TECHNICAL MANUAL

Of

Intel Cedar Trail-D & NM10 Chipset

Based

Mini-ITX M/B for ATOM Processor

NO. G03-NC9N-F

Revision: 1.0

Release date: September 14, 2012

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.

TABLE OF CONTENT

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

Manual Revision Information

Reversion	Revision History	Date
1.0	First Edition	September 14, 2012

Item Checklist

- ☑ 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 Cedar Trail-D and NM10 chipset, with low power consumption never denies high performance
- Support two DDRIII 800/1066MHz SO-DIMM up to 4GB
- Support two Serial ATAII (3Gb/s) Devices
- Onboard dual Realtek RTL 8111EVL Gigabit Ethernet LAN chip
- Integrated ALC662-GR 6-channel HD audio CODEC
- Support USB 2.0 data transport demands
- Support PCI slot and Mini-PCIE slot
- Integrated with 24-bit single channel LVDS header
- Support 6 * COM ports (COM2 for RS232/422/485)
- Support Watchdog function
- Supports ACPI S3 Function
- Support Smart Fan function
- Compliance with ErP standard

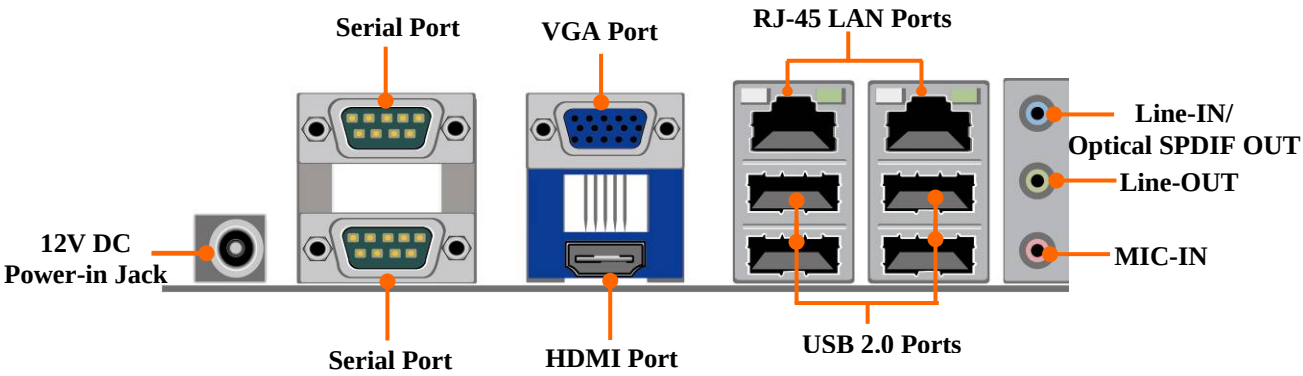
1-2 Specification

Spec	Description
Design	● Mini-ITX form factor; PCB size: 17.0x17.0cm
Chipset	● Intel®NM10 Express chipset
Embedded CPU	● Intel Cedar Trail-D Processor
Memory Slot	● DDRIII SO-DIMM slot x 2 ● Support two DDRIII 800/1066 MHz SO-DIMM with memory capacity expandable to 4GB
Expansion Slot	● 32-bit PCI slot x 1 ● Mini-PCIE slot x1
Dual LAN Chip	● Integrated with dual Realtek RTL8111EVL PCI-E Gigabit LAN chips ● Support Fast Ethernet LAN function of providing 10/100/1000Mbps Ethernet data transfer rate
Audio Chip	● Realtek ALC662-GR 6-channel Audio Codec integrated ● Audio driver and utility included
BIOS	● AMI 16MB DIP Flash ROM
Multi I/O	● Serial port connector x 2 ● VGA port connector x1 ● HDMI port connector x1 ● USB 2.0 port connector x4 ● RJ-45 LAN connector x2 ● Audio connector x3 (Line-in/SPDIF-out; Line-out; MIC) ● Front panel audio header x1 ● 4-pin USB 2.0 header x1 ● 9-pin USB 2.0 header x1 ● SM BUS header x1 ● KBMS header x1 ● GPIO header x1 ● Serial port header x4 ● RS232/422/RS485 header x1 ● PWRLED header x1

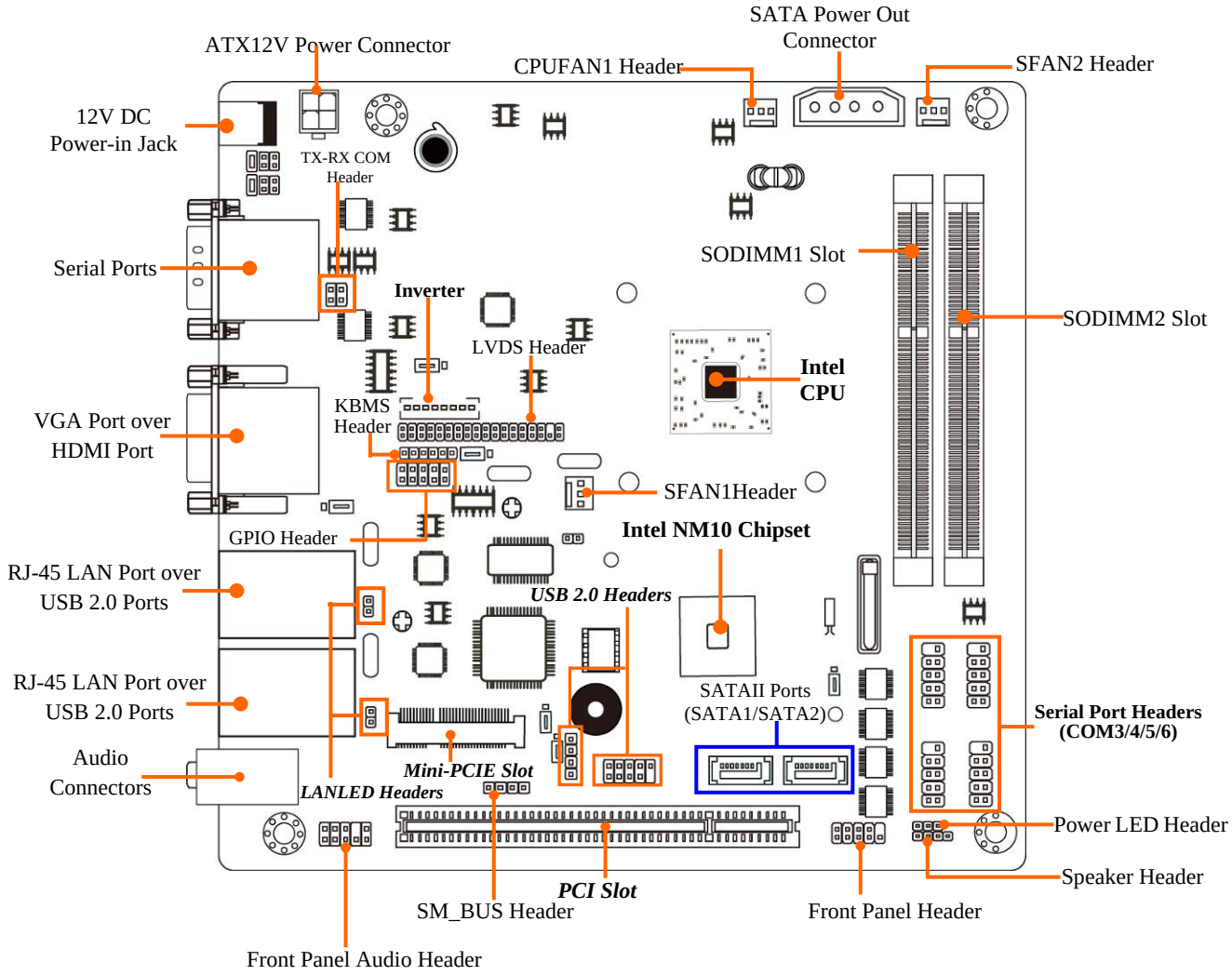
	● Speaker header x1 ● Front panel ● LANLED header x2 ● 24- bit single channel LVDS header x1 ● LVDS inverter x1

