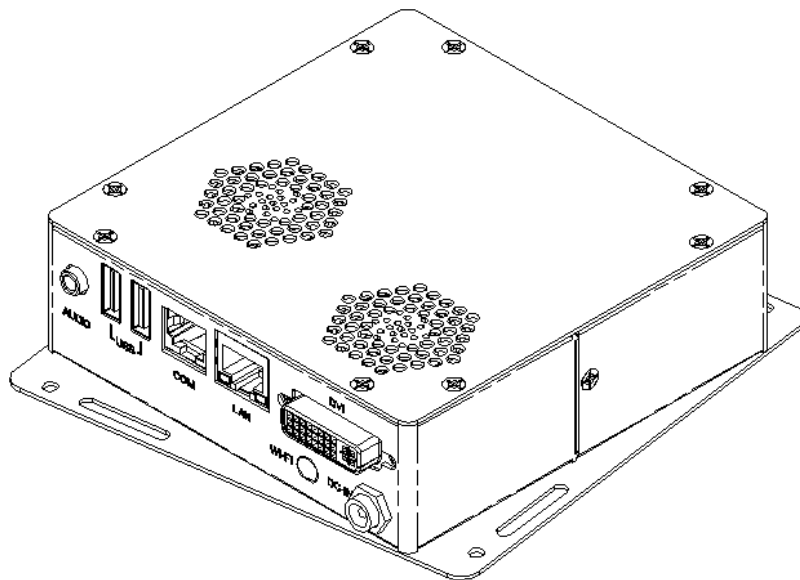


SI-18 Series

User Manual



2011 November V2

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Safety Information

Your SI-18 is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water.
- Set up the system on a stable surface. Do not secure the system on any unstable plane.
- Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- Slots and openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation.
Never insert objects of any kind into the ventilation openings.
- This system should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Use this product in environments with ambient temperatures between 0°C and 45°C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.
- DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 80° C (176° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug all power, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
 - The power cord or plug is damaged.

- Liquid has been spilled into the system.
- The system does not function properly even if you follow the operating instructions.
- The system was dropped or the cabinet is damaged.

Lithium-Ion Battery Warning

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

NO DISASSEMBLY

The warranty does not apply to the products that have been disassembled by users

WARNING

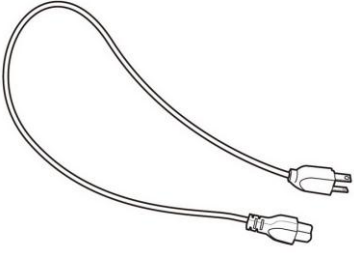
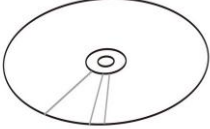
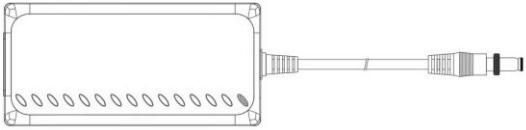
HAZARDOUS MOVING PARTS

KEEP FINGERS AND OTHER BODY PARTS AWAY

Acknowledgments

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- AMD and ATI are registered trademarks of AMD Corporation.
- Microsoft Windows is a registered trademark of Microsoft Corporation.
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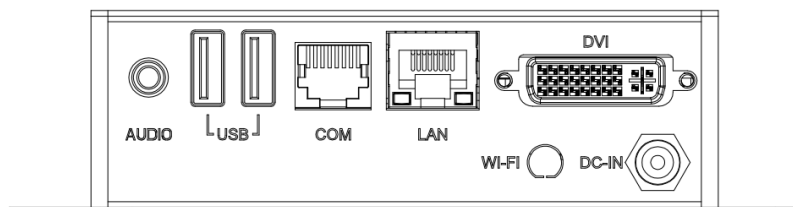
Accessories

	
a. Power Cord x 1	b. Driver CD x 1
	
c. Power Brick x 1	

Components

I/O View

Refer to the diagram below to identify the components on this side of the system.



DVI

The Digital Visual Interface (DVI) port supports a high quality VGA-compatible device such as a monitor or projector to allow viewing on a larger external display.

LAN

The eight-pin RJ-45 LAN port supports a standard Ethernet cable for connection to a local network.

COM

Communication or serial port is compatible with RS-232 interface without RI (ring indicator) signal.

USB

The USB (Universal Serial Bus) port is compatible with USB devices such as keyboards, mouse devices, cameras, and hard disk drives. USB allows many devices to run simultaneously on a single computer, with some peripheral acting as additional plug-in sites or hubs.

AUDIO

The stereo audio jack (3.5mm) is used to connect the system's audio out signal to amplified speakers or headphones.

DC-IN

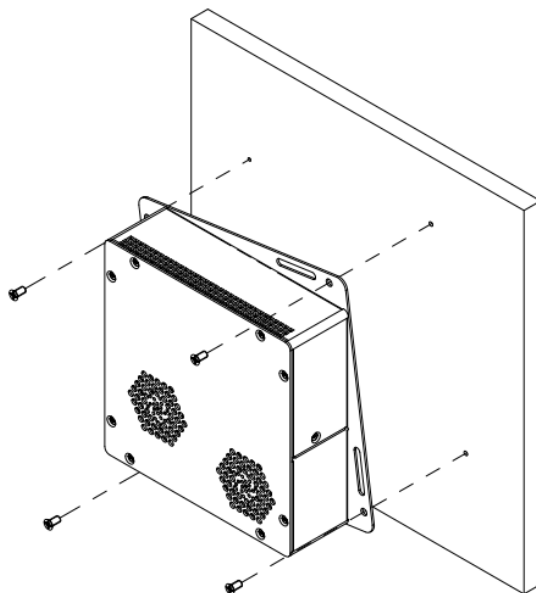
The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the system. To prevent damage to the system, always use the supplied power adapter.

Specification

System Mainboard	EB-900
Construction	SGCC 1.0t
Chassis Color	Black / White
Storage	2.5" 80GB SATA HDD x 1
Mounting	Wall mount
Dimensions	125.5(W) x 36(H) x 125.5(D)mm (4.94" x 1.41" x 4.94")
Power Supply	60W DC adapter
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)
Storage Temperature	-20°C ~ 80°C
Relative Humidity	5~90% @45°C (non-condensing)
Vibration	HDD: 0.25 Grms/5~500Hz random operation
Shock	HDD: 15 Grms peak acceleration (11 msec duration)
RoHS	Available

·This specification is subject to change without prior notice.

Mounting SI-18 to the Wall



You can install SI-18 on plastic (LCD monitor), wood, drywall surface over studs, or a solid concrete or metal plane directly. Ensure the installer uses at least four M3 length 6mm screws to secure the system on wall. ***Six M3 length 6mm screws are recommended to secure the system on wall.***

Fasteners are not included with the unit, and must be supplied by the installer. The types of fasteners required are dependent on the type of wall construction. Choose fasteners that are rated either "Medium Duty" or "Heavy Duty." To assure proper fastener selection and installation, follow the fastener manufacturer's recommendations.

Wall mounting requirements

Note: Before mounting the system on wall, ensure that you are following all applicable building and electric codes.

When mounting, ensure that you have enough room for power and signal cable routing. And have good ventilation for power adapter. The method of mounting must be able to support weight of the SI-18 plus the suspend weight of all the cables to be attached to the system. Use the following methods for mounting your system:

Mounting to hollow walls

- **Method 1: Wood surface** – A minimum wood thickness – 38mm (1.5in.) by 25.4 cm (10in.) – of high, construction – grade wood is recommended.
Note: This method provides the most reliable attachment of the unit with little risk that the unit will come loose or require ongoing maintenance.
- **Method 2: Drywall walls** - Drywall over wood studs is acceptable.

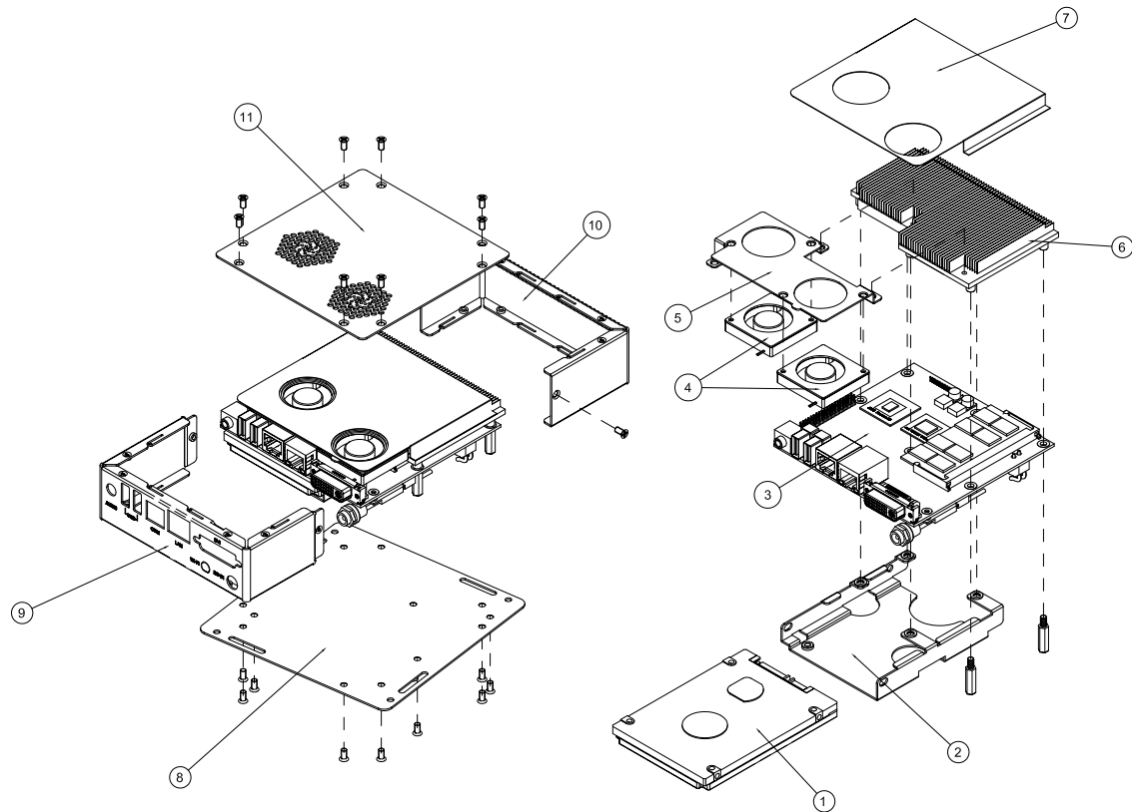
Mounting to a solid concrete or brick wall - Mounts on a flat smooth surface.

