

**AT5I0NT-I DELUXE
AT5I0NT-I**



Motherboard

E5277

First Edition V1
July 2010

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Notices

Federal Communications Commission Statement

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

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

REACH

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at <http://csr.asus.com/english/REACH.htm>.



DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.



DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

Safety information

Electrical safety

- To prevent electric shock hazard, disconnect the power cable from the electric outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, ensure that all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

About this guide

This user guide contains the information you need when installing and configuring the motherboard.

How this guide is organized

This guide contains the following parts:

- **Chapter 1: Product introduction**
This chapter describes the features of the motherboard and the new technology it supports.
- **Chapter 2: BIOS information**
This chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



DANGER/WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Instructions that you **MUST** follow to complete a task.



NOTE: Tips and additional information to help you complete a task.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. ASUS websites

The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information.

2. Optional documentation

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

Typography

Bold text

Indicates a menu or an item to select.

Italics

Used to emphasize a word or a phrase.

<Key>

Keys enclosed in the less-than and greater-than sign means that you must press the enclosed key.

Example: <Enter> means that you must press the Enter or Return key.

<Key1>+<Key2>+<Key3>

If you must press two or more keys simultaneously, the key names are linked with a plus sign (+).

Example: <Ctrl>+<Alt>+<D>

AT5IONT-I Series specifications summary

CPU	Integrated Dual-Core Intel® Atom™ D525 processor
Chipset	Intel® NM10
Memory	<p>Single channel memory architecture</p> <ul style="list-style-type: none"> - 2 x SO-DIMM sockets support maximum 4GB unbuffered non-ECC 800 MHz DDR3 memory modules <p>* Refer to www.asus.com or this user manual for the Memory QVL (Qualified Vendors Lists).</p> <p>** When you install a total memory of 4GB capacity or more, the operating system may only recognize less than 3GB. We recommend a maximum of 3GB system memory.</p>
Graphics	<p>NVIDIA® next generation ION™ graphics processor</p> <p>Supports CUDA technology</p> <p>Supports DVI with max. resolution up to 1920 x 1200 x 32 Bpp @60Hz</p> <p>Supports HDMI with max. resolution up to 1920 x 1080 x 32 Bpp @60Hz</p> <p>Dual display output supports: DVI&HDMI</p> <p>Dedicated video memory: 512MB</p>
Expansion slot	1 x PCIe x4 slot (@ x1 speed, with latch)
Storage	2 x Serial ATA 3Gb/s ports support AHCI Mode
Audio	<p>ALC887 (6+2)-channel High Definition Audio CODEC</p> <p>Supports DTS Surround Sensation Ultra-PC</p> <p>* Use a chassis with HD audio module in the front panel to support an 8-channel audio output.</p>
LAN	PCIe Gigabit LAN controller
USB	<p>2 x USB 3.0 ports (blue, at back panel)</p> <p>4 x USB 2.0 ports (2 ports at mid-board, 2 ports at back panel)</p>
ASUS special features	<p>ASUS CrashFree BIOS 3</p> <p>ASUS EZ Flash 2</p> <p>ASUS MyLogo 2™</p> <p>ASUS AI NET 2</p> <p>ASUS Express Gate</p> <p>Home Theater Gate</p> <p>Stack Cool 3+</p>

(continued on the next page)

AT510NT-I Series specifications summary

Rear panel ports	<ul style="list-style-type: none"> 1 x PS/2 Keyboard port 1 x PS/2 Mouse port 1 x Optical S/PDIF out port 1 x DVI-D port 1 x HDMI port 1 x eSATA port 1 x LAN (RJ-45) port 2 x USB 2.0/1.1 ports 2 x USB 3.0/2.0 ports 3 x Audio jacks 1 x DC port* 1 x WiFi antenna port* 1 x Bluetooth adapter* * For AT510NT-I DELUXE only
Internal connectors	<ul style="list-style-type: none"> 1 x USB 2.0/1.1 connector supports additional 2 USB 2.0/1.1 ports 1 x CPU fan connector 1 x Chassis fan connector 1 x Power fan connector 2 x Serial ATA connectors 1 x SATA power connector* 1 x System panel connector 1 x Front panel audio connector 1 x Internal speaker connector 1 x 24-pin EATX power connector** * For AT510NT-I DELUXE only ** For AT510NT-I only
BIOS features	8 Mb Flash ROM, AMI BIOS, PnP, DMI2.0, WfM2.0, SMBIOS 2.5
Accessories	<ul style="list-style-type: none"> 2 x Serial ATA cables 1 x I/O shield 1 x User Manual 1 x SATA Power cable* 1 x Remote Controller* 1 x Receiver* 1 x 90W DC adapter* 1 x Power cord* * For AT510NT-I DELUXE only
Support DVD contents	<ul style="list-style-type: none"> Drivers ASUS PC Probe II ASUS Update Anti-virus software (OEM version)
Form Factor	Mini ITX form factor: 6.75 in x 6.75 in (17.1cm x 17.1cm)

*Specifications are subject to change without notice.

Chapter 1

Product introduction

Thank you for buying an ASUS® AT5IONT-I Series motherboard!

Before you start installing the motherboard, and hardware devices on it, check the items in your motherboard package. Refer to page ix for the list of accessories.



- AT5IONT-I Series motherboards include AT5IONT-I and AT5IONT-I DELUXE two models. The package contents vary from models.
- If any of the items is damaged or missing, contact your retailer.

1.1 Before you proceed

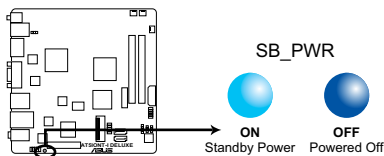
Take note of the following precautions before you install motherboard components or change any motherboard settings.



- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Hold components by the edges to avoid touching the ICs on them.
- Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.

Onboard LED

The motherboard comes with a standby power LED that lights up to indicate that the system is ON, in sleep mode, or in soft-off mode. This is a reminder that you must shut down the system and unplug the power cable before removing or plugging in any motherboard component. The illustration below shows the location of the onboard LED.



AT5IONT-I DELUXE Onboard LED

1.2 Motherboard overview

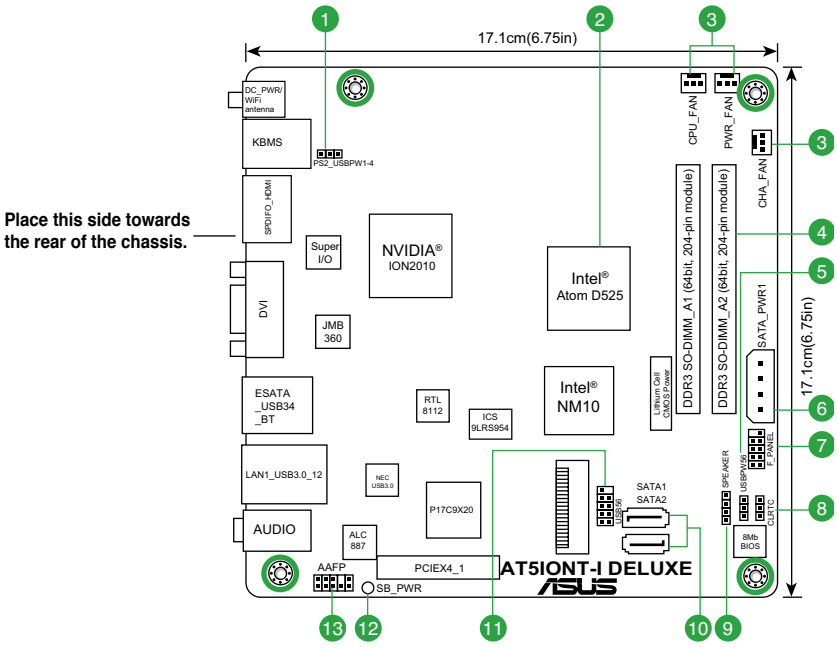
1.2.1 Motherboard layout



ASUS AT510NT-I Series motherboards include AT510NT-I and AT510NT-I DELUXE two models. The layout varies with models. The layout illustrations in this user guide are for AT510NT-I DELUXE only.



