown Temperature

This item can let users setting the Shutdown temperature, when CPU temperature over this setting the system will auto shutdown to protect CPU.

CPU Thermal Throttling

The optional settings are: Disabled; Enabled. When it is set as Enabled user could set value for CPU Thermal-Throttling Temp.; CPU Thermal-Throttling Duty and CPU Thermal-Throttling Beep.

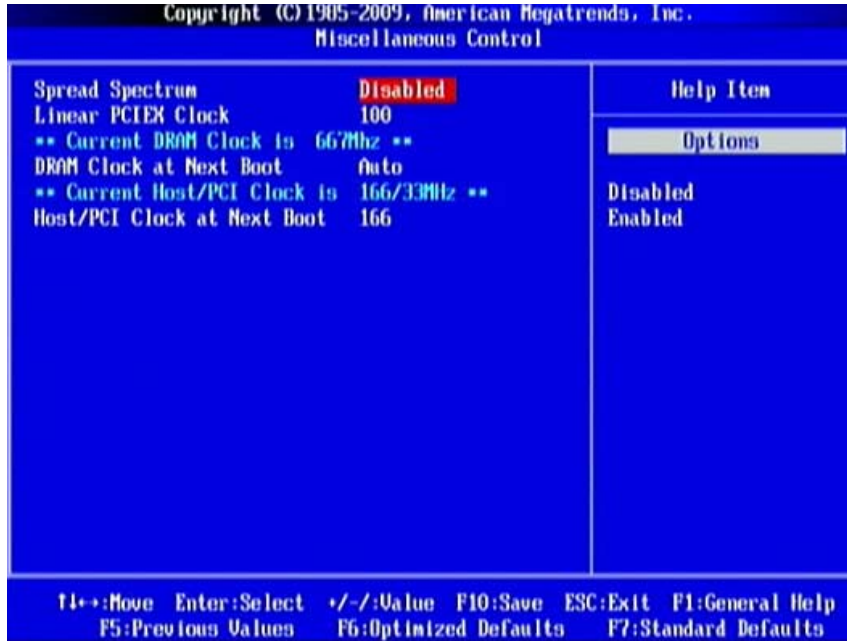
Smart Fan Configuration

Press Enter to set certain values for the following three items: CPUFAN Smart Mode SYSFAN1 Smart Mode and SYSFAN2 Smart Mode to set respectively for value in Full-Speed Temp.; Idle Temp. and Idle-Speed Duty .

**+5V OUT/+12V OUT/Vcc3V OUT/ CPU Temperature/ System Temperature/
/CPUFAN Speed / SYSFAN1 Speed /SYSFAN2 Speed/ Vcore/
/NB1.05V/5VSB/VDIMM/ +5V/+12V/5 /Vcc3V/3VSB/Vbat /**

This will show the CPU/FAN/System voltage chart and FAN Speed, etc.

3-11 Miscellaneous Control



Spread Spectrum

The optional settings are: Enabled; Disabled.

Linear PCIEX Clock

The optional settings are from 100 to 200.

DRAM Clock at Next Boot

This item allows you to set DRAM clock. The optional settings are: Auto; 667MHz; 800MHz.

Host/PCI Clock at Next Boot

The optional settings are from 166 to 600.

3-12 Password Setting

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

Supervisor password: Can enter and change the options of the setup menus.

User password: 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.

ENTER PASSWORD:

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 that the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED.

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. 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.

3-13 Load Optimized /Standard Defaults

Load Optimized Defaults

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



Pressing <OK> loads the default values that are factory settings for optimal performance system operations.

Load Standard Defaults

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



Pressing <OK> loads the default values that are factory settings for stable performance system operations.

3-14 Save & Exit Setup/ Exit Without Saving

Save and Exit Setup

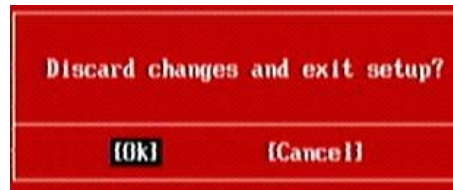
When you press <Enter> on this item, you get a confirmation dialog box with a message similar to:



Pressing <OK> save the values you made previously and exit BIOS setup.

Exit Without Saving

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



Pressing <OK> to leave BIOS setting without saving previously set values.