1-3 Layout Diagram

Rear IO Diagram

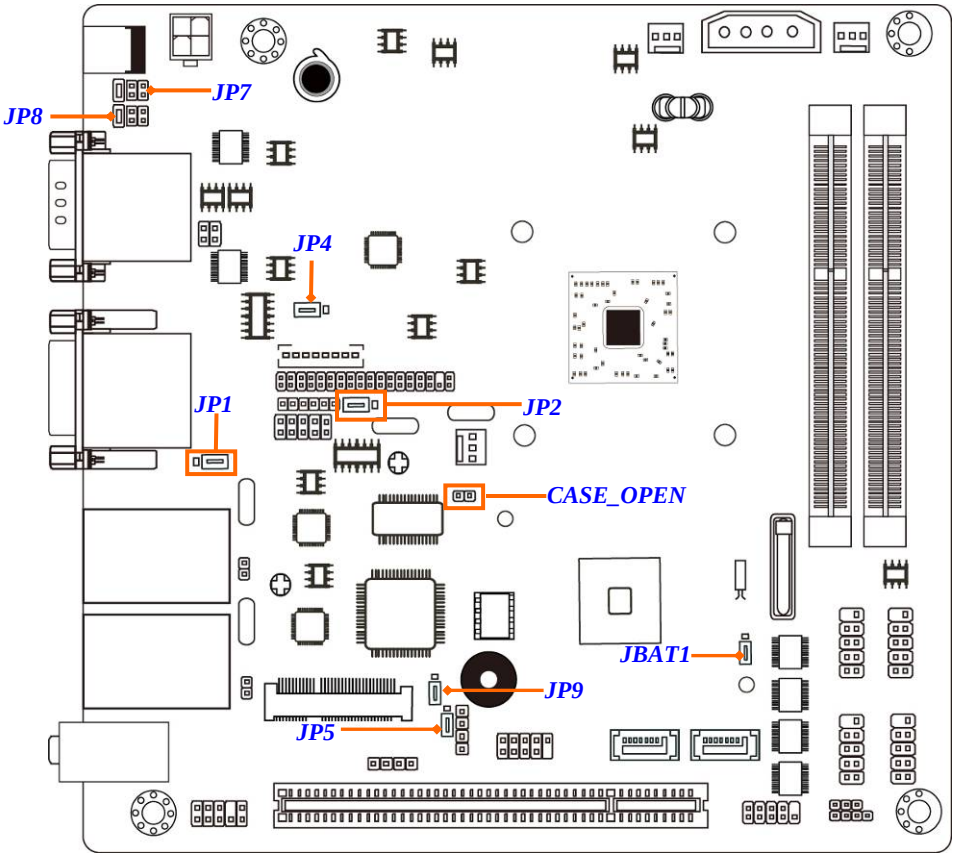


Motherboard Internal Diagram



Notice!	When installing only one SODIMM to the board, please always install it in SODIMM2 slot, otherwise system won't start.

Motherboard Jumper Position



Jumper

Jumper	Name	Description
JBAT1	CMOS RAM Clear Function Setting	3-Pin Block
JP1	UL1/UL2 USB Ports Power On Function Select	3-Pin Block
JP2	LVDS PVCC 5V/3.3V Select	3-Pin Block
JP4	INVERTER VCC 12V/5V Select	3-Pin Block
JP5	USB 1/2 Header Power On Function Select	3-Pin Block
JP7	COM1 Port Pin9 Function Select	6-Pin Block
JP8	COM2 Header RS232/485/422 Function Select	6-Pin Block
JP9	MINIPCIE Power 3.3V/ 3VSB Select	3-Pin Block
COPEN	Case Open Message Display Function	2-Pin Block

Connectors

Connector	Name
DC12V_IN	DC 12V Power –in Connector
COM(COM1/COM2)	Serial Port Connector x 2
VGA1	Video Graphic Attach Connector
HDMI1	High-Definition Multimedia Interface
UL1(Top); UL2(Top)	RJ-45 LAN Connector x 2
UL1(Middle & Bottom); UL2(Middle & Bottom)	USB 2.0 Port Connector x 4
AUDIO1	Line-in with SPDIF/Line-out/MIC
ATX12V1	ATX 12V Power Connector
SATA1/2	Serial ATAII Connector x 2
PWR2	SATA Power out Connector

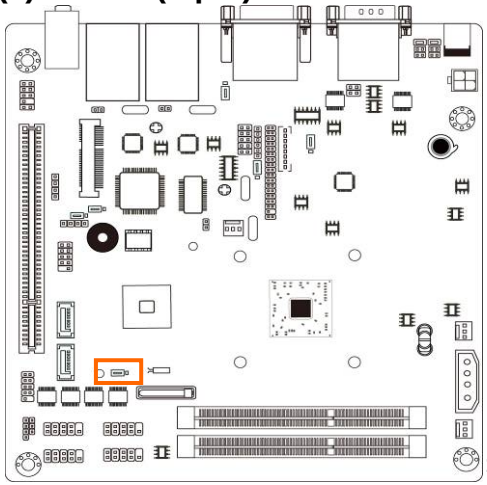
Headers

Header	Name	Description
AUDIO2	Front Panel Audio Header	9-pin block
USB1	USB 2.0 Header	9-pin Block
USB2	USB 2.0 Header	4-pin Block
SM_BUS	SM Bus Header	4-pin Block
KBMS	PS2 Keyboard & Mouse Header	6-pin Block
GPIO1	GPIO Header	10-pin Block
COM3/4/5/6	Serial Port Header x4	9-pin Block
TX_RX	RS 422/485 Header	4-pin block
PWR LED1	Power LED	3-pin Block
SPEAK1	Speaker Header	4-pin Block
JW_FP1	Front Panel Header(PWR LED/ HD LED/ /Power Button /Reset)	9-pin Block
LANLED1;LANLED2	LANLED Header x2	2-pin Block
CPUFAN1;SFAN1;SFAN2	FAN Speed Headers	3-pin Block
LVDS1	24-bit single channel LVDS Header	35-pin Block
Inverter	LVDS Inverter	8-pin Block

Chapter 2
Hardware Installation

2-1 Jumper Setting

(1) JBAT1 (3-pin): Clear CMOS



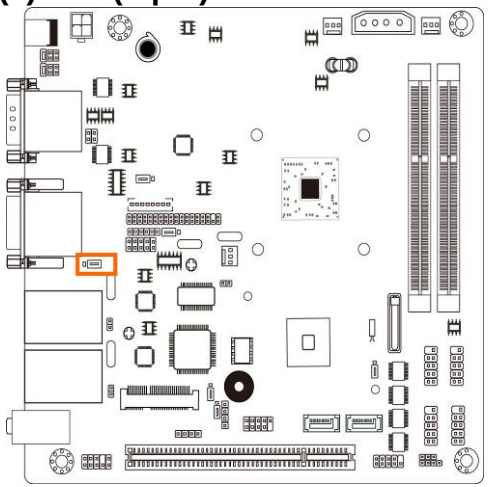
JBAT1

1-2 closed: Normal;

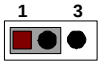
JBAT1

2-3 closed : Clear CMOS

(2) JP1 (3-pin): UL1/UL2 USB Ports Power on Function Select

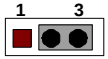


JP1



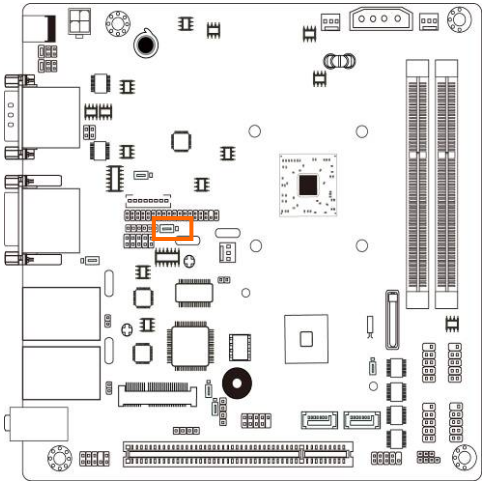
1-2 closed : UL1/UL2 USB Ports Power on Function Disabled(default);

JP1



2-3 closed: UL1/UL2 USB Ports Power on Function Enabled

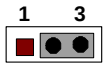
(3) JP2 (3-pin): LVDS PVCC 5V/3.3V Select



JP2

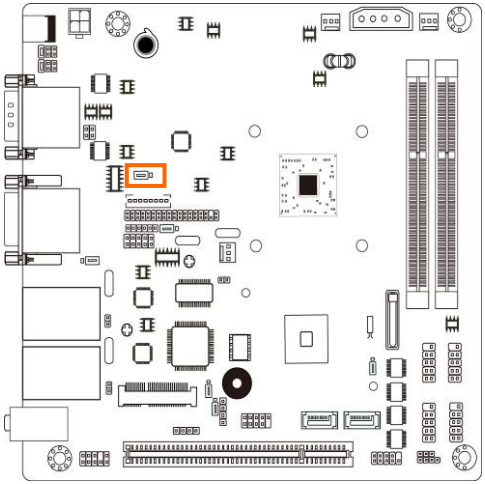
1-2 closed: LVDS PVCC=5V(default);

JP2



2-3 closed : LVDS PVCC=3.3V

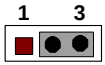
(4) JP4 (3-pin): INVERTER VCC 12V/5V Select