Ensure that you install the motherboard into the chassis in the correct orientation. The edge with external ports goes to the rear part of the chassis.



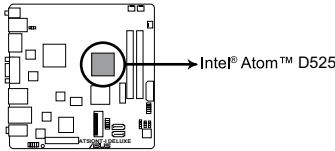
Place four screws into the holes indicated by circles to secure the motherboard to the chassis. DO NOT overtighten the screws! Doing so can damage the motherboard.

1.2.2 Layout contents

Connectors/Jumpers/LED	Page	Connectors/Jumpers/LED	Page
1. Keyboard/mouse power and USB device wake-up (3-pin PS2_USBPW1-4)	1-7	8. Clear RTC RAM (3-pin CLRRTC)	1-6
2. Atom D525 processor	1-3	9. Internal speaker connector (4-pin SPEAKER)	1-12
3. CPU, power, and chassis fan connectors (3-pin CPU_FAN, 3-pin PWR_FAN, 3-pin CHA_FAN)	1-11	10. Serial ATA connectors (7-pin SATA1/2)	1-10
4. DDR3 SO-DIMM slots	1-3	11. USB connector (10-1 pin USB56)	1-11
5. USB device wake-up (3-pin USBPW56)	1-7	12. Standby power LED (SB_PWR)	1-1
6. SATA power connector (4-pin SATA_PWR1)	1-13	13. Front panel audio connector (10-1 pin AAFP)	1-12
7. System panel connector (10-1 pin F_PANEL)	1-13		

1.3 Central Processing Unit (CPU)

The motherboard comes with an onboard Dual-Core Intel® Atom™ D525 processor and a specially designed CPU heatsink.

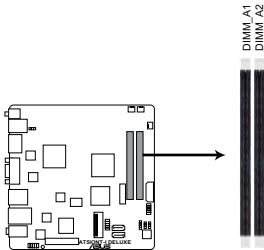


AT5I0NT-I DELUXE CPU - Atom D525

1.4 System memory

1.4.1 Overview

This motherboard comes with two Double Data Rate 3 (DDR3) Small Outline Dual Inline Memory Modules (SO-DIMM) sockets. The figure illustrates the location of the DDR3 DIMM sockets:



AT5I0NT-I DELUXE 204-pin DDR3 SO-DIMM sockets

1.4.2 Memory configurations

You may install 512MB, 1GB, and 2GB unbuffered non-ECC DDR3 SO-DIMMs into the DIMM sockets.



- Always install DIMMs with the same CAS latency. For optimum compatibility, it is recommended that you obtain memory modules from the same vendor.
- Due to the CPU limitation, when you install 4GB or more memory on the motherboard, the actual usable memory for the OS can be about 3GB or less. For effective use of memory, we recommend that you do use a maximum of 3GB system memory.
- This motherboard does not support DIMMs made up of 256 megabits (Mb) chips or less.

AT5IONT-I Series Motherboard Qualified Vendors Lists (QVL)

DDR3-1067 MHz capability

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
APACER	AS01GFA06C7NBGC	1GB	DS	APACER	AM5D5808DEHSBG	7	-	•	•
HYNIX	HMT112S6BFR6C-G7	1GB	DS	HYNIX	H5TQ1G63BFR	-	-	•	•
KINGSTON	KVR1066D3S7/1G	1GB	DS	KTC	D1288JPPDPGD9U	7	1.5V	•	•
KINGSTON	KVR1066D3S7/1G	1GB	DS	ELPIDA	J1108BDBG-DJ-F	7	1.5V	•	•
SAMSUNG	M471B2873EH1-CF8	1GB	DS	SAMSUNG	K4B1G0846E	-	-	•	•
Transcend	JM1066KSU-1G	1GB	DS	Transcend	TK243PDF3	7	-	•	•
ADATA	DDR3 1066(7) SO-DIMM	1GB	DS	Hynix	H5TQ1G83AFP H9C	7	-	•	•
Elixir	M2S1G64CBH8A4P-BE	1GB	DS	Elixir	N2CB1616AP-BE	-	-	•	•
KINGTIGER	1GB DIMM PC3-8500	1GB	DS	QIMONDA	IDSH1G-04A1F1C-10F	-	-	•	•
KINGTIGER	1GB DIMM PC3-8500	1GB	DS	SAMSUNG	K4B1G16460-HCF8	-	-	•	•

DDR3-1333 MHz capability

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
APACER	AS01GFA33C9NBGC	1GB	DS	APACER	AM5D5808AEWSBG	9	-	•	•
HYNIX	HMT112S6TFR8C-H9	1GB	DS	HYNIX	H5TQ1G83TFR	-	-	•	•
HYNIX	HMT325S6BFR8C-H9	2GB	DS	HYNIX	H5TQ2G83BFR	-	-	•	•
KINGSTON	ASU 1333D3S9SR8/1G	1GB	DS	KTC	D1288JELDPGD9U	-	-	•	•
KINGSTON	KVR1333D3S9/1G	1GB	DS	ELPIDA	J1108BDBG-DJ-F	9	1.5V	•	•
ASINT	SSY3128MB-EDJED	1GB	DS	ELPIDA	J1108BDBG-DJ-F	-	-	•	•



DDR3 1333MHz and DDR3 1067MHz memory modules run at 800MHz on AT5IONT-I Series motherboards.



Visit the ASUS website at www.asus.com for the latest QVL.

1.5 Expansion slot

In the future, you may need to install an expansion card. The following sub-sections describe the slot and the expansion cards that it supports.



Unplug the power cord before adding or removing expansion cards. Failure to do so may cause you physical injury and damage motherboard components.

1.5.1 Installing an expansion card

To install an expansion card:

1. Before installing the expansion card, read the documentation that came with it and make the necessary hardware settings for the card.
2. Remove the system unit cover (if your motherboard is already installed in a chassis).
3. Remove the bracket opposite the slot that you intend to use. Keep the screw for later use.
4. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
5. Secure the card to the chassis with the screw you removed earlier.
6. Replace the system cover.

1.5.2 Configuring an expansion card

After installing the expansion card, configure it by adjusting the software settings.

1. Turn on the system and change the necessary BIOS settings, if any. See Chapter 2 for information on BIOS setup.
2. Assign an IRQ to the card.
3. Install the software drivers for the expansion card.

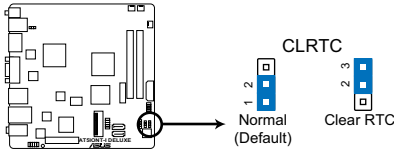
1.5.3 PCI Express x4 slot (@ x1 speed, with latch)

This motherboard supports PCI Express x4 network cards, SCSI cards and other cards that comply with the PCI Express specifications.

1.6 Jumpers

1. Clear RTC RAM (3-pin CLRTC)

This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS. You can clear the CMOS memory of date, time, and system setup parameters by erasing the CMOS RTC RAM data. The onboard button cell battery powers the RAM data in CMOS, which include system setup information such as system passwords.



