ELIT-1250

Digital Signage Player w/ AMD G-T56N APU

User's Manual

Version 1.0

P/N: 4012125000100P 2013.06

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Revision History

Version	Date	Description
1.0	June 2013	Initial release

Contents

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Copyright Notice

The information in this document is subject to change without prior notice in order to improve the reliability, design and function. It does not represent a commitment on the part of the manufacturer.

Under no circumstances will the manufacturer be liable for any direct, indirect, special, incidental, or consequential damages arising from the use or inability to use the product or documentation, even if advised of the possibility of such damages.

Declaration of Conformity

CE

The CE symbol on the computer indicates that it is in compliance with the directives of the Union European (EU). A Certificate of Compliance is available by contacting Technical Support.

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from ARBOR. Please contact your local supplier for ordering information.

Warning
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Class A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE:
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

RoHS

ARBOR Technology Corp. certifies that all components in its products are in compliance and conform to the European Union's Restriction of Use of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2002/95/EC.

The above mentioned directive was published on 2/13/2003. The main purpose of the directive is to prohibit the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) in electrical and electronic products. Member states of the EU are to enforce by 7/1/2006.

ARBOR Technology Corp. hereby states that the listed products do not contain unintentional additions of lead, mercury, hex chrome, PBB or PBDB that exceed a maximum concentration value of 0.1% by weight or for cadmium exceed 0.01% by weight, per homogenous material. Homogenous material is defined as a substance or mixture of substances with uniform composition (such as solders, resins, plating, etc.). Lead-free solder is used for all terminations (Sn(96-96.5%), Ag(3.0-3.5%) and Cu(0.5%)).

SVHC / REACH

To minimize the environmental impact and take more responsibility to the earth we live, Arbor hereby confirms all products comply with the restriction of SVHC (Substances of Very High Concern) in (EC) 1907/2006 (REACH --Registration, Evaluation, Authorization, and Restriction of Chemicals) regulated by the European Union.

All substances listed in SVHC < 0.1 % by weight (1000 ppm)

Important Safety Instructions

Read these safety instructions carefully

1. Read all cautions and warnings on the equipment.
2. Place this equipment on a reliable surface when installing. Dropping it or letting it fall may cause damage
3. Make sure the correct voltage is connected to the equipment.
4. For pluggable equipment, the socket outlet should be near the equipment and should be easily accessible.
5. Keep this equipment away from humidity.
6. The openings on the enclosure are for air convection and protect the equipment from overheating. DO NOT COVER THE OPENINGS.
7. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
8. Never pour any liquid into opening. This may cause fire or electrical shock.
9. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
10. If one of the following situations arises, get the equipment checked by service personnel:
    a. The power cord or plug is damaged.
    b. Liquid has penetrated into the equipment.
    c. The equipment has been exposed to moisture.
    d. The equipment does not work well, or you cannot get it to work according to the user's manual.
    e. The equipment has been dropped or damaged.
    f. The equipment has obvious signs of breakage.
11. Keep this User's Manual for later reference.

Warning

The Box PC and its components contain very delicately Integrated Circuits (IC). To protect the Box PC and its components against damage caused by static electricity, you should always follow the precautions below when handling it:

1. Disconnect your Box PC from the power source when you want to work on the inside.
2. Use a grounded wrist strap when handling computer components.
3. Place components on a grounded antistatic pad or on the bag that came with the Box PC, whenever components are separated from the system.

Replacing Lithium Battery

Incorrect replacement of the lithium battery may lead to a risk of explosion.

The lithium battery must be replaced with an identical battery or a battery type recommended by the manufacturer.

Do not throw lithium batteries into the trash can. It must be disposed of in accordance with local regulations concerning special waste.

Technical Support

If you have any technical difficulties, please consult the user's manual first at: ftp://ftp.arbor.com.tw/pub/manual

Please do not hesitate to call or e-mail our customer service when you still cannot find out the answer.

http://www.arbor.com.tw

E-mail:info@arbor.com.tw

Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster.

Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party.

Vendors disclaim all other warranties, either expressed or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the hardware, the accompanying product's manual(s) and written materials, and any accompanying hardware. This limited warranty gives you specific legal rights.

Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.

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Chapter 1

Introduction

1.1. The Computer

The ELIT-1250 is the digital signage player designed to answer the market needs for powerful video performance. The computer comes loaded with AMD G-T56N APU with an ATI Radeon HD 6320 graphics chip to support three displays and satisfy most demanding digital signage applications.

Product Highlights

- Fanless Design
- Ultra Low Profile Enclosure
- AMD G-T56N Dual-Core 1.65 GHz Processor
- Rich I/O (4 x USB ports, 2 x serial ports, 1 x GbE LAN port)
- Aluminum Chassis for Harsh Environment
- Optional WiFi or 3G networking
- Slim, Compact & Cable-free Design

1.2. About this Manual

This manual is meant for the experienced users and integrators with hardware knowledge of personal computers. If you are not sure about the description herein, consult your vendor before further handling.

We recommend that you keep one copy of this manual for the quick reference for any necessary maintenance in the future. Thank you for choosing ARBOR products.

1.3. Specifications

System	
CPU	Soldered onboard AMD G-T56N 1.65GHz processor
BIOS	AMI BIOS
Chipset	AMD Hudson-M1 A50M
Graphics	Graphics Integrated AMD Radeon HD 6320 (G-T56N)
Memory	One 204-pin DDR3 SO-DIMM socket that supports 1066/1333MHz SDRAM up to 4GB
Serial ATA	One serial ATA port with 600MB/s HDD transfer rate
LAN Chipset	One Realtek 8111 GbE controller
Watchdog Timer	1 ~ 255 levels reset
I/O Ports	
Serial Port	Two DB-9 male connectors for RS232
USB Port	Four USB 2.0 ports
LAN Port	One RJ-45 port for GbE
Video Port	One HDMI female connector for digital video output
	One DVI-D female connector for digital video output
	One VGA female connector for analog video output
Audio	Line-out
Expansion Bus	One line-out (500mW pre-amplified)
	One Mini-card socket interconnected with a SIM card socket for optional WiFi or HSUPA module
Storage	
Type	One 2.5” drive bay for SSD
Qualification	
Certification	CE, FCC Class A
Environment	
Operating Temp.	-20 ~ 55°C (-4 ~ 131°F), ambient w/ air flow
Storage Temp.	-40 ~ 80°C (-40 ~ 176°F)
Operating Humidity	10 ~ 95% @ 55°C (non-condensing)
Vibration	3 Grms/5 ~ 500Hz/random operation
Shock	Operating 40G (11ms); Non-operating 80G with SSD

Mechanical	
Construction	Aluminum alloy
Mounting	VESA-mount / wall-mount
Weight	1.61 kg (3.55 lb)
Dimensions (W x D x H)	193 x 170 x 50 mm (7.60" x 6.69" x 1.96")
Power Requirement	
Power Input	DC 16~24V input
Power Consumption	Max. 40W (w/o I/O card)

1.4. Inside the Package

Upon opening the package, carefully inspect the contents. If any of the items is missing or appears damaged, contact your local dealer or distributor. The package should contain the following items:

One ELIT-1250 Digital Signage Player

One Driver CD
One User's Manual

1.5. Ordering Information

ELIT-1250	Digital Signage Player by AMD G-T56N, w/o storage device and memory
ELIT-1250-16S2G	Digital Signage Player by AMD G-T56N, w/ 16G SSD and 2GB memory

1.5.1. Optional Accessories

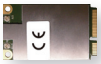
The following items are normally optional, but some vendors may include them as a standard package, or some vendors may not carry all the items.

PAC-B065W-2 19V/3.4A 65W AC/DC adapter kit

VMK-1000 VESA mount kit for ELIT Series

1.5.2. Configure-to-Order Service

Make the computer more tailored to your needs by selecting one or more components from the list below to be fabricated to the computer.

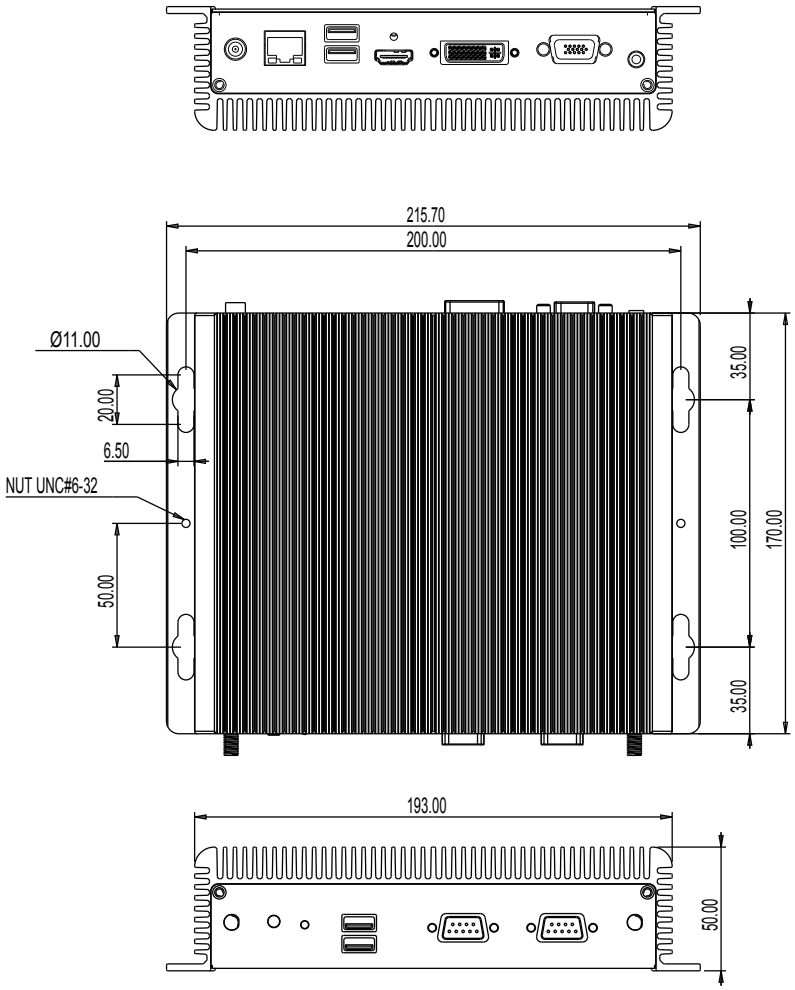
SSD-25032	Memoright 2.5" 32GB SATAII SSD kit	
HSPA-SI1400	HSUPA 3.75G module kit & internal wiring	
WIFI-IN1300	Intel® Centrino® Advanced-N 6205 WiFi module w/ 20cm internal wiring	
ANT-H11	2dBi HSUPA antenna	
ANT-D11	WiFi Dual-band 2.4G/5G antenna	
2GB SO-DIMM	DDR3-1333 2GB SDRAM	
4GB SO-DIMM	DDR3-1333 4GB SDRAM	
8GB SO-DIMM	DDR3-1600 8GB SDRAM	

Chapter 2

Getting Started

2.1. Dimensions

The following illustration shows the dimensions of the computer, with the measurements in width, depth, and height called out.

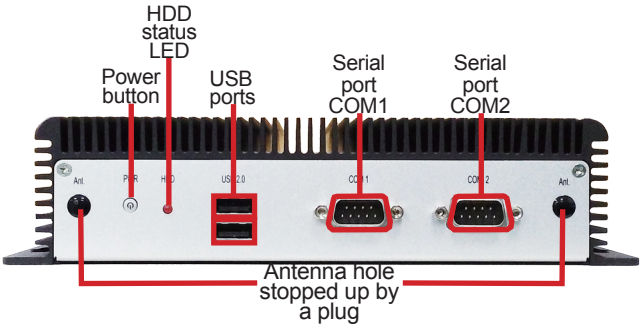


Unit: mm

2.2. Take A Tour

The computer has some I/O ports, status LED light and controls on the front and rear panels. The following illustrations show all the components called out .

Front View



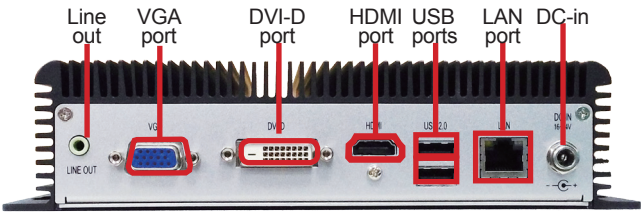
- **Power button**

  Press and hold the power button to power on the computer.

  The power button features a dual-color LED to signify the following condition:

LED Color	Description
Green	The computer is powered on.

Rear View



Side View

2.3. Driver Installation Notes

The computer supports the operating systems of Windows 7 and Windows 8. For these operating systems, find the necessary device drivers on the CD that comes with your purchase. For different operating systems, the installation of drivers/utilities may vary slightly, but generally they are similar. **DO** follow the sequence below to install the drivers to prevent errors:

Chipset→Audio→LAN

Paths to find various drivers on the CD:

Windows 8

Device	Driver Path
Chipset	\AMD_Display_Chipset_G and R series\Win8
Audio	\HD_AUDIO\RealTek\Win7_8_Vista
LAN	\Ethernet\RealTek\Win8

Windows 7

Device	Driver Path
Chipset	\AMD_Display_Chipset_G and R series\Win7
Audio	\HD_AUDIO\RealTek\Win7_8_Vista
LAN	\Ethernet\RealTek\Win7

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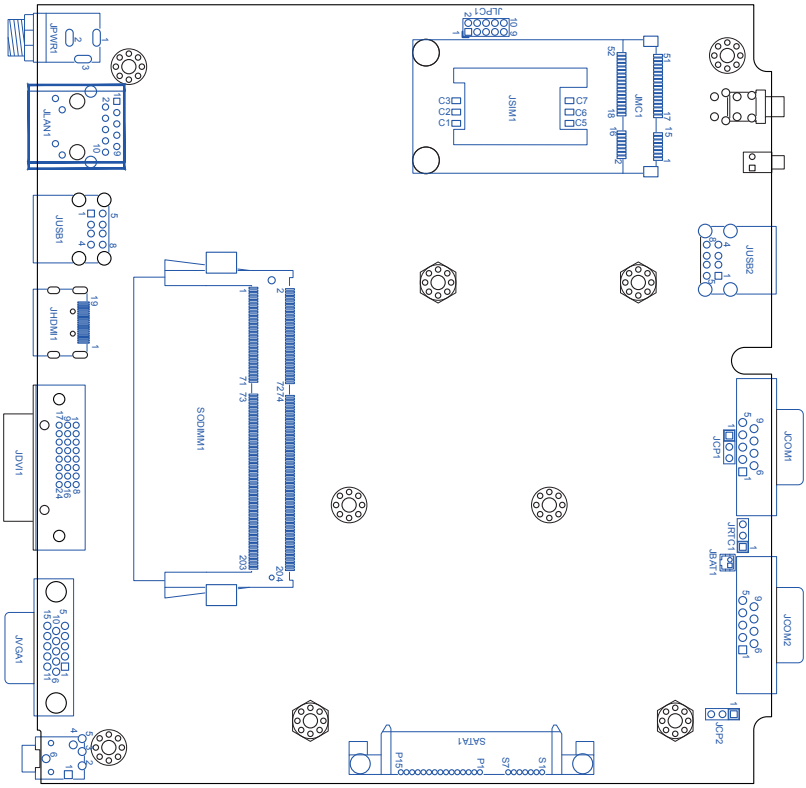
Chapter 3

System Configuration

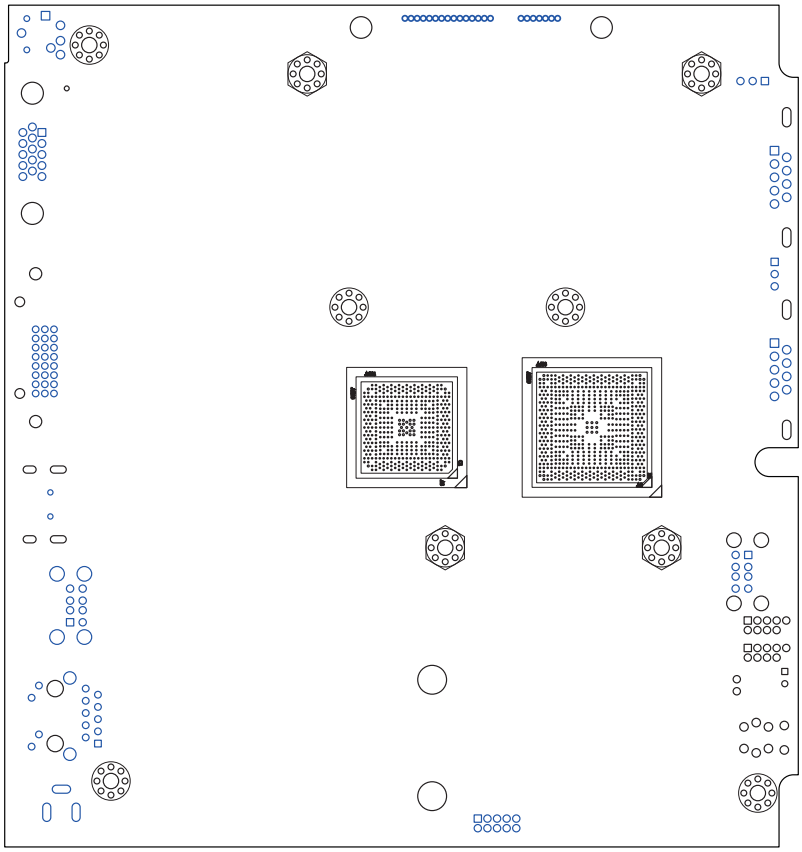
3.1. Board Layout

The main board FMB-a50M2 forms the engine of the computer. This section will provide an thorough view of this board.