JP4

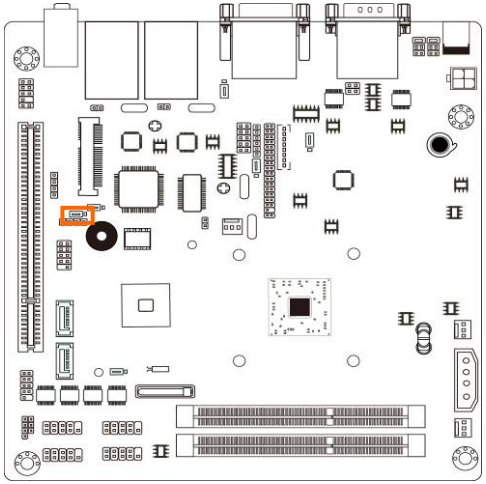
1-2 closed：Inverter1 VCC=12V (default);

JP4



2-3 closed：Inverter1 VCC=5V

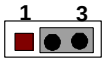
(5) JP5 (3-pin): USB 1/2 Header Power On Function Select



JP5

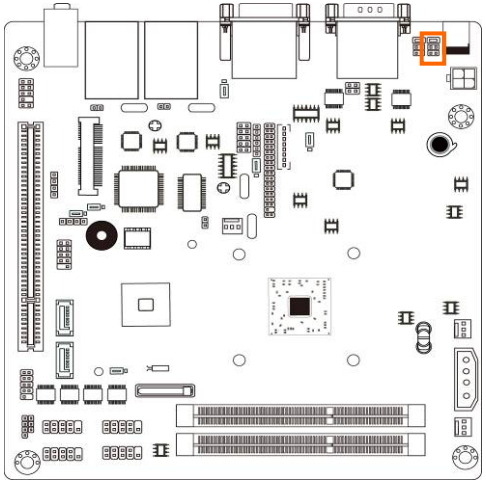
1-2 closed : USB 2/3 Header Power on Disabled(default);

JP5

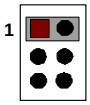


2-3 closed: USB 2/3 Header Power on Enabled

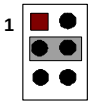
(6) JP7 (6-pin): COM1 Port Pin9 Function Select



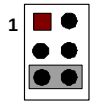
JP7



1-2 closed: RS232;

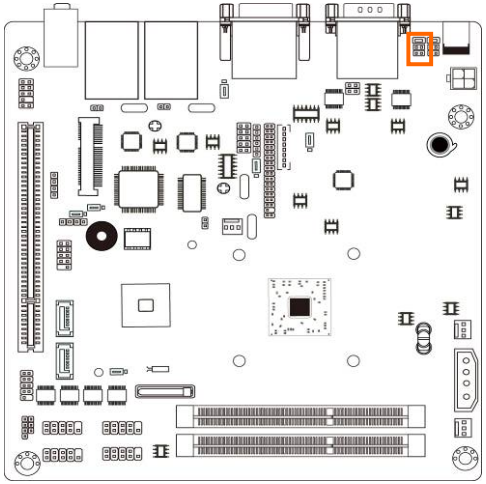


3-4 closed : +12V;

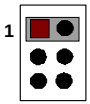


5-6 closed : +5V

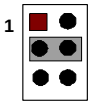
(7) JP8 (6-pin): COM2 Header RS232/485/422 Function Select



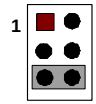
JP8



1-2 closed: RS232;

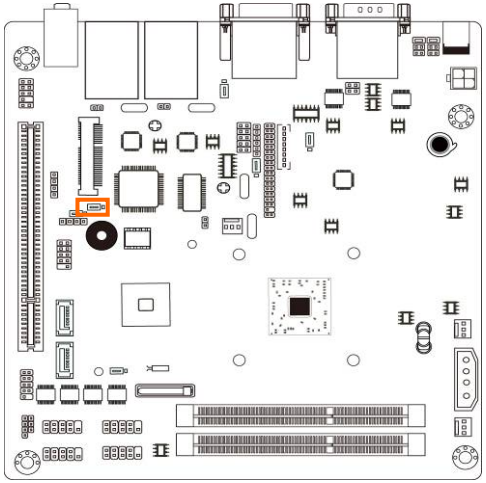


3-4 closed : RS485;

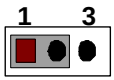


5-6 closed : RS422

(8) JP9 (3-pin): Mini PCI-E Power 3.3V/ 3VSB Function Select

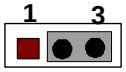


JP9



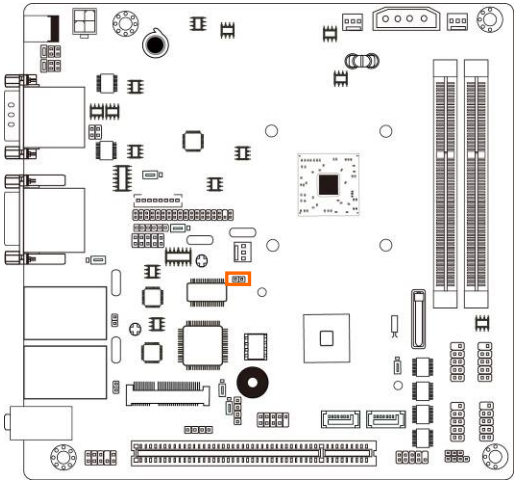
1-2 closed：MINI PCI-E Power= VCC 3.3V;

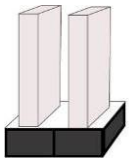
JP9



2-3 closed：MINI PCI-E Power=3VSB

(9)CASE_OPEN(2-pin): Case Open Message Display Function Select



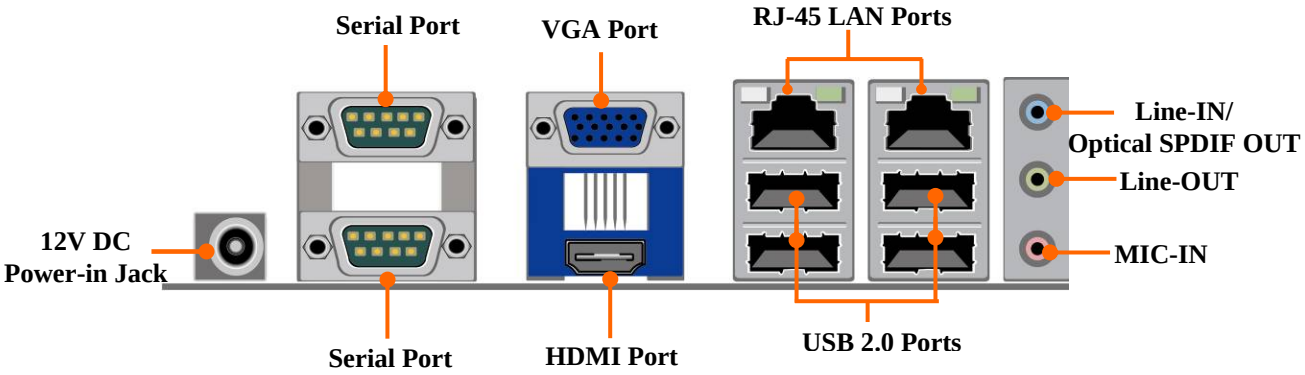


Pin 1-2 shorted: Case open display function enabled. Use needs to enter BIOS and enable 'Case Open Detect' function. In this case if you case is removed, next time when you restart your computer a message will be displayed onscreen to inform you of this.

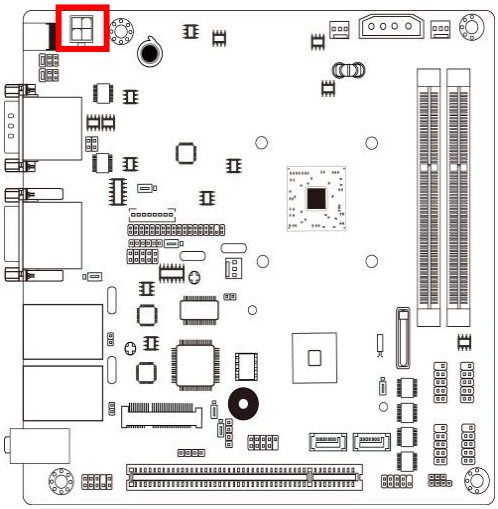
2-2 Connectors and Headers

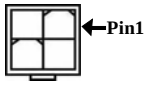
2-2-1 Connectors

(1) I/O Panel Connector:



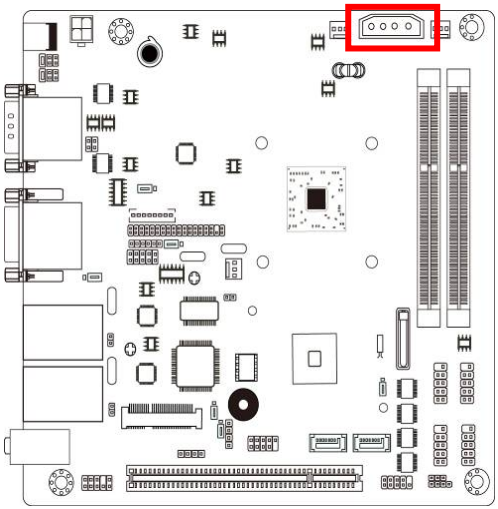
(2) ATX12V1 (4-pin block): ATX12V Type Power Connector

