

ITX-IC2M1026S
ITX-IC8M1026Series

Intel Atom Series Motherboard

User's Manual

Rev: 0.1, October,2012

Motherboard

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Chapter 1 Introduction

1.1 Package Checklist

Thank you for choosing our products.

Before using your product, please make sure your packaging is complete, if there have damage or you find any shortage, please contact your supplier as soon as possible.

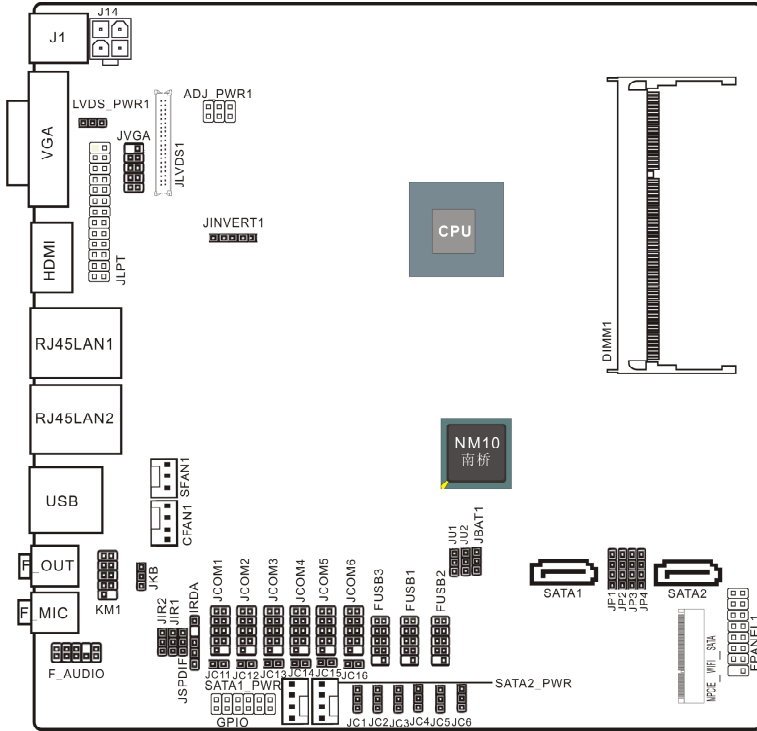
- Motherboard x 1
- COM Data Cable x 1
- SATA Data Cable x 1
- SATA Pwer Cable x 1
- DC Extension Cable x 1
- User's Manual x 1
- Driver x 1

The above accessories and specifications are only for reference, we reserve the modify rights.

1.2 Motherboard specifications

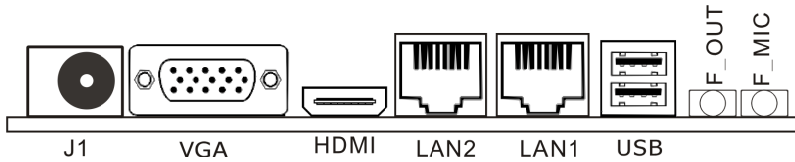
CPU	- Intel®"Atom"D2550/N2800 (optional)
Chipset	- Intel Atom + NM10 chipsets
Memory	- 1x204-pin DDRIII SO-DIMM sockets - Support for DDRIII SO-DIMM Memory - Supporting up to 4GB of system memory
Expansion slots	- 1 x Mini PCIE slot
Rear Panel I/O	- 1 x J1 interface(DC power) - 1 x VGA interface - 1 x HDMI interface - 2 x RJ45 interface - 2 x USB 2.0 interface, Backward compatible with USB 1.1 - 2 x Audio interface(Line Out/Mic In)
Internal Connectors	- 1 x 4-pin DC power socket - 3 x USB pin, Connecting to 6 Additional External USB 2.0 - 6 x COM(9pin Charged way, 5V/12V optional) - 1 x LPT pin - 1 x Front Audio pin - 1 x IRDA pin - 1 x SPDIF Outpin - 1 x LVDS pin(Supporting Double show mode by VGA) - 1 x JVGA pin - 1 x GPIO pin - 2 x FAN pin - 1 x Front panel pin - 2 x SATAII conection interface
BIOS/Power Management	- AMI BIOS - 16MBit SPI BIOS - Supporting Advanced Power Management ACPI - CPU Temperature, Fan speed, System Voltage Monitoring
Audio	- Onboard 2 HD Audio Codec - Front Audio Interface , providing stereo MIC port on front panel
LAN	- 2 x onboard 10/100/1000Mbps compatible LAN
Form Facto	- Mini-ITX(170mm * 170mm)
Working Environment	- Working Temperature : -10~60°C - Working Moisture: 5%~95% No Frost

1.3 Motherboard Layout



(This picture is only for reference)

1.4 Connecting Rear Panel I/O Devices



(This picture is only for reference)

- **J1** : DC Power interface .
- **VGA** : Connecting to a monitor's VGA input.
- **HDMI** :Connecting to a monitor's HDMI input.
- **USB** : USB Connecting Interface.
- **LAN**:The LAN port allows the motherboard to connect to a local area network by means of a network hub.
- **AUDIO** :
 - Line-out (Front Left/Right Jack, Lime): This jack is used to connect to the front left and right channel speakers of the audio system.
 - Mic-in (Pink): This jack is used to connect an external microphone.

Chapter 2 Hardware Setup

2.1 Installing I/O Panel

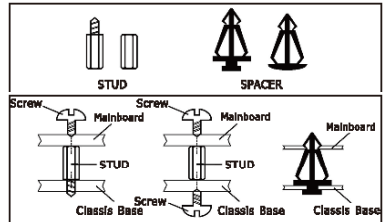
It can block the transmission of electric RF, protect the internal components, and promote airflow after installing this panel. Before installing motherboard, you need to install this panel. If required, you should uninstall the optional panel first.

2.2 Installing Motherboard

Most computer bases have many fixing holes to allow the mainboard to attached securely, and will not short. There are two ways to attach the mainboard:

- (1) Using studs
- (2) Using spacers

Usually, the best way to attach the board is using studs. When you are unable to use studs, spacers can attach the board also. Please check the board carefully, you will find there are many fixing holes, line up these holes with your computer base. If holes can line up and there are screw holes, means you can attach the board with studs. If all holes line up and there are only slots, means you can only attach with spacers. Take the tip of the spacers and insert them into the slots. After doing this, slide the board into slots to fix it. Before chassis fitted, make sure everything is ok.



If there have studs locked on board, and there is not fixed holes between studs and board, uninstall the studs to avoid shorting PCB circuit.

2.3 Installing Memory Module

This motherboard provides two 204-pin DDRIII (Double Data Rate) SO-DIMM slots.

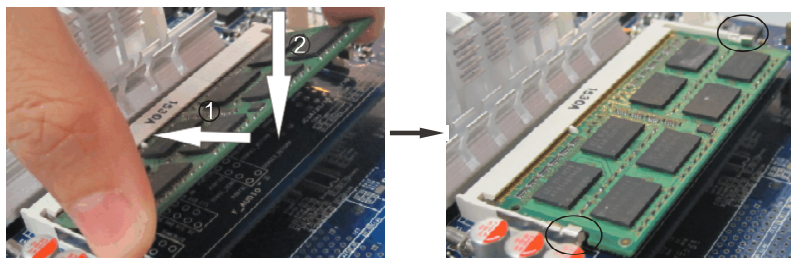
Before starting the installation, please read the following warning messages:

1. Make sure your purchased memory specification is supported with the motherboard;
2. Before installing or removing memory, make sure that the computer is turned off;
3. The memory is designed with fool-proof marker, if you insert with wrong direction, it can not be inserted.