Selecting the location

Plan the mounting location thoroughly. Locations such as walkway areas, hallways, and crowded areas are not recommended. Mount the unit to a flat, sturdy, structurally sound column or wall surface.

The best mounting surface is a standard countertop, cabinet, table, or other structure that is minimally the width and length of the unit. This recommendation reduces the risk that someone may accidentally walk into and damage the device. Local laws governing the safety of individuals might require this type of consideration.

Exploded view of the SI-18 assembly



Parts description

Part NO.	Description	Part NO.	Description
1	HDD	2	HDD bracket
3	EB900	4	FAN Set
5	FAN bracket	6	Heatsink
7	FAN Dock	8	Bottom Chassis / Mounting
9	Chassis Body – I/O	10	Chassis Body
11	Top cover		

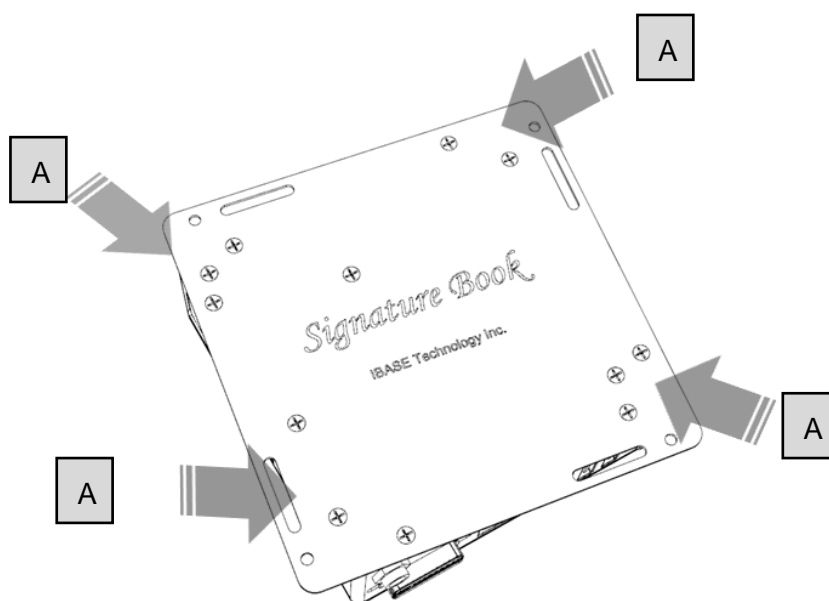
Installation

Installing WLAN antenna (Optional)

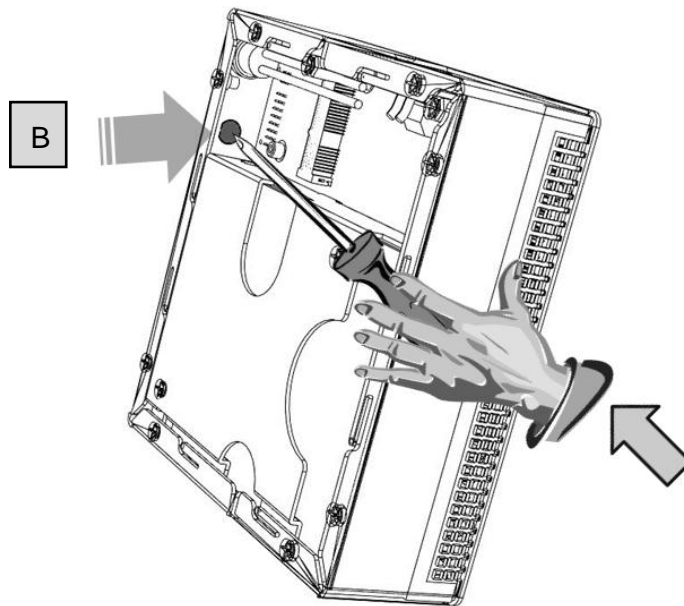
SI-18 reserved one SMA connector hole for WLAN (wireless LAN) antenna connection on I/O side. It means you can only use one antenna solution WLAN card. For 802.11n solution, you can only have up to 150Mbit/s performance. You can have WLAN feature by purchase WLAN set from your sales representative. And follow below procedure to install the WLAN feature by yourself.

Before you start to install WLAN antenna and card please:

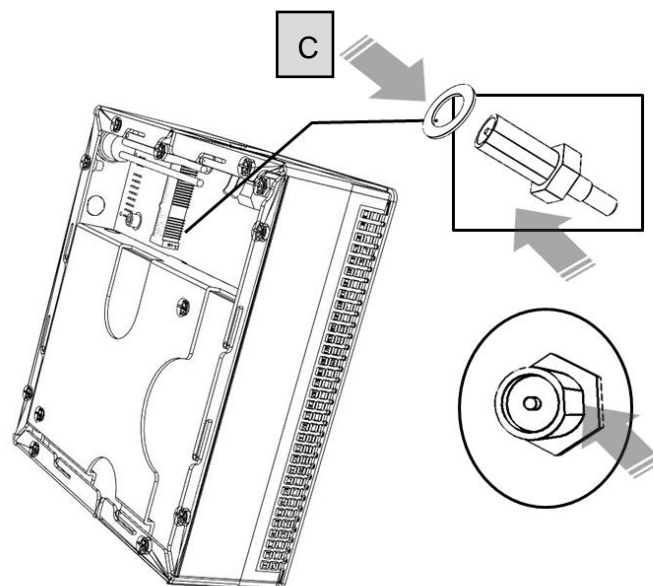
- Complete remove DC power source from SI-18.
 - Please ensure you have good ESD protection environment and if possible please wear ESD protection equipment and have well grounding connection.
1. Upside-down SI-18 and let bottom side face to you.
 2. Remove all M3 screw of bottom chassis (12 pieces) with properly screw driver from point A.



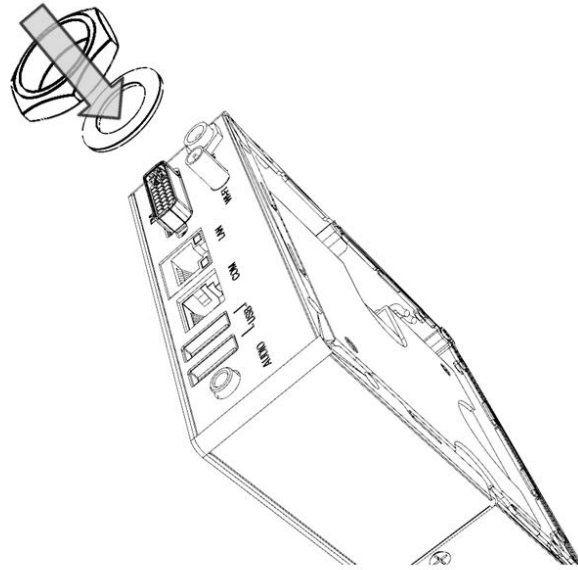
3. Rotating SI-18 to let bottom side face to your body.
4. Using screw driver to pinch out the knock-out metal-plate of SMA antenna hole from point B. To avoid the metal fall in system, please pinch out the metal-cover with same direction as the figure below.



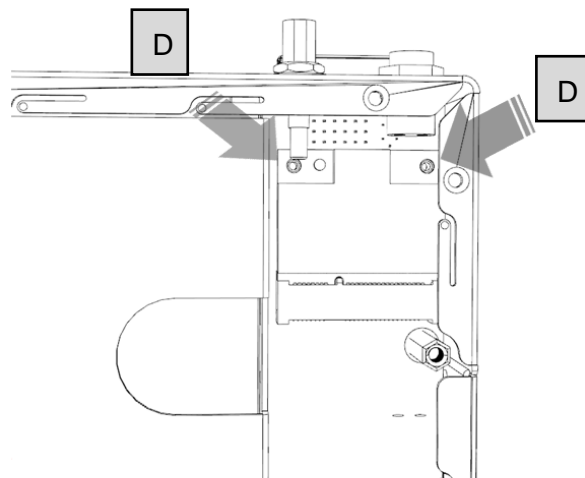
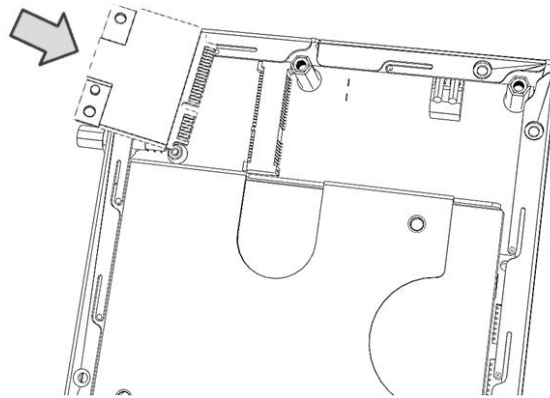
5. Hold WLAN antenna SMA head carefully and through the hole on I/O wall. Beware the direction of SMA head with the hole, there only has one direction can pass through the antenna hole. And there has one washer shall be put on head before through into the hole, point C.



6. Fit on antenna washer then hex nut on SMA connector and use hex socket driver or plier to tie the nut to ensure the SMA connector secure on I/O wall.



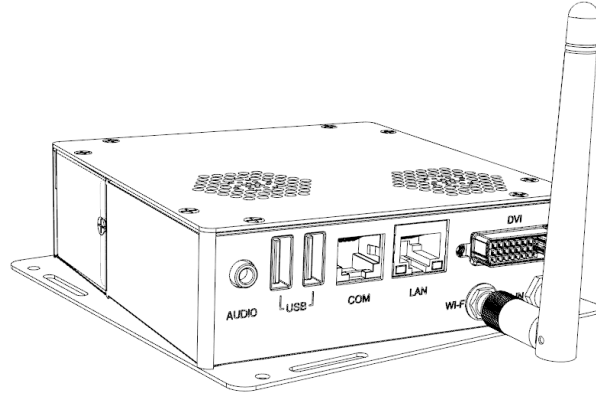
7. Install your WLAN card on mini-PCIe connector and use the screw provided by WLAN card to secure WLAN card in position on point D.



8. Wiring the IPX connector on WLAN card and manage your internal antenna

cable routing.

9. Screw bottom chassis back to system with 8 screws where disassembled by procedure 2 in above.



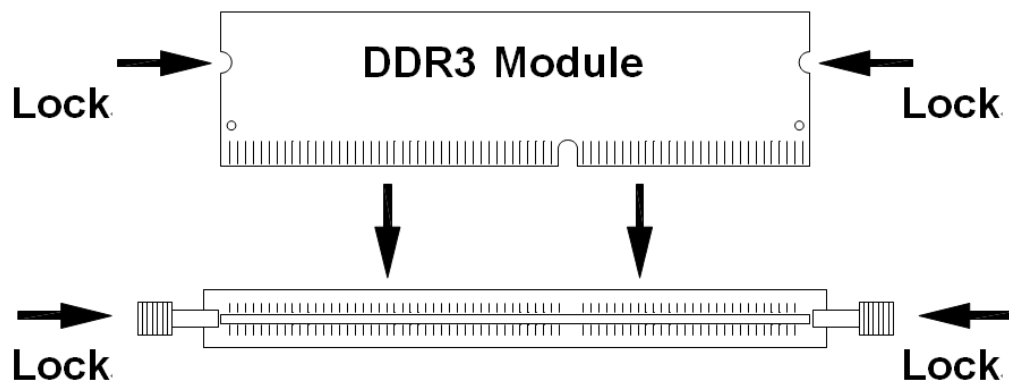
Installing the memory

The motherboard supports two DDR3 memory socket for a maximum total memory of 4GB in DDR3 memory type.

Installing and Removing Memory Module (CN1)

To install the DDR3 modules, locate the memory slot on the board and perform the following steps:

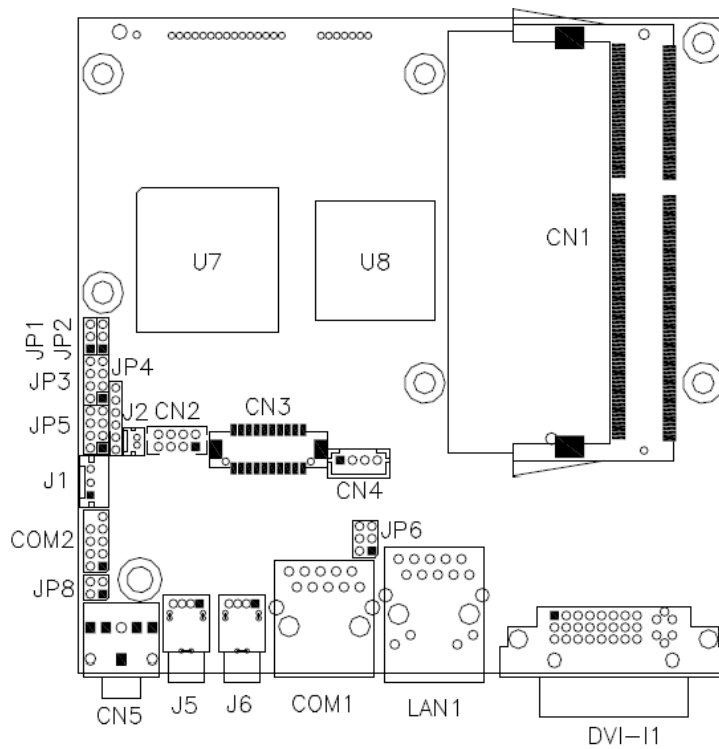
1. Hold the DDR3 module so that the key of the DDR3 module align with those on the memory slot.
2. Gently push the DDR3 module in SOCKET position until the clips of the slot close to hold the DDR3 module in place when the DDR3 module touches the bottom of the slot.
3. To remove the DDR3 module, press the clips with both hands.





Setting Jumper

Jumpers are used on the motherboard to select various settings and features according to your needs and applications. Contact your supplier if you have doubts about the best configuration for your needs. The following lists the connectors and their respective functions.



Jumper Locations



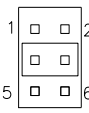
JP1: Clear CMOS Setting

JP1	Setting
	Normal
	Clear CMOS

JP2: LCD Panel Power Selection


JP2	LCD Panel Power
	3.3V
	5V

JP6: COM1 RS232 +5V/+12V Power Setting

JP6	Setting	Function
	Pin 1-2 Short/Closed	+12V
	Pin 3-4 Short/Closed	Normal
	Pin 5-6 Short/Closed	+5V

Pin Definition

COM1: COM1 Serial Port

COM1	Pin	Signal Name
	1	DSR, Data set ready
	2	GND, ground
	3	GND, ground
	4	TXD, Transmit data
	5	RXD, Receive data
	6	DCD, Data carrier detect
	7	DTR, Data terminal ready
	8	CTS, Clear to send
	9	RTS, Request to send
	10	RI, Ring indicator

BIOS Setup

This chapter describes the different settings available in the AMI BIOS that comes with the board.

BIOS Introduction

The BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

BIOS Setup

The BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the BIOS are immediately activated. Pressing the key immediately allows you to enter the Setup utility. If you are a little bit late pressing the key, POST (Power On Self-Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

Press to Enter Setup

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

Main BIOS Setup

This setup allows you to record some basic hardware configurations in your computer system and set the system clock.

Aptio Setup Utility – Copyright © 2010 American Megatrends, Inc.

Main	Advanced	Chipset	Boot	Security	Save & Exit
BIOS INFORMATION					
BIOS Vendor			American Megatrends		
Core Version			4.6.6.0		
Compliancy			UEFI 2.1		
Project Version			0ABVQ 0.10 x64		
Build Date and Time			04/12/2011 11:47:06		
Memory Information					
Total Memory			1008 MB (DDR3)		→ ← Select Screen
System Language			[English]		↑ ↓ Select Item
System Date			[Tue 09/07/2010		Enter: Select
System Time			[00:08:21]		+ - Change Field
Access Level			Administrator		F1: General Help
					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Note: *If the system cannot boot after making and saving system changes with Setup, the AMI BIOS supports an override to the CMOS settings that resets your system to its default.*

Warning: *It is strongly recommended that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both AMI and your system manufacturer to provide the absolute maximum performance and reliability. Changing the defaults could cause the system to become unstable and crash in some cases.*

System Language

Choose the system default language.

System Date

Set the Date. Use Tab to switch between Data elements.

System Time

Set the Time. Use Tab to switch between Time elements.

Advanced Settings

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

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Main	Advanced	Chipset	Boot	Security	Save & Exit
	Legacy OpROM Support				
	Launch PXE OpROM			Disabled	
	Launch Storage OpROM			Enabled	
	▶ PCI Subsystem Settings				
	▶ ACPI Settings				
	▶ CPU Configuration				
	▶ Auto Power On Schedule				
	▶ IDE Configuration				→ ← Select Screen
	▶ USB Configuration				↑ ↓ Select Item
	▶ Super IO Configuration				Enter: Select
	▶ H/W Monitor				+ - Change Field
					F1: General Help
					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Launch PXE OpROM

Enable or Disable Boot Option for Legacy Network Devices.

Launch Storage OpROM

Enable or Disable Boot Option for Legacy Mass Storage Devices with Option ROM.

PCI Subsystem Settings

This section allows you to configure the PCI, PCI-X and PCI Express settings.

Aptio Setup Utility – Copyright © 2010 American Megatrends, Inc.

Main	Advanced	Chipset	Boot	Security	Save & Exit
	PCI Bus Driver Version		V 2.03.00		
	PCI ROM Priority		EFI Compatible ROM		
	PCI Common Settings				
	PCI Latency Timer		32 PCI Bus Clocks		
	VGA Palette Snoop		Disabled		
	PERR# Generation		Disabled		
	SERR# Generation		Disabled		
	PCI Express Device Settings				
	Relaxed Ordering		Disabled		→ ← Select Screen
	Extended Tag		Disabled		↑ ↓ Select Item
	No Snoop		Enabled		Enter: Select
	Maximum Payload		Auto		+ - Change Field
	Maximum Read Request		Auto		F1: General Help
	PCI Express Link Settings				F2: Previous Values
	ASPM Support		Disabled		F3: Optimized Default
	WARNING: Enabling ASPM may cause Some PCI-E devices to fail				F4: Save ESC: Exit
	Extended Synch		Disabled		

PCIE Configuration

The fields under PCIE Configuration features settings for *Primary Dual Slot Config*, *GPP Slots Power Limit*, *GFX ports*, *GPPs* and *NB-SB port* features.

Internal Graphics Mode

The settings for IB828 are *Disabled* and *UMA*; while the IB828 has additional settings of *Sideport* and *UMA+sideport*.

Init Display First

The default setting is *IGX*.

NB Power Management

The default setting is *Auto*.

Memory Hole At 15M-16M

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory space below 16 MB. The choices are *Enabled* and *Disabled*.

System BIOS Cacheable

The setting of *Enabled* allows caching of the system BIOS ROM at F000h-FFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

PCI ROM Priority

In case of multiple Option ROMs (Legacy and EFI Compatible), specifies what PCI Option ROM to launch.

PCI Latency Timer

Value to be programmed into PCI Latency Timer Register.

VGA Palette Snoop

Enables or Disables VGA Palette Registers Snooping.

PERR# Generation

Enables or Disables PCI Device to Generate PERR#.

SERR# Generation

Enables or Disables PCI Device to Generate SERR#.

Relaxed Ordering

Enables or Disables PCI Express Device Relaxed Ordering.

Extended Tag

If ENABLED allows Device to use 8-bit Tag field as a requester.

No Snoop

Enables or Disables PCI Express Device No Snoop option.

Maximum Payload

Set Maximum Payload of PCI Express Device or allow System BIOS to select the value.

Maximum Read Request

Launches (Enabled/Disabled) the boot option for legacy network devices.

PCI Express Link Settings

Set Maximum Read Request Size of PCI Express Device or allow System BIOS to select the value.

ASPM Support

Set the ASPM Level:

Force L0 – Force all links to L0 State

AUTO – BIOS auto configure

DISABLE – Disables ASPM

Extended Synch

If ENABLED allows generation of Extended Synchronization patterns.

ACPI Settings

This section configures the system ACPI parameters.

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Main	Advanced	Chipset	Boot	Security	Save & Exit
	Enable ACPI Auto Configuration		Disabled		
	Enable Hibernation		Enabled		→ ← Select Screen
	ACPI Sleep State		S3 (Suspend to RAM)		↑ ↓ Select Item
	Lock Legacy Resources		Disabled		Enter: Select
	S3 Video Report		Disabled		+ - Change Field
					F1: General Help
					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Enabled ACPI Auto Configuration

Enables or Disables BIOS ACPI Auto Configuration.

Enable Hibernation

Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may be not effective with some OS.

ACPI Sleep State

Select the highest ACPI sleep state the system will enter, when the SUSPEND button is pressed.

Lock legacy Resources

Enabled or Disabled Lock of Legacy Resources

S3 Video Repost

Enabled or Disabled S3 Video Repost.

CPU Configuration

This section shows the CPU configuration parameters.

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Main	Advanced	Chipset	Boot	Security	Save & Exit
CPU Configuration					
	Limit CPUID Maximum		Disabled		
	PSS Support		Enabled		
	PSTATE Adjustment		PState 0		
	PPC Adjustment		PState 0		
	SVM Mode		Enabled		
	NX Mode		Enabled		
	C6 Mode		Auto		
	▶ Node 0 Information				
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

Limit CPUID Maximum

Disabled for Windows XP.

PSS Support

Enabled /disabled the generation of ACPI_PPC, and _PCT objects.

PSTATE Adjustment

Provide to adjust startup P-state level.

PPC adjustment

Provide to adjust_PPC object.

NX Mode

Enabled/disabled NO-execute page protection Function.

SVM Mode

Enabled/disabled CPU Virtualization.

C6 Mode

Enabled/disabled C6.

Node 0 Information

View Memory Information related to Node 0.

Auto Power On Schedule

This section setups the power on time for the system.

Aptio Setup Utility – Copyright © 2010 American Megatrends, Inc.

Main	Advanced	Chipset	Boot	Security	Save & Exit
Auto Power on Schedule					
Firmware Version			T.B.D.	→ ← Select Screen	
Schedule Slot 1			None	↑ ↓ Select Item	
Schedule Slot 2			None	Enter: Select	
					+ - Change Field
					F1: General Help
					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Schedule Slot 1

Setup the hou/minute for sytem power on.

Schedule Slot 2

Setup the hou/minute for sytem power on.

IDE Configuration

This section shows the IDE devices configuration.

Aptio Setup Utility – Copyright © 2010 American Megatrends, Inc.

Main	Advanced	Chipset	Boot	Security	Save & Exit
SATA Configuration					
SATA Port0			Enabled	→ ← Select Screen	
SATA Port1			Enabled	↑ ↓ Select Item	
SATA Port2			Enabled	Enter: Select	
SATA Port3			Enabled	+ - Change Field	
SATA Port4			Enabled	F1: General Help	
SATA Port5			Enabled	F2: Previous Values	
					F3: Optimized Default
					F4: Save ESC: Exit
					ESC: Exit

Serial-ATA Controller

Enable / Disable Serial ATA Controller.

USB Configuration

Aptio Setup Utility – Copyright © 2010 American Megatrends, Inc.

Main	Advanced	Chipset	Boot	Security	Save & Exit
USB Configuration					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
USB Devices: 1 Keyboard, 1 Mouse					
Legacy USB Support			Enabled		
EHCI Hand-off			Disabled		
USB hardware delays and time-outs:					
USB transfer time-out			20 sec		
Device reset time-out			20 sec		
Device power-up delay			Auto		

Legacy USB Support

Enables Legacy USB support.

AUTO option disables legacy support if no USB devices are connected.

DISABLE option will keep USB devices available only for EFI applications.

EHCI Hand-off

Enabled/Disabled. This is a workaround for Oses without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

USB transfer time-out

The time-out value for Control, Bulk, and Interrupt transfers.

Device reset time-out

USB mass storage device Start Unit command time-out.

Device power-up delay

Maximum time the device will take before it properly reports itself to the Host Controller. 'Auto' users default value: for a Root port it is 100ms, for a Hub port the delay is taken from Hub descriptor.

Super IO Configuration

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Main	Advanced	Chipset	Boot	Security	Save & Exit
Super IO Configuration					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
Super IO Chip		F81801			
-> Serial Port 0 Configuration					
-> Serial Port 2 Configuration					
Power Failure		Always off			

Serial Port 0/1 Configuration

Set Parameters of Serial Port 0/1 (COMA/COMB)

Power Failure

The options: Keep last state, By pass mode, Always on, and Always off.

H/W Monitor

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Main	Advanced	Chipset	Boot	Security	Save & Exit
PC Health Status					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
Smart Fan Function		[Disabled]			
CPU Temperature		+64 C			
System Temperature		+33 C			
Fan Speed		N/A			
VCC3V		3.376 V			
Vcore		0.960 V			
Memory Voltage		1.488 V			
VSB3V		3.392 V			
VBAT		3.040 V			
CPU Shutdown Temperature		[Disabled]			

Temperatures/Voltages

The values are read-only values as monitored by the system and show the PC health status.

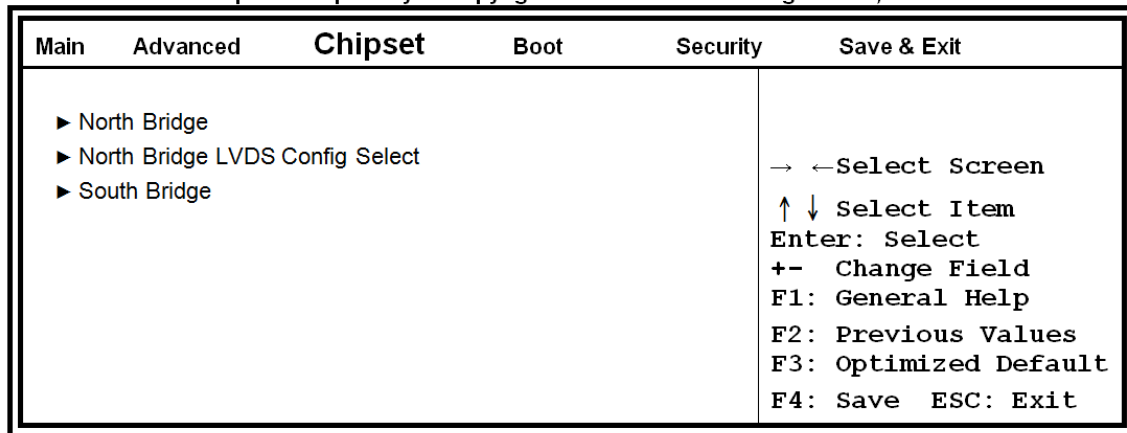
CPU Shutdown Temperature

Aside from the Disabled options, this field allows the setting of shutdown temperature from 70C to 95C.

Chipset Settings

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

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North Bridge

This item shows the North Bridge Parameters.

North Bridge LVDS Config Select

This item shows the Specify INT15 options for LVDS

South Bridge

This item shows the South Bridge Parameters.

North Bridge

This section allows you to configure the North Bridge Chipset.

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Main	Advanced	Chipset	Boot	Security	Save & Exit
North Bridge Configuration					
NB GPP Core Config			[GPP_CORE_x4x2x1x1]		
Port 4 Control			[Enabled]		
Aspm Mode Control			[Disabled]		
Hotplug Mode Control			[Hotplug Basic]		
Port 5 Control			[Enabled]		
Port 6 Control			[Enabled]		
Port 7 Control			[Enabled]		
Port 8 Control			[Enabled]		
IOMMU Mode			Disabled		
Memory Clock			200MHz		
Memory Information					
Total Memory: 4096 MB (DDR3)					
▶ GFX Configuration					
▶ Memory Configuration					
▶ Node 0 Information					
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

IOMMU Mode

IOMMU is supported on LINUX based systems to convert 32bit I/O to 64bit MMIO.

Memory Clock

This option allows user to select different memory clock.

GFX Configuration

Aptio Setup Utility					
Main	Advanced	Chipset	Boot	Security	Save & Exit
GFX Configuration					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
PSPP Policy			Disabled		

PSPP Policy

PCIe speed power policy.

Memory Configuration

Aptio Setup Utility					
Main	Advanced	Chipset	Boot	Security	Save & Exit
Memory Configuration					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
Integrated Graphics			Auto		
Bank Interleaving			Disabled		

Integrated Graphics

Enable Integrate Graphics controller.

Node 0 Information

View memory information related to Node 0.

North Bridge LVDS Config Select

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
Specify INT15 options for LVDS					
		DP0 Output Mode	Disabled		→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
		DP1 Output Mode	Single Link DVI-D		
		LVDS Panel Config Select	800x600		

South Bridge

This section allows you to configure the South Bridge Chipset.

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Main	Advanced	Chipset	Boot	Security	Save & Exit
		SB CIM Version :	1.1.0.1		
		▶ SB SATA Configuration			→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
		▶ SB USB Configuration			
		▶ SB GPP Port Configuration			
		▶ SB HD Azalia Configuration			

SB SATA Configuration

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Main	Advanced	Chipset	Boot	Security	Save & Exit
		OnChip SATA Channel	Enabled		
		OnChip SATA Type	Native IDE		
		OnChip IDE mode	Legacy mode		
		SATA IDE Combined Mode	Enabled		→ ← Select Screen
		Combined Mode Option	SATA as primary		↑ ↓ Select Item
		SATA ESP on PORT0	Disabled		Enter: Select
		SATA ESP on PORT1	Disabled		+ - Change Field
		SATA ESP on PORT2	Disabled		F1: General Help
		SATA ESP on PORT3	Disabled		F2: Previous Values
		SATA ESP on PORT4	Disabled		F3: Optimized Default
		SATA ESP on PORT5	Disabled		F4: Save ESC: Exit
		SATA Power on PORT0	Enabled		
		SATA Power on PORT1	Enabled		
		SATA Power on PORT2	Enabled		
		SATA Power on PORT3	Enabled		
		SATA Power on PORT4	Enabled		
		SATA Power on PORT5	Enabled		

OnChip SATA Type

Native IDE / n RAID / n AHCI / n AHCI / n Legacy IDE / n IDE->AHCI / n HyperFlash

SB USB Configuration

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Main	Advanced	Chipset	Boot	Security	Save & Exit
		OHCI HC (Bus 0 Dev 18 Fn 0)	Enabled		
		OHCI HC (Bus 0 Dev 19 Fn 0)	Enabled		
		OHCI HC (Bus 0 Dev 22 Fn 0)	Enabled		
		OHCI HC (Bus 0 Dev 20 Fn 5)	Enabled		
		USB PORT 0	Enabled		
		USB PORT 1	Enabled		
		USB PORT 2	Enabled		
		USB PORT 3	Enabled		
		USB PORT 4	Enabled		
		USB PORT 5	Enabled		
		USB PORT 6	Enabled		
		USB PORT 7	Enabled		
		USB PORT 8	Enabled		
		USB PORT 9	Enabled		
		USB PORT 10	Enabled		
		USB PORT 11	Enabled		
		USB PORT 12	Enabled		
		USB PORT 13	Enabled		
		USB PORT FL0	Enabled		
		USB PORT FL1	Enabled		
		USB Device Wakeup From S3 or S4			
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

SB GPP Port Configuration

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Main	Advanced	Chipset	Boot	Security	Save & Exit
		SB GPP Function	Enabled		
		GPP Port Link Configuration	1:1:1:1 mode		
		hide unused GPP port	Enabled		
		GPP Link ASPM	Disabled		
		NB-SB PHY PLL Power Down	Enabled		
		SB GPP PHY PLL Power Down	Enabled		
		SB GPP LANE REVERSAL	Disabled		
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

SB HD Azalia Configuration

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
HD Audio Azalia Device			Enabled		
HD Onboard PIN Config			Enabled		
Azalia Front Panel			Auto		→ ← Select Screen
SDIN0 Pin Config			Azalia		↑ ↓ Select Item
SDIN1 Pin Config			Azalia		Enter: Select
SDIN2 Pin Config			Azalia		+ - Change Field
SDIN3 Pin Config			Azalia		F1: General Help
Azalia Snoop			Disabled		F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Boot Settings

This section allows you to configure the boot settings according to your preference.

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Main	Advanced	Chipset	Boot	Security	Save & Exit
Boot Configuration					
Setup Prompt Timeout			1		
Bootup NumLock State			On		
Quiet Boot			Disabled		
CSM16 Module Version			07.63		→ ← Select Screen
GateA20 Active			Upon Request		↑ ↓ Select Item
Option ROM Messages			Force BIOS		Enter: Select
Interrupt 19 Canture			Disabled		+ - Change Field
UEFI Boot			[Disabled]		F1: General Help
Boot Option Priorities					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Setup Prompt Timeout

Number of seconds to wait for setup activation key.

65535(0xFFFF) means indefinite waiting.

Bootup NumLock State

Select the keyboard NumLock state.

Quiet Boot

Enables/Disables Quiet Boot option.

GateA20 Active

UPON REQUEST – GA20 can be disabled using BIOS services.

ALWAYS – do not allow disabling GA20; this option is useful when any RT code is executed above 1MB.

Option ROM Messages

Set display mode for Option ROM. Options are Force BIOS and Keep Current.

Interrupt 19 Canture

Enable: Allows Option ROMs to trap Int 19.

UEFI Option Priorities

Enables/Disables UEFI boot from disks.

Security Settings

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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 must be 3 to 20 characters.					
Administrator Password					
User Password					
					→ ← Select Screen
					↑ ↓ Select Item
					Enter: Select
					+ - Change Field
					F1: General Help
					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

Administrator Password

Set Setup Administrator Password.

User Password

Set User Password.

Save & Exit Settings

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Main	Advanced	Chipset	Boot	Security	Save & Exit
Save Changes and Exit					
Discard Changes and Exit					
Save Changes and Reset					
Discard Changes and Reset					→ ← Select Screen
Save Options					↑ ↓ Select Item
Save Changes					Enter: Select
Discard Changes					+ - Change Field
Restore Defaults					F1: General Help
Save as User Defaults					F2: Previous Values
Restore User Defaults					F3: Optimized Default
Boot Override					F4: Save ESC: Exit
Launch EFI Shell from filesystem device					

Save Changes and Exit

Exit system setup after saving the changes.

Discard Changes and Exit

Exit system setup without saving any changes.

Save Changes and Reset

Reset the system after saving the changes.

Discard Changes and Reset

Reset system setup without saving any changes.

Save Changes

Save Changes done so far to any of the setup options.

Discard Changes

Discard Changes done so far to any of the setup options.

Restore Defaults

Restore/Load Defaults values for all the setup options.

Save as User Defaults

Save the changes done so far as User Defaults.

Restore User Defaults

Restore the User Defaults to all the setup options.

Boot Override

Pressing ENTER causes the system to enter the OS.

Launch EFI Shell from filesystem device

Attempts to launch EFI Shell application (Shellx64.efi) from one of the available filesystem devices.

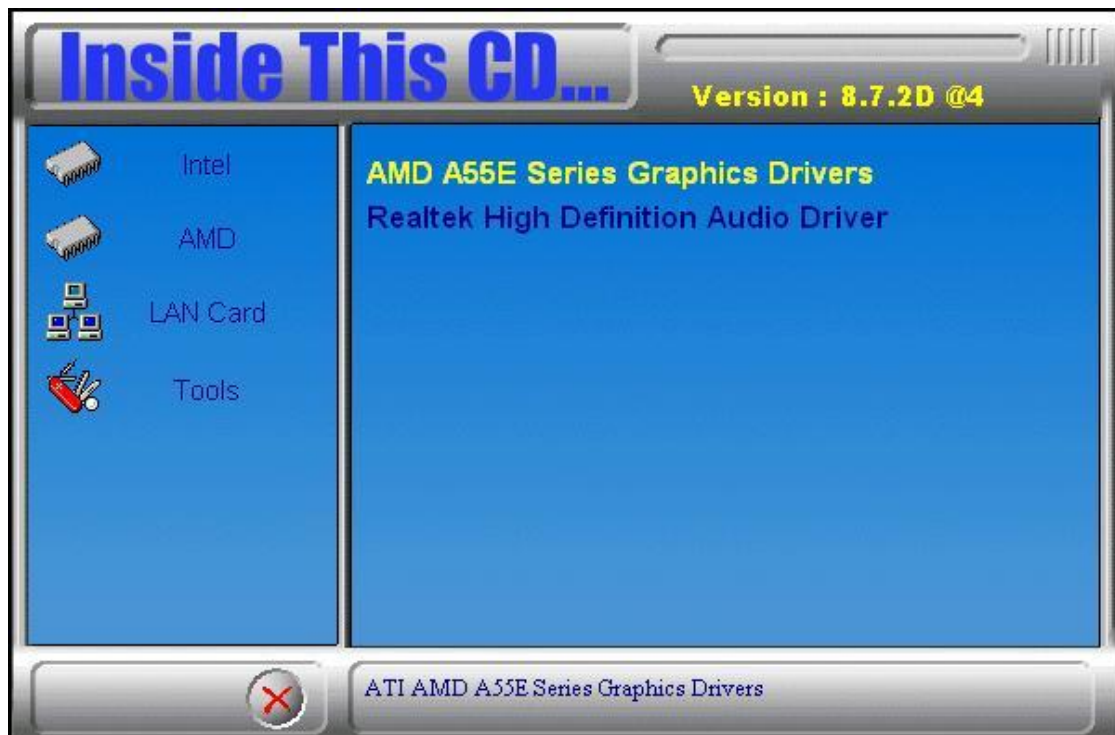
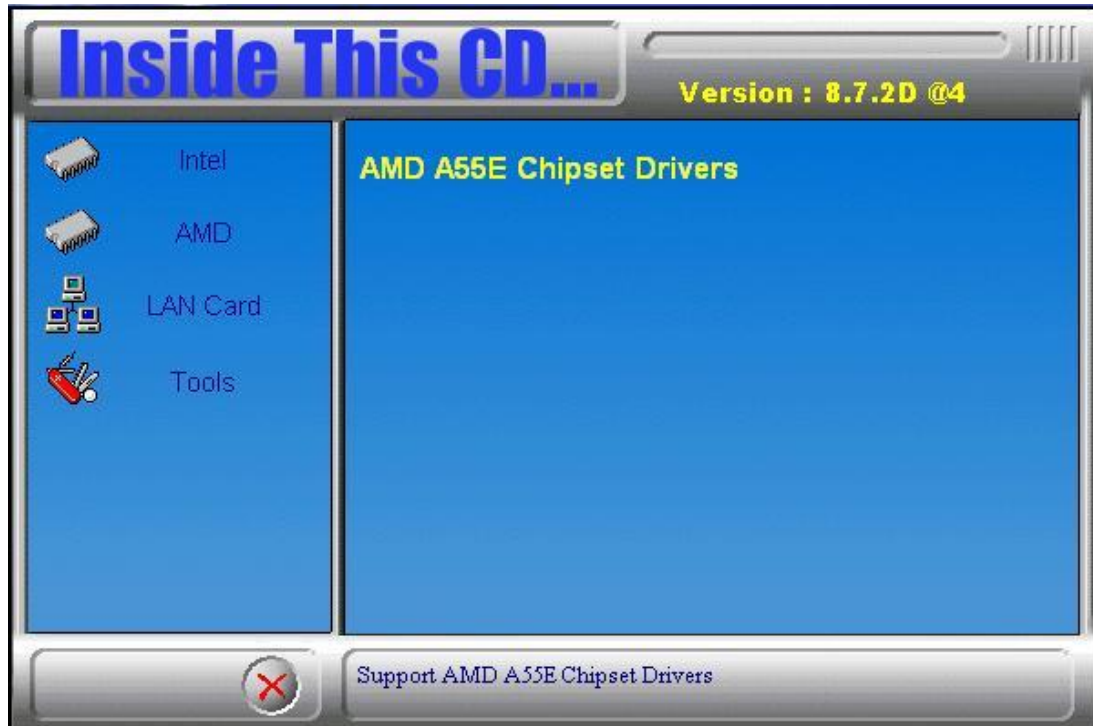
Driver Installation

This section describes the installation procedures for software and drivers. The software and drivers are included with the motherboard. If you find the items missing, please contact the vendor where you made the purchase.

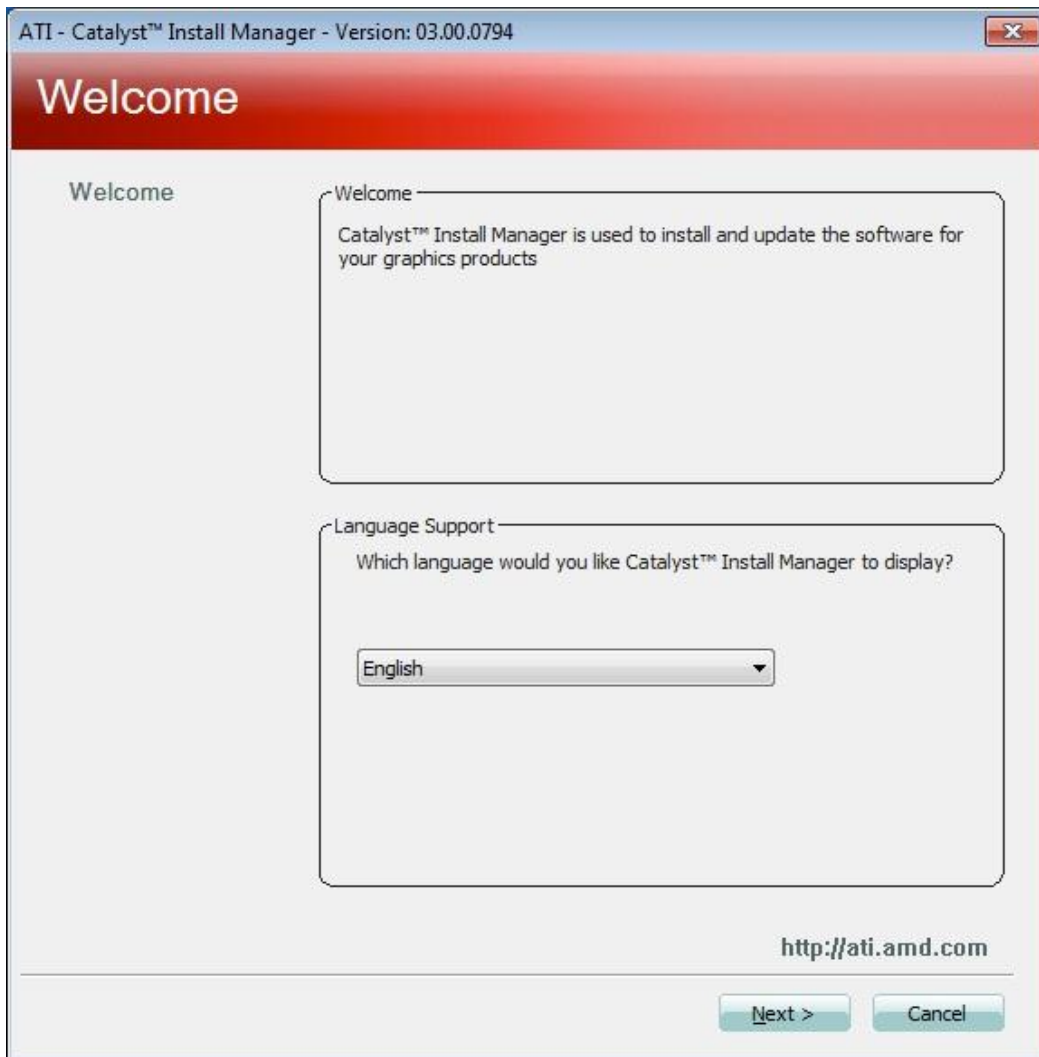
AMD A55E Chipset Family Graphic Driver Installation

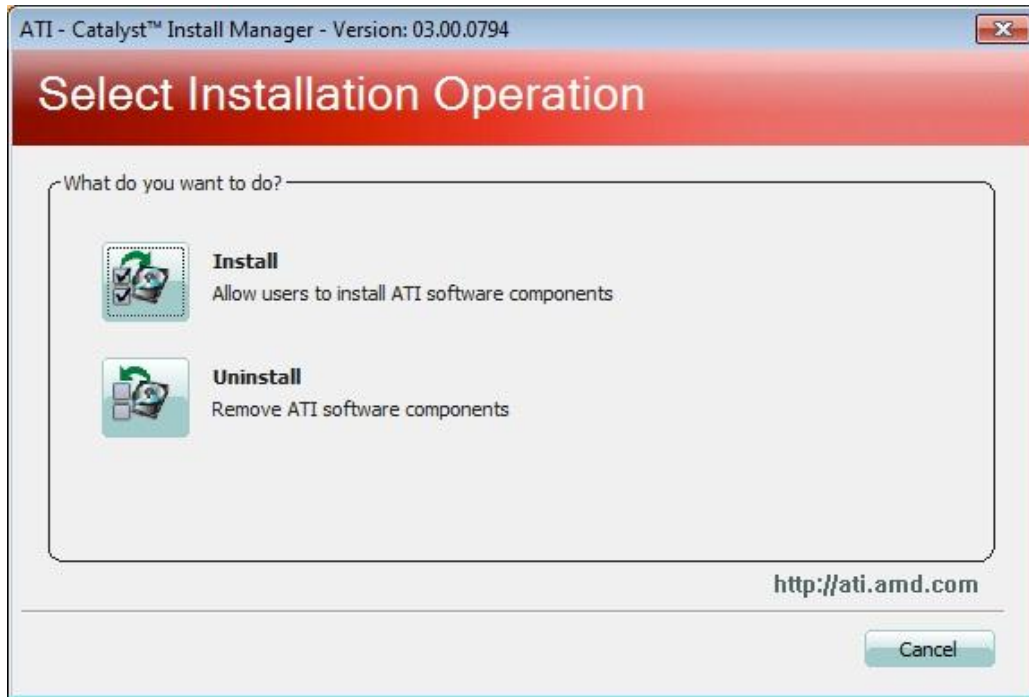
Follow the steps below to install the AMD A55E chipset family graphics drivers.

1. Insert the CD that comes with the system. Click **AMD**, then **AMD A55E Chipset Drivers**, and then **AMD A55E Series Graphics Drivers**.



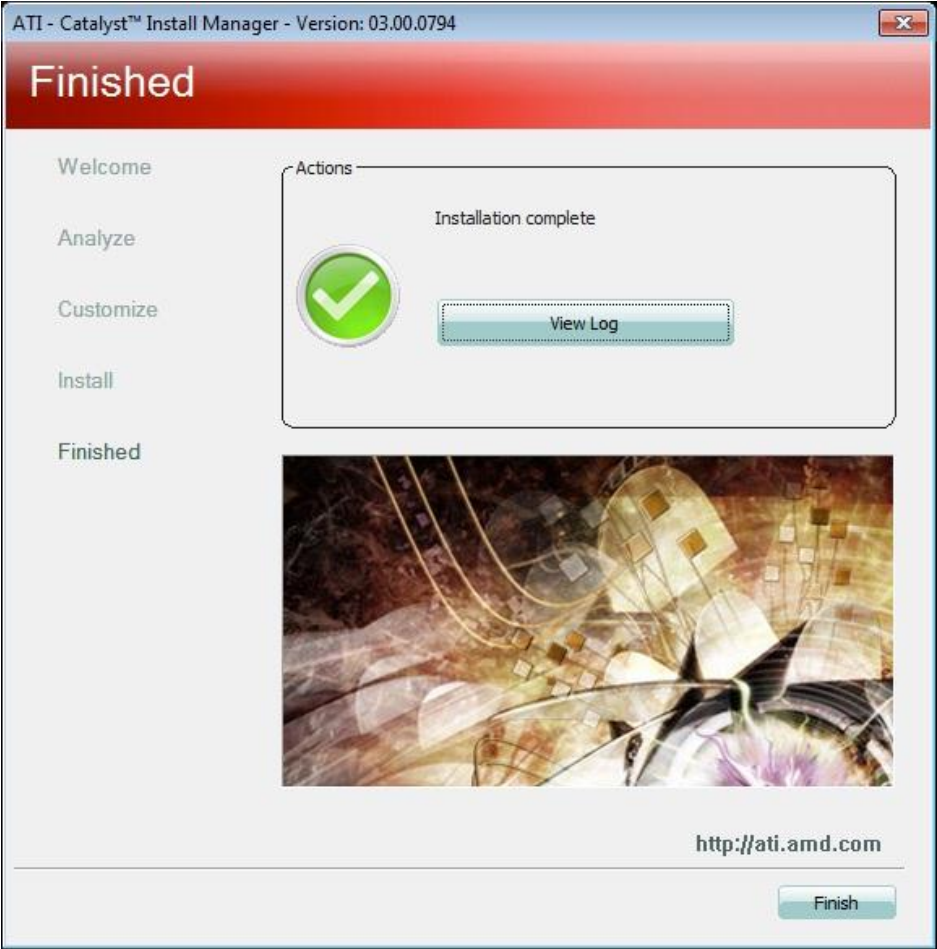
2. When the welcome screen to the ATI – Catalyst™ Install Manager appears, click **Next**. Now, click **Install** to allow the installation of the software components.





3. Select **Express** and click **Next** to proceed with the installation. On the following screen, click **Finish** to complete the installation process.

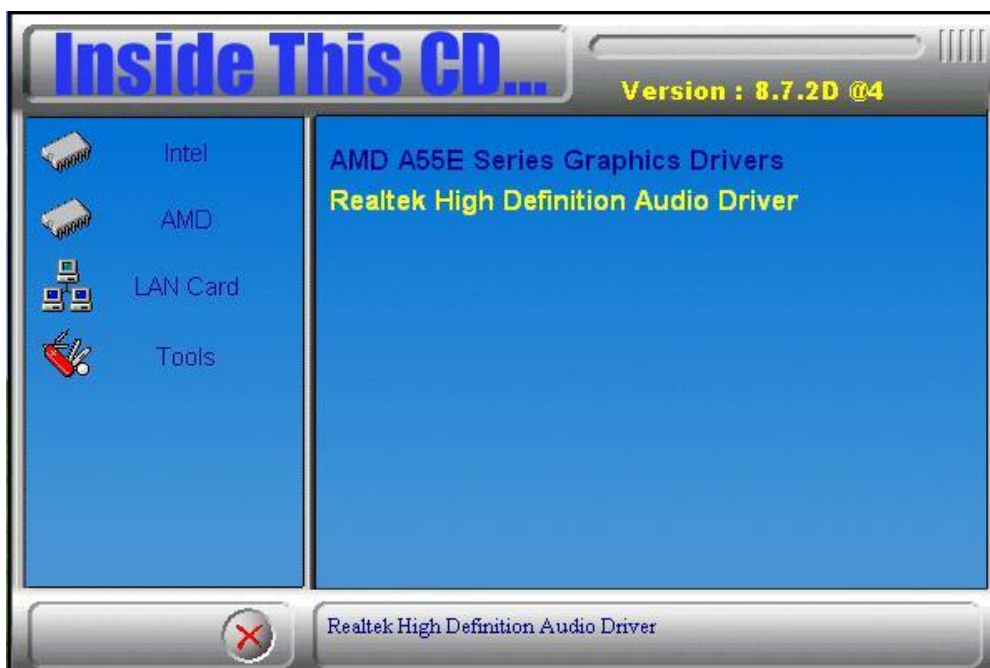
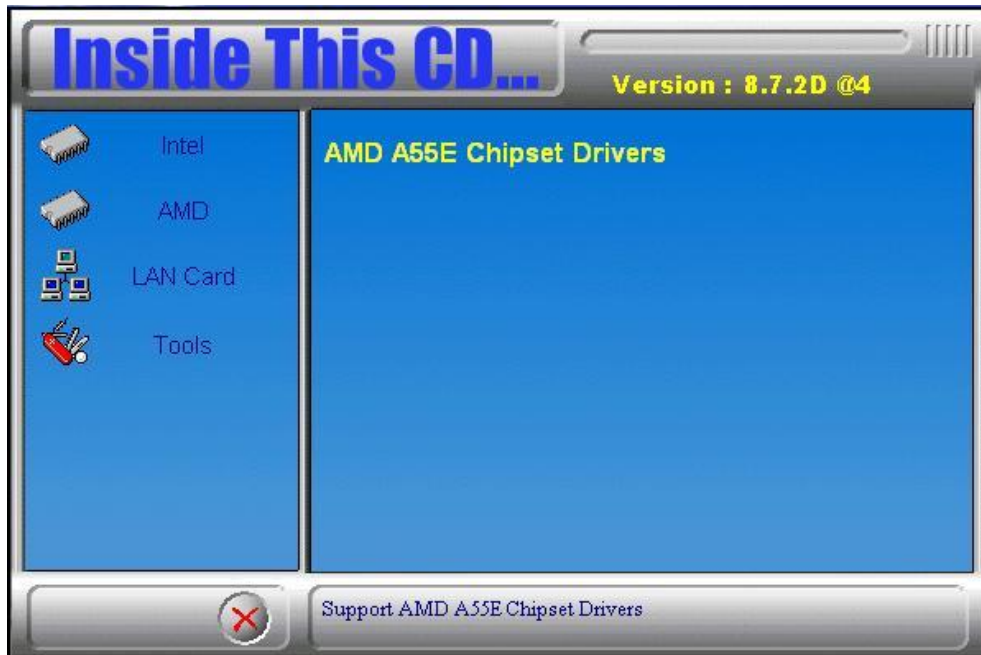




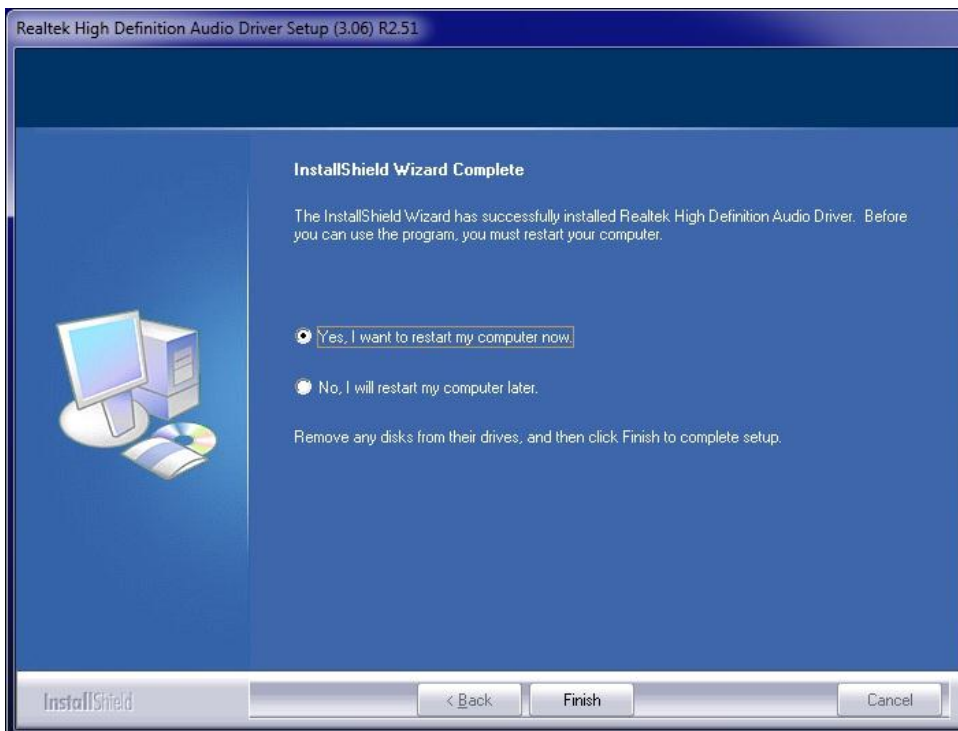
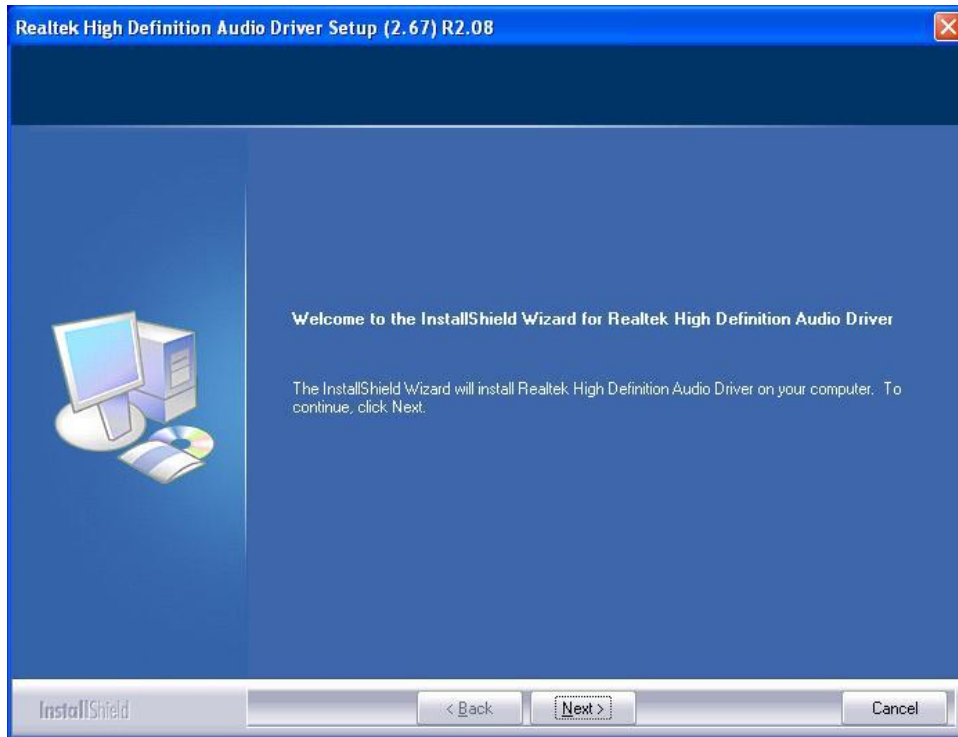
Realtek High Definition Audio Driver Installation

Follow the steps below to install the Realtek HD audio drivers.

1. Insert the CD that comes with the system. Click **AMD** and click **Realtek High Definition Audio Driver**.



2. When the welcome screen to the Audio Driver Setup appears, click **Next** to start the software installation. Once the InstallShield Wizard is complete, click **Finish** to restart the computer.



Realtek LAN Controller Drivers Installation

Follow the steps below to install the Realtek LAN drivers.

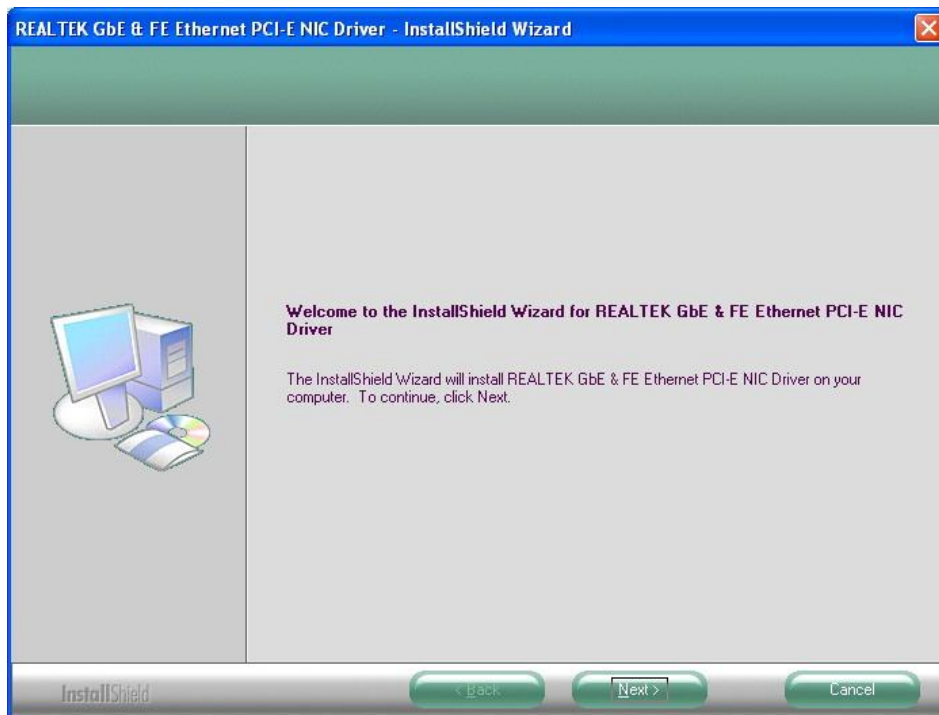
1. Insert the CD that comes with the system. Click **Intel**, then **LAN Card**, and then **Realtek Lan Controller Drivers**.



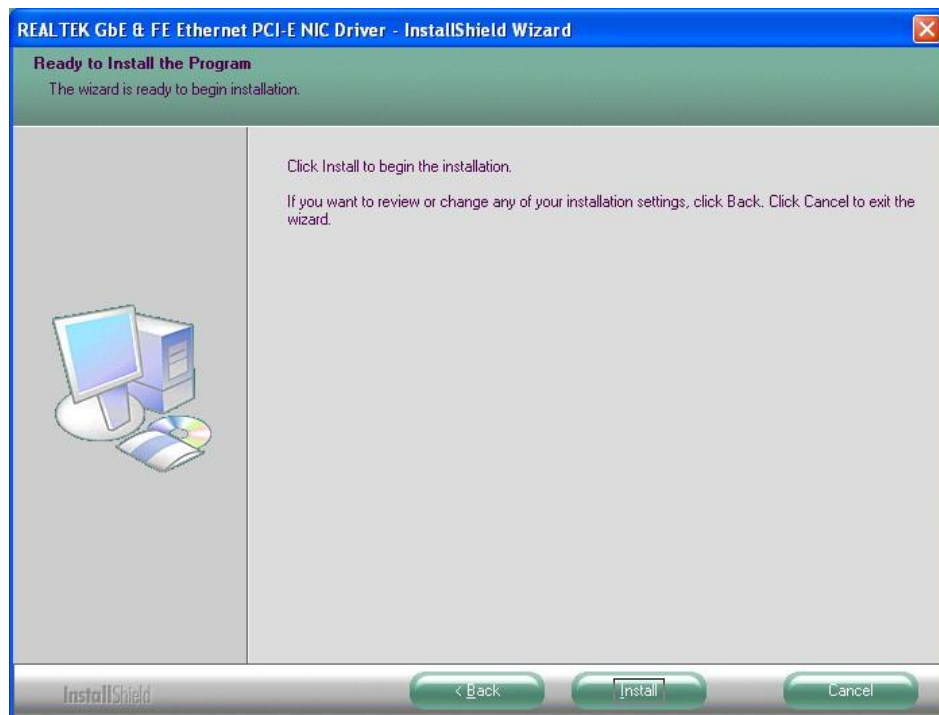
2. Click **Realtek RTL8111E LAN Drivers**.



3. When the Welcome screen of the **InstallShield Wizard** appears, click **Next** to continue.



4. When the InstallShield Wizard has finished installing the Realtek LAN drivers, click **Finish**.



Appendix

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