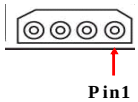




Pin No.	Definition
1	GND
2	GND
3	+12V
4	+12V

(3) PWR2 (4-pin): SATA Power Out Connector

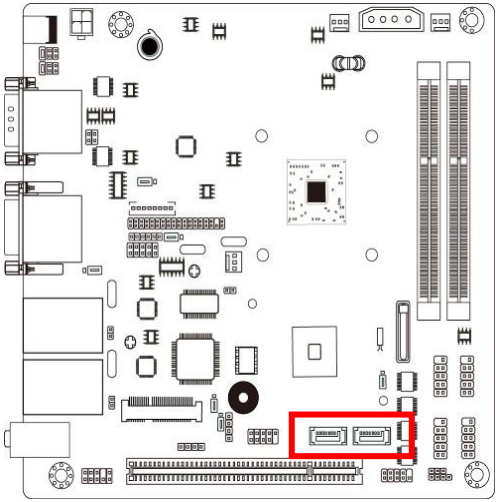




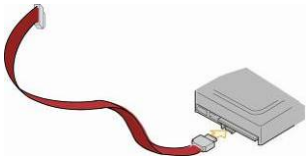
Pin No.	Definition
1	+12V
2	GND
3	GND
4	VCC

(4) SATA1/SATA2 (7-pin block): SATAII Port connector

These connectors are high-speed SATAII ports that support 3 GB/s transfer rate.



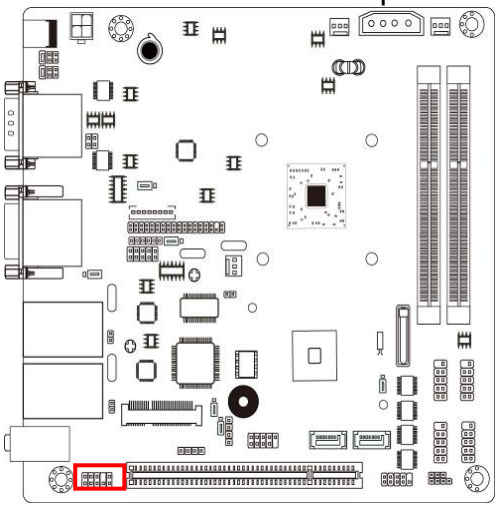
Pin No.	Definition
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

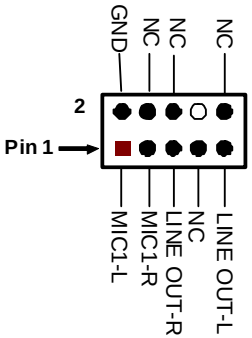


2-2-2 Headers

(1) AUDIO2 (9-pin): Front Panel Audio Header

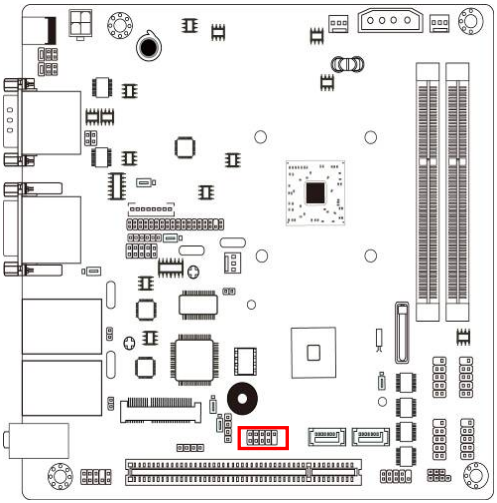
This header connects to front panel Line-out, MIC-In connector with cable.

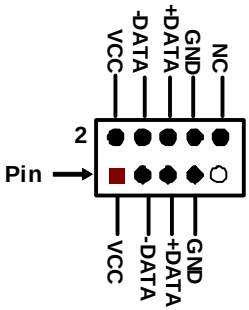




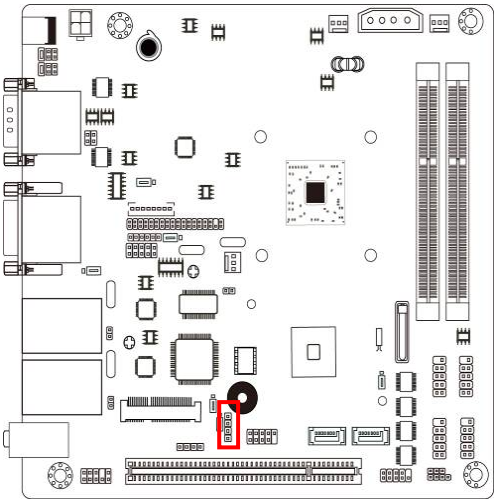
Line-Out, MIC Header

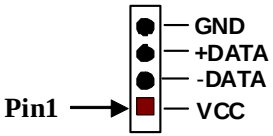
(2) USB1 (9-pin): USB 2.0 Port Header



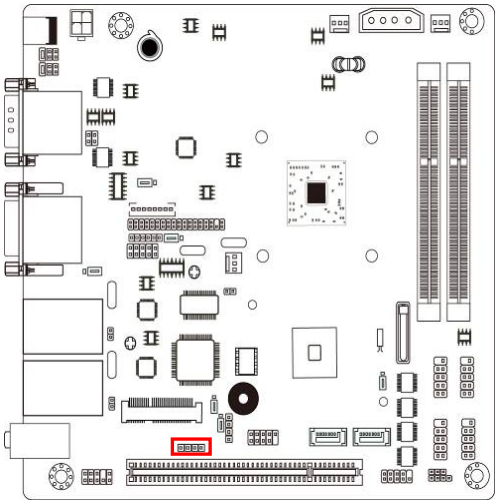


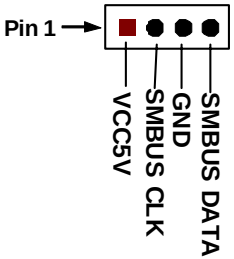
(3) USB2 (4-pin): USB 2.0 Port Header



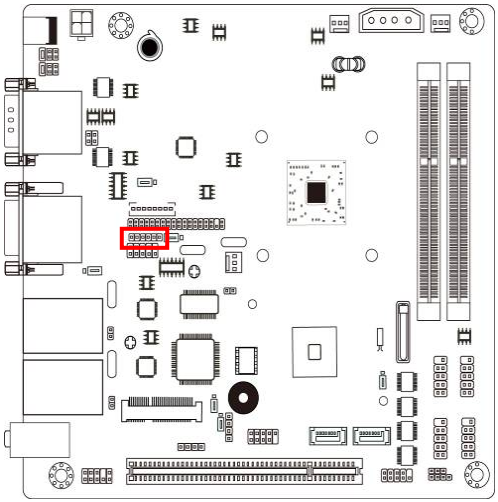


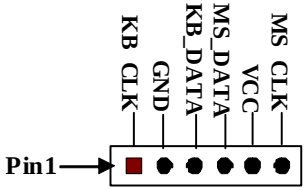
(4)SM_BUS (4-pin): SM BUS Header



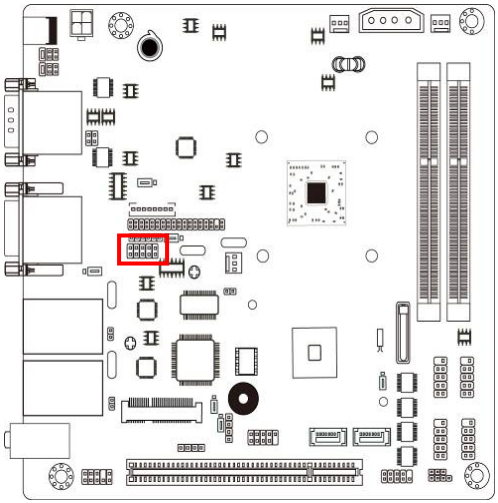


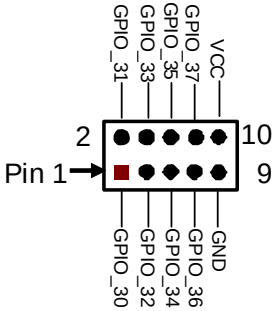
(5) KBMS (6-pin): PS/2 Keyboard & Mouse Header