Installing memory:

1. Before installing or removing memory, please turn off the power and unplug the AC cable.
2. Carefully grasp both ends of memory, and do not touch the metal contacts.
3. Align the memory to slots, and pay attention to the direction.
4. Inclining 30 degrees and insert, then press down until you hear the "clicking" sound (to avoid any damage, your strength must be gentle).
5. To remove the memory, push out both latch of DIMM slot at the same time, and take it out.

Memory installation illustration (only for reference):



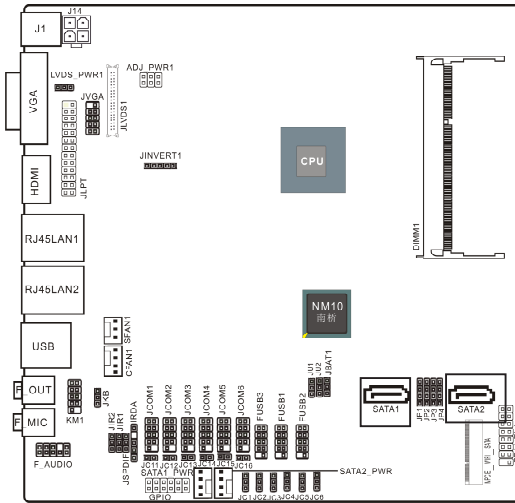
! Installation of Dual Memory Channels

This board has 2 DIMM slots, and each one representing a memory channel. The memory works on dual channel mode only when this two memories have been all installed successfully (Note: When use the dual channel mode, you must select the memories which with the same capacity, frequency, and brand at the same time).

⚠ : Static will damage the electronic components of computer and memory, when doing above step, you should contact with a grounded metal object to remove the static from your body.

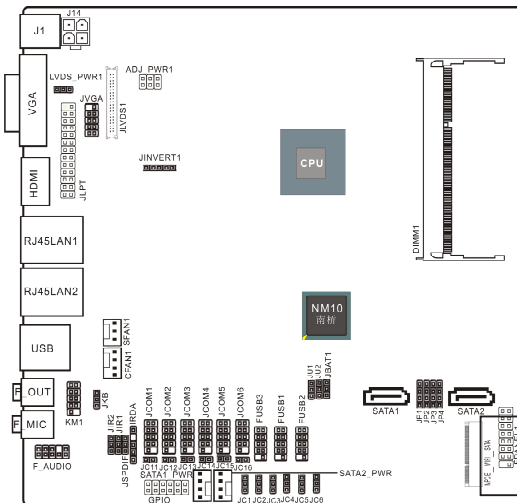
2.4 Connecting Peripheral Devices

2.4.1 Serial ATA connectors



The Serial ATA connectors can connect to Serial ATA hardware or other corresponding devices when use Serial ATA cable.

2.4.2 MPCIe slot

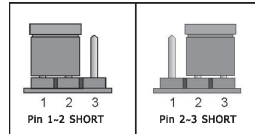
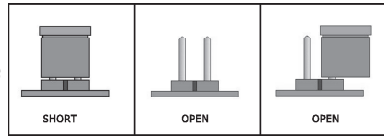


MPCIe: It compatible with SSD (While installing, incline it 30 degrees and insert, then press down to bolt position, and use the screws to fix it.)

Chapter 3 Jumpers & Headers Setup

3.1 Checking Jumper Settings

- 2-pin jumper: Plug the jumper cap onto both pins will make it CLOSE (SHORT). Remove the cap or plug it on another pins (keep for future use) will activate the jumper.
- 3-pin jumper: Plug the jumper cap onto pin 1~2 or pin 2~3 will make it CLOSE (SHORT). Shorted by plugging the jumper cap in.



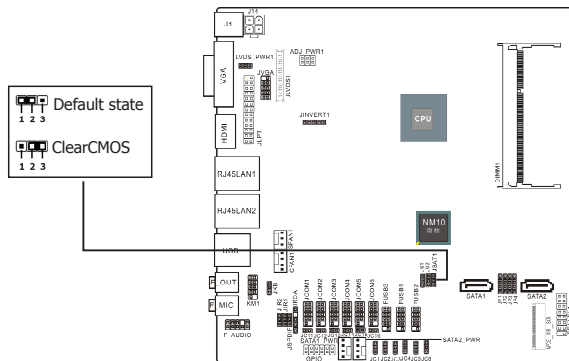
How to identify the PIN1?
Please check the Motherboard carefully, the PIN1 is marked by "1", white thick line or white triangle.

3.2 Unplugging the CMOS Header

When: (a) the CMOS data damaged, (b) you forgot the supervisor or password of BIOS, (c) you are unable to boot-up because the frequency of CPU was incorrectly, or (d) there have modifications on CPU or memory modules, means you need to unplug the CMOS header.

It uses a jumper cap to clear the CMOS setup, and reset the BIOS value to default.

- Pins 1 and 2 open circuit (Default): Normal situation
- Pins 2 and 3 shorted: Clear CMOS setup



To clear the CMOS setup and set to default values:

1. Power off the system.
2. Plug the jumper cap to pin 2-3, and wait for 3-5 seconds, then plug the cap back to pin 1-2.
3. Power on the system.
4. If the frequency of CPU set incorrect, please press the button to enter the BIOS setup menu after powering on system.
5. Reset the running speed of CPU to default or to suitable value.
6. Save and exit the BIOS setup menu.

3.3 Jumpers Setting

JKB (PS/2 Keyboard power on function setting)

PIN	DEFINITION
1-2 (default setting)	Disabled
2-3	Enabled

PIN 1-2 SHORT: Disable keyboard power on function

PIN 2-3 SHORT: Enable keyboard power on function

LVDS_PWR1

PIN	DEFINITION
1-2	5V
2-3	3.3V

JIR1、JIR2 (COM and IR setting)

PIN	DEFINITION
1-2	COM
2-3	IR

JU1、JU2 (FUSB2 and MINIPCIE setting)

PIN	DEFINITION
1-2	FUSB2
2-3	MINIPCIE

When use the front panel USB ,JU1 and JU2 should jump to pin1-2,and MPCIE1 is used as wifi of USB,JU1 and JU2 should jump to pin2-3.

JP1-JP4

PIN	DEFINITION
1-2	MINIPCIE
2-3	M-SATA
3-4	SATA2

When MPCIE_WIFI_SATA is used as wifi ,JP1-JP2 should jump to pin1-2,and is used as M_SATA ,JP1-JP4 should jump to pin2-3,
When be used as SATA2,JP1-JP4 should jump to pin3-4.