FMB-a50M2: Board Top



FMB-a50M2: Board Bottom



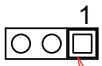
3.2. Jumpers and Connectors

The main board FMB-a50M2 comes with some connectors to join some devices and also some jumpers to alter hardware configuration. The following in this chapter will explicate each of these components.

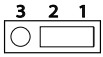
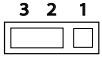
3.2.1. Jumpers

JRTC1

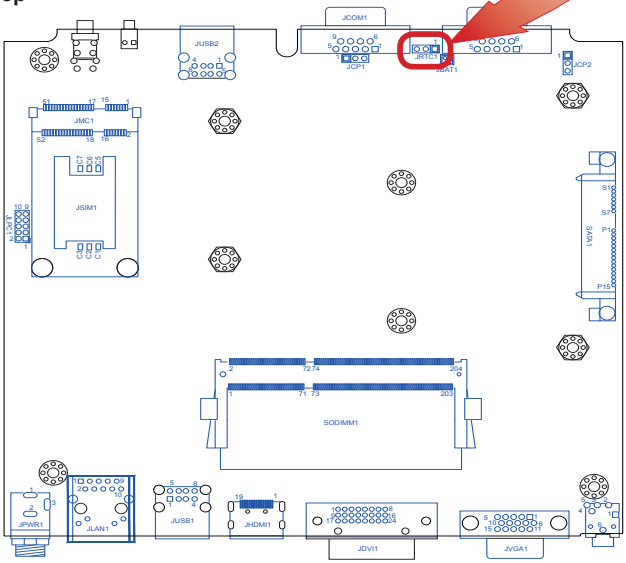
Function: CMOS Setting
Jumper Type: Onboard 2.54mm-pitch 1x3-pin header



Setting:

Pin	Function	Setting
1-2	Keeps CMOS (Default)	
2-3	Clears CMOS	

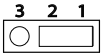
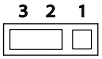
Board Top



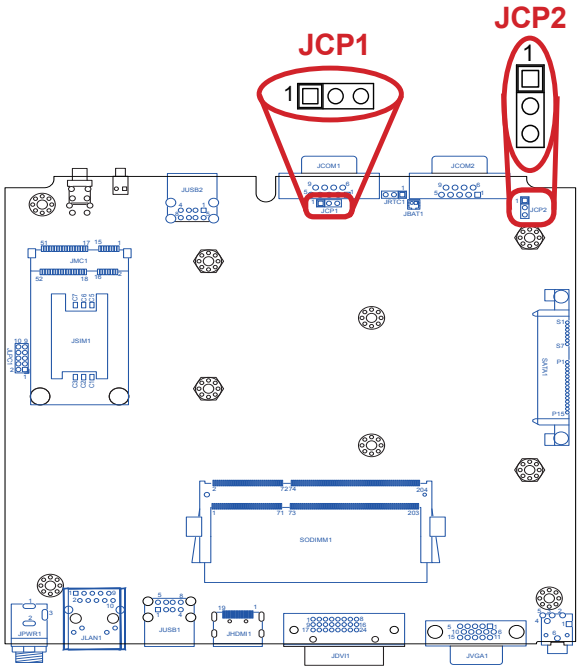
JCP1 & JCP2

Function: Power setting for serial ports. (JCP1 for COM1 and JCP2 for COM2.)
Jumper Type: Onboard 2.54mm-pitch 1x3-pin header

Setting:

Pin	Description	Setting
1-2	RI with 12V power	
2-3	Normal (default)	

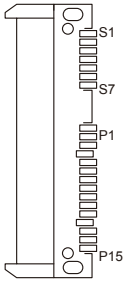
Board Top



3.2.2. Connectors

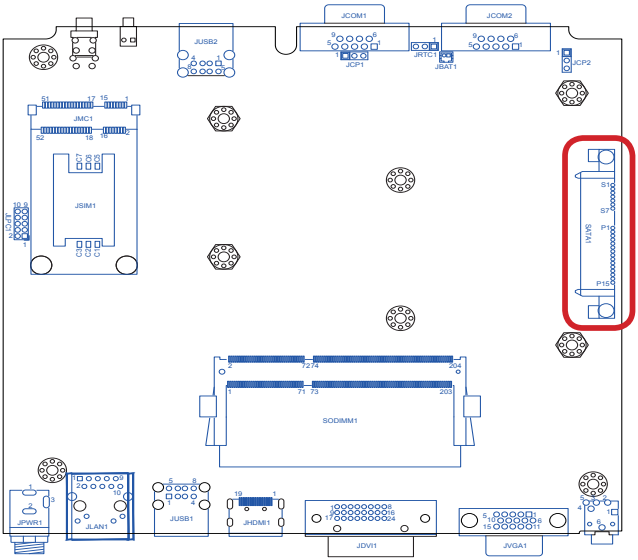
SATA1

Description: Serial ATA Connector
Connector Type: SATA port with data & power vertical connector (7+15pin)



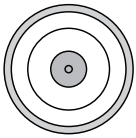
Pin	Desc.	Pin	Desc.	Pin	Desc.
S1	GND	P1	3.3V	P9	5V
S2	TX+	P2	3.3V	P10	GND
S3	TX-	P3	3.3V	P11	NC
S4	GND	P4	GND	P12	GND
S5	RX-	P5	GND	P13	NC
S6	RX+	P6	GND	P14	NC
S7	GND	P7	5V	P15	NC
		P8	5V		

Board Top



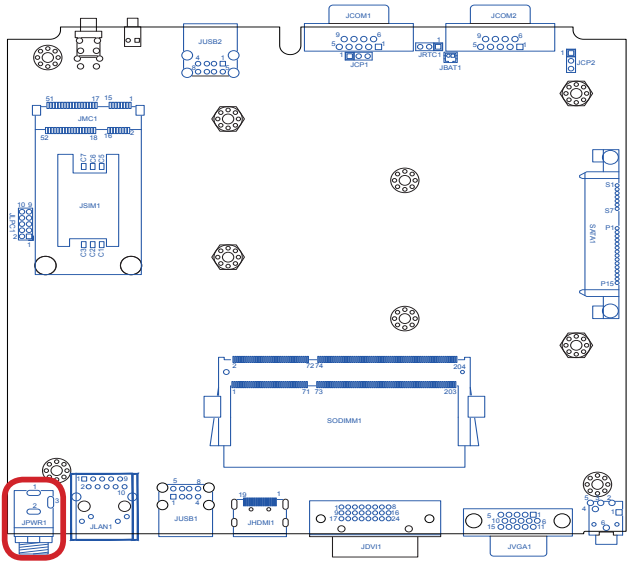
JPWR1

Description: 19V adapter in DC jack
Connector Type: 2.5φ DIP DC jack with nut and washer

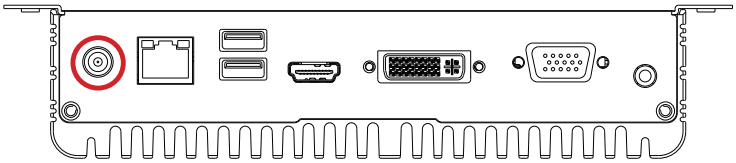


Pin	Description
center	19V
inner circle	GND

Board Top

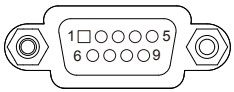


Rear Panel



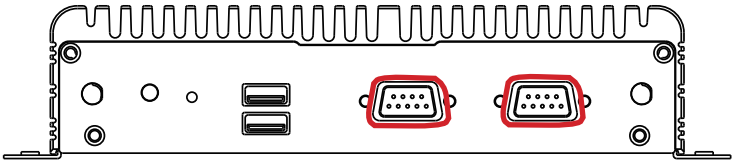
JCOM1 & JCOM2

Description: Serial ports, both RS232-interfaced.
Connector Type: External 9-pin D-sub male connector

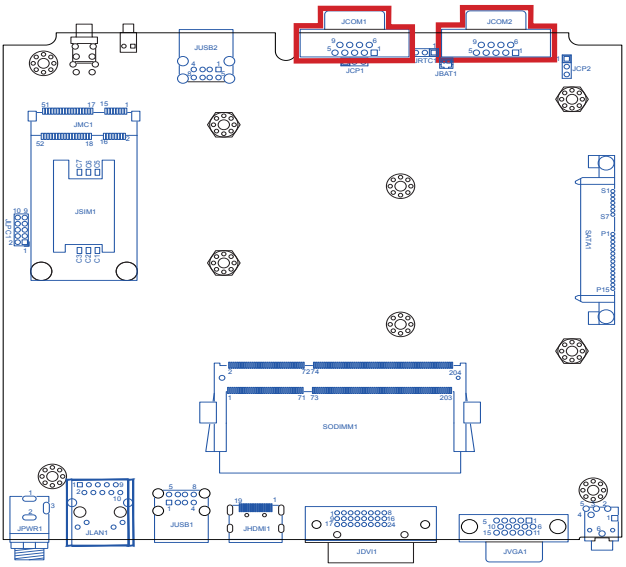


Pin	Description	Pin	Description	Pin	Description
1	DCD	4	DTR	7	RTS
2	RXD	5	GND	8	CTS
3	TXD	6	DSR	9	RI

Front Panel

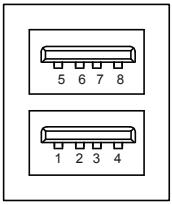


Board Top



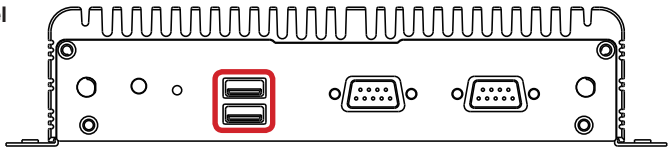
JUSB1 & JUSB2

Description: USB ports
Connector Type: Double-stacked type-A USB 2.0 ports

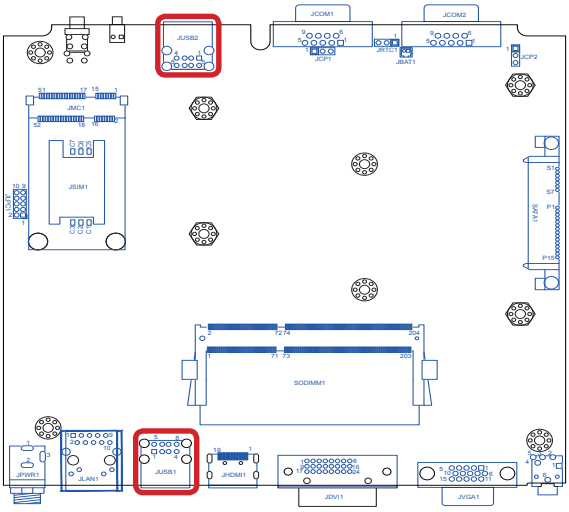


Lower		Upper	
Pin	**Desc.**	**Pin**	**Desc.**
1	5V	5	5V
2	USB D-	6	USB D-
3	USB D+	7	USB D+
4	GND	8	GND

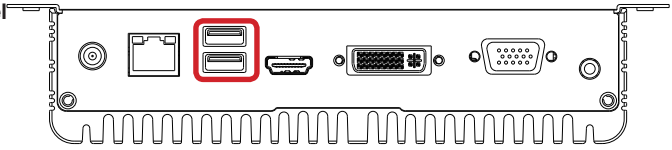
Front Panel



Board Top

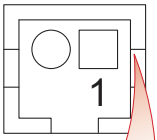


Rear Panel



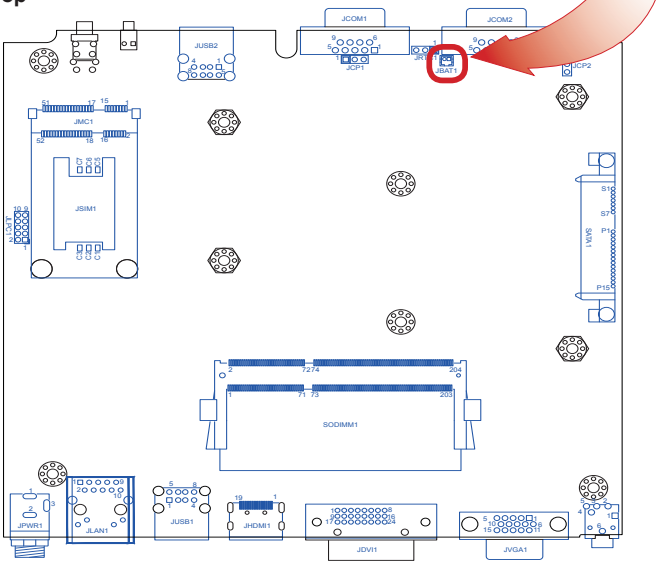
JBAT1

Description: Battery connector
Connector Type: 1.25mm-pitch 1x2-pin wafer connector



Pin	Description
1	GND
2	battery power

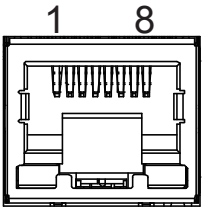
Board Top



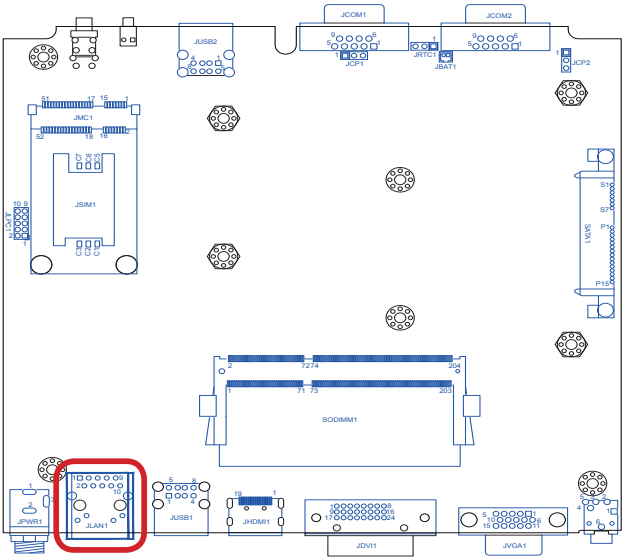
JLAN1

Description: Ethernet connector
Connector Type: RJ-45 connector that supports 10/100/1000Mbps fast Ethernet

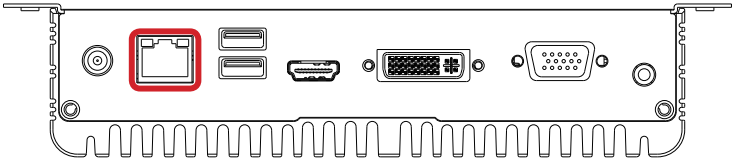
Pin	Description	Pin	Description
1	MDI0	5	MDI2
2	MDI0#	6	MDI2#
3	MDI1	7	MDI3
4	MDI1#	8	MDI3#



Board Top



Rear Panel

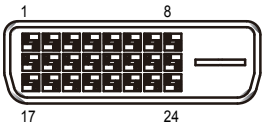


JDVI1

The computer features a DVI (digital visual interface) port, supporting DVI-D (analog only) video output.

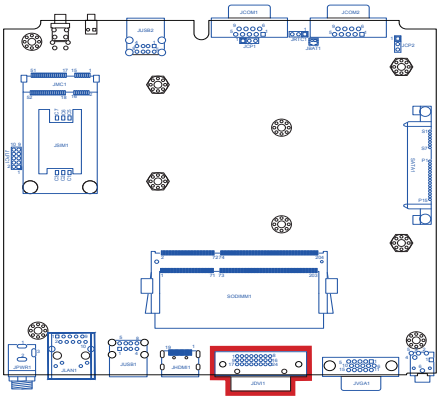
Description: DVI-D port (digital)

Connector Type: 24-pin DIP-type female DVI connector w/o screw

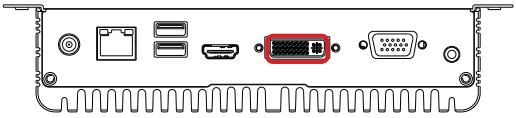


Pin	Desc.	Pin	Desc.	Pin	Desc.
1	T.M.D.S DATA 2-	9	T.M.D.S DATA 1-	17	T.M.D.S DATA 0-
2	T.M.D.S DATA 2+	10	T.M.D.S DATA 1+	18	T.M.D.S DATA 0+
3	T.M.D.S DATA 2/4 SHIELD	11	T.M.D.S DATA 1/3 SHIELD	19	T.M.D.S DATA 0/5 SHIELD
4	(NC) T.M.D.S DATA 4-	12	(NC) T.M.D.S DATA 3-	20	(NC) T.M.D.S DATA 5-
5	(NC) T.M.D.S DATA 4+	13	(NC) T.M.D.S DATA 3+	21	(NC) T.M.D.S DATA 5+
6	DDC CLOCK	14	+5V	22	T.M.D.S CLOCK SHIELD
7	DDC DATA	15	GND	23	T.M.D.S CLOCK-
8	(NC) CRT VSYNC	16	HOT PLUG DETECTED	24	T.M.D.S CLOCK+

Board Top



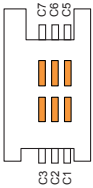
Rear Panel



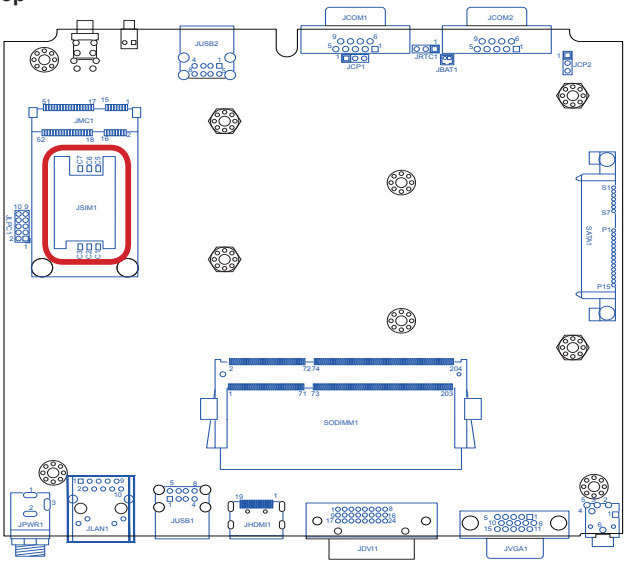
JSIM1

Description: SIM card socket
Connector Type: 6-pin SIM card socket with a hinged cover

Pin	Description
C1	VCC
C2	RST
C3	CLK
C5	GND
C6	VPP
C7	I/O

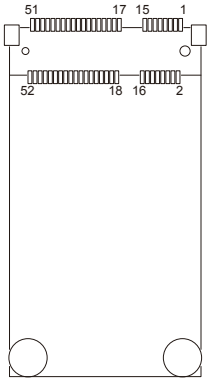


Board Top



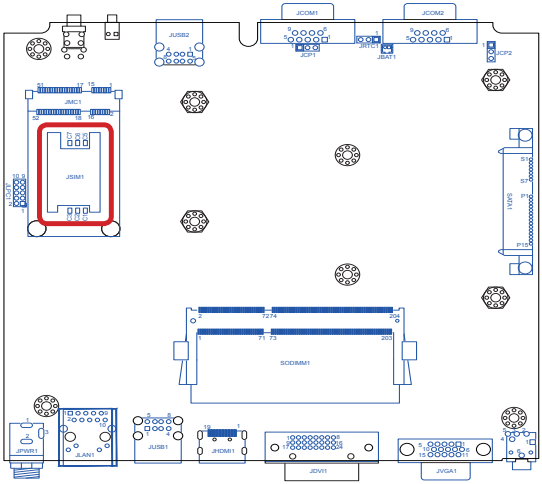
JMC1

Description: PCI Express Mini-card socket
Connector Type: Onboard 0.8mm-pitch 52-pin edge card connector interconnected with SIM card socket



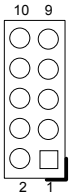
Pin	Desc.	Pin	Desc.	Pin	Desc.
1	Wake	20	W_Disable#	36	USB_D-
2	+3.3V	21	GND	37	GND
3	COEX1	22	PERST#	38	USB_D+
4	GND	23	PERn0	39	+3.3V
5	COEX2	24	+3.3V	40	GND
6	+1.5V	25	PERp0	41	+3.3V
7	CLKREQ#	26	GND	42	LED_WWAN#
8	UIM_PWR	27	GND	43	GND
9	GND	28	+1.5V	44	LED_WLAN#
10	UIM_DATA	29	GND	45	Reserved
11	REFCLK-	30	SMB_CLK	46	LED_WPAN#
12	UIM_CLK	31	PETn0	47	Reserved
13	REFCLK+	32	SMB_DATA	48	+1.5V
14	UIM_RESET	33	PETp0	49	Reserved
15	GND	34	GND	50	GND
16	UIM_VPP	35	GND	51	Reserved
17	UIM_C8/Reserved			52	+3.3V
18	GND				
19	UIM_C4/Reserved				

Board Top



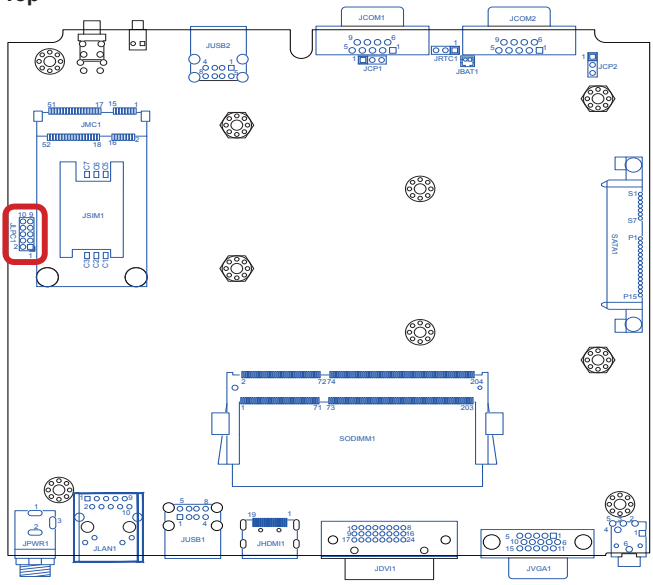
JLPC1

Function: Board debugging
Jumper Type: Onboard 2.00mm pitch 2x5-pin feamail header



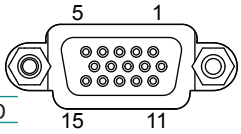
Pin	Description	Pin	Description
1	LPC_CLK	6	NC
2	GND	7	LPC_AD3
3	LPC_FRAME#	8	LPC_LAD2
4	LPC_AD0	9	3.3V
5	RST#	10	LPC_AD1

Board Top



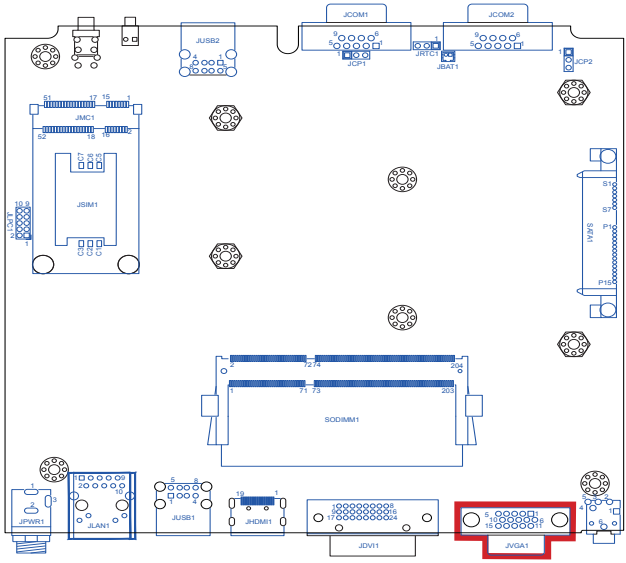
JVGA1

Description: VGA connector
Connector Type: 2.54mm-pitch 3x5-pin D-sub connector

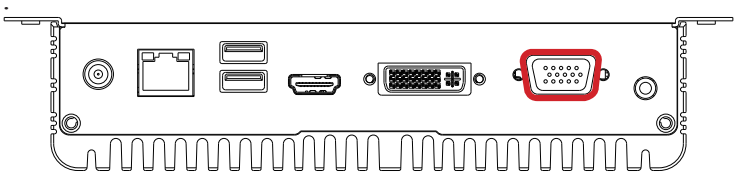


Pin	Desc.	Pin	Desc.	Pin	Desc.
1	RED	6	RED RETURN	11	RESERVED
2	GREEN	7	GREEN RETURN	12	DCC Data
3	BLUE	8	BLUE RETURN	13	HSYNC
4	Reserved	9	5V	14	VSYNC
5	GND	10	GND	15	DCC Clock

Board Top

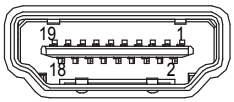


Rear Panel



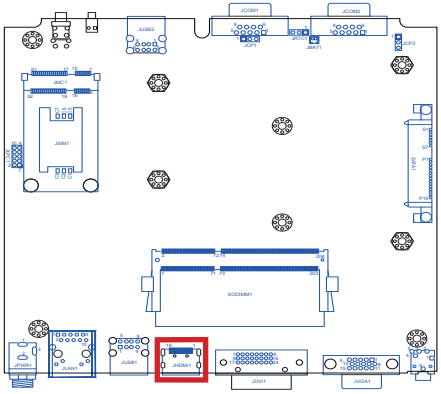
JHDMI1

Destription: HDMI connector
Connector Type: 19-pin HDMI connector with flange of surface-mounted type

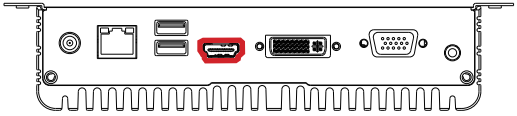


Pin	Description	Pin	Description
1	DATA2	2	GND
3	DATA2#	4	DATA1
5	GND	6	DATA1#
7	DATA0	8	GND
9	DATA0#	10	CLK
11	GND	12	CLK#
13	NC	14	NC
15	SPC	16	SPD
17	GND	18	+5V
19	HPD		

Board Top



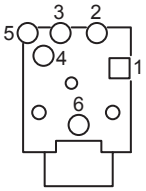
Rear Panel



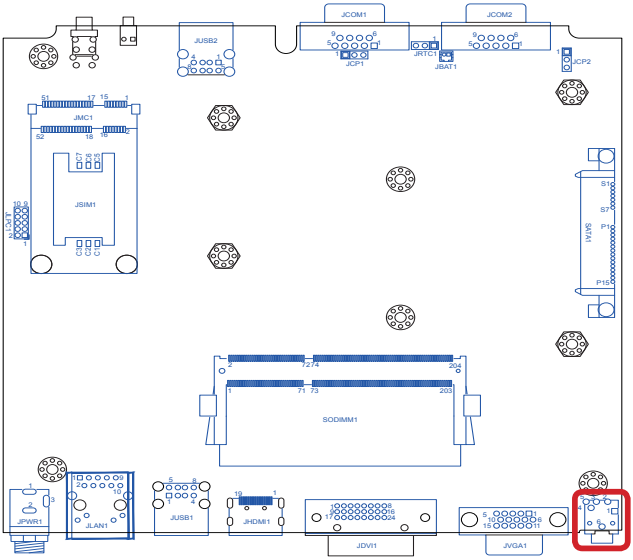
JLOUT1

Description: Audio output
Connector Type: Lime green 3.5mm audio jack with shield

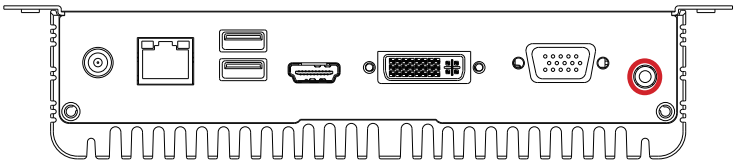
Pin	Description
1	Audio Left
2	NC
3	Audio Right
4	Audio Jack Detect
5	Audio GND
6	Audio GND



Board Top



Rear Panel



Chapter 4

Installation and Maintenance

4.1. Install Hardware

The computer is constructed based on modular design to make it easy for users to add hardware or to maintain the computer. The following sections will guide you to the simple hardware installations for the computer.

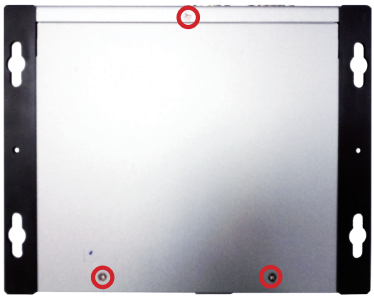
4.1.1. Open the Computer

For the computer, removing the bottom cover is essential to open the computer and access the inside. Follow through the steps below to remove the bottom cover from the computer.

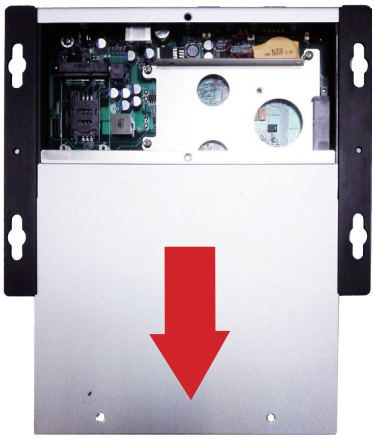
4.1.1.1. Remove Bottom Cover

All jumpers, connectors, PCI Express Mini-card sockets and SDRAM SO-DIMM slot are built on the main board. To access these components, the computer's bottom cover has to go. Follow through the steps below to remove the bottom cover.

1. Place the computer on a flat surface, with the bottom facing up. Loosen and remove the 3 screws from the bottom cover as marked in the illustration below.



2. Slide out the bottom cover and remove the bottom cover from the computer.



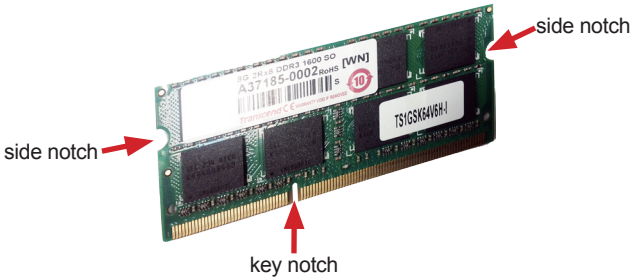
The inside of the computer comes to view.

- To adjust jumpers or connect/disconnect devices to/from the main board, see 3.2.1. Jumpers on page 16 and 3.2.2. Connectors on page 18.
- To install a memory module to the computer, see 4.1.2. Install Memory Module on page 35.
- To install a 3G module of **PCI Express Mini-card** form factor, see Appendix B: 3G Module HSPA-SI1400 Hardware/Software Installation on page 71.

- To install a Wi-Fi module of **PCI Express Mini-card** form factor, see Appendix C: Wi-Fi Module WIFI-IN1300 Hardware/Software Installation on page 81.
- To install the SIM card, see 4.1.4. Install SIM Card on page 42.

4.1.2. Install Memory Module

The main board has one dual inline memory module (DIMM) sockets. Load the computer with a memory module of higher capacity to make programs run faster. The memory module for the computer's SO-DIMM socket should be a 204-pin DDR3 with a "key notch" off the centre among the pins, which enables the memory module for particular applications. There are another two notches at each left and right side of the memory module to help fix the module in the socket.

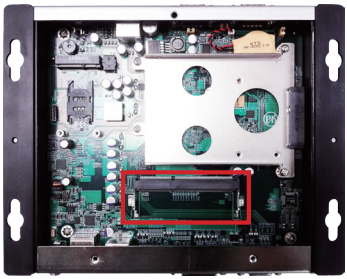


To install a DDR3 memory module:

1. Remove the bottom cover from the computer as described in 4.1.1.1. Remove Bottom Cover on page 32.

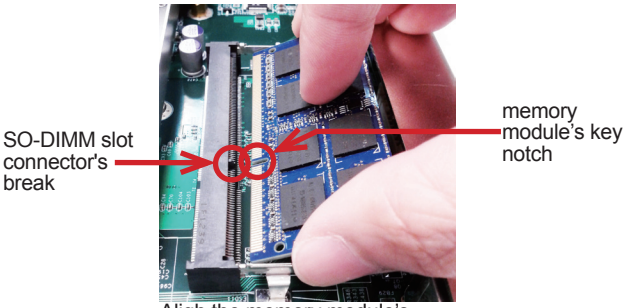
   The inside of the computer comes to view.

2. Find the SO-DIMM socket on the board as marked in the illustration below.



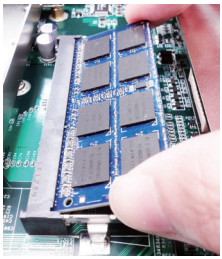
   The SO-DIMM socket is horizontal type, and it has two spring-loaded locks to fix the memory module.

3. Confront the memory module's edge connector with the SO-DIMM slot connector. Align the memory module's key notch at the break on the SO-DIMM slot connector.

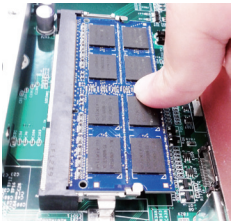


Align the memory module's key notch at the SO-DIMM slot connector's break.

4. Fully plug the memory module until it cannot be plugged any more.



5. Press down the memory module until it gets auto-locked in place.



6. Restore the bottom cover to the computer.

To uninstall the DDR3 memory module:

1. Pull back both locks from the memory module.

   The DDR3 memory module will be auto-released from the socket.

2. Remove the memory module.

3. Restore the bottom cover to the computer.

4.1.3. Install HDD/SSD Storage

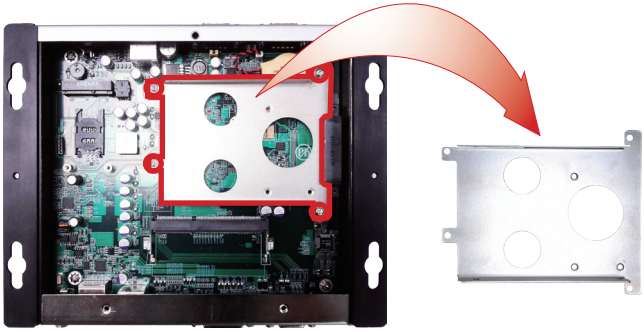
The computer supports 1.8-inch or 2.5-inch SSD storage device. To install such a storage device to the computer, follow through the guide below:

4.1.3.1. Install 2.5" SSD Storage Device

1. Remove the bottom cover from the computer as described in 4.1.1. Open the Computer on page 32.

   The inside of the computer comes to view.

2. See the illustration below and find the bracket for an SDD. Loosen and remove the four screws. Dismount the SSD bracket from the computer.

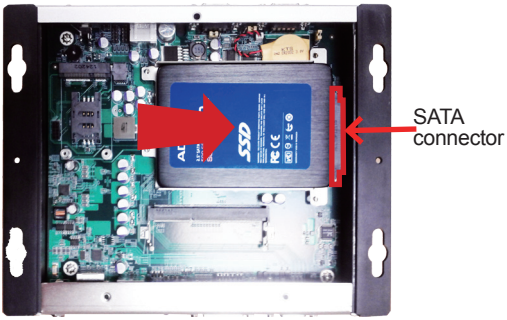


3. Slide a 2.5-inch SSD into the bracket.

Slide a 2.5-inch SSD into the bracket.

4. Fix the assemblage with four screws - two screws on each side of the bracket.

5. Plug the SSD (with the bracket) to the onboard SATA connector.



Plug the SSD to the onboard SATA connector.

6. Restore the four screw that fix the bracket.

Restore the four screws that fix the bracket.

7. Restore the bottom cover to the computer.

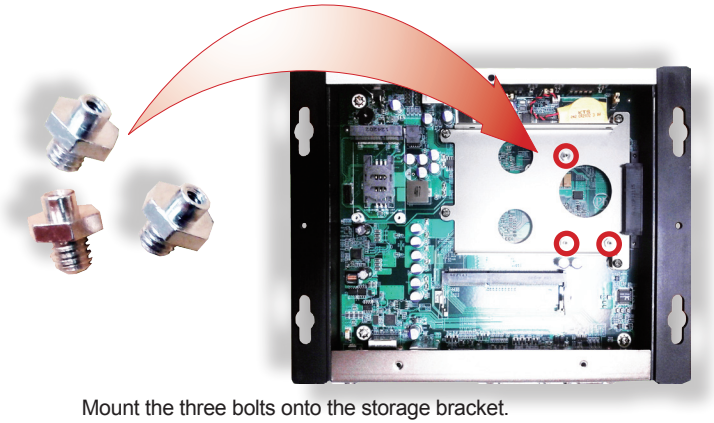
4.1.3.2. Install 1.8" SSD Storage Device

1. Remove the bottom cover from the computer as described in 4.1.1. Open the Computer on page 32.

   The inside of the computer comes to view.

2. See the illustration below and find the bracket for an SDD.

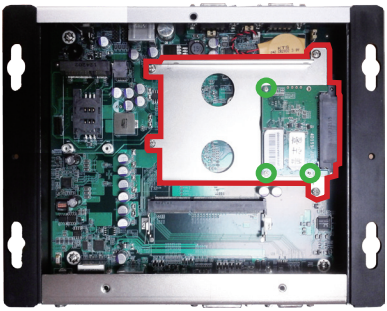
3. Mount the three bolts onto the storage bracket.



Mount the three bolts onto the storage bracket.

4. Plug an 1.8-inch SSD to the SATA connector while meeting the three bolts mentioned in the previous step.

5. Fix the SSD by using three screws at the three bolts.



Fix the SSD by using three screws at the three bolts.

6. Restore the bottom cover to the computer.

4.1.4. Install SIM Card

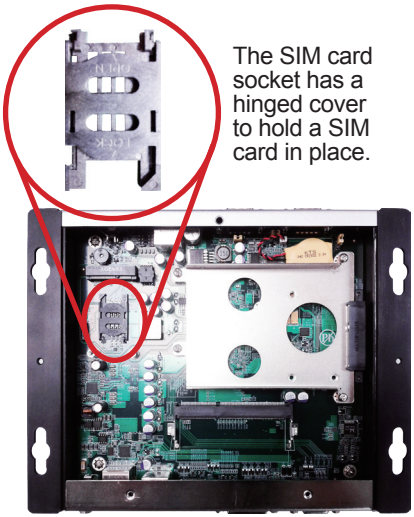
The computer comes with a SIM socket for 3G networking. Follow through the guide below to install a SIM card to the computer.

Note: To make use of a SIM card for 3G networking, a 3G module is also needed on the computer, see Appendix B to install the 3G module **HSPA-SI1400**.

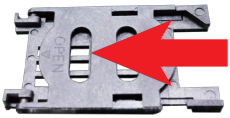
1. Remove the bottom cover from the computer as described in 4.1.1. Open the Computer on page 32.

   The inside of the computer comes to view.

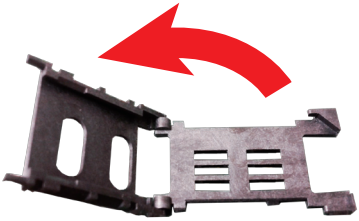
2. See the illustration below and find the **SIM Card** socket for 3G networking.



3. Push back the hinged cover to open the socket.

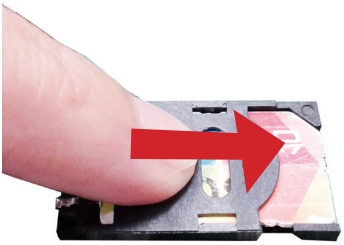


4. Swivel the hinged cover.



5. The hinged cover is also the card holder. Slide a SIM card along the hinged cover. Note the notch on the SIM card should meet the notch on the socket.

6. Put down the hinged cover and push it forward to lock the SIM card in place.



7. Restore the bottom cover to the computer.

See also Appendix B to install a 3G module.

4.1.5. Install Wireless Modules

The computer comes with a **Mini-card** sockets to load the computer with the wireless modules of **PCI Express Mini-card** form factor. The configure-to-order wireless modules available with the computer are the 3G module **HSPA-SI1400** and the Wi-Fi moldue **WIFI-IN1300**:

HSPA-SI1400
HSUPA 3.75G module kit & internal wiring

WIFI-IN1300
Intel® Centrino® Advanced-N 6205 Wi-Fi module w/ 20cm internal wiring

(See also 1.5.2. Configure-to-Order Service on page 6.)

- If you have ordered the 3G module **HSPA-SI1400**, see Appendix B to know how to install the hardware and software for the module.

- If you have ordered the Wi-Fi module **WIFI-IN1300**, see Appendix C to know how to install the hardware and software for the module.

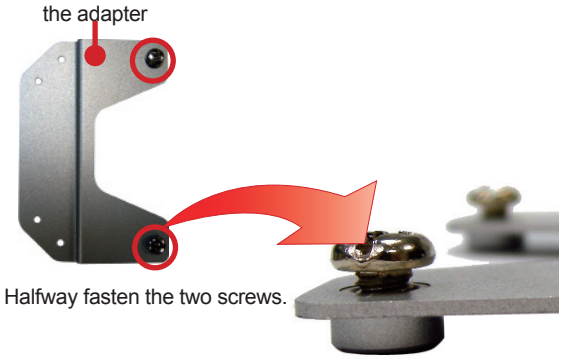
4.2. Mount the Computer

Integrate the computer to where it works by mounting it to a wall in the surroundings or to the rear of a display monitor.

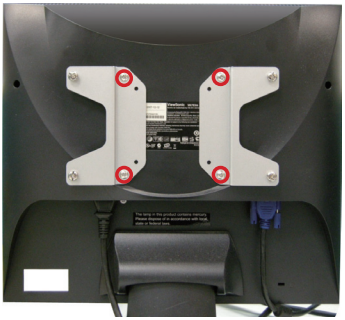
4.2.1. VESA-Mount

Mounting the computer to the rear of a display monitor relies on VMK-1000, a VESA mount kit, which is available on your option. Follow the guide below to mount the computer to a display monitor using VMK-1000.

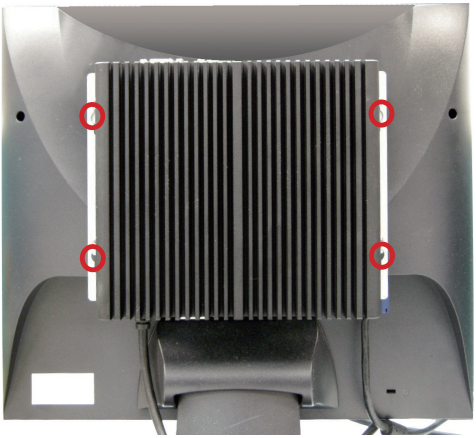
1. Prepare the VMK-1000 VESA mount kit, which includes two adapters. Halfway fasten two screws to each of the adapters as marked in the illustration below.



2. Mount the two adapters to the rear of the display monitor by fastening the four screws as marked in the illustration below:



3. Hang the computer onto the VMK-1000 VESA mount kit, and fully tighten the four halfway-fastened screws as previously mentioned.



4.2.2. Wall-Mount

Follow through the guide below to mount the computer to a wall.

1. Find the four cutouts as marked in the illustration below:

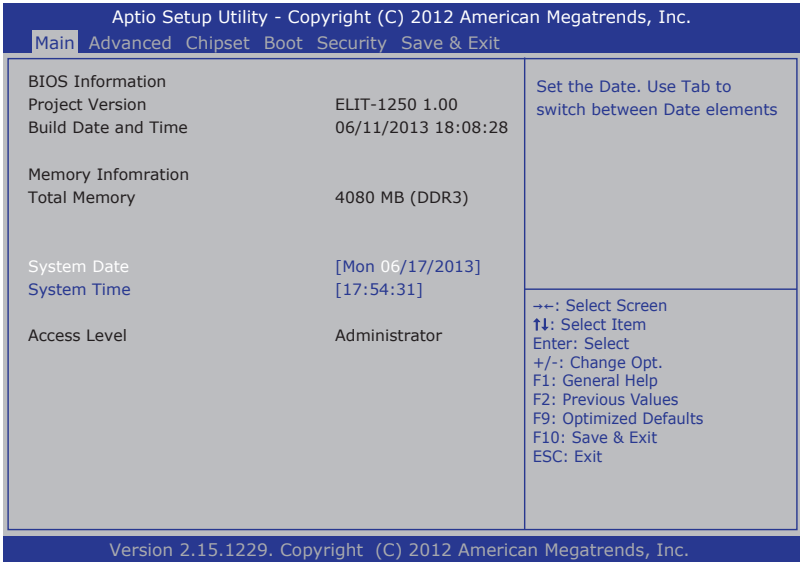
2. Mount the computer to a wall by the said cutouts.

Chapter 5

BIOS

The BIOS Setup utility for the computer is featured by American Megatrends Inc to configure the system settings stored in the system's BIOS ROM. The BIOS is activated once the computer powers on. When the computer is off, the battery on the main board supplies power to BIOS RAM.

To enter the BIOS Setup utility, keep hitting the "Delete" key upon powering on the computer.



The BIOS' featured menus are:

Menu	Description
Main	See 5.1. Main on page 50.
Advanced	See 5.2. Advanced on page 51.
Chipset	See 5.3. Chipset on page 61.
Boot	See 5.4. Boot on page 64.
Security	See 5.5. Security on page 66.
Save & Exit	See 5.6. Save & Exit on page 67.

Key Commands

The BIOS Setup utility relies on a keyboard to receive user's instructions. Hit the following keys to navigate within the utility and configure the utility.

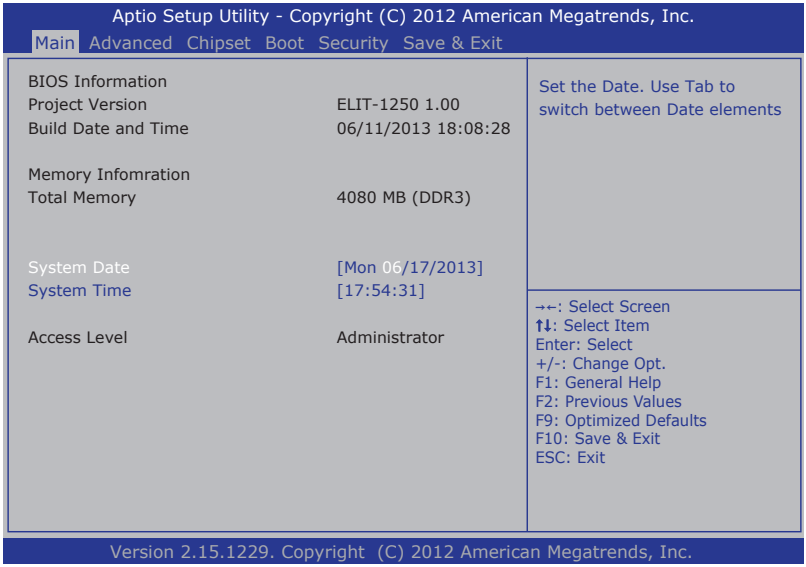
Keystroke	Function
← →	Moves left/right between the top menus.
↓ ↑	Moves up/down between highlight items.
Enter	Selects an highlighted item/field.
Esc	▸ On the top menus: Use **Esc** to quit the utility without saving changes to CMOS. (The screen will prompt a message asking you to select **OK** or **Cancel** to exit discarding changes. ▸ On the submenus: Use **Esc** to quit current screen and return to the top menu.
Page Up / +	Increases current value to the next higher value or switches between available options.
Page Down / -	Decreases current value to the next lower value or switches between available options.
F1	Opens the **Help** of the BIOS Setup utility.
F10	Exits the utility saving the changes that have been made. (The screen then prompts a message asking you to select **OK** or **Cancel** to exit saving changes.)

Note: Pay attention to the "WARNING" that shows at the left pane onscreen when making any change to the BIOS settings.

This BIOS Setup utility is updated from time to time to improve system performance and hence the screenshots hereinafter may not fully comply with what you actually have onscreen.

5.1. Main

The **Main** menu features the settings of **System Date** and **System Time** and displays some BIOS info and system info.



The BIOS info displayed are:

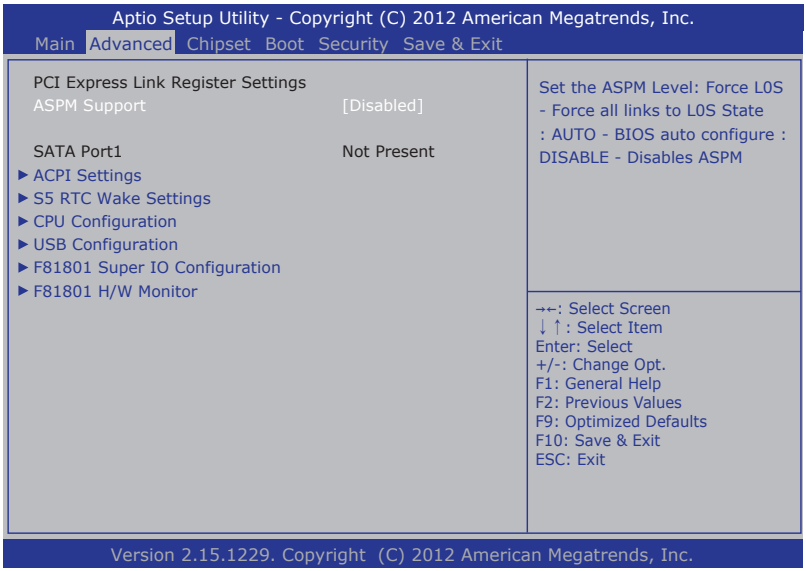
Group	Info	Description
BIOS Information	**Project Version**	Delivers the computer's BIOS version.
	Build Date and Time	Delivers the date and time when the BIOS Setup utility was created/updated.
Memory Information	**Total Memory**	Delivers the capacity of the DDR3 SDRAM present in the system.
Access Level		Delivers the level that the BIOS is being accessed at the moment. (Only **Administrator Level** is available.)

The featured settings are:

Setting	Description
System Time	Sets system time.
System Date	Sets system date.

5.2. Advanced

Access the **Advanced** menu to manage the computer's system configuration including the Super IO chip.



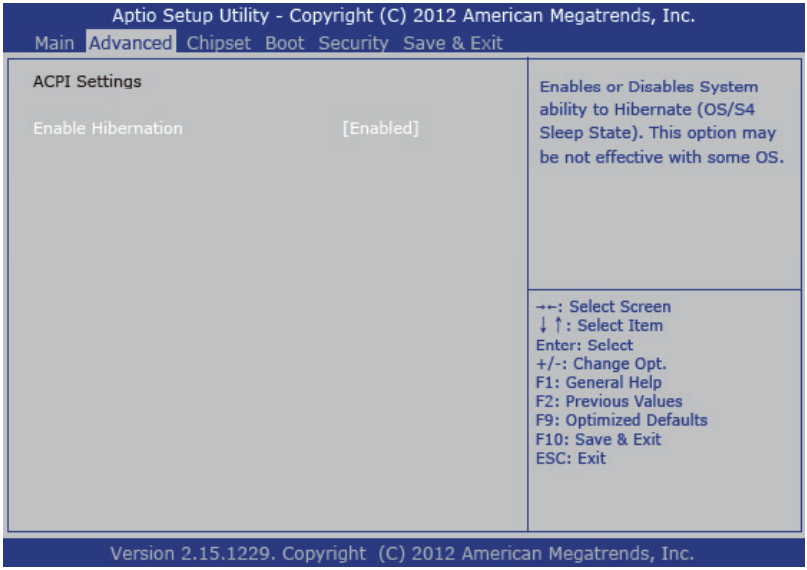
The featured settings and submenus are:

Group	Setting / Submenu	Description
PCI Express Link Register Settings	**ASPM Support**	Sets the ASPM (Active State Power Management) level. ▸ Options are **Disabled** (default), **Auto** and **Force L0s**. ▸ Leave it as **Disabled** (default) to disable the ASPM. ▸ Select **Auto** to leave the ASPM to BIOS' auto configuration. ▸ Select **Force L0s** to force all links to L0 state.
SATA Port1		Delivers whether a storage device is present at the SATA port1.

ACPI Settings	**Enable Hibernation**	See 5.2.1. ACPI Settings on page 53.
S5 RTC Wake Settings	**Wake system with Fixed Time**	See 5.2.2. S5 RTC Wake Settings on page 54.
CPU Configuration		See 5.2.3. CPU Configuration on page 55.
USB Configuration		See 5.2.4. USB Configuration on page 56.
F81801 Super IO Configuration		See 5.2.5. F81801 Super IO Configuration on page 58.
F81801 H/W Monitor		See 5.2.6. F81801 H/W Monitor on page 60.

5.2.1. ACPI Settings

Access this submenu to configure system ACPI parameters.

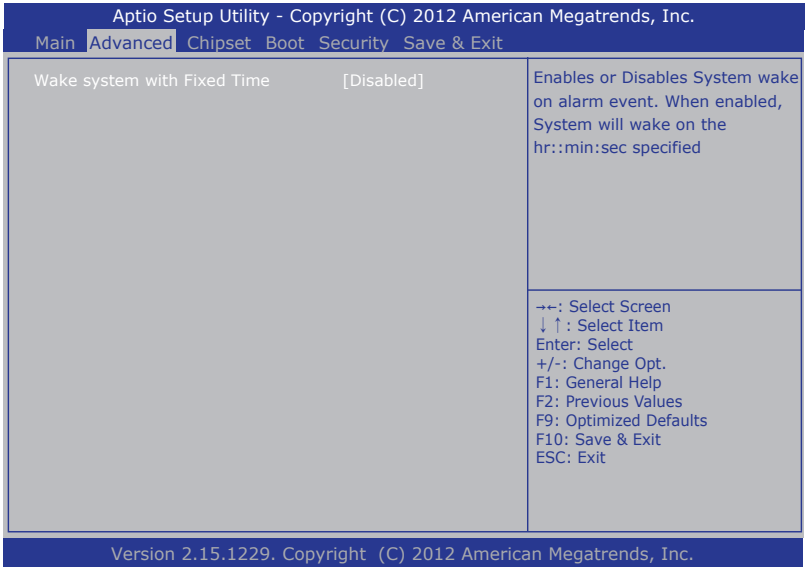


The featured setting is:

Setting	Description
Enable Hibernation	Enables/disables the system to/from hibernation (OS/S4 Sleep State). ▸ This option may not be effective with some OS. ▸ This setting is enabled by default.

5.2.2. S5 RTC Wake Settings

Access this submenu to control whether the system can wake from S5 using the RTC alarm.



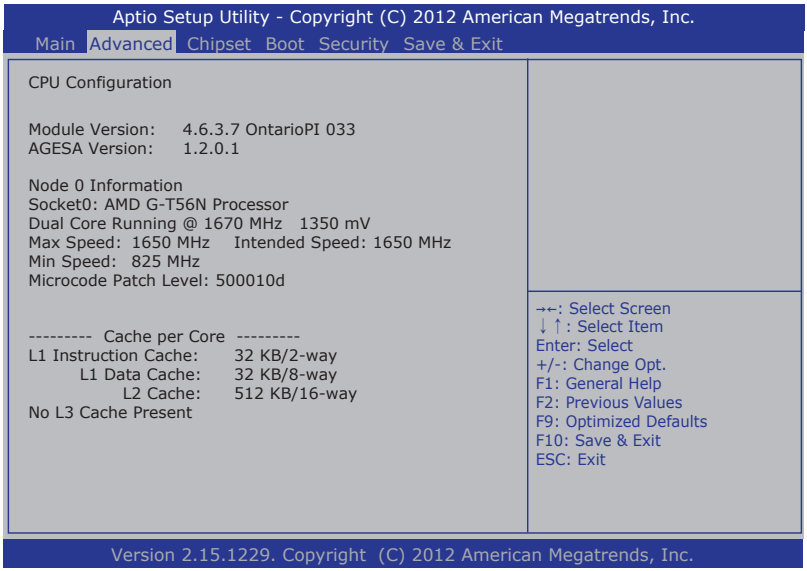
The featured setting is:

Setting	Description
Wake system with Fixed Time	Enables/disables the system to wake up on a specified time. ▸ **Disabled** is the default. ▸ When enabled, the following settings become available:

Setting	Description
Wake up hour	Defines the (hour) time to wake up the system. ▸ 0 to 23 configurable.
Wake up minute	Defines the (minute) time to wake up the system. ▸ 0 to 59 configurable.
Wake up second	Defines the (second) time to wake up the system. ▸ 0 to 59 configurable.

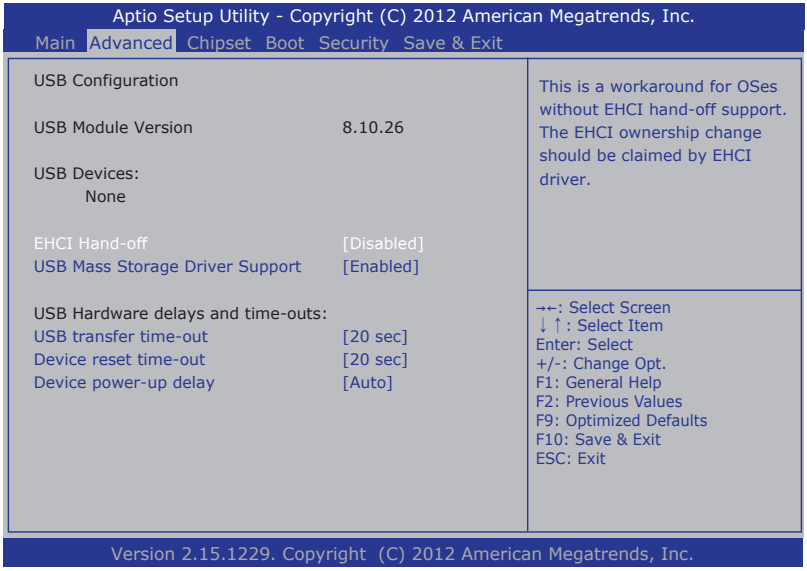
5.2.3. CPU Configuration

Select **CPU Configuration** to run a report of the CPU's details including the hardware version, software version, model name, processor speed, microcode revision, max./min. processor speeds, the amount of processor core(s), and CPU caches. See the depiction below:



5.2.4. USB Configuration

Select this submenu to view the status of the USB ports and configure USB features.



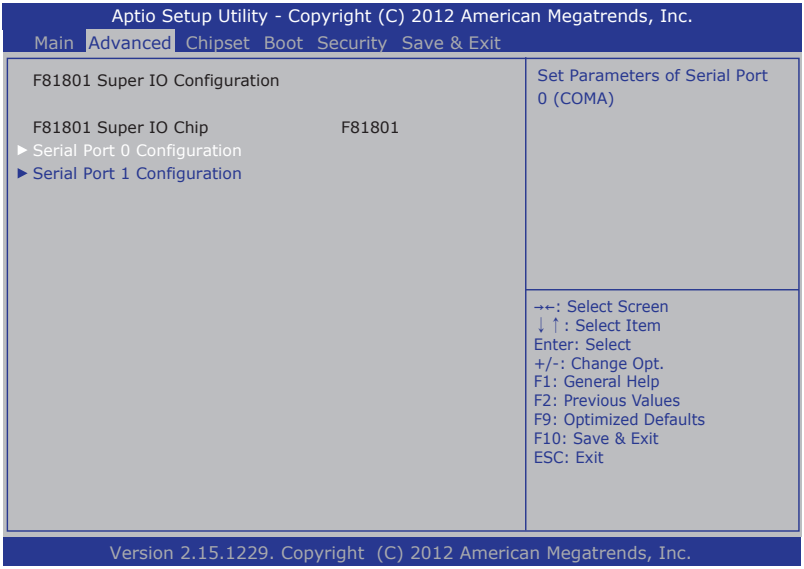
The featured settings and delivered info are:

Group	Setting / Info	Description
USB Configuration	**USB Module Version**	Delivers the version of the USB module.
	USB Devices	Delivers the presence of USB device(s) in the system.
EHCI Hand-off		Enables/disables a workaround for the operating systems that have no EHCI hand-off support ▸ **Disabled** is the default.
USB Mass Storage Driver Support		Enables/disables USB mass storage driver support. ▸ **Enabled** is the default.
USB hardware delays and time-outs	**USB transfer time-out**	Sets the time-out for USB control/bulk/ interrupt transfers. ▸ Options available are **1 sec**, **5 sec**, **10 sec** and **20 sec** (default).

USB hardware delays and time-outs	**Device reset time-out**	Sets the time-out for USB mass storage device start unit command. ▸ Options available are **10 sec**, **20 sec** (default), **30 sec** and **40 sec**.
	Device power-up delay	Sets the maximum time that elapses before a USB device reports itself to the controller. ▸ Select **Auto** (default) to apply a 100 ms delay to the root port and make the hub port use the delay from Hub descriptor. ▸ Select **Manual** to customize a delay from 1 to 40 seconds.

5.2.5. F81801 Super IO Configuration

This submenu configures the Super IO chip, F81801, for the computer's serial ports COM1 and COM2.



The featured submenus are:

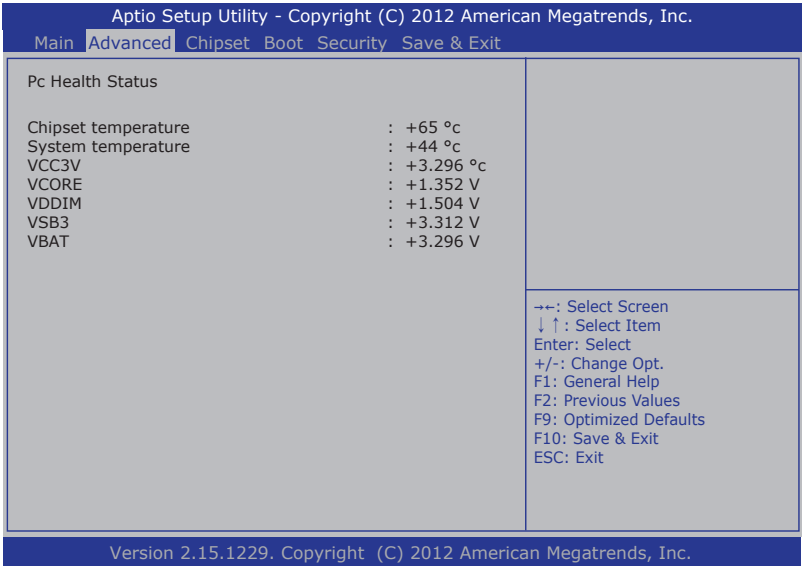
Submenu	Description
Serial Port 0 Configuration	Configures the computer's COM1, which is RS232-interfaced. The featured settings are:

Setting	Description
Serial Port	Enables/disables the serial port. ▸ **Enabled** is the default.
Change Settings	Sets the optimal IO address and IRQ info for the serial port. ▸ Options available are: **IO=3F8h; IRQ=4** (default); **IO=3F8h; IRQ=3,4,5,6,7,10,11,12;** **IO=2F8h; IRQ=3,4,5,6,7,10,11,12;** **IO=3E8h; IRQ=3,4,5,6,7,10,11,12;** **IO=2E8h; IRQ=3,4,5,6,7,10,11,12;** ▸ This setting is only available when the serial port is enabled.

<table>
<tr><td>Serial Port 1 Configuration</td><td>Configures the computer's COM1, which is RS232-interfaced. The featured settings are:
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>Serial Port</td><td>Enables/disables the serial port.
▸ Enabled is the default.</td></tr>
<tr><td>Change Settings</td><td>Sets the optimal IO address and IRQ info for the serial port:
▸ Options available are:
IO=2F8h; IRQ=3 (default);
IO=3F8h; IRQ=3,4,5,6,7,10,11,12;
IO=2F8h; IRQ=3,4,5,6,7,10,11,12;
IO=3E8h; IRQ=3,4,5,6,7,10,11,12;
IO=2E8h; IRQ=3,4,5,6,7,10,11,12;
▸ This setting is only available when the serial port is enabled.</td></tr>
</table></td></tr>
</table>

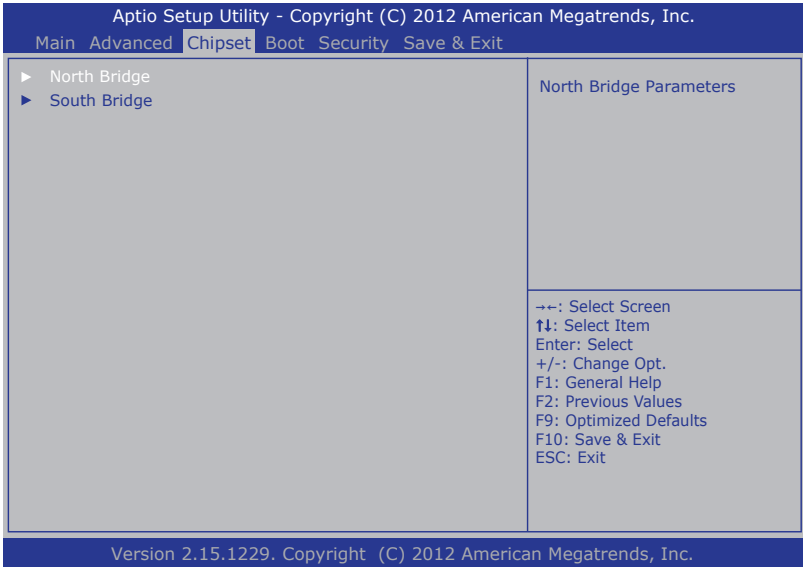
5.2.6. F81801 H/W Monitor

Select this submenu to view the main board's hardware status. Select it to run a report of various info as depicted below:



5.3. Chipset

The **Chipset** menu controls the system's chipset, including the north bridge and the south bridge.



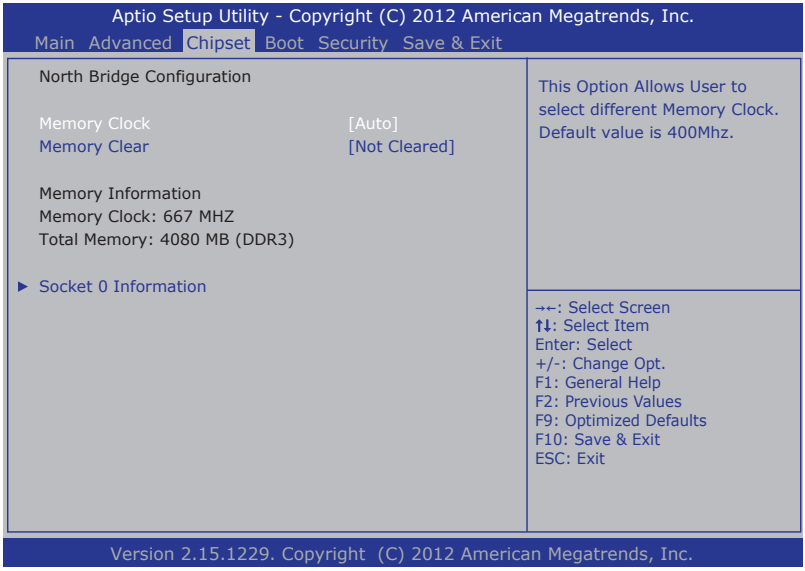
The featured submenus are **North Bridge** and **South Bridge**, which are detailed in the following of this section.

Submenu overview:

Submenu	Description
North Bridge	Configures the north bridge. See 5.3.1. North Bridge Configuration on page 62 for the settings.
South Bridge	Configures the south bridge. See 5.3.2. South Bridge Configuration on page 63 for the settings.

5.3.1. North Bridge Configuration

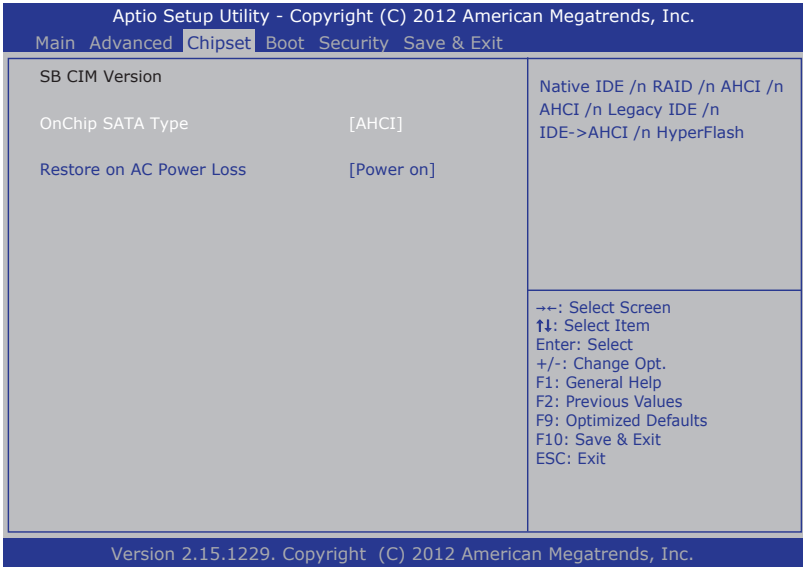
Select this submenu to configure the north bridge features such as the memory clock and the function to clear the memory:



Submenu / Setting / Info		Description
Memory Clock		Sets the memory clock, or leaves it on BIOS auto-configuration. ▸ Options available are **Auto** (default), **400MHz**, **533MHz** and **667MHz**.
Memory Clear		Enables/disables memory clear. ▸ Options available are **Not Cleared** (default) and **Cleared**.
Memory Information	**Memory Clock**	Delivers the memory clock.
	Total Memory	Delivers the total memory capacity.
Socket 0 Information		Delivers the system's memory information.

5.3.2. South Bridge Configuration

Select this submenu to view the south bridge's CIM (common information model) version and configure the system's south bridge:

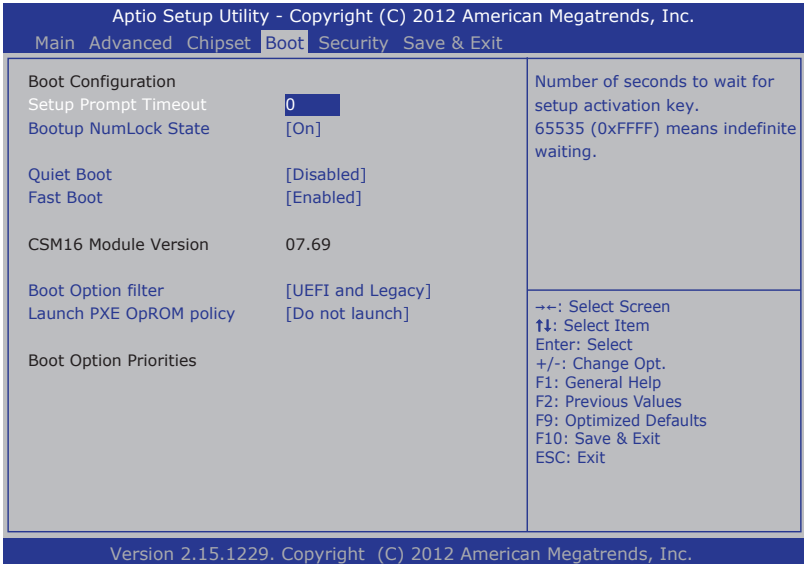


The featured settings are:

Submenu	Description
OnChip SATA Type	Set's the system's SATA type: ▸ Options available are **AHCI** (default) and **Native IDE**.
Restore on AC Power Loss	Sets whether the system should power on or power off when the power resumes after accidental power loss. ▸ Options available are **Power On** (default) and **Power Off**.

5.4. Boot

Access this **Boot** menu to configure how to boot up the system such as the configuration of boot device priority.



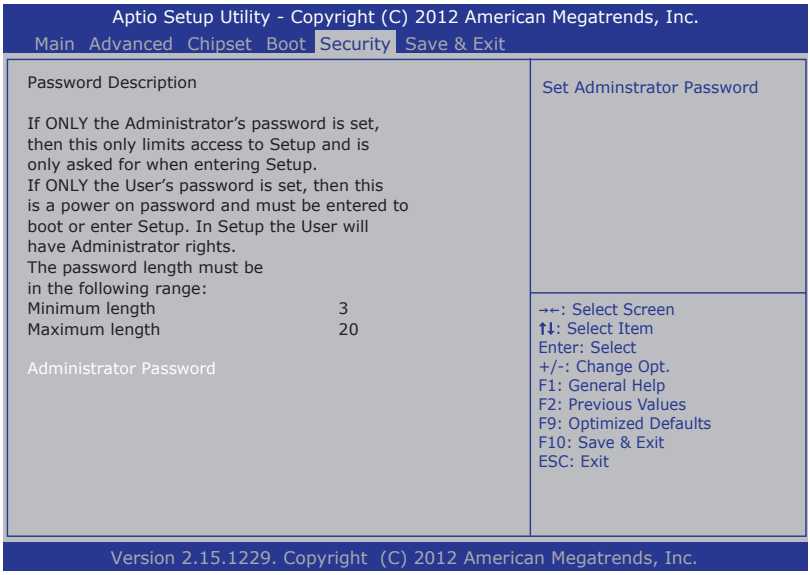
The featured settings are:

Group	Setting	Description
Boot Configuration	**Setup Prompt Timeout**	Sets how long to wait for the prompt to show for entering BIOS Setup. ▸ The default setting is **0** (sec). ▸ Set it to **65535** to wait indefinitely.
	Bootup NumLock State	Sets whether to enable or disable the keyboard's NumLock state when the system starts up. ▸ Options available are **On** (default) and **Off**.
	Quiet Boot	Sets whether to display the POST (Power-on Self Tests) messages or the system manufacturer's full screen logo during booting. ▸ Leave it as **Disabled**, which is the default, to display the normal POST message.

Boot Configuration	**Fast Boot**	Enables/disables initializing only a minimal set of devices required to launch the active boot options when booting up the system. ▸ **Enabled** is the default. ▸ This setting has no effect for BBS (BIOS Boot Specification) options.
CSM16 Module Version		Delivers the version of the CSM16, the Compatibility16 BIOS, a stripped-down traditional 16-bit real-mode BIOS, which enables the system to load a traditional OS or use a traditional OpROM.
Boot option filter		Sets which device can the system boot to. ▸ Options available are **UEFI and Legacy** (default), **Legacy only** and **UEFI only**.
Launch PXE OpROM policy		Controls whether to launch UEFI and Legacy PXE OpROM. ▸ **Do not launch** is the default ▸ "PXE" means "Preboot Execution Environment", a series of methods to get a typical Windows-based computer to boot up without a hard drive or boot diskette.
Boot Option Priority		Sets the boot priority among the available device types.

5.5. Security

The **Security** menu sets up the password for the system's administrator account. Once the administrator password is set up, this BIOS Setup utility is limited to access and will ask for the password each time any access is attempted.

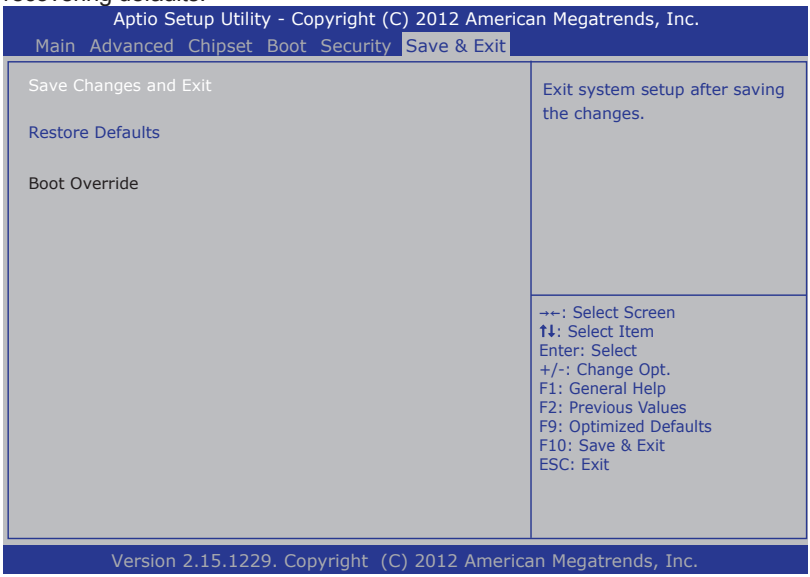


The featured setting is:

Setting	Description
Administrator Password	To set up an administrator password: 1. Select **Administrator Password**. An **Create New Password** dialog then pops up onscreen. 2. Enter your desired password that is no less than 3 characters and no more than 20 characters. 3. Hit [Enter] key to submit.

5.6. Save & Exit

The **Save & Exit** menu features a handful of commands to launch actions from the BIOS Setup utility regarding saving changes, quitting the utility and recovering defaults.



The features settings are:

Setting	Description
Save Changes and Exit	Saves the changes and quits the BIOS Setup utility.
Restore Defaults	Restores all settings to defaults. ▸ This is a command to launch an action from the BIOS Setup utility rather than a setting.
Boot Override	**Boot Override** presents a list in context with the boot devices in the system. Select the device to boot up the system regardless of the currently configured boot priority. ▸ This is a command to launch an action from the BIOS Setup utility rather than a setting.

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Appendices

Appendix A: Watchdog Timer (WDT) Setting

WDT is widely used for industrial application to monitor CPU activities. The application software depends on its requirement to trigger WDT with adequate timer setting. Before WDT timeout, the functional normal system will reload the WDT. The WDT never time-out for a normal system. The WDT will not be reloaded by an abnormal system, then WDT will time-out and auto-reset the system to avoid abnormal operation.

This computer supports 255 levels watchdog timer by software programming I/O ports.

Below is an assembly program example to disable and load WDT.

Sample Codes:

```
/*-----   Include Header Area -----*/
#include "math.h"
#include "stdio.h"
#include "dos.h"

#define SIO_INDEX       0x2E               /* or index = 0x4E */
#define SIO_DATA        0x2F               /* or data  = 0x4F */

/*-----   routing, sub-routing -----*/
void main()
{
     outportb(SIO_INDEX, 0x87);          /* SIO - Enable */
     outportb(SIO_INDEX, 0x87);

     outportb(SIO_INDEX, 0x07);          /* LDN - WDT */
     outportb(SIO_DATA,  0x07);

     outportb(SIO_INDEX, 0x2B);          /* GPIO12/WDTRST# function select */
     outportb(SIO_DATA,  0x00);          /* The pin function is WDTRST# */

     outportb(SIO_INDEX, 0x30);          /* WDT - Enable */
     outportb(SIO_DATA,  0x01);

   outportb(SIO_INDEX, 0xF0);            /* WDOUT - Enable */
   outportb(SIO_DATA,  0x80);

     outportb(SIO_INDEX, 0xF6);          /* WDT - Timeout Value : 5sec */
     outportb(SIO_DATA,  0x05);

     outportb(SIO_INDEX, 0xF5);          /* WDT - Configuration */
     outportb(SIO_DATA,  0x31);

     outportb(SIO_INDEX, 0xAA);          /* SIO - Disable */
}
```

Appendix B: 3G Module HSPA-SI1400 Hardware/Software Installation

To be able to network with 3G, hardware-wise the computer needs a 3G module installed and a SIM card inserted (as described in 4.1.4. Install SIM Card on page 42) and software-wise the computer needs the device driver and an application program. This appendix will guide you to install the 3G module **HSPA-SI1400** and the device driver. (To have a copy of the device driver, please contact ARBOR customer service as described in Technical Support on page viii.)

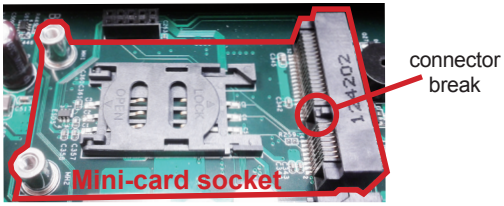
B.1. Install HSPA-SI1400

1. Remove the computer's bottom cover as described in 4.1.1. Open the Computer on page 32.

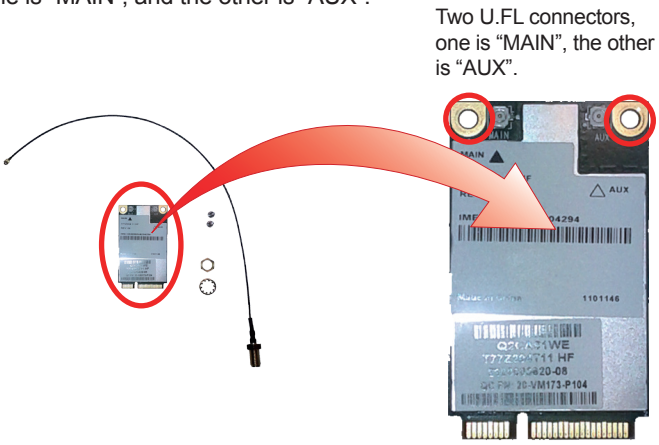
   The inside of the computer comes to view.

2. Find the **PCI Express Mini-card** socket for 3G modules as the illustration above shows.

   The socket has a break among the connector .



3. Have the **HSPA-SI1400** 3G module kit. The 3G module is a full-size module of **PCI Express Mini-card** form factor, with two U.FL connectors, one is “MAIN“, and the other is “AUX“.

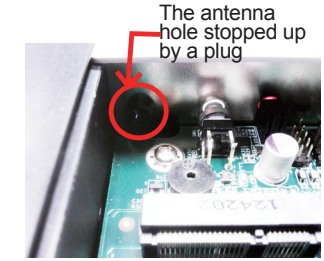


4. Plug the 3G module to the socket’s connector by a slanted angle. Fully plug the module, and note the notch on the wireless module should meet the break of the connector.

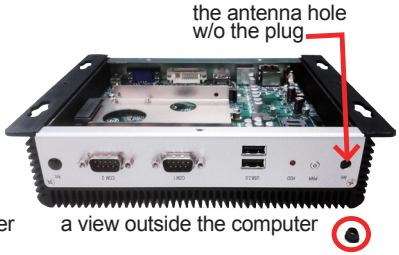
Fully plug the module.

5. Press down the module and fix the module in place using two screws.

6. Remove the plastic plug from the computer's front panel to make an antenna hole. Keep the plastic plug for any possible restoration in the future.

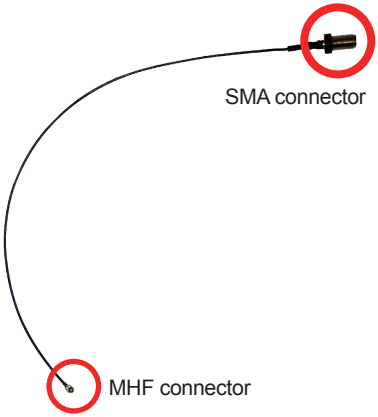


a view from the inside of the computer

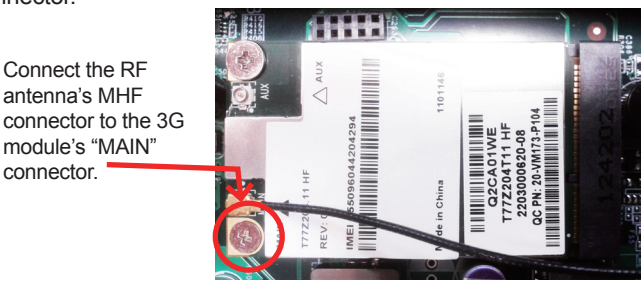


a view outside the computer

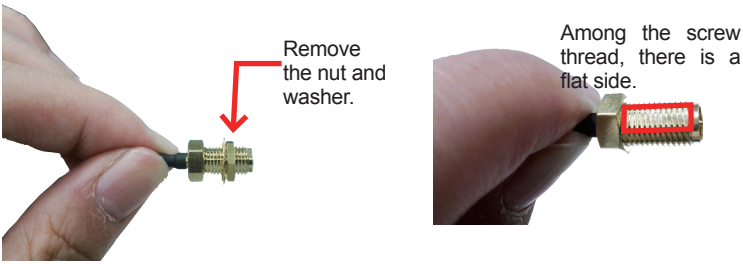
7. Have the RF antenna. The antenna has an SMA connector on one end and an MHF connector on the other.



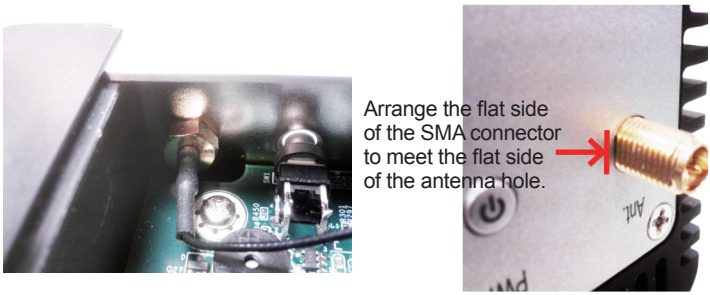
8. Connect the RF antenna's MHF connector to the 3G module's "MAIN" connector.



9. From the other end of the RF antenna, which is an SMA connector, remove the washer and the nut. Save the washer and nut for later use. Note the SMA connector has the form of a threaded bolt, with one flattened side.



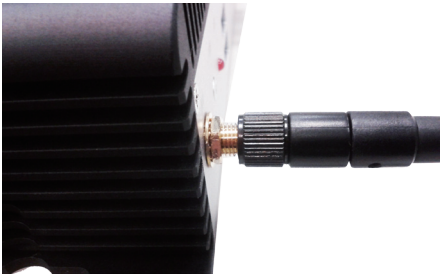
10. Pull the SMA connector through the above mentioned antenna hole. Note to meet the aforesaid flattened side with the antenna hole's flat side.



11. Mount the washer first and then the nut to the SMA connector. Make sure the nut is tightened.

12. Restore the computer's bottom cover.

13. Have an external antenna. Screw and tightly fasten the antenna to the SMA connector.



14. Swivel the antenna to an angle of best signals.

B.2. Install Device Driver

As described in 2.3. Driver Installation Notes on page 11, after the drivers for the chipset, .NET Framework, audio and Ethernet are installed, you can proceed to install the driver for the wireless modules such as 3G module or Wi-Fi module.

To install the driver for the 3G module **HSPA-SI1400**:

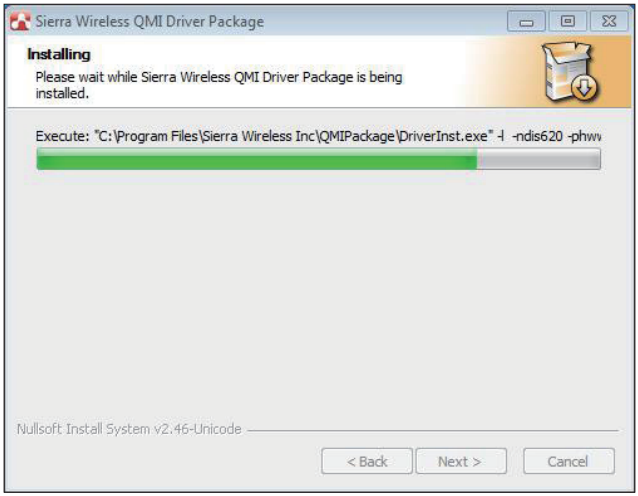
1. Request a copy of the device driver from ARBOR customer service by the contact info as described in Technical Support on page viii.

2. Run the executable file **SWIQMISetup.exe**.

   The installer then opens.

3. Click the **Next** button to proceed.

   The driver installation then starts, progresses and finishes.



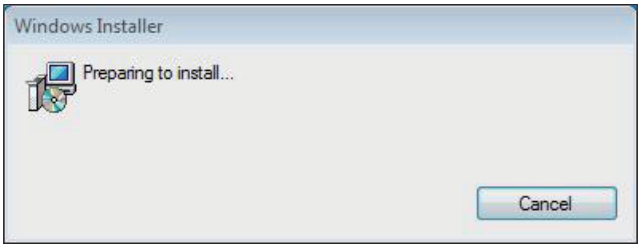
4. Click the **Finish** button to quit the driver installation.

B.3. Install Application Program

1. Request a copy of the application program from ARBOR customer service by the contact info as described in Technical Support on page viii.

2. Run the Windows Installer file **Watcher_Generic.msi**.

   The installer opens and prepares to install.



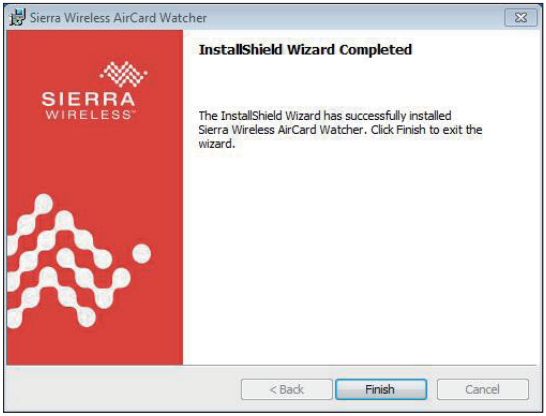
   Once the preparation finishes, the installer prompts to install **Sierra Wireless AirCard Watcher** on the computer.

3. Click the **Next** button to proceed.

   The installer then prompts the license agreement.

4. Select **I accept the terms in the license agreement**. Click the **Change...** button to browse for an alternate folder to install the application program to, or simply click the **Next** button to install the application program to the suggested folder.

   The installation then starts, progresses and finishes.



5. Click the **Finish** button to quit the installation.

   An **AirCard Watcher** icon then shows up on the desktop.

6. Double-click the **AirCard Watcher** icon to launch the application program.

   The **AirCard Watcher** opens.

7. See the document of the **AirCard Watcher** to know how to use the application program.

Appendix C: Wi-Fi Module WIFI-IN1300 Hardware/Software Installation

To use Wi-Fi, hardware-wise the computer needs a Wi-Fi module installed, and software-wise the computer needs the device driver and an application program. This appendix will guide you to install the Wi-Fi module **WIFI-IN1300** and the device driver. (To have a copy of the device driver, please contact ARBOR customer service by the contact info described in Technical Support on page viii.)

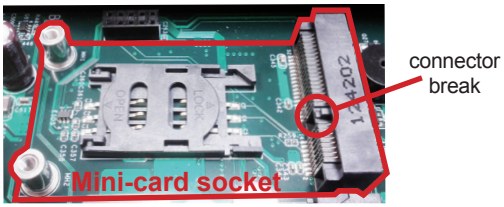
C.1. Install WIFI-IN1300

1. Remove the computer's bottom cover as described in 4.1.1. Open the Computer on page 32.

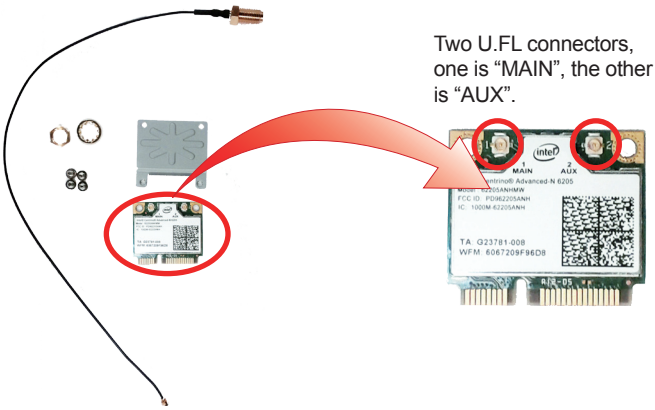
   The inside of the computer comes to view.

2. Find the **PCI Express Mini-card** socket for Wi-Fi modules as the illustration above shows.

   The socket has a break among the connector .



3. Prepare the **WIFI-IN1300** Wi-Fi module kit. The module is a half-size module of **PCI Express Mini-card** form factor, with two U.FL connectors, one is “MAIN“, and the other is “AUX“.

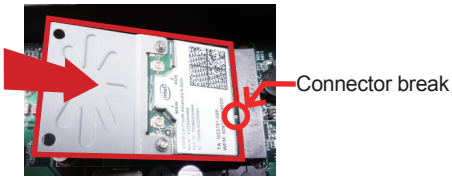


4. In order to make the half-size Wi-Fi module compatible with the **Mini-card** socket, extend the WiFi module with a “mini half bracket”. Join them together by using two screws.

Position the WiFi module and the “mini half bracket” exactly as shown.

Join the WiFi module and the “mini half bracket” by using two screws.

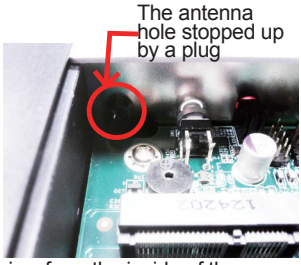
5. Plug the Wi-Fi module to the socket's connector by a slanted angle. Fully plug the module, and note the notch on the wireless module should meet the break of the connector.



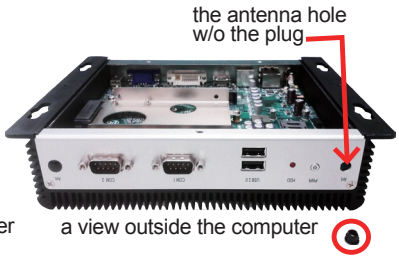
Fully plug the module.

6. Press down the module and fix the module in place using two screws.

7. Remove the plastic plug from the computer's front panel to make an antenna hole. Keep the plastic plug for any possible restoration in the future.

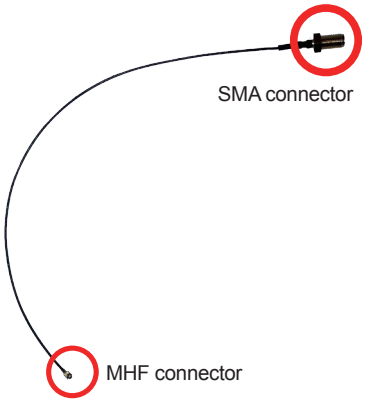


a view from the inside of the computer

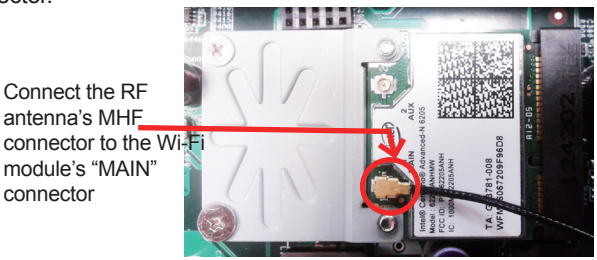


a view outside the computer

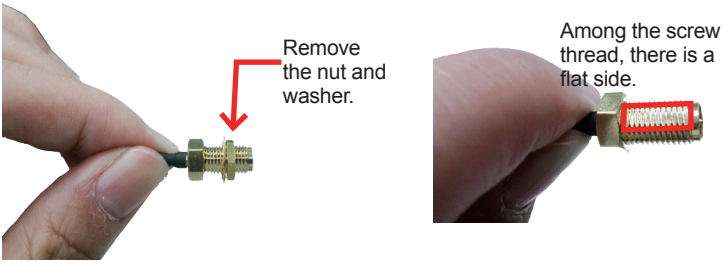
8. Have the RF antenna. The antenna has an SMA connector on one end and an MHF connector on the other.



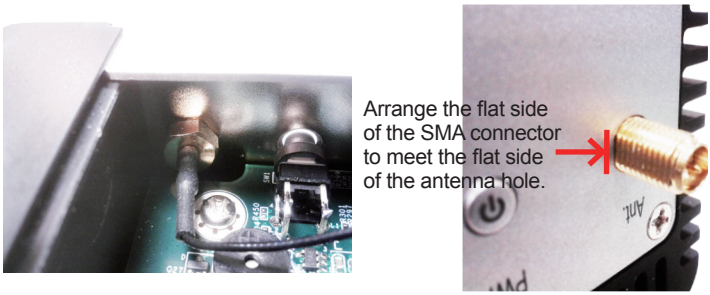
9. Connect the RF antenna's MHF connector to the Wi-Fi module's "MAIN" connector.



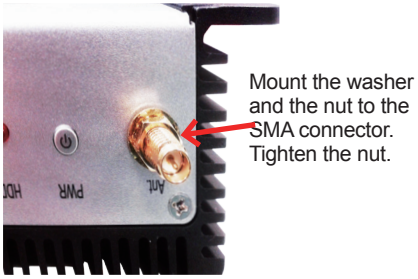
10. From the other end of the RF antenna, which is an SMA connector, remove the washer and the nut. Save the washer and nut for later use. Note the SMA connector has the form of a threaded bolt, with one flat side.



11. Pull the SMA connector through the above mentioned antenna hole. Note to meet the aforesaid flattened side with the antenna hole's flat side.

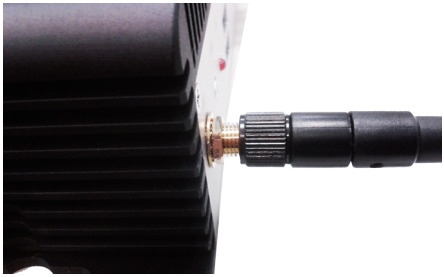


12. Mount the washer first and then the nut to the SMA connector. Make sure the nut is tightened.



13. Restore the computer's bottom cover.

14. Have an external antenna. Screw and tightly fasten the antenna to the SMA connector.



15. Swivel the antenna to an angle of best signals.

C.2. Install Device Driver & Application Program

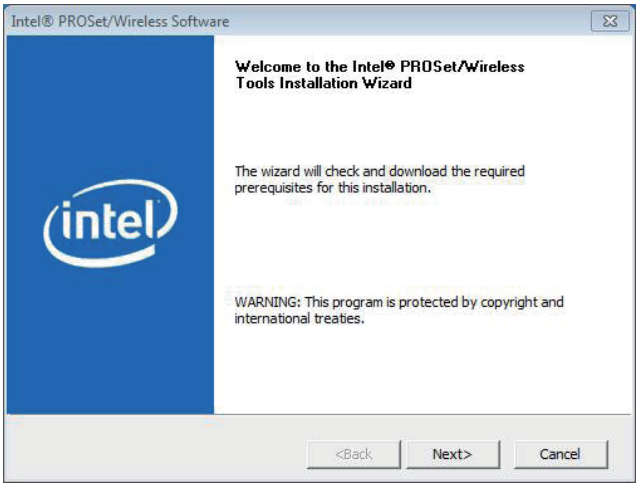
As described in 2.3. Driver Installation Notes on page 11, after the drivers for the chipset, .NET Framwork, audio and Ethernet are installed, you can proceed to install the driver for the wireless modules such as 3G module or Wi-Fi module.

The device driver of **WIFI-IN1300** will install the application program (the utility) as well. Follow the guide below to install **WIFI-IN1300** driver (and the application program):

1. Request a copy of the device driver from ARBOR customer service by the contact info as described in Technical Support on page viii.

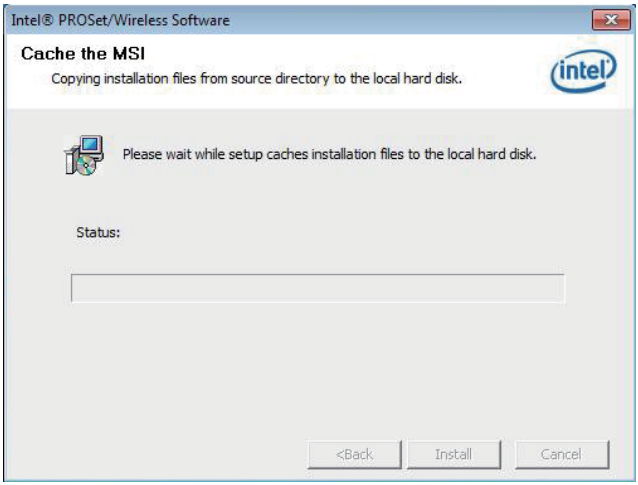
2. Run the executable file of the device driver, for example **Advanced-N 6205 WinXP_14.2.0.10_x32.exe**.

   The installer then opens.



3. Click the **Next** butoon to proceed.

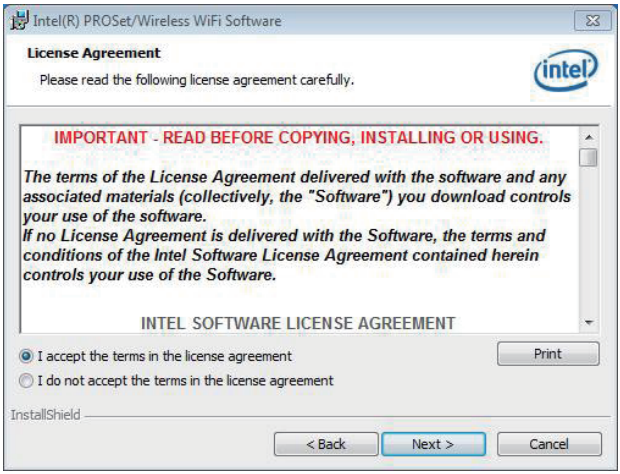
   The installer then starts to prepare for the setup.



   When the preparation finishes, the installer prompts to install **Intel(R) PROSet/Wireless WiFi Softwar**e on the computer.

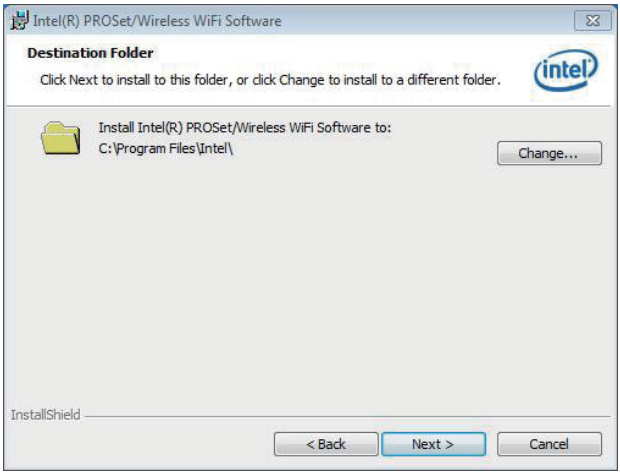
4. Click the **Next** button to proceed.

   The installer then prompts the license agreement.



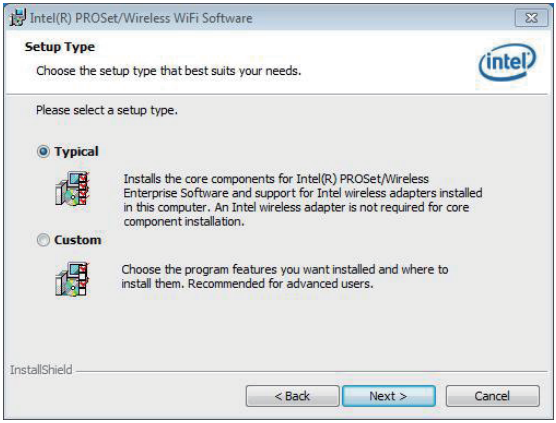
5. Select **I accept the terms in the license agreement** and click the **Next** button to proceed.

   The installer then asks where to install the software.



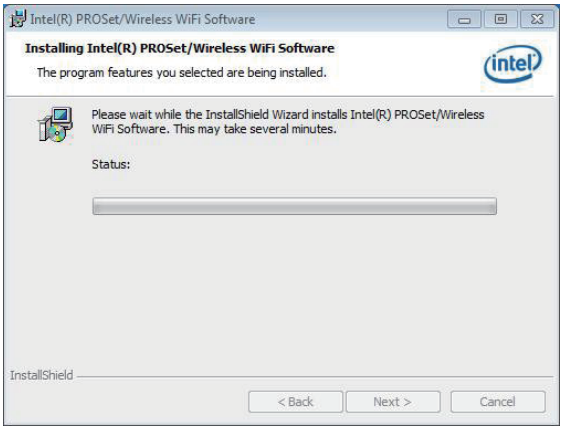
6. Click the **Change...** button to browse for an alternate folder to install the software to, or simply click the **Next** button to install the software to the suggested folder.

   The installer then opens a **Setup Type** selection.

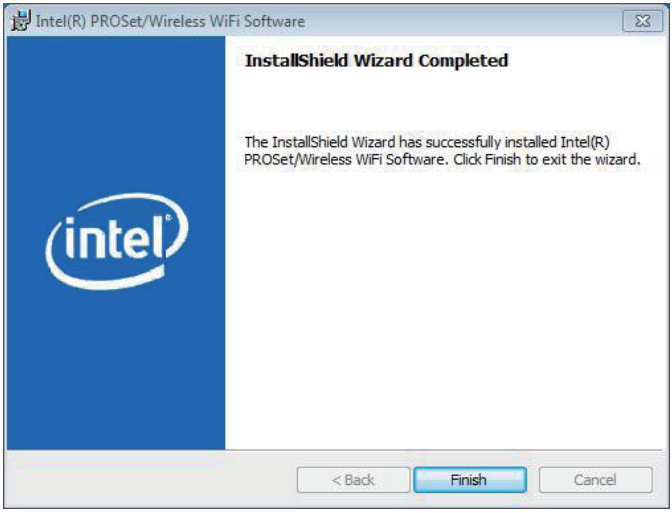


7. Select **Typical** to install both the driver and the application program (recommended) or select **Custom** to choose the features to install. Then click the **Next** button to proceed.

   The software installation then starts, progresses and finishes.



8. Click the **Finish** button to quit the software installation.



9. The computer's Wi-Fi feature is ready-to-use, see the document of the application program to know how to connect the computer to a Wi-Fi hotspot.