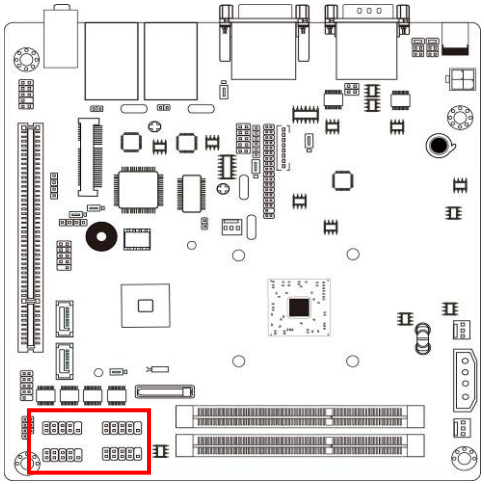


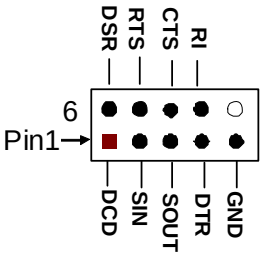
(6) GPIO1 (10-pin): GPIO Header



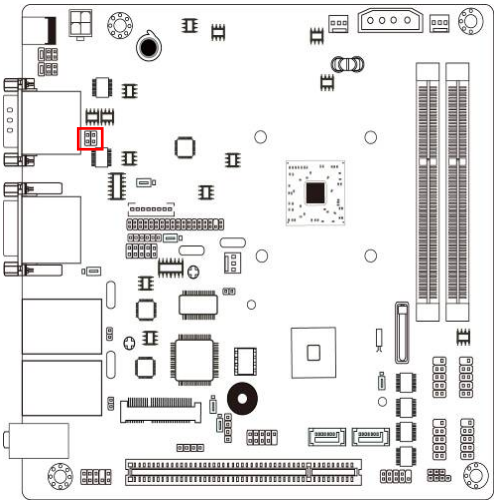


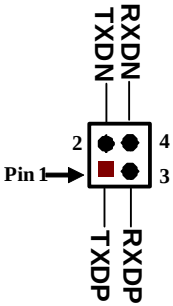
(7)COM3/COM4/COM5/COM6 (9-pin): Serial Port Headers





(8) TX-RX (4-pin): RS422/485 Header



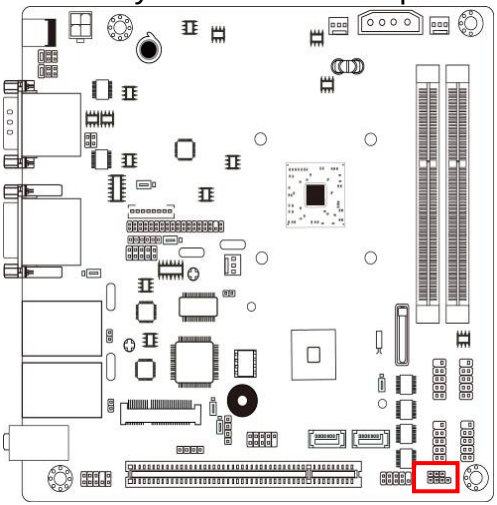


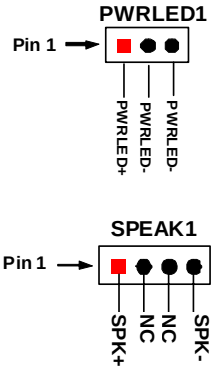
(9) SPEAK1 (4-pin): Speaker Header

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

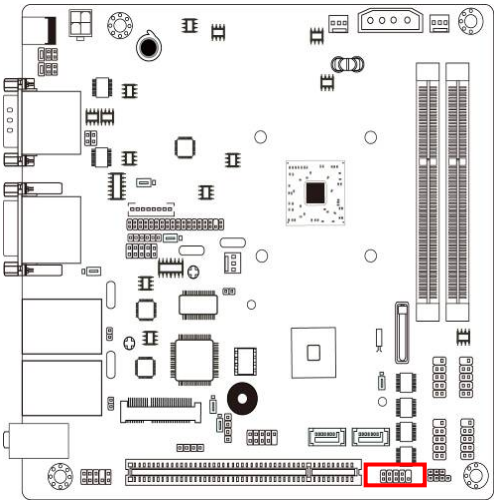
(10) PWR LED1 (3-pin): Power LED Header

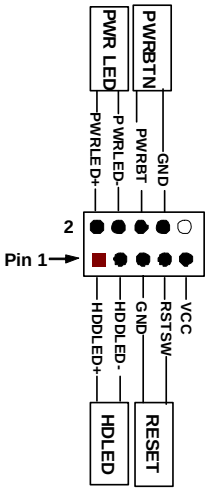
The Power LED is light on while the system power is on. Connect the Power LED from the system case to this pin header.



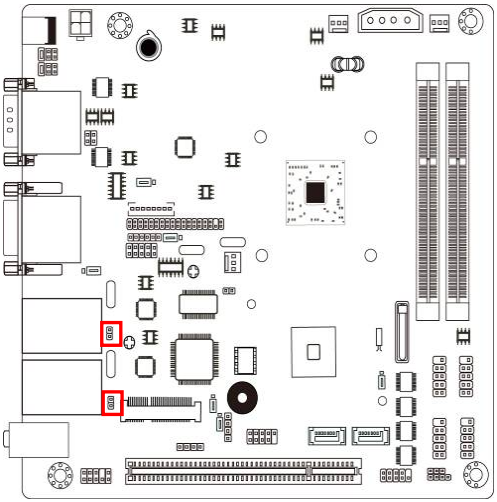


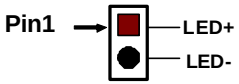
(11) JW-FP1 (9-pin): Front Panel Header





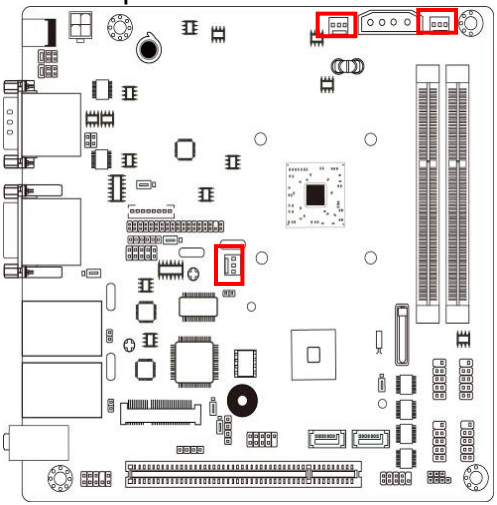
(12) LANLED1/LANLED2 (2-pin): LANLED Headers



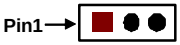


(13) CPUFAN1, SFAN1, SFAN2 (3-pin): FAN Headers

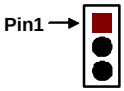
Pin1: GND
Pin2: +12V fan power
Pin3: Fan Speed



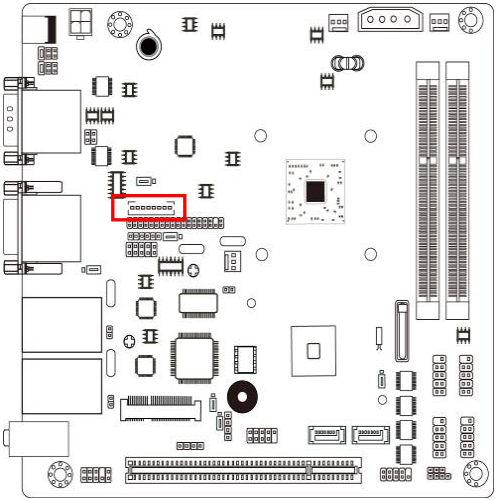
CPUFAN1/SFAN2

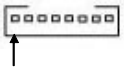


SFAN1



(14) INVERTER (8-pin): LVDS Inverter Connector

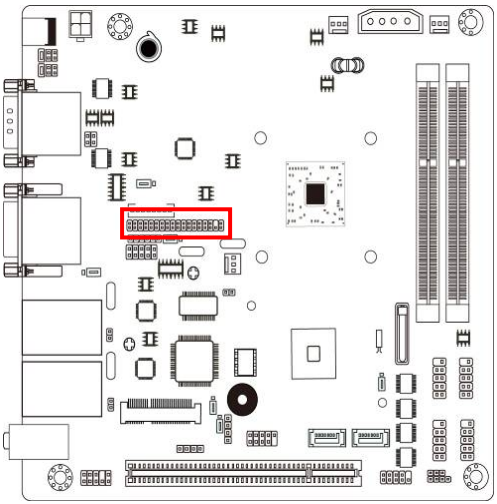


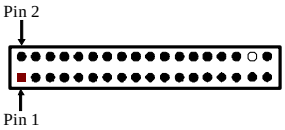


INVERTER

Pin No.	Definition
1	Backlight Enable
2	Backlight Duty
3	PVCC
4	PVCC
5	GND
6	GND
7	Backlight+ SW
8	Backlight- SW

(15) LVDS1 (35-pin): 24-bit single channel LVDS Header





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	LVDSA_DATAP3	Pin 18	LVDSA_DATAN3
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
Pin 33	+5V	Pin 34	N/A
Pin 35	+12V (Reserved)	Pin 36	+3V

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.