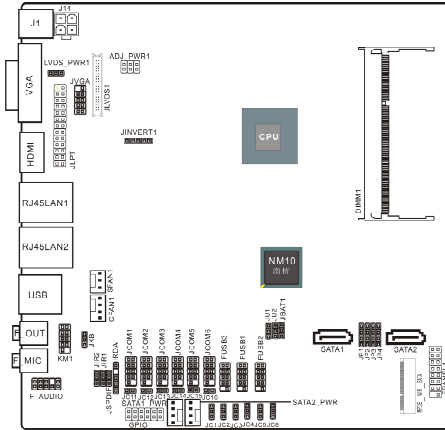
ADJ_PWR1

PIN	DEFINITION
1-2	5V
3-4	2.5V
5-6	0

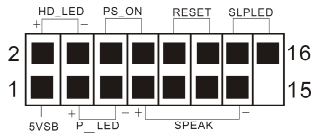
JCOM1-6 pin9 definition (choose JC11/12/13/14/15/16/1/2/3/4/5/6 jumpers)

PIN	SELECTION	DEFINITION	PIN	SELECTION	DEFINITION
JC11/12/13 JC14/15/16	CLOSE	RI	JC1/2/3 JC4/5/6	1-2	+5V
	OPEN	USE JCL_JC6		2-3	+12V

3.4 Front panel pin interface



pin	definition	pin	definition
1	VCC	2	HD_LED+
3	VCC	4	HD_LED-
5	-PLED_2	6	PW_BN
7	+5V	8	GND
9	NC	10	RST_SW
11	NC	12	GND
13	SPEAK	14	+5V
15	KEY	16	-SLEEP_LED



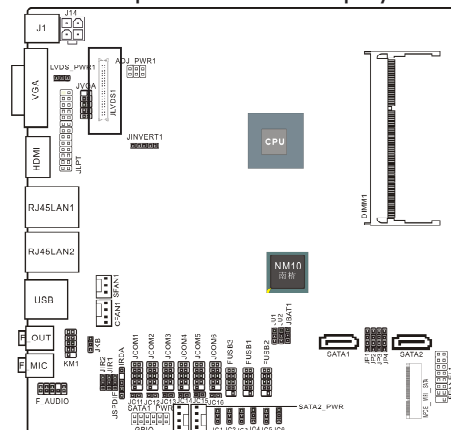
HD_LED (Red): Hard Driver LED connector
 This connector connects to the case-mounted HD LED cable, and the LED will light when the hard drive(s) is/are being accessed.

RST (Blue): Reset Switch
 This connector connects to the case-mounted reset switch which allows you to reboot without having to power-off the system and thus prolonging the life of the power supply or system.

PWR_ON (Black): Power Switch
 Depending on the setting in the BIOS setup, this switch serves two functions which will allow you to power-on/off the system or to enter the suspend mode.

PWR_LED (Green): Power/Standby LED
 When the system's power is on, this LED will light. When the system is in the S1 (POS - Power on Suspend) or S3 (STR - Suspend to RAM, optional) state, it will blink every second.

3.5 JLVDS1 pin interface (Display screen interface)



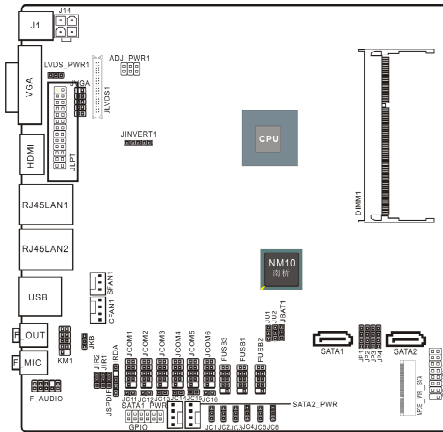
24BIT (single) LVDS

PIN	DEFINITION	PIN	DEFINITION
1	VDDPAEA	2	VDDPAEA
3	GND	4	GND
5	VDDPAEA	6	VDDPAEA
7	LVDS0_N0	8	NC
9	LVDS0_P0	10	NC
11	GND	12	GND
13	LVDS0_N1	14	NC
15	LVDS0_P1	16	NC
17	GND	18	GND
19	LVDS0_N2	20	NC
21	LVDS0_P2	22	NC
23	NC	24	GND
25	LVDS0_CLKN	26	NC
27	LVDS0_CLKP	28	NC
29	GND	30	GND
31	LVDS_DDCPCLK	32	LVDS_DDCPDATA
33	GND	34	GND
35	LVDS0_N3	36	NC
37	LVDS0_P3	38	NC
39	NC	40	LVDS_VCON

24BIT (double) LVDS

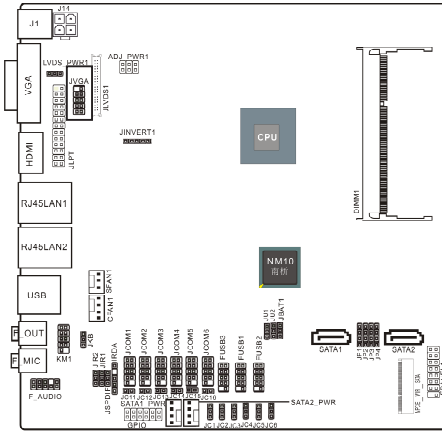
PIN	DEFINITION	PIN	DEFINITION
1	VDDPAEA	2	VDDPAEA
3	GND	4	GND
5	VDDPAEA	6	VDDPAEA
7	LVDS0_N0	8	LVDS1_N0
9	LVDS0_P0	10	LVDS1_P0
11	GND	12	GND
13	LVDS0_N1	14	LVDS1_N1
15	LVDS0_P1	16	LVDS1_P1
17	GND	18	GND
19	LVDS0_N2	20	LVDS1_N2
21	LVDS0_P2	22	LVDS1_P2
23	NC	24	GND
25	LVDS0_CLKN	26	LVDS1_CLKN
27	LVDS0_CLKP	28	LVDS1_CLKP
29	GND	30	GND
31	LVDS_DDCPCLK	32	LVDS_DDCPDATA
33	GND	34	GND
35	LVDS0_N3	36	LVDS1_N3
37	LVDS0_P3	38	LVDS1_P3
39	NC	40	LVDS_VCON

3.6 LPT pin interface



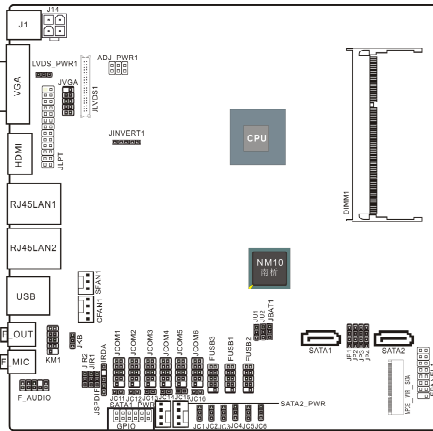
PIN	DEFINITION	PIN	DEFINITION	PIN	DEFINITION	PIN	DEFINITION	PIN	DEFINITION
1	STB	2	AFD	3	PD0	4	ERR	5	PD1
6	INIT	7	PD2	8	SLIN	9	PD3	10	GND
11	PD4	12	GND	13	PD5	14	GND	15	PD6
16	GND	17	PD7	18	GND	19	ACK	20	GND
21	BUSY	22	GND	23	PE	24	GND	25	SLCT

3.7 Front JVGA pin interface



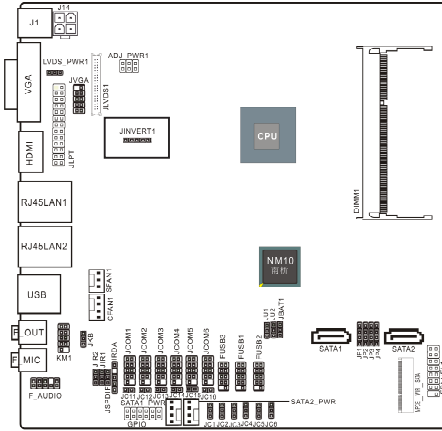
PIN	DEFINITION	PIN	DEFINITION
1	GND	2	RED
3	GND	4	GREEN
5	GND	6	BLUE
7	HSYNC	8	VSYNC
9	DDC_DATA	10	DDC_CLK