AT5IONT-I DELUXE Clear RTC RAM

To erase the RTC RAM:

1. Turn OFF the computer and unplug the power cord.
2. Move the jumper cap from pins 1-2 (default) to pins 2-3. Keep the cap on pins 2-3 for about 5-10 seconds, then move the cap back to pins 1-2.
3. Plug the power cord and turn ON the computer.
4. Hold down the **** key during the boot process and enter BIOS setup to re-enter data.



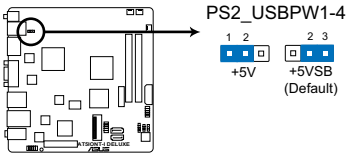
Except when clearing the RTC RAM, never remove the cap on CLRTC jumper default position. Removing the cap will cause system boot failure!



If the steps above do not help, remove the onboard battery and move the jumper again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery.

2. Keyboard/mouse power and USB device wake-up (3-pin PS2_USBPW1-4)

This jumper allows you to enable or disable the keyboard/mouse and USB port 1-4 wake-up feature. When you set this jumper to pins 2-3 (+5VSB), you can wake up the computer by pressing a key on the keyboard, clicking the mouse or using a USB device. This feature requires an ATX power supply that can supply at least 1A on the +5VSB lead, and a corresponding setting in the BIOS. The USBPW1-4 jumper is for the rear USB ports.



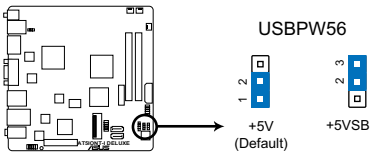
AT510NT-I DELUXE PS2 Keyboard/Mouse power setting and USB device wake-up



The total current consumed must NOT exceed the power supply capability (+5VSB) whether under normal condition or in sleep mode.

3. USB device wake-up (3-pin USBPW56)

Set this jumper to +5V to wake up the computer from S1 sleep mode (CPU stopped, DRAM refreshed, system running in low power mode) using the connected USB devices. Set to +5VSB to wake up from S3 and S4 sleep modes (no power to CPU, DRAM in slow refresh, power supply in reduced power mode).



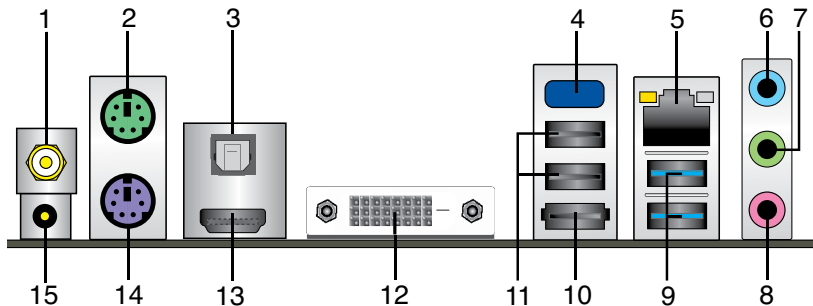
AT510NT-I DELUXE USB Device Wake-up



-
- The USB device wake-up feature requires a power supply that can provide 500mA on the +5VSB lead for each USB port; otherwise, the system would not power up.
 - The total current consumed must NOT exceed the power supply capability (+5VSB) whether under normal condition or in sleep mode.
-

1.7 Connectors

1.7.1 Rear panel connectors



1. **WLAN antenna port (for AT5IONT-I DELUXE only).** This port connects to the WLAN antenna.
2. **PS/2 Mouse port (green).** This port is for a PS/2 mouse.
3. **Optical S/PDIF Out port.** This port connects to an external audio output device via an optical S/PDIF cable.
4. **Onboard Bluetooth module (for AT5IONT-I DELUXE only).** This onboard Bluetooth module allows wireless connection and data transfer between your system and other Bluetooth devices.

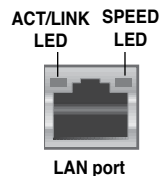


- Under Windows® 7 OS, to achieve the complete Bluetooth functions, download the latest Bluetooth driver from the ASUS support website at <http://support.asus.com>.
- **Bluetooth Electrical Specification:**
Bluetooth specification V.2.1 compliant;
Transmission rate up to 3 Mbps;
Working distance up to 10 meters;
Integrated 32-bit CPU with 32KB data RAM and 256KB program RAM;
5V single supply voltage.
- Under Windows® XP, if the Bluetooth Driver item is not displayed on the Support DVD's Drivers screen, follow the steps below:
 1. Shut down your computer and switch off the Power Supply Unit (PSU).
 2. Switch on the PSU and boot up your computer.
 3. Open the Support DVD and click ASUS InstAll.

5. **LAN (RJ-45) port.** This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications.

LAN port LED indications

ACT/LINK LED		SPEED LED	
Status	Description	Status	Description
OFF	No link	OFF	10 Mbps connection
ORANGE	Linked	ORANGE	100 Mbps connection
BLINKING	Data activity	GREEN	1 Gbps connection



6. **Line In port (light blue).** This port connects to the tape, CD, DVD player, or other audio sources.
7. **Line Out port (lime).** This port connects to a headphone or a speaker. In the 4, 6, and 8-channel configurations, the function of this port becomes Front Speaker Out.
8. **Microphone port (pink).** This port connects to a microphone.



Refer to the audio configuration table below for the function of the audio ports in 2, 4, 6, or 8-channel configuration.

Audio 2, 4, 6, or 8-channel configuration

Port	Headset 2-channel	4-channel	6-channel	8-channel
Light Blue (Rear panel)	Line In	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
Lime (Rear panel)	Line Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
Pink (Rear panel)	Mic In	Mic In	Bass/Center	Bass/Center
Lime (Front panel)	–	–	–	Side Speaker Out



To configure an 8-channel audio output:

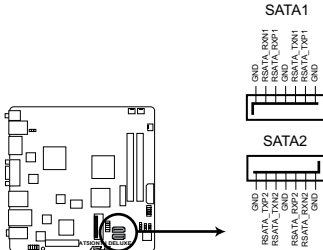
Use a chassis with HD audio module in the front panel to support 8-channel audio output.

9. **USB 3.0 ports 1 and 2.** These two 4-pin Universal Serial Bus (USB) ports are for USB 3.0 devices.
10. **eSATA port.** This port connects to an external Serial ATA hard disk drive.
11. **USB 2.0 ports 3 and 4.** These two 4-pin Universal Serial Bus (USB) ports are for USB 2.0 devices.
12. **DVI-D port.** This port is for any DVI-D compatible device and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content.
13. **HDMI port.** This port is for a High-Definition Multimedia Interface (HDMI) connector, and is HDCP compliant allowing playback of HD DVD, Blu-Ray, and other protected content.
14. **PS/2 Keyboard port (purple).** This port is for a PS/2 keyboard.
15. **DC power port (for AT5IONT-I DELUXE only).** This port connects to an DC power adapter.

1.7.2 Internal connectors

1. Serial ATA connectors (7-pin SATA1, SATA2)

These connectors are for the Serial ATA signal cables for Serial ATA 3Gb/s hard disk drives and optical disk drives. The Serial ATA 3Gb/s is backward compatible with the Serial ATA 1.5Gb/s specification. The data transfer rate of the Serial ATA 3Gb/s is faster than the standard parallel ATA (133 MB/s).



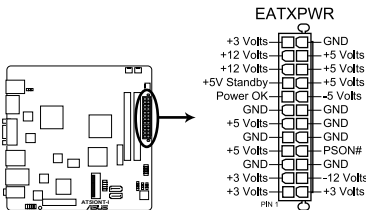
AT5IONT-I DELUXE SATA connectors



- Install the Windows® XP Service Pack 2 or later versions before using Serial ATA.