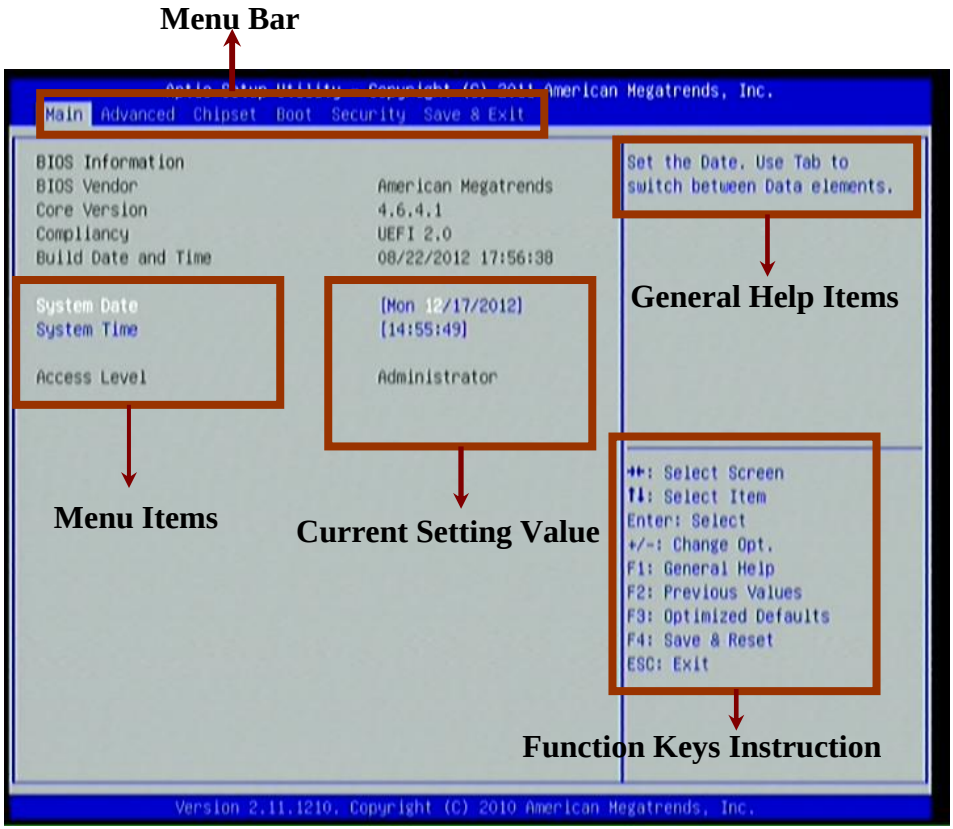
3-1 Entering Setup

Power on the computer and by pressing <Del> immediately allows you to enter Setup. If the message disappears before your 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 **<Del>** to enter Setup

3-2 BIOS Menu Screen

The following diagram show a general BIOS menu screen:



3-3 Function Keys

In the above BIOS Setup main menu, 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←→ (left, right) to select screen;
- Press ↑↓ (up, down) to choose the item you want to confirm or to modify in the main menu.

- Press <Enter> to select.
- Press <+>/<–> key when you want to modify the BIOS parameters for the active option.
- [F1]: Press to general help information.
- [F2]: Press to load previous value.
- [F3]: Press to load optimized defaults.
- [F4]: Save and Reset.
- Press <Esc> to exit from BIOS Setup.

3-4 Getting Help

Main Menu

The on-line description of the highlighted setup function is displayed at the top right corner 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>.

3-5 Menu Bar

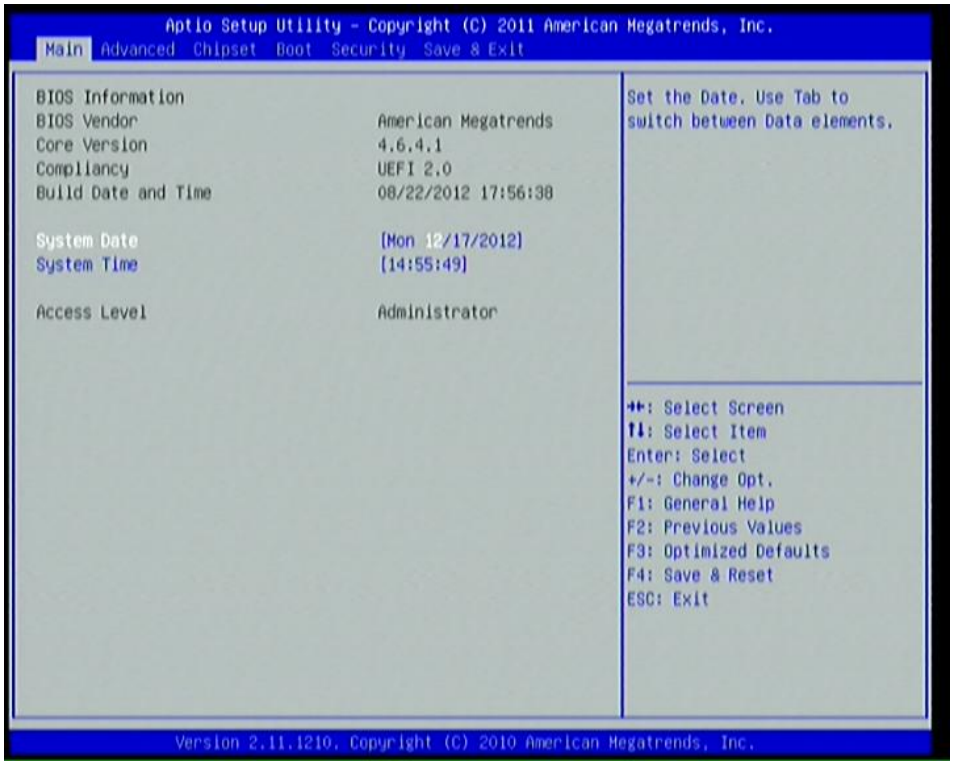
There are six menu bars on top of BIOS screen:

Main	To change system basic configuration
Advanced	To change system advanced configuration
Chipset	To change chipset configuration
Boot	To change boot settings
Security	Password settings
Save & Exit	Save setting, loading and exit options.

User can press the ←/→ (left, right) arrow key on the keyboard to switch from menu bar. The selected one is highlighted.

3-6 Main Menu

Main menu screen includes some basic system information. Highlight the item and then use the <+> / <-> key or numerical keyboard keys to select the value you want in each item.



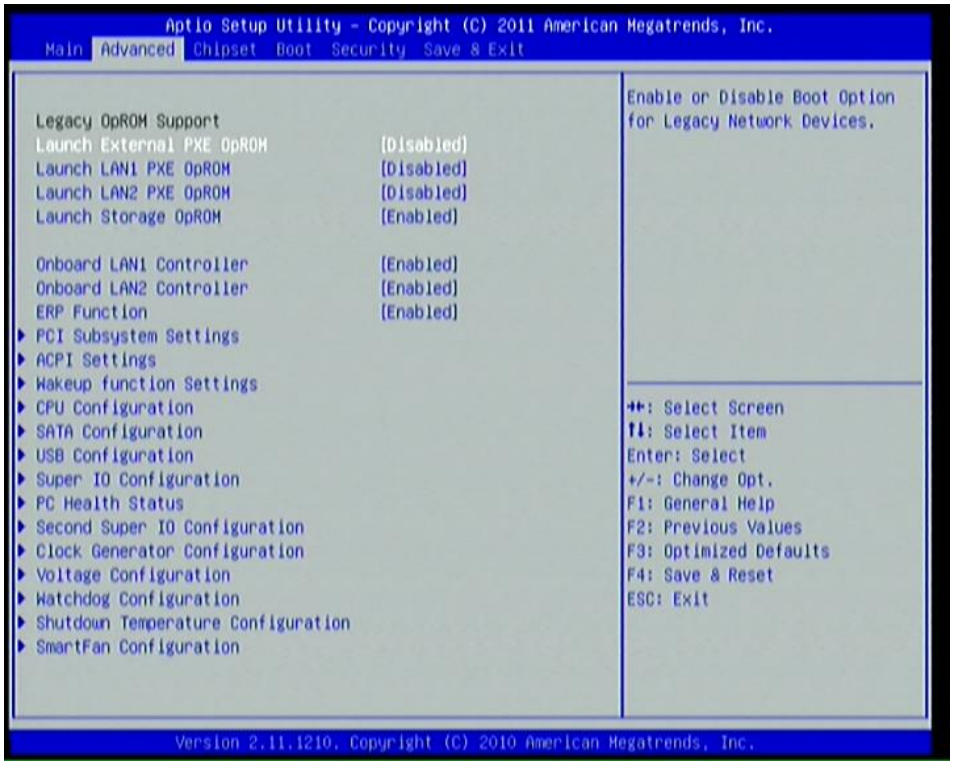
System Date

Set the date. Please use [TAB] to switch between data elements.

System Time

Set the time. Please use [TAB] to switch between time elements.

3-7 Advanced Menu



Legacy OpROM Support:

Launch External PxE OpROM/Launch LAN1 PXE OpROM//Launch LAN2 PXE OpROM

Use this item to enable or disable boot option for legacy network devices.