3.8 GPIO pin interface



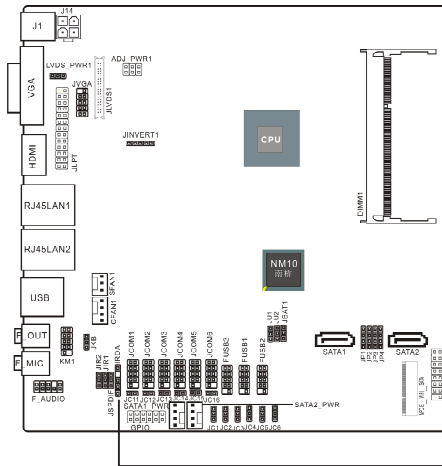
PIN	DEFINITION	PIN	DEFINITION
1	+5V	2	+12V
3	GPIO	4	GPIO
5	GPIO	6	GPIO
7	GPIO	8	GPIO
9	GPIO	10	GPIO
11	GND	12	GND

3.9 JINVERT1 pin interface



PIN	DEFINITION	PIN	DEFINITION
1	12V	2	GND
3	BLEN	4	PWM
5	5V		

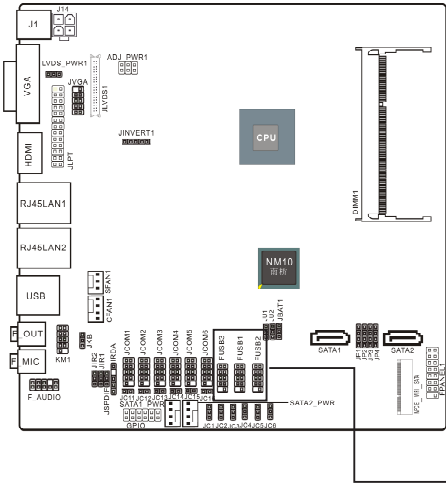
3.10 IRDA pin interface



PIN	DEFINITION	PIN	DEFINITION
1	VCC	2	□
3	IRRX	4	GND
5	IRTX		



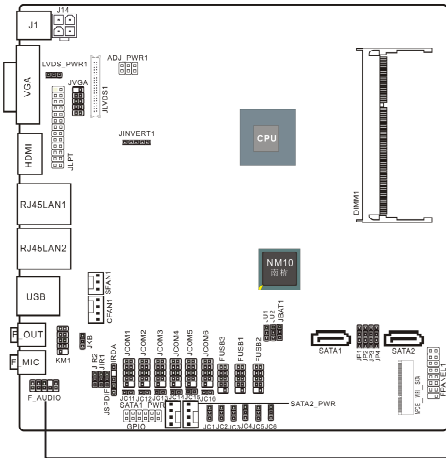
3.11 FUSB1/2/3 expansion interface



PIN	DEFINITION	PIN	DEFINITION
1	VCC	2	VCC
3	D-	4	D-
5	D+	6	D+
7	GND	8	GND
		10	KEY



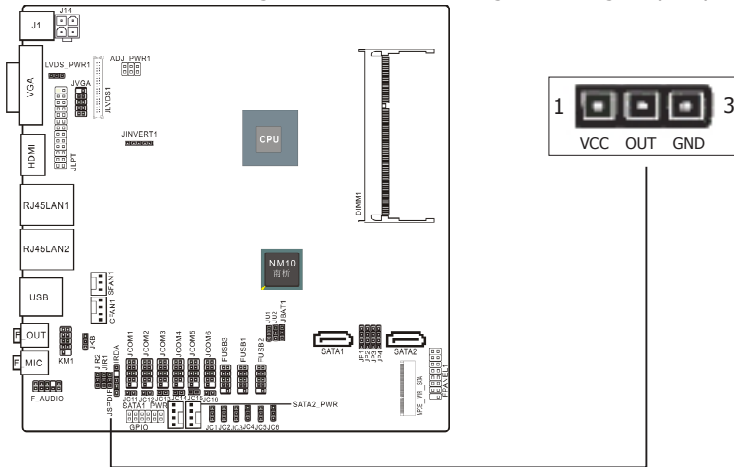
3.12 Front Panel Audio output interface



PIN	DEFINITION	DEFINITION	PIN	SILK-SCREEN	DEFINITION
1	PROT1L	Microphone_Left	6	SENSE1_RETURN	AuD_R_Return
2	AGND	Ground	7	SENSE_SEND	FAUDIO_3D
3	PROT1R	Microphone_Right	8	NC	N/A
4	PRESENCE#	-ACZ_DET	9	PORT2L	Line2_Left
5	PORT2R	Line2_Right	10	SENSE2_RETURN	AuD_L_Return

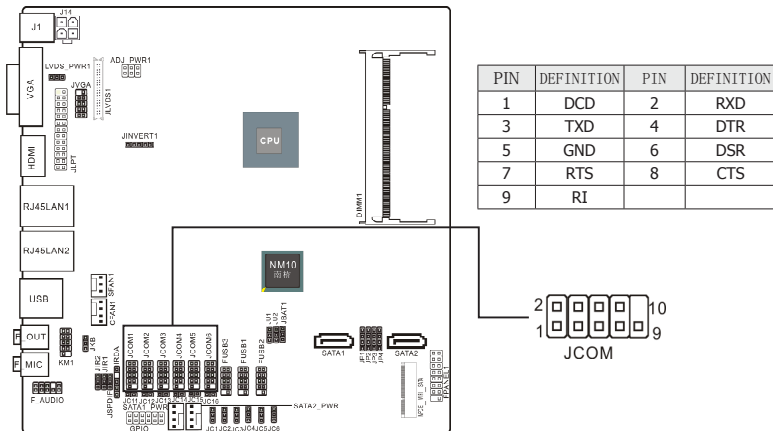
3.13 S/PDIF Output Connection Header (Optional)

S/PDIF (Sony/Philips Digital Interface) is a standard audio transfer file format. It is usually found on digital audio equipment such as a DAT (Digital Audio Tape) machine or audio processing device. It allows the transfer of audio from one file to another without the conversion to and from an analog format, which could degrade the signal quality.