2. ATX power connector (24-pin EATXPWR) (for AT5IONT-I only)

This connector is for an ATX power supply. The plug from the power supply is designed to fit this connector in only one orientation. Find the proper orientation and push down firmly until the connector completely fits.



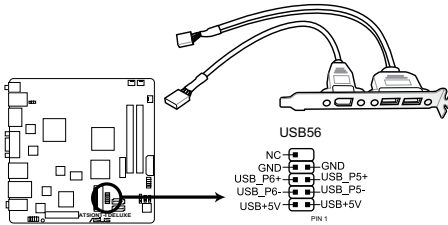
AT5IONT-I ATX power connector



- For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12 V Specification 2.0 (or later version) and provides a minimum power of 90 W.
- We recommend that you use a PSU with higher power output when configuring a system with more power-consuming devices. The system may become unstable or may not boot up if the power is inadequate.
- If you are uncertain about the minimum power supply requirement for your system, refer to the **Recommended Power Supply Wattage Calculator** at <http://support.asus.com/PowerSupplyCalculator/PSCalculator.aspx?SLanguage=en-us> for details.

3. USB connector (10-1 pin USB56)

This connector is for a USB 2.0 port. Connect the USB module cable to this connector, then install the module to a slot opening at the back of the system chassis. This USB connector complies with USB 2.0 specification that supports up to 480 Mbps connection speed.



AT510NT-I DELUXE USB2.0 connector



Never connect a 1394 cable to the USB connector. Doing so will damage the motherboard!



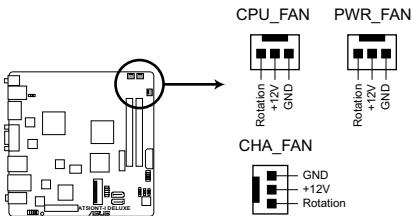
The USB module cable is purchased separately.

4. CPU, power, and chassis fan connectors (3-pin CPU_FAN, 3-pin PWR_FAN, 3-pin CHA_FAN)

Connect the fan cables to the fan connectors on the motherboard, ensuring that the black wire of each cable matches the ground pin of the connector.



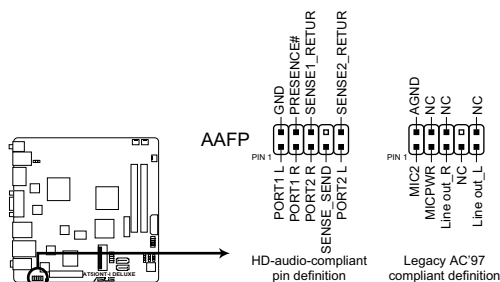
Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan connectors!



AT510NT-I DELUXE fan connectors

5. Front panel audio connector (10-1 pin AAFP)

This connector is for a chassis-mounted front panel audio I/O module that supports either HD Audio or legacy AC'97 audio standard. Connect one end of the front panel audio I/O module cable to this connector.



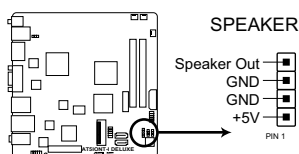
AT510NT-I DELUXE Front panel audio connector



- We recommend that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high-definition audio capability.
- If you want to connect a high-definition front panel audio module to this connector, set the **Front Panel Support Type** item in the BIOS setup to **[HD Audio]**. If you want to connect an AC'97 front panel audio module to this connector, set the item to **[AC97]**. By default, this connector is set to **[HD Audio]**. See section **2.4.4 Onboard Devices Configuration** for details.

6. Internal speaker connector (4-pin SPEAKER)

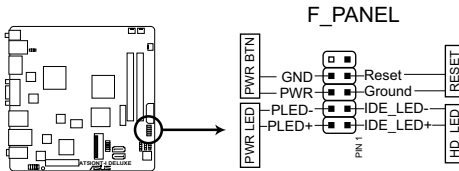
The 4-pin connector is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.



AT510NT-I DELUXE Speaker out connector

7. System panel connector (10-1 pin F_PANEL)

This connector supports several chassis-mounted functions.



AT510NT-I DELUXE System panel connector

- **System power LED (2-pin PLED)**

This 2-pin connector is for the system power LED. Connect the chassis power LED cable to this connector. The system power LED lights up when you turn on the system power, and blinks when the system is in sleep mode.

- **Hard disk drive activity LED (2-pin HD_LED)**

This 2-pin connector is for the HDD Activity LED. Connect the HDD Activity LED cable to this connector. The HD LED lights up or flashes when data is read from or written to the HDD.

- **ATX power button/soft-off button (2-pin PWRBTN)**

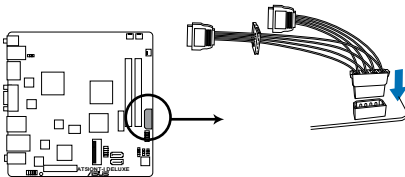
This 2-pin connector is for the system power button.

- **Reset button (2-pin RESET)**

This 2-pin connector is for the chassis-mounted reset button for system reboot without turning off the system power.

8. SATA power connectors (4-pin SATA_PWR1) (for AT510NT-I DELUXE only)

This connectors is for SATA power cable. The power cable plug is designed to fit this connector in only one orientation. Find the proper orientation and push down firmly until the connector completely fit.



AT510NT-I DELUXE SATA power connector

1.8 Software support

1.8.1 Installing an operating system

This motherboard supports Windows® XP/Vista/7 Operating Systems (OS). Always install the latest OS version and corresponding updates to maximize the features of your hardware.



- Motherboard settings and hardware options vary. Refer to your OS documentation for detailed information.
- Ensure that you install Windows® XP Service Pack 3 or later versions / Windows® Vista Service Pack 1 or later versions before installing the drivers for better compatibility and system stability.

1.8.2 Support DVD information

The Support DVD that comes with the motherboard package contains the drivers, software applications, and utilities that you can install to avail all motherboard features.



The contents of the Support DVD are subject to change at any time without notice. Visit the ASUS website at www.asus.com for updates.

To run the Support DVD

Place the Support DVD to the optical drive. If Autorun is enabled in your computer, the DVD automatically displays the Specials screen which contains the unique feature of ASUS motherboard. Click Drivers, Utilities, Make Disk, Manual, and Contact tabs to display their respective menus.



The following screen is for reference only.



Click an icon to display Support DVD/ motherboard information

Click an item to install



If Autorun is NOT enabled in your computer, browse the contents of the Support DVD to locate the file ASSETUP.EXE from the BIN folder. Double-click the ASSETUP.EXE to run the DVD.

1.8.3 ASUS VideoSecurity

ASUS VideoSecurity is a powerful monitoring and motion detection feature that enables users to keep an eye on their properties from a remote location via the Internet and a wide range of video capturing devices.

System requirements

Ensure that you have the following softwares and harwares installed on your computer before using the ASUS VideoSecurity.

Software:

- Microsoft® Windows 2000/XP/Vista/7 with DirectX 9.0a or later versions
- WDM capture driver for your video capture devices
- Internet connection with Microsoft® IE 6 SP1 or later versions
- Microsoft® Media Player 9.0 or later versions

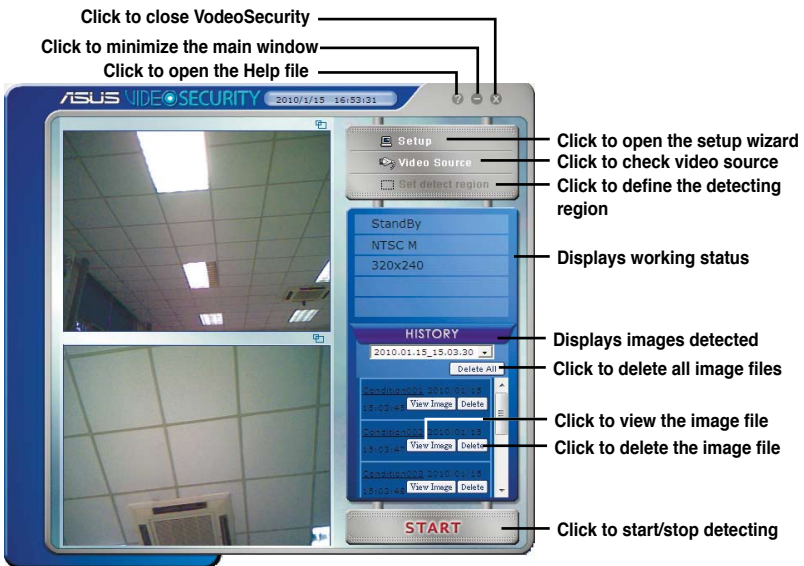
Hardware:

- Video capture devices, like webcams, CCD, V8, or Hi-8, which support UYVY video format.
- An audio card or chip onboard is necessary if you want to play the warning wave file.

Launching ASUS VideoSecurity

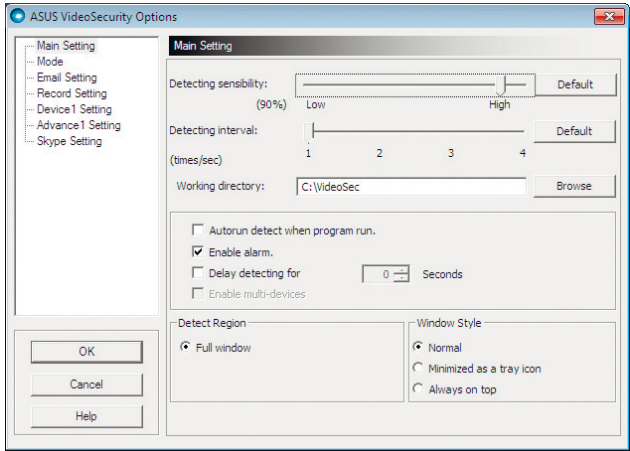
1. Install ASUS VideoSecurity from the motherboard support DVD.
2. To launch the ASUS VideoSecurity from the Windows® desktop, click **Start > All Programs > ASUS > ASUS VideoSecurity > ASUS VideoSecurity**. The VideoSecurity main screen appears.


ASUS VideoSecurity main screen



VideoSecurity Setting screen

To launch the setting screen, click  **Setup** from the main screen.



Click  for the main screen to refer to the Help file for details on how to setup VideoSecurity.

1.8.4 ASUS Home Theater Gate

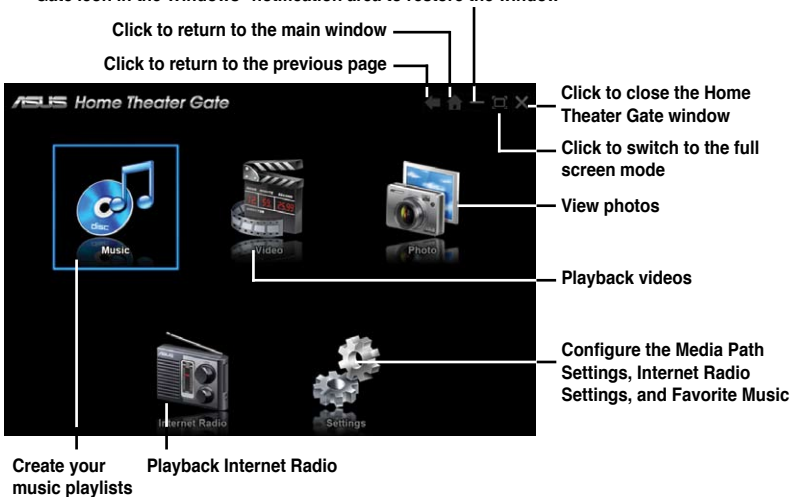
The ASUS Home Theater Gate, specially designed for the AT5IONT-I series, allows you to easily and quickly launch media applications to enjoy your music and movies. With the bundled remote controller, you can launch the ASUS Home Theater Gate and start media applications with just one touch.

Launching Home Theater Gate

1. Install Home Theater Gate from the motherboard support DVD.
2. To launch Home Theater Gate ,click **Start > All Programs > ASUS > ASUS Home Theater Gate > ASUS Home Theater Gate 1.xx.xx**. The Home Theater Gate main window appears.

Home Theater Gate main window

Click to minimize the Home Theater Gate window. Click the Home Theater Gate icon in the Windows® notification area to restore the window



The Internet Radio function is included in the bundled trial version software "mediaU Player Mercury". You may use the **Top 20**, **Station Overview**, **History**, **Recommendations**, **Station Search**, and **Recording Schedule** functions without registering the software and within the evaluation period.

Internet Radio channel setting

Long press the channel number and the station information on the currently playing station will be saved to that channel number.



Supported type

Resolution	Normal display under 1024 x 600 – 1920 x 1080
Music	mp3, midi, wav, wma and cda
Video	avi, mp4, mpeg, rmvb, wmv, rm, mov, asf, mpg, vob and dat
Photo	bmp, dib, gif, jpg, jpeg, png, tif, tiff
DTS	Windows® Vista™ and Window® 7 operating systems (HDMI and analog out only)
Video player	Windows® Media Player, PowerDVD 8 (Cyberlink), WinDVD 9 (Corel/ InterVideo), KMPlayer, Media Player Classic, RealPlayer and Arcsoft TotalMedia Theatre 3
Music player	Windows® Media Player, Winamp, KMPlayer, RealPlayer, iTunes



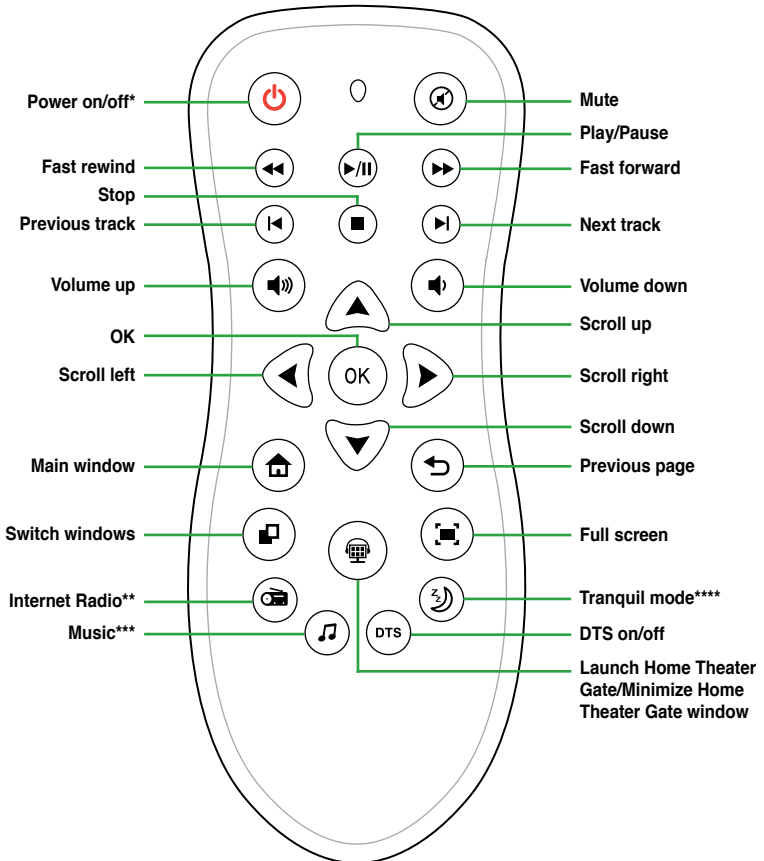
- Visit the ASUS website at <http://support.asus.com/download/download.aspx?SLanguage=en-us> for the latest supported type.
- Due to Window® XP limitation, you have to install the **UDF Reader** to recognize the Blu-ray disc.

Using the remote controller (for AT510NT-I DELUXE only)

Use the remote controller to launch the ASUS Home Theater Gate and start media applications.



Connect the IR receiver to the USB 2.0 port 1 or 2 before using the remote controller.



* This button follows the behavior of the system sleep button. Actual behavior of the system sleep button can be customized in Windows® Control Panel > Power Options.

** Set up the Internet radio channel 1 to 7 before using the Internet Radio.

*** Set the Favorite Music in the Settings or Music mode first.

**** This motherboard is fanless-designed. The Tranquil mode button is functionless on this motherboard.

1.8.5 ASUS @Vibe

ASUS @Vibe allows you to enjoy online entertainment contents including Radio, Live TV and Games, etc.

-
- The ASUS @Vibe service contents differ for each territory.
 - This utility does not work on Windows® 64-bit XP OS.
-

Launching ASUS @Vibe

1. Install ASUS @Vibe from the motherboard support DVD.
2. To launch ASUS @Vibe ,click **Start > All Programs > ASUS > ASUS VIBE > ASUS VIBE**.

Chapter 2

BIOS information

2.1 Managing and updating your BIOS



Save a copy of the original motherboard BIOS file to a USB flash disk in case you need to restore the BIOS in the future. Copy the original motherboard BIOS using the ASUS Update utility.

2.1.1 ASUS Update utility

The ASUS Update is a utility that allows you to manage, save, and update the motherboard BIOS in Windows® environment.



-
- ASUS Update requires an Internet connection either through a network or an Internet Service Provider (ISP).
 - This utility is available in the support DVD that comes with the motherboard package.
-

Installing ASUS Update

To install ASUS Update:

1. Place the support DVD in the optical drive. The **Drivers** menu appears.
2. Click the **Utilities** tab, then click **ASUS Update**.
3. Follow the onscreen instructions to complete the installation.



Quit all Windows® applications before you update the BIOS using this utility.

Updating the BIOS

To update the BIOS:

1. From the Windows® desktop, click **Start > Programs > ASUS > ASUSUpdate > ASUSUpdate** to launch the ASUS Update utility.
2. From the dropdown list, select any of the updating process:

Updating from the Internet

- a. Select **Update BIOS from the Internet**, then click **Next**.
- b. Select the ASUS FTP site nearest you to avoid network traffic, or click **Auto Select** then click **Next**.
- c. From the FTP site, select the BIOS version that you wish to download then click **Next**.



The ASUS Update utility is capable of updating itself through the Internet. Always update the utility to avail all its features.

Updating from a BIOS file

- a. Select **Update BIOS from a file**, then click **Next**.
 - b. Locate the BIOS file from the **Open** window, then click **Open**.
3. Follow the onscreen instructions to complete the updating process.

2.1.2 ASUS EZ Flash 2

The ASUS EZ Flash 2 feature allows you to update the BIOS without using an OS-based utility.

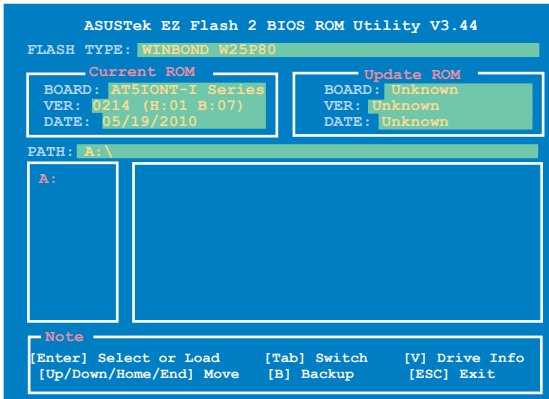


Before you start using this utility, download the latest BIOS file from the ASUS website at www.asus.com.

To update the BIOS using EZ Flash 2:

1. Insert the USB flash disk that contains the latest BIOS file to the USB port, then launch EZ Flash 2 in any of these two ways:
 - Press **<Alt> + <F2>** during POST.
 - Enter the BIOS setup program. Go to the **Tools** menu to select **EZ Flash 2** and press **<Enter>** to enable it.

Press **<Tab>** to switch between drives until the correct BIOS file is found.



2. When the correct BIOS file is found, EZ Flash 2 performs the BIOS update process and automatically reboots the system when done.



-
- This function supports USB flash disks with **FAT 32/16** format and single partition only.
 - **DO NOT** shut down or reset the system while updating the BIOS to prevent system boot failure!
-

2.1.3 ASUS CrashFree BIOS

The ASUS CrashFree BIOS is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS file using the motherboard support DVD or a removable device that contains the updated BIOS file.



-
- Before using this utility, rename the BIOS file in the removable device into **AT5IONT.ROM** (for **AT5IONT-I DELUXE**) or **AT5IONTI.ROM** (for **AT5IONT-I**).
 - The BIOS file in the support DVD may not be the latest version. Download the latest BIOS file from the ASUS website at www.asus.com.
 - The removable device that ASUS CrashFree BIOS support vary with motherboard models. For motherboards without the floppy connector, prepare a USB flash disk before using this utility.
-

Recovering the BIOS

To recover the BIOS:

1. Turn on the system.
2. Insert the support DVD to the optical drive or the removable device that contains the BIOS file to the USB port or to the floppy disk drive, if supported.
3. The utility automatically checks the devices for the BIOS file. When found, the utility reads the BIOS file and starts flashing the corrupted BIOS file.
4. Turn off the system after the utility completes the updating process and turn on again.



DO NOT shut down or reset the system while updating the BIOS! Doing so can cause system boot failure!



Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the **Load Setup Defaults** item under the Exit menu. Refer to section **2.8 Exit menu** for details.

2.2 BIOS setup program

Use the BIOS Setup program to update the BIOS or configure its parameters. The BIOS screens include navigation keys and brief online help to guide you in using the BIOS Setup program.

Entering BIOS Setup at startup

To enter BIOS Setup at startup:

- Press <Delete> during the Power-On Self Test (POST). If you do not press <Delete>, POST continues with its routines.

Entering BIOS Setup after POST

To enter BIOS Setup after POST:

- Press <Ctrl>+<Alt>+ simultaneously.
- Press the reset button on the system chassis.
- Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.



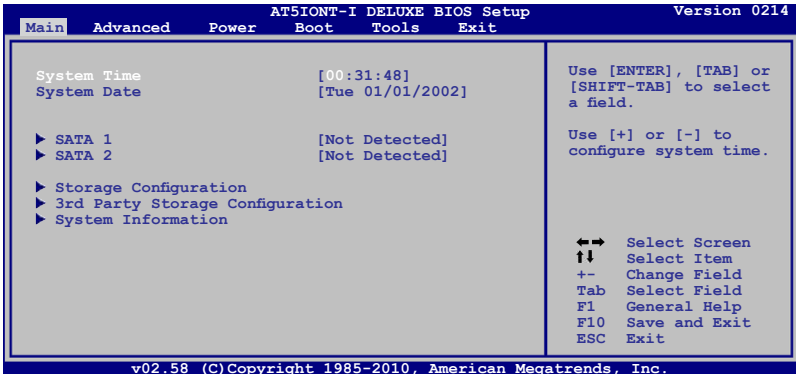
Using the **power button**, **reset button**, or the <Ctrl>+<Alt>+ keys to force reset from a running operating system can cause damage to your data or system. We recommend to always shut down the system properly from the operating system.



- The default BIOS settings for this motherboard apply for most conditions to ensure optimum performance. If the system becomes unstable after changing any BIOS settings, load the default settings to ensure system compatibility and stability. Select the **Load Setups Default** item under the Exit Menu. See section 2.8 Exit Menu.
- The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.
- Visit the ASUS website at www.asus.com to download the latest BIOS file for this motherboard.

2.3 Main menu

When you enter the BIOS Setup program, the **Main** menu screen appears, giving you an overview of the basic system information.



2.3.1 System Time [xx:xx:xx]

Allows you to set the system time.

2.3.2 System Date [Day xx/xx/xxxx]

Allows you to set the system date.

2.3.3 SATA 1~2

While entering Setup, the BIOS automatically detects the presence of SATA devices. There is a separate sub-menu for each SATA device. Select a device item then press <Enter> to display the SATA device information.

The BIOS automatically detects the values opposite the dimmed items (Device, Vendor, Size, LBA Mode, Block Mode, PIO Mode, Async DMA, Ultra DMA, and SMART Monitoring). These values are not user-configurable. These items show Not Detected if no Serial ATA device is installed in the system.

Type [Auto]

Selects the type of SATA drive. Setting to Auto allows automatic selection of the appropriate SATA device type. Select CDROM if you are specifically configuring a CD-ROM drive. Select ARMD (ATAPI Removable Media Device) if your device is either a ZIP, LS-120, or MO drive. Configuration options: [Not Installed] [Auto] [CDROM] [ARMD]

LBA/Large Mode [Auto]

Enables or disables the LBA mode. Setting to [Auto] enables the LBA mode if the device supports this mode, and if the device was not previously formatted with LBA mode disabled. Configuration options: [Disabled] [Auto]

Block (Multi-sector Transfer) M [Auto]

Enables or disables data multi-sectors transfers. When set to [Auto], the data transfer from and to the device occurs multiple sectors at a time if the device supports multi-sector transfer feature. When set to [Disabled], the data transfer from and to the device occurs one sector at a time. Configuration options: [Disabled] [Auto]

PIO Mode [Auto]

Selects the PIO mode. Configuration options: [Auto] [0] [1] [2] [3] [4]

DMA Mode [Auto]

Selects the DMA mode. Configuration options: [Auto]

SMART Monitoring [Auto]

Sets the Smart Monitoring, Analysis, and Reporting Technology. Configuration options: [Auto] [Disabled] [Enabled]

32Bit Data Transfer [Enabled]

Enables or disables 32-bit data transfer. Configuration options: [Disabled] [Enabled]

2.3.4 Storage Configuration

The items in this menu allow you to set or change the configurations for the SATA devices installed in the system. Select an item then press <Enter> if you want to configure the item.

Configure SATA as [IDE]

Allows you to set the SATA mode. Configuration options: [IDE] [AHCI] [Disabled]

ATA Run Mode Configuration [Enhanced]

Allows you to set the ATA controller operating mode. Configuration options: [Compatible] [Enhanced]

2.3.5 3rd Party Storage Configuration

The items in this menu allow you to set or change the configurations for the 3rd party SATA devices installed in the system. Select an item then press <Enter> if you want to configure the item.

JMicron 36x ATA Controller [IDE Mode]

Allows you to set the JMicron 36x ATA controller operating mode. Configuration options: [Disabled] [IDE Mode]

ESATA

The BIOS automatically detects the values opposite the dimmed items (Device, Vendor, Size, LBA Mode, Block Mode, PIO Mode, Async DMA, Ultra DMA, and SMART Monitoring). These values are not user-configurable. These items show Not Detected if no eSATA device is installed in the system.

LBA/Large Mode [Auto]

Enables or disables the LBA mode. Setting to **[Auto]** enables the LBA mode if the device supports this mode, and if the device was not previously formatted with LBA mode disabled. Configuration options: [Disabled] [Auto]

Block (Multi-sector Transfer) M [Auto]

Enables or disables data multi-sectors transfers. When set to **[Auto]**, the data transfer from and to the device occurs multiple sectors at a time if the device supports multi-sector transfer feature. When set to **[Disabled]**, the data transfer from and to the device occurs one sector at a time. Configuration options: [Disabled] [Auto]

PIO Mode [Auto]

Selects the PIO mode. Configuration options: [Auto] [0] [1] [2] [3] [4]

DMA Mode [Auto]

Selects the DMA mode. Configuration options: [Auto]

SMART Monitoring [Auto]

Sets the Smart Monitoring, Analysis, and Reporting Technology. Configuration options: [Auto] [Disabled] [Enabled]

32Bit Data Transfer [Enabled]

Enables or disables 32-bit data transfer. Configuration options: [Disabled] [Enabled]

2.3.6 System Information

This menu gives you an overview of the general system specifications. The BIOS automatically detects the items in this menu.

BIOS Information

Displays the auto-detected BIOS information.

Processor

Displays the auto-detected CPU specification.

System Memory

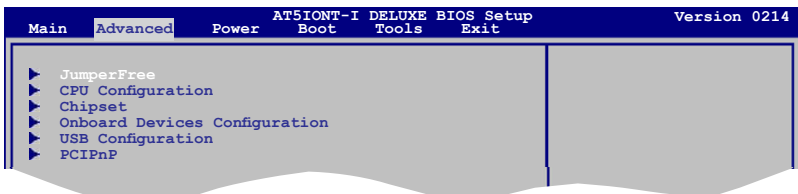
Displays the auto-detected system memory.

2.4 Advanced menu

The **Advanced** menu items allow you to change the settings for the CPU and other system devices.



Take caution when changing the settings of the Advanced menu items. Incorrect field values can cause the system to malfunction.



2.4.1 JumperFree

The items in this menu allows you to adjust the system frequency/voltage.

Ai Overclocking [Auto]

Allows selection of CPU overclocking options to achieve desired CPU internal frequency. Select either one of the preset overclocking configuration options:

Manual - allows you to individually set overclocking parameters.

Auto - loads the optimal settings for the system.



The following item appears only when you set the **AI Overclocking** item to **[MANUAL]**.

CPU Frequency [xxx]

Displays the frequency sent by the clock generator to the system bus and PCI bus. The value of this item is auto-detected by the BIOS. Use the <+> and <-> keys to adjust the CPU frequency. You can also type the desired CPU frequency using the numeric keypad. The values range from 150 to 250.

Memory Over Voltage [Auto]

Manually set memory voltage or set to Auto for safe mode. Configuration options: [Auto] [+56mV] [+112mV]

Vcore Over Voltage [Auto]

Sets the CPU Vcore over voltage. Configuration options: [Auto] [+47mV] [+94mV] [+141mV]

2.4.2 CPU Configuration

The items in this menu show the CPU-related information that the BIOS automatically detects.

Max CPUID Value Limit [Disabled]

Allows you to determine whether to limit CPUID maximum value. Set this item to [Disabled] for Windows XP operating system; set this item to [Enabled] for legacy operating system such as Windows NT4.0. Configuration options: [Disabled] [Enabled]

Execute-Disable Bit Capability [Enabled]

Allows you to enable or disable the No-Execution Page Protection Technology. Setting this item to **[Disabled]** forces the XD feature flag to always return to zero (0). Configuration options: [Disabled] [Enabled]

Hyper Threading Technology [Enabled]

Allows you to enable or disable the Intel® Hyper Threading technology. Configuration options: [Disabled] [Enabled]

2.4.3 Chipset

The **Chipset** menu allows you to change the advanced chipset settings. Select an item then press <Enter> to display the sub-menu.

North Bridge Configuration

DRAM Frequency [Auto]

Allows you to set the DIMM operating frequency. Configuration options: [Auto] [667 MHz] [800 MHz]

Configure DRAM Timing by SPD [Enabled]

Allows you to enable or disable configuring DRAM Timing by SPD. Configuration options: [Enabled] [Disabled]

2.4.4 Onboard Devices Configuration

Onboard LAN [Enabled]

Allows you to enable or disable the onboard LAN controller. Configuration options: [Enabled] [Disabled]

Onboard LAN Boot ROM [Disabled]

Allows you to enable or disable the boot ROM in the onboard LAN controller. This item appears only when the Onboard LAN item is set to Enabled. Configuration options: [Disabled] [Enabled]



The following item appears only on AT5IONT-I DELUXE motherboard.

Onboard Wireless [Enabled]

Allows you to enable or disable the onboard Wireless function.

Configuration options: [Enabled] [Disabled]

Onboard USB 3.0 Controller [Enabled]

Allows you to enable or disable the onboard USB 3.0 controller.

Configuration options: [Enabled] [Disabled]



The following item appears only on AT5IONT-I DELUXE motherboard.

Onboard Bluetooth [Enabled]

Allows you to enable or disable the onboard Bluetooth controller.

Configuration options: [Enabled] [Disabled]

Audio Controller [Enabled]

Allows you to set the audio controller. Configuration options: [Enabled] [Disabled]

Front Panel Support Type [HD Audio]

Allows you to select the front panel support type. If High Definition Audio Front Panel used, set this item to [HD Audio] mode. Configuration options: [AC97] [HD Audio]

2.4.5 USB Configuration

The items in this menu allows you to change the USB-related features. Select an item then press **<Enter>** to display the configuration options.



The Module Version and USB Devices Enabled items show the auto-detected values. If no USB device is detected, the item shows **None**.

USB Functions [Enabled]

Allows you to disable or enable the USB functions.

Configuration options: [Disabled] [Enabled]

USB 2.0 Controller [Enabled]

Allows you to enable or disable USB 2.0 controller.

Configuration options: [Enabled] [Disabled]

Legacy USB Support [Auto]

Allows you to enable or disable support for Legacy USB storage devices, including USB flash drives and USB hard drives. Setting to **[Auto]** allows the system to detect the presence of USB devices at startup. If detected, the USB controller legacy mode is enabled. If no USB device is detected, the legacy USB support is disabled.

Configuration options: [Disabled] [Enabled] [Auto]

USB 2.0 Controller Mode [HiSpeed]

Allows you to configure the USB 2.0 controller in HiSpeed (480Mbps) or Full Speed (12Mbps). Configuration options: [FullSpeed] [HiSpeed]



The following items may only appear when a USB storage device is plugged.

USB Mass Storage Device Configuration

USB Mass Storage Reset Delay [20 Sec]

Allows you to set the maximum time that the BIOS waits for the USB storage device to initialize. Configuration options: [10 Sec] [20 Sec] [30 Sec] [40 Sec]

Emulation Type [Auto]

Allows you to select the emulation type. Configuration options: [Auto] [Floppy] [Forced FDD] [Hard Disk] [CDROM]

2.4.6 PCI PnP

The PCI PnP menu items allow you to change the advanced settings for PCI/PnP devices. The menu includes setting IRQ and DMA channel resources for either PCI/PnP or legacy ISA devices, and setting the memory size block for legacy ISA devices.



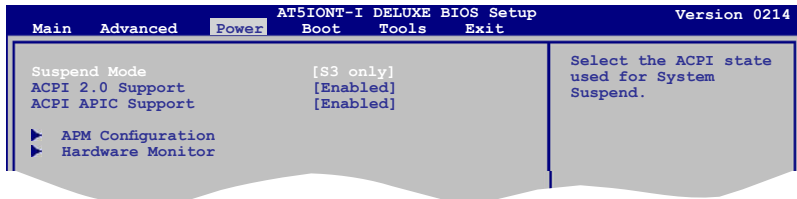
Take caution when changing the settings of the PCI PnP menu items. Incorrect field values can cause the system to malfunction.

Plug and Play O/S [No]

When set to [No], BIOS configures all the devices in the system. When set to [Yes] and if you install a Plug and Play operating system, the operating system configures the Plug and Play devices not required for boot. Configuration options: [No] [Yes]

2.5 Power menu

The Power menu items allow you to change the settings for the Advanced Power Management (APM). Select an item then press <Enter> to display the configuration options.



2.5.1 Suspend Mode [S3 only]

Allows you to select the Advanced Configuration and Power Interface (ACPI) state to be used for system suspend. Configuration options: [S3 Only]

[S3 Only] - Enables the system to enter the ACPI S3 (Suspend to RAM) sleep state (default). In S3 sleep state, the system appears to be off and consumes less power than in the S1 state. When signaled by a wake-up device or event, the system resumes to its working state exactly where it was left off.

2.5.2 ACPI 2.0 Support [Enabled]

Allows you to add more tables for Advanced Configuration and Power Interface (ACPI) 2.0 specifications. Configuration options: [Disabled] [Enabled]

2.5.3 ACPI APIC Support [Enabled]

Allows you to enable or disable the Advanced Configuration and Power Interface (ACPI) support in the Application-Specific Integrated Circuit (ASIC). When set to Enabled, the ACPI APIC table pointer is included in the RSDT pointer list. Configuration options: [Disabled] [Enabled]

2.5.4 APM Configuration

Restore on AC Power Loss [Power Off]

When set to **[Power Off]**, the system goes into off state after an AC power loss. When set to **[Power On]**, the system goes on after an AC power loss. When set to **[Last State]**, the system goes into either off or on state, whatever the system state was before the AC power loss. Configuration options: [Power Off] [Power On] [Last State]

Power On By RTC Alarm [Disabled]

Allows you to enable or disable RTC to generate a wake event. When this item is set to Enabled, the items RTC Alarm Date, RTC Alarm Hour, RTC Alarm Minute, and RTC Alarm Second appear with set values. Configuration options: [Disabled] [Enabled]

Power On By PME [Disabled]

Allows you to enable or disable PME to generate a wake event. This feature requires an ATX power supply that provides at least 1A on the +5VSB lead. Configuration options: [Disabled] [Enabled]

Power On By PS/2 Keyboard [Disabled]

Allows you to use specific keys on the keyboard to turn on the system. This feature requires an ATX power supply that provides at least 1A on the +5VSB lead. Configuration options: [Disabled] [Space Bar] [Power Key] [Ctrl-Esc]

Power On By PS/2 Mouse [Disabled]

When set to [Enabled], this parameter allows you to use the PS/2 mouse to turn on the system. This feature requires an ATX power supply that provides at least 1A on the +5VSB lead. Configuration options: [Disabled] [Enabled]

2.5.5 Hardware Monitor

CPU/GPU Temperature [xxx°C/xxx°F] or [Ignored]

The onboard hardware monitor automatically detects and displays the CPU/GPU temperature. Select Ignored if you do not wish to display the detected temperatures.

CPU/Chassis/Power Fan Speed [xxxxRPM] or [Ignored]