Launch Storage OpROM

Use this item to enable or disable boot option for legacy mass storage devices with option ROM.

Onboard LAN 1 Controller

Use this item to enable or disable PCI Express root port 1.

Onboard LAN 2 Controller
Use this item to enable or disable PCI Express root port 2.

ERP Function
Use this item to enable or disable ERP function for this board. This item should be set as [Disabled] if you wish to have active all wakeup function.

PCI Subsystem Settings
Press [Enter] to make settings for the following sub-items:

PCI ROM Priority

In the case of multiple option ROMs(Legacy and EFI compatible), specifies what PCI option ROM to launch. The optional settings: [Legacy ROM]; [EFI Compatible ROM].

PCI Common Settings:

PCI Latency Timer

Use this item to set value to be programmed into PCI latency timer register.

VGA Palette Snoop

Use this item to enable or disable VGA palette register snooping.

PERR# Generation

Use this item to enable or disable PCI device to generate PERR#.

SERR# Generation

Use this item to enable or disable PCI device to generate SERR#.

ACPI Settings

ACPI Sleep State

Use this item to select the highest ACPI sleep state the system will enter when the suspend button is pressed.

The optional settings are: [S1(CPU Stop Clock)]; [S3 (Suspend to RAM)].

Wakeup Function Settings

Wake System with Fixed Time

Use this item to enable or disable system wake on alarm event. When set as [Enabled], system will wake on the hour/min/sec specified.

PS2 KB/MS Wakeup

Use this item to enable or disable PS2 KB/MS wakeup function. This function is only supported when ERP function is set as [Disabled].

PCI PME Wakeup

Use this item to enable or disable S3/S4/S5 PCI PME wakeup. This function is only supported when ERP function is set as [Disabled].

CPU Configuration

Hyper-Threading

The optional settings are: [Disabled]; [Enabled].Set as [Enabled] for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and [Disabled] for other OS (OS not optimized for Hyper-Threading Technology).

Execute Disable Bit

The optional settings are: [Disabled]; [Enabled].

Limit CPUID Maximum

The optional settings are: [Disabled]; [Enabled].

This item should be set as [Disabled] for Windows XP.

SATA Configuration

SATA Controller(s)

The optional settings are: [Disabled]; [Enabled].

Configure SATA as

The optional settings are: [IDE]; [AHCI].

USB Configuration

Legacy USB Support

The optional settings are: [Auto]; [Disabled]; [Enabled].

EHCI Hand-off

The optional settings are: [Disabled]; [Enabled].

USB hardware delays and time-outs:

USB Transfer time-out

Use this item to set the time-out value for control, bulk, and interrupt transfers.

Device reset time-out

Use this item to set USB mass storage device start unit command time-out.

Device power-up delay

Use this item to set maximum time the device will take before it properly reports itself to the host controller. ‘Auto’ uses default value: for a root port it is 100 ms, for a hub port the delay is taken from hub descriptor. The optional settings: [Auto]; [Manual].Select [Manual] you can set value for the following sub-item:

Device Power-up delay: the delay range in from 1 to 40 seconds in one second increments.

Super I/O Configuration

COM1 Port Configuration

Press [Enter] to make settings for the following items:

Serial Port

Use this item to enable or disable serial port (COM).

Change Settings

Use this item to select an optimal setting for super IO device.

COM2 Port Configuration

Press [Enter] to make settings for the following items:

Serial Port

Use this item to enable or disable serial port (COM).

Change Settings

Use this item to select an optimal setting for super IO device.

Serial Port Mode Select

The optional settings are: [RS232]; [RS422/RS485].

PS2 KB/MS Connect

Use this item to set PS2 connect primary device. The optional settings are: [Keyboard First]; [Mouse First].

Case Open Detect

To detect if the case has been opened or not. The optional settings are: [Enabled]; [Disabled].

PC Health Status

Press [Enter] to view hardware health status.

Second Super I/O Configuration

COM3 /COM4 /COM5/ COM6 Port Configuration

Press [Enter] to make settings for the following items:

Serial Port

Use this item to enable or disable serial port (COM).

Change Settings

Use this item to select an optimal setting for super IO device.

Clock Generator Configuration

Clockgen Spread Spectrum

Use this item to enable or disable spread spectrum function.

IO Output Voltage

Use this item to set IO output voltage.

Voltage Configuration

DIMM Voltage

The optional settings are: [Default]; [+50mV]; [+100mV]; [+150mV].

Watchdog Configuration

WatchDog Timer Control

Use this item to enable or disable WatchDog Timer Control. When set as [Enabled], the following sub-items shall appear:

WatchDog Timer Val

User can set a value in the range of 4 to 255.

WatchDog Timer Unit

The optional settings are: [Second];[Minute].

Shutdown Temperature Configuration

Use this item to select system shutdown temperature.

SmartFan Configuration

CPUFAN1 / SYSFAN1/SYSFAN2 SmartFan Mode

When set as [Enabled], the following sub-items shall appear:

CPUFAN1/ SYSFAN1/SYSFAN2 Full Speed Temp

Use this item to set a degree for CPU/SYSFAN1/ SYSFAN2 to run at full speed when above the specific temperature set.

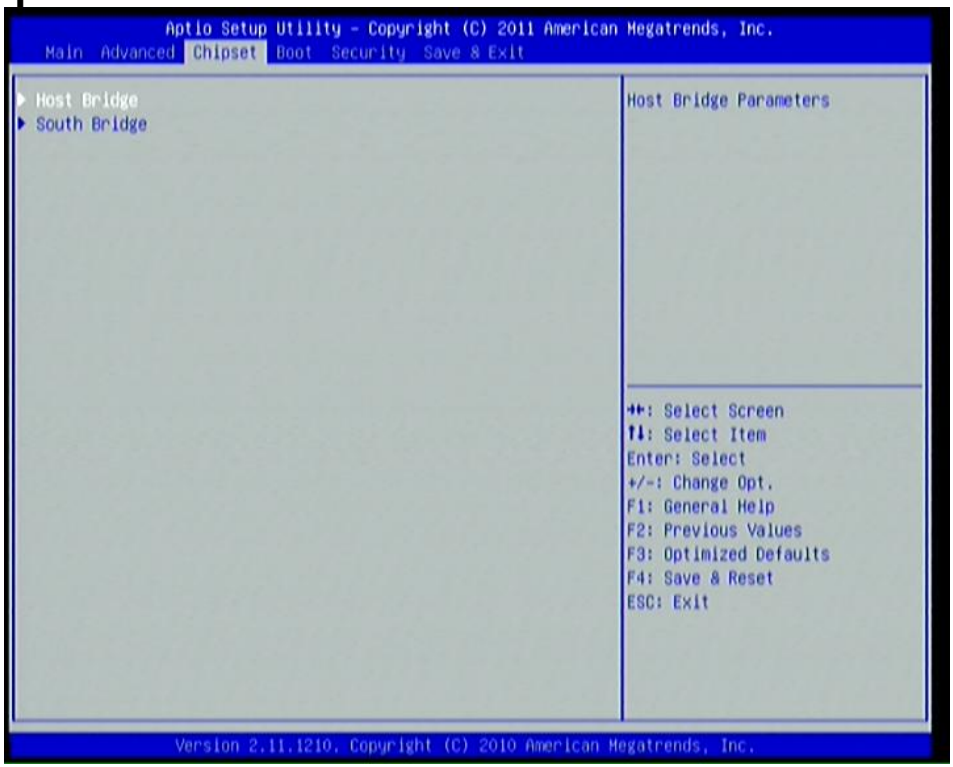
CPUFAN1 / SYSFAN1/SYSFAN2 Idle Temp

Use this item to set a degree for CPU/SYSFAN1/ SYSFAN2. FAN will idle speed when below this temperature.

CPUFAN1 / SYSFAN1/SYSFAN2 Stop Temp

Use this item to set a degree for CPU/SYSFAN1/ SYSFAN2. CPU FAN will stop when below this temperature.

3-8 Chipset Menu



Host Bridge

Press [Enter], user can have a view of memory information and make settings for Intel IGD Configuration:

LVDS Configuration

IGFX-Boot Type

Use this item to set the video device which will be activated during POST. This has no effect if external graphics presents.

The optional settings are: [VBIOS Default]; [CRT]; [LVDS]; [HDMI+LVDS]; [CRT+LVDS].

Backlight Control

The optional settings are: [PWM Inverted]; [PWM Normal].

In the case **IGFX-Boot Type** is set as **[LVDS]; [HDMI+LVDS]; or [CRT+LVDS],** the following setting item shall appear:

LCD Panel Type:

The optional settings are: [1024 x 600]; [800 x 600]; [1024 x 768 18bit]; [1280 X 1024];[1366 x 768]; [1024 x 768 24bit]; [1280 x 800].

Active LFP

The optional settings are: [Disabled LVDS]; [Enabled LVDS].

South Bridge

Azalia Controller

The optional settings are: [Enabled]; [Disabled].