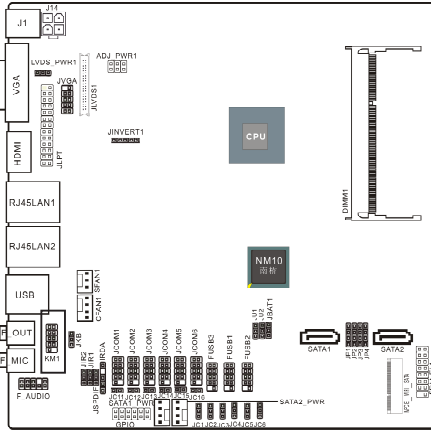


3.14 COM Connectors

The motherboard provides 6 "2x5pin" com connectors onboard

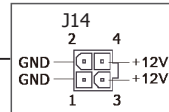
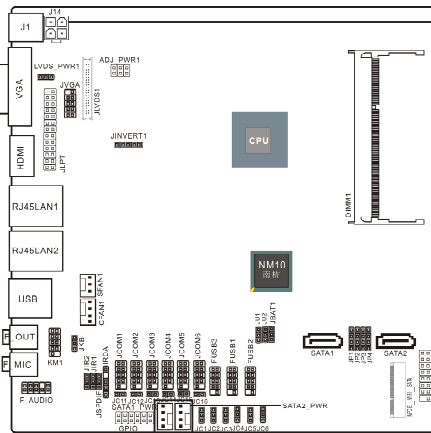


3.15 KM1 pin interface (PS/2 interface adapter)



PIN	DEFINITION	PIN	DEFINITION
1	MDT	2	KB_DATA
3	MCK	4	KB_CLK
5	GND	6	GND
7	VCC	8	VCC
9	KEY	10	

3.16 SATA1_PWR/SATA2_PWR (SATA power interface) and J14(DC power interface)



By the power socket, the power supply can provide power that is enough and stable for all the components on the mainboard. Before inserting into the power socket, please make be sure that the power of power supply has been turned off, and all the components and devices have been fixed exactly. Power socket has protection design, After confirming that the direction is right, you can insert.

SATA1_PWR/SATA2_PWR

PIN	DEFINITION	PIN	DEFINITION	PIN	DEFINITION	PIN	DEFINITION
1	12V	2	GND	3	GND	4	5V

Chapter 4 BIOS Setup Utility

BIOS stands for Basic Input and Output System. It was once called ROM BIOS when it was stored in a Read-Only Memory (ROM) chip. Now manufacturers would like to store BIOS in EEPROM which means Electrically Erasable Programmable Memory. BIOS used in this series of mainboard is stored in EEPROM, and is the first program to run when you turn on your computer.

BIOS performs the following functions:

1. Initializing and testing hardware in your computer (a process called "POST", for Power On Self Test).
2. Loading and running your operating system.
3. Helping your operating system and application programs manage your PC hardware by means of a set of routines called BIOS Run-Time Service.

4.1 About BIOS Setup

BIOS Setup is an interactive BIOS program that you need to run when:

1. Changing the hardware of your system. (For example: installing a new Hard Disk etc.)
2. Modifying the behavior of your computer. (For example: changing the system time or date, or turning special features on or off etc.)
3. Enhancing your computer's behavior. (For example: speeding up performance by turning on shadowing or cache)

4.2 To Run BIOS Setup

First access BIOS setup menu by pressing <F1> key after "POST" is complete (before OS is loaded). After the first BIOS be setupped(or loaded default values) and save, the key will be pressed if you will enter BIOS setup menu.

4.3 About CMOS

CMOS is the memory maintained by a battery. CMOS is used to store the BIOS settings you have selected in BIOS Setup. CMOS also maintains the internal clock. Every time you turn on your computer, the BIOS Looks into CMOS for the settings you have selected and configures your computer accordingly. If the battery runs out of power, the CMOS data will be lost and POST will issue a "CMOS invalid" or "CMOS checksum invalid" message. If this happens, you have to replace the battery and check and configure the BIOS Setup for the new start.

4.4 The POST (Power On Self Test)

POST is an acronym for Power On Self Test. This program will test all things the BIOS does before the operating system is started. Each of POST routines is assigned a POST code, a unique number which is sent to I/O port 080h before the routine is executed.

4.5 BIOS Setup – CMOS Setup Utility

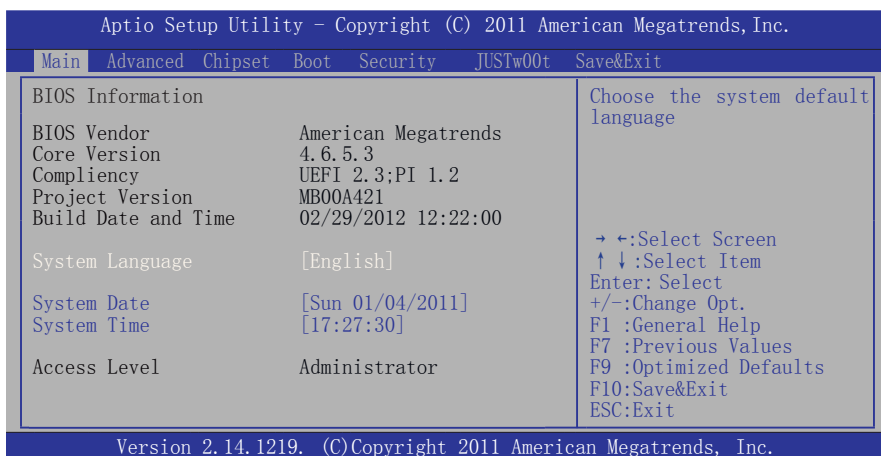
- **In order to increase system stability and performance, our engineering staff is constantly improving the BIOS menu. The BIOS setup screens and descriptions illustrated in this manual are for your reference only, and may not completely match with what you see on your screen. This chapter were based mainly on the model, unless specifically stated.**
- **Do not change the BIOS parameters unless you fully understand its function.**

4.5.1 CMOS Setup Utility

After powering up the system, the BIOS message appears on the screen, when the first time or when CMOS setting wrong, there is following message appears on the screen, but if the first BIOS be setuped (or loaded default values) and save, the key will be pressed if you will enter BIOS setup menu.

Press to enter SETUP

If this message disappears before you respond, restart the system by pressing <Ctrl> + <Alt> + keys, or by pressing the reset button on computer chassis. Only when these two methods should be fail that you restart the system by powering it off and then back on. After pressing <F1> or key, the main menu appears.



The menu bar on top of the screen has the following main items:

- Main** For changing the basic system configuration.
- Advanced** For changing the advanced system settings.
- Chipset** For changing the system ports settings.
- Boot** For changing the system boot configuration.
- Security** For changing the system security settings.
- JUSTw00t** For changing the overclocking settings.
- Save & Exit** For changing CMOS mode and loading default settings.

4.5.2 Control Keys

Press <F1> to pop up a small help window that describes the appropriate keys to use and the available options for the highlighted item.

Please check the following table for the function description of each control key.

Control Key(s)	Function Description
← / →	Move cursor left or right to select screens
↑ / ↓	Move cursor up or down to select items
+ / - / PU / PD	To Change option for the selected items
<Enter>	To bring up the selected screen
<ESC>	Main Menu - Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu
<F1>	General help
<F7>	Previous Values
<F9>	Load Optimal Defaults
<F10>	Save configuration changes and exit setup

4.2.3 Main Interface

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.					
Main	Advanced	Chipset	Boot	Security	Save&Exit
BIOS Information					Choose the system default language
BIOS Vendor	American Megatrends				
Core Version	4.6.5.1				
Compliancy	UEFI 2.3;PI 1.2				
BIOS Version	CT00A281				
Build Date and Time	08/23/2012 09:40:09				
System Language	[English]				→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1 :General Help F7 :Previous Values F8 :Fail-Safe Values F9 :Optimized Defaults F10 :Save & Exit ESC :Exit
System Date	[Thu 11/17/2011]				
System Time	[17:34:18]				
Access Level	Administrator				
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.					

- **BIOS Information**
- **System Language**
To set the language of BIOS menu, such as English
- **System Date**
To set the date of computer, the form is "weekday, month/ date/year"
- **System Time**
The form of time is <hour><minute><second>

4.2.4 Advanced

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.					
Main	Advanced	Chipset	Boot	Security	Save&Exit
Legacy OpROM Support					System ACPI Parameters.
Launch Storage OpROM	[Enabled]				
▶ ACPI Settings					→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F7: Previous Values
▶ RTC Wake Settings					
▶ CPU Configuration					
▶ IDE Configuration					
▶ USB Configuration					
▶ Power Management					
▶ W83627UHG Super IO Configuration					
▶ WatchDogTimer Setting					
▶ W83627UHG H/W Monitor					
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.					

- **Launch Storage OpROM**
Setting legacy ROM devices open and close, options: Enabled, Disabled.

⏪ Press < ESC > key to return to the Advanced menu

▶ **ACPI Settings** press<Enter>key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
ACPI Settings	Enables or Disables BIOS
Enable ACPI Auto Configuration [Disabled]	
Enable Hibernation [Enabled]	
ACPI Sleep State [S1...]	
Lock Legacy Resources [Disbaled]	
	→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

• **Enable ACPI Auto Configuration**

Setting the advanced power management configuration, options: Enabled,Disabled.

• **Enable Hibernation**

Enabled or disabled system ability to hibernate (OS/S4 sleep state). This option may be not effective with sime OS. Options: Enabled,Disabled.

• **ACPI Sleep State**

Selecting the highest ACPI sleep state the system will enter when the suspend button is pressed. options : Suspend Disabled, S1 only (CPU Stop Clock), S3 only(Suspend to RAM)

• **Lock Legacy Resources**

Enabled or Disabled Lock of Legacy Resources.options: Enabled,Disabled.

⏪ Press < ESC> key to return to the Advanced menu

▶ **RTC Wake Settings** press<Enter>key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
Wake system with Fixed Time [Disabled]	Enable or disable System.....
Wake system with Dynamic Time [Disabled]	
	→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

• **Wake system with Fixed Time**

when choose the option"Enabled" you can set to wake the system with fixed time, options:Disabled,Enabled.

When set "wake system with Fixed time"to "Enabled",will appear the following four options: Wake up Day/Wake up hour/Wake up minute/Wake up second.

• **Wake system with Dynamic Time**

Enabled/Disabled Dynamic RTC Wake function.options: Disabled,Enabled.

⏪ Press < ESC> key to return to the Advanced menu

► **CPU Configuration** press<Enter>key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.		
Advanced		
CPU configuration		Enabled for Windows.....
Processor Type		
Intel(R) Atom(TM) CPU D2550 @ 1.86GHz		
EMT64	Supported	
Processor Speed	1865 MHz	
System Bus Speed	533 MHz	
Ratio Status	14	
Actual Ratio	14	
System Bus Speed	533 MHz	
Processor Stepping	30661	
Microcode Revision	262	→ ←:Select Screen
L1 Cache RAM	2 x 56 k	↑ ↓:Select Item
L2 Cache RAM	2 x 512 k	Enter:Select
Processor Core	Dual	+/-:Change Opt.
Hyper-Threading	Supported	F1 :General Help
		F7 :Previous Values
		F8 :Fail-Safe Values
		F9 :Optimized Defaults
		F10 :Save & Exit
		ESC :Exit
Hyper-Threading	[Enabled]	
Execute Disable Bit	[Enabled]	
Limit CPUID Maximum	[Disabled]	
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• **Hyper-Threading**

Options: Disabled,Eanbled.

• **Execute Disable Bit**(Anti-virus proyection)

It can enhance virus protection of the computer. it can help the CPU of computer that enforces self protection in some hostile attacks, and avoid the virus hostile attacks.

• **Limit CPUID Maximum**

Setting to limit CPUID Maximum. options: Enabled,Disabled.

⏪ Press < ESC> key to return to the Advanced menu

► **IDE Configuration**

press<Enter>key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.		
Advanced		
SATA Port0	Not Present	SATA Port(0-3) Device Names if
SATA Port1	Not Present	
SATA Controller(s)	[Enabled]	
Configure SATA as	[IDE]	
Misc Configuration for hard disk		→ ←: Select Screen
		↑ ↓: Select Item
		Enter:Select
		+/-: Change Opt.
		F1: General Help
	
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- **SATA Controller(s)**

Options: Enabled, Disabled.

- **Configure SATA As**

Installing mode of SATA system, Options: IDE, AHCI.

↵ Press < ESC > key to return to the Advanced menu

- ▶ **USB Configuration**

press < Enter > key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
USB Configuration USB Devices: 1 Keyboard Legacy USB Support [Enabled] EHCI Hand-off [Disabled] Device reset time-out [20 sec] Device power-up delay [Auto]	Enables Legacy USB... → ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F7: Previous Values
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

- **Legacy USB Support**

Setting support legacy input/output devices, such as the mouse, keyboard etc, options: Enabled, Disabled, Auto.

- **EHCI Hand-Off**

This item can be used to open/close BIOS EHCI Hand-off function.

Options: Enabled, Disabled

- **Device reset time-out**

Options: 10 sec, 20 sec, 30 sec, 40 sec.

- **Device power-up delay**

Options: Auto, Manual.

↵ Press < ESC > key to return to the Advanced menu

- ▶ **Power Management**

press < Enter > key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
Power Management Wake By PME [Enabled] AC Power Loss [Power Off]	Wake By PME → ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

- **Wake By PME**

Options: Enabled, Disabled.

- **AC Power Loss**

This item selects the system action after an AC power failure.

[Power Off]: When power returns after an AC power failure, the system's power remains off. You must press the Power button to power-on the system.

[Power On]: When power returns after an AC power failure, the system's power will be powered on automatically.

[Last State]: When power returns after an AC power failure, the system will return to the state where you left off before power failure occurred. If the system's power is off when AC power failure occurs, it will remain off when power returns. If the system's power is on when AC power failure occurs, the system will power-on when power returns.

⏪ Press < ESC > key to return to the Advanced menu

- ▶ **W83627UHG Super IO Configuration**

press < Enter > key to turn into the submenu.

Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
W83627UHG Super IO Configuration	Set Parameters of Serial Port1(COMA)
W83627UHG Super IO Chip W83627UHG	
▶ Serial Port 1 Configuration	→ ←: Select Screen
▶ Serial Port 2 Configuration	↑ ↓: Select Item
▶ Serial Port 3 Configuration	Enter: Select
▶ Serial Port 4 Configuration	+/-: Change Opt.
▶ Serial Port 5 Configuration	F1: General Help
▶ Serial Port 6 Configuration	F7: Previous Values
▶ Paraller Port Configuration
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

- ▶ **Serial Port 1/2/3/4/5/6 Configuration**

press < Enter > key to turn into the submenu.

Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
Serial Port 2 Configuration	Enable or Disable Serial Port(COM)
Serial Port [Enabled]	
Device Settings IO=2F8h; IRQ=3;	→ ←: Select Screen
Change Settings [Auto]	↑ ↓: Select Item
Device Mode [Standard..]	Enter: Select
	+/-: Change Opt.

Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

- **Serial Port**

Setting switch of serial port, options: Enabled, Disabled.

- **Change Settings**

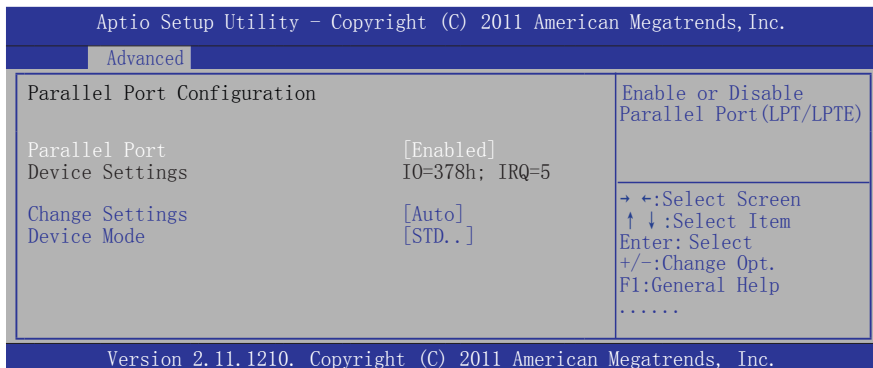
Setting IRQ for serial port, options ; Auto , specified value .

- **Device Mode**

⏪ Press < ESC > key to return to the Advanced menu

▶ **Parallel Port Configuration**

press<Enter>key to turn into the submenu.



- **Parallel Port**
Parallel port controller, Options: Enabled,Disabled.
- **Change Settings**
Setting IO for serial port, options ; Auto , specified value .
- **Device Mode**

⏪ Press < ESC > key to return to the Advanced menu

▶ **WatchDogTimer Setting**

press<Enter>key to turn into the submenu.



- **WatchDogTimer**
When the number is more than the setting number,the computer will automatically start.

⏪ Press < ESC > key to return to the Advanced menu

▶ **W83627UHG HW Monitor**

press<Enter>key to turn into the submenu.

Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.	
Advanced	
Pc Health Status	
Sys Temperature	: +28
CPU Temperature	: +38
SysFan Speed	: N/A
CpuFan Speed	: 1864
VCORE	: +1.192 V
+1.05V	: +1.032 V
+12V	: +12.091 V
Memory Voltage	: +1.560 V
AVCC	: +5.058 V
VBAT	: +3.232 V
	→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F7: Previous Values
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

The item monitors hardware state,including the temperure of CPU 、 fan、 all kinds of voltage etc.

↵ Press < ESC > key to return to the Advanced menu

4.2.5 Chipset

Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.					
Main	Advanced	Chipset	Boot	Security	Save&Exit
▶ Host Bridge	Host Bridge parameters				
▶ South Bridge					
	→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F: Previous Values				
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.					

▶ **Host Bridge**

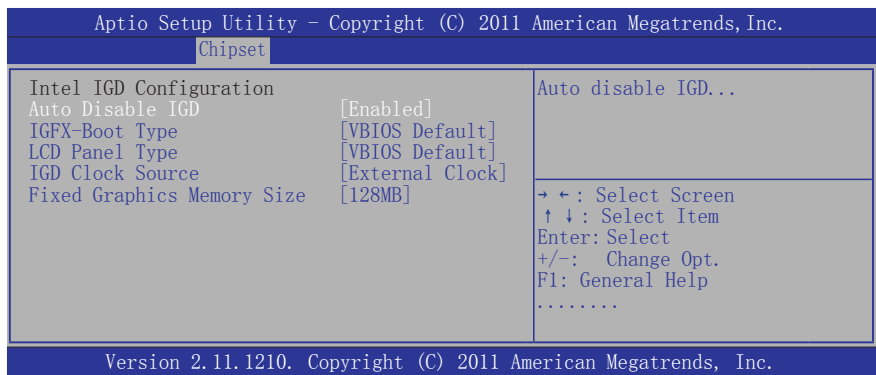
press<Enter>key to turn into the submenu.

Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.	
Chipset	
▶ Intel IGD Configuration	Config Intel IGD Settings
***** Memory Information *****	...
Memory Frequency	1067 MHz (DDR3)
Total Memory	2048 MB
DIMM#1	2048 MB
	→ ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.	

▶ **Intel IGD Configuration**

press<Enter>key to turn into the submenu.

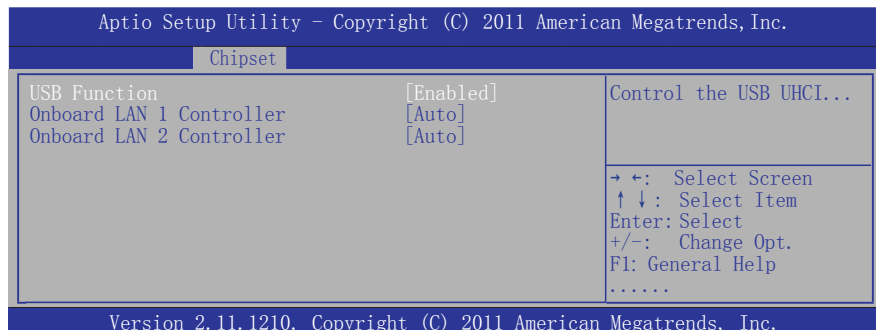
The item allows to set relevant information of IGD,suggesting not to change their default settings without completely understanding.



↵ Press < ESC> key to return to the Chipset menu

▶ **South Bridge**

press<Enter>key to turn into the submenu.



• **USB Function**

USB Controller, options: Enabled,Disabled.

• **LAN1/2 Controller**

Options : Auto,Enabled,Disabled.

↵ Press < ESC> key to return to the Chipset menu

4.2.6 Boot press<Enter>key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.					
Main	Advanced	Chipset	Boot	Security	Save&Exit
Boot Configuration			Number of seconds to wait for setup activation key. 65535 (0xFFFF) means indefinite waiting.		
Setup Prompt Timeout		1			
Bootup NumLock State		[On]			
Full Screen Logo		[Disabled]			
GateA20 Active		[Upon Request]			
Option ROM Messages		[Force BIOS]			
Interrupt 19 Capture		[Enabled]	→ ← : Select Screen ↑ ↓ : Select Item Enter: Select +/- : Change Opt. F1: General Help		
Boot Option Priorities					
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.					

- **Setup Prompt Timeout**

This option sets how long the prompt message will last.

- **Bootup NumLock State**

It is used to set the state of the Numlock key after system starts up. When "On" is chosen, the Numlock key will be ON and number keys on the keypad are available after system starts up;

When "Off" is chosen, Numlock will remain OFF after system starts up.

- **Full Screen Logo**

options: Disabled,Enabled.

- **GateA20 Active**

Options: Upon Request,Always.

- **Option ROM Messages**

Options: Force BIOS,Keep Current.

- **Interrupt 19 Capture**

options: Disabled,Enabled.

⏏ Press < ESC > key to return to the Boot menu

4.2.7 Security press<Enter>key to turn into the submenu.

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.					
Main	Advanced	Chipset	Boot	Security	Save&Exit
Password Description If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup. If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights. The password length must be in the following range: Minimum length 3 Maximum length 20 Administrator Password User Password			Set Administrator Password. → ←: Select Screen ↑ ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit		
Version 2.11.1210. Copyright (C) 2011 American Megatrends, Inc.					

● Administrator Password

This option is used to set an administrator password, as the following steps:

1. Move the cursor to the Administrator Password item, press <Enter>.
2. In the "Create New Password" dialog box, enter **3 to 20 characters or numbers** to be set, press <Enter>, and enter again in the "Confirm Password" dialog box to confirm the password.

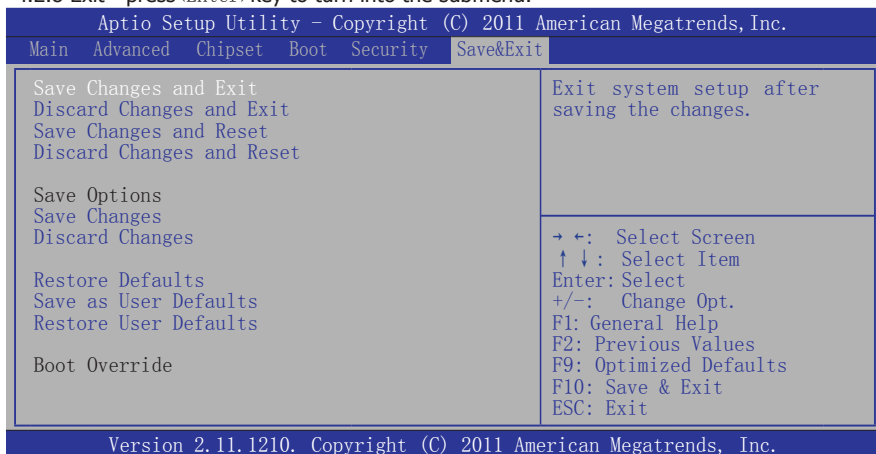
If the prompt is "Invalid Password!", the passwords do not match, please re-enter again. To clear the system administrator password, select "Administrator Password", in "Enter Current Password" dialog box enter the old password, and in the "Create New Password" press <Enter>, password will be cleared.

● User Password

The option is to set the user password, setting steps are the same as setting the "Administrator Password".

⇐ Press <ESC> key to return to the Security menu

4.2.8 Exit press<Enter>key to turn into the submenu.



- **Save Changes and Exit**

Select "Save Changes and Exit", and press the Enter key, and select "Yes" button, so save all settings the results to the CMOS RAM and exit BIOS setup program. If not stored, then select "No" or Press "ESC" key and return to the "Save & Exit" menu.

- **Discard Changes and Exit**

Select "Discard changes and exit", select "Yes" and press <Enter> to give up on BIOS program changes and exit BIOS setup program. Select "No" or press "ESC" and return to the main menu.

- **Save Changes and Reset**

Select "Save Changes and Reset", and select "Yes" and press <Enter> to save the changes made to the BIOS and restart. Select "No" or press "ESC" and return to the main menu.

- **Discard Changes and Reset**

Select "Discard Changes and Reset", select "Yes" and press <Enter> to give up to save the BIOS changes and restart. Select "No" or press "ESC" and return to the main menu.

- **Save Changes**

Select "Save Changes", select "Yes" and press <Enter> to save the BIOS changes. Select "No" or press "ESC" key and return to the main menu.

- **Discard Changes**

Select "Discard Changes", select "Yes" and press <Enter> to discard the BIOS changes. Select "No" or press "ESC" key and return to the main menu.

- **Restore Defaults**

Select "Restore Defaults", select "Yes" and press <Enter> allows users to restore all the BIOS options to optimize the value, select "No" or press "ESC" and return to the main menu.

- **Save as User Defaults**

Select "Save as User Defaults", choose "Yes" would allow you to save your personalized settings as BIOS default values, choose "No" or by pressing "ESC" will return to the main menu.

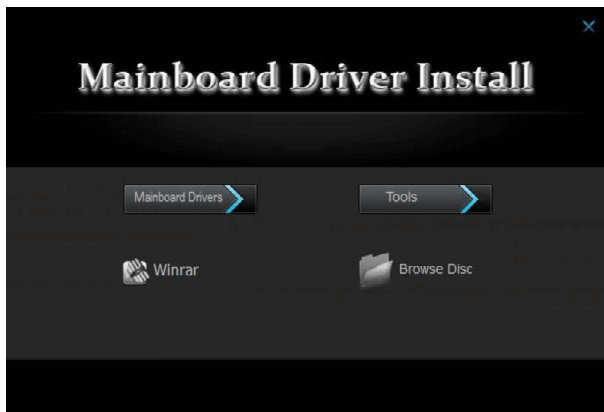
- **Restore User Defaults**

Select "Restore User Defaults", select "Yes" and press <Enter> allows the user to restore the user's personal BIOS settings, select "No" or press "ESC" and return to the main menu.

- **Boot Override**

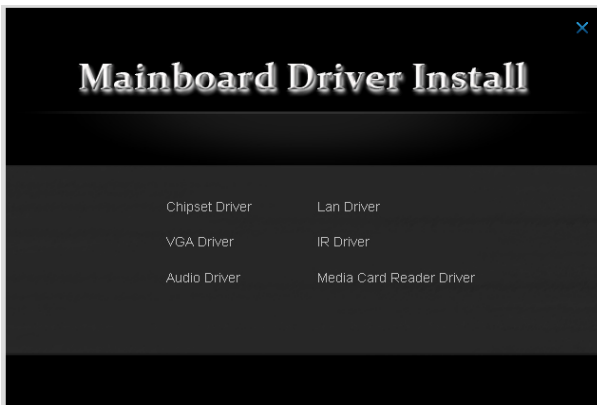
Chapter 5 Driver Installation

Check your package and there is Driver DVD included. This DVD consists of all drivers you need. In addition, this DVD also include an auto detect software which can tell you which hardware is installed, and which drivers needed so that your system can function properly. Insert DVD into your DVD-ROM drive and the menu should appear as below. If the menu does not appear, double-click My Computer / double-click DVD-ROM drive or click Start / click Run / type X:\AUTORUN.EXE (assuming X is your DVD-ROM drive).



(This picture is only for reference)

Please click on the options ,and install relevantly corresponding driver.



(This picture is only for reference)

From the Mainboard Drivers you may make 9 selections:

1. Chipset Driver
2. VGA Driver
3. LAN Driver
4. Audio Driver
5. IR Driver
6. Media Card Reader Driver

Toxic and hazardous substances or elements logo:



Carried out under the Ministry of Information Industry of the People's Republic of China released the <<Electronic Information Products Pollution Control Management Measures >> SJ/T11364-2006 standard requirements, pollution control identification of the products and toxic and hazardous substances or elements of identity are described below:

Toxic and hazardous substances or elements logo:

The names and contents of toxic and hazardous substances or elements in the product

Part Name	Toxic and hazardous substances or elements					
	(Pb)	(Hg)	(Cd)	(Cr(VI))	(PBB)	(PBDE)
PCB Board	×	○	○	○	○	○
Structure	○	○	○	○	○	○
Chipset	○	○	○	○	○	○
Connector	○	○	○	○	○	○
Passive electronic components	○	○	○	○	○	○
Weld metal	○	○	○	○	○	○
Wire	×	○	○	○	○	○
Help welding, thermal grease, labels and other supplies	○	○	○	○	○	○

O : Indicates that this toxic and hazardous substance content in all of the components of homogeneous material provisions of the SJ/T11363-2006 standard limited requirement.
X :Indicates that this toxic or hazardous substances at least in the part of a homogeneous material content than SJ/T11363-2006 standards limited requirement.
Note: X The location of the lead content exceeds the limit requirement of ST/T11363-2006's standard, but in line with the European Union RoHS Directive exemption clause.