UHCI #1 (Ports 0 and 1)/ UHCI #2 (Ports 2 and 3)/UHCI #3 (Ports 4 and 5)/UHCI #4 (Ports 6 and 7)

Use this item to control the USB UHCI (USB 1.1) functions. The optional settings are: [Enabled]; [Disabled].

USB 2.0 (EHCI) Support

Use this item to enable or disable USB 2.0 (EHCI) support. The optional settings are: [Enabled]; [Disabled].

High Precision Event Timer Configuration

High Precision Timer

The optional settings are: [Enabled]; [Disabled].

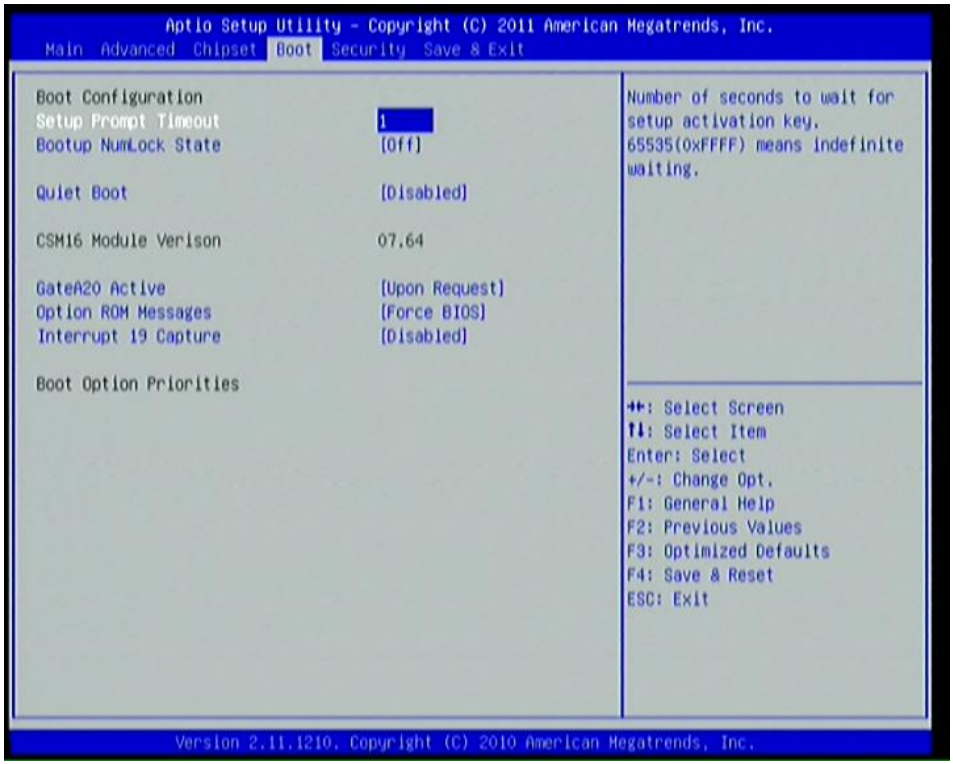
SLP_S4 Assertion Width

Use this item to select a minimum assertion width of the SLP_S4# signal. The optional settings are: [1-2 Seconds]; [2-3 Seconds]; [3-4 Seconds]; [4-5 Seconds].

Restore AC Power Loss

Use this item to select AC power state when power is re-applied after a power failure (G3 State). The optional settings are: [Power Off]; [Power On]; [Last State].

3-9 Boot Menu



Setup Prompt Timeout

Use this item to set number of seconds to wait for setup activation key.

Bootup Numlock State

Use this item to select keyboard numlock state. The optional settings are: [On]; [Off].

Quiet Boot

The optional settings are: [Enabled]; [Disabled].

Gate A20 Active

The optional settings are: [Upon Request]; [Always].

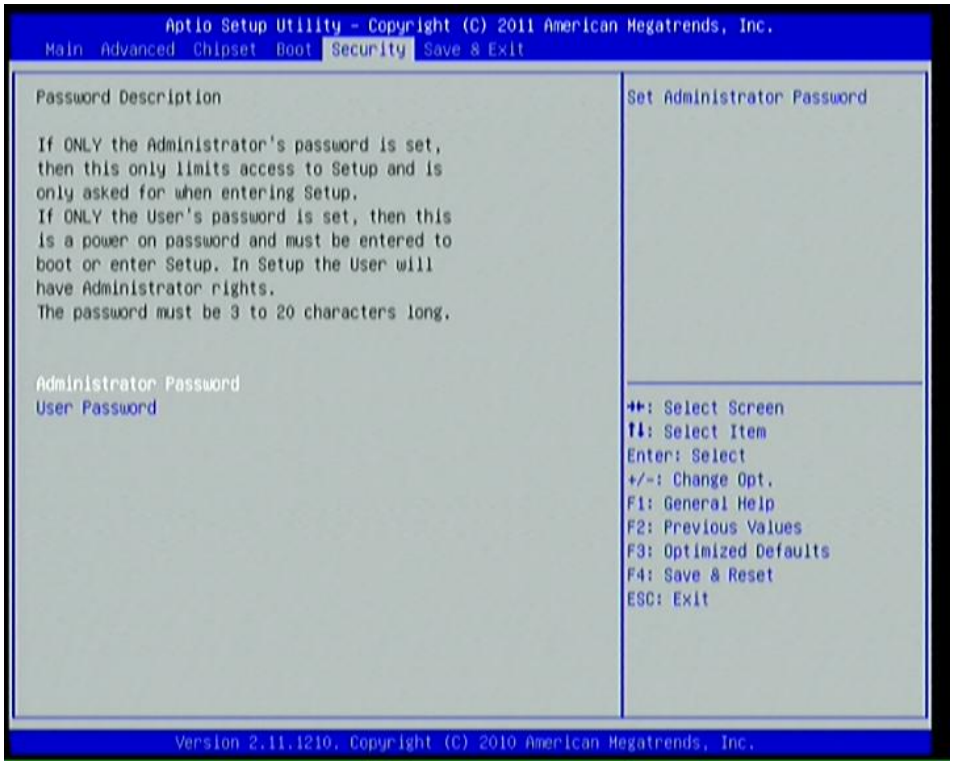
Option ROM Message

Use this item to set display mode for option ROM. The optional settings are: [Force BIOS]; [Keep Current].

Interrupt 19 Capture

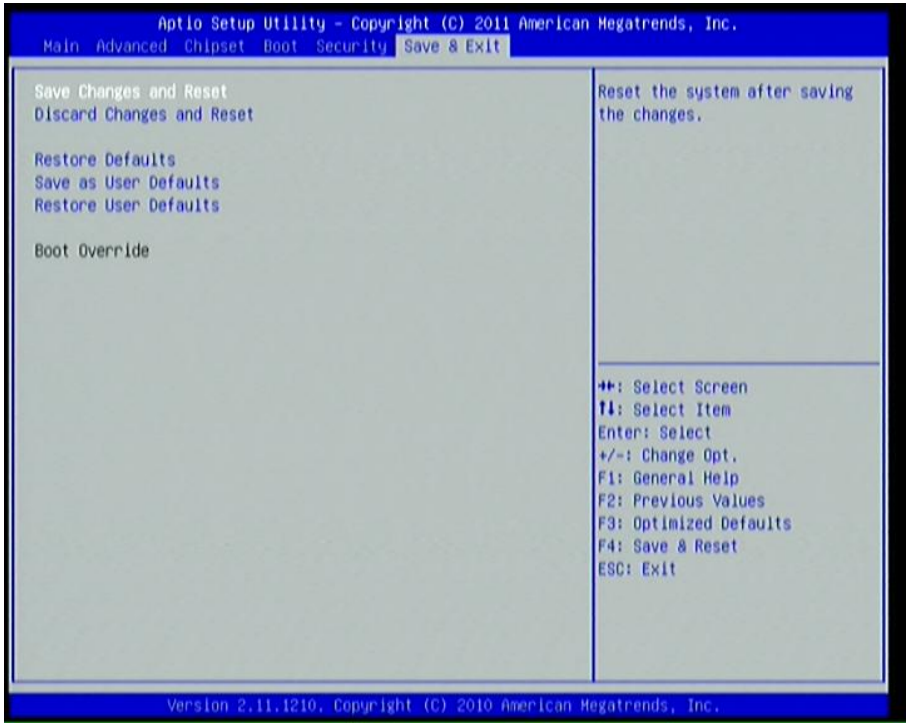
The optional settings are: [Enabled]; [Disabled].

3-10 Security Menu



Security menu allow users to change administrator password and user password settings.

3-11 Save & Exit Menu



Save Changes and Reset

This item allows user to reset the system after saving the changes.

Discard Changes and Reset

This item allows user to reset the system without saving any changes.

Restore Defaults

Use this item to restore /Load default values for all the setup options.

Save as User Defaults

Use this item to save the changes done so far as user defaults.

Restore User Defaults

Use this item to restore defaults to all the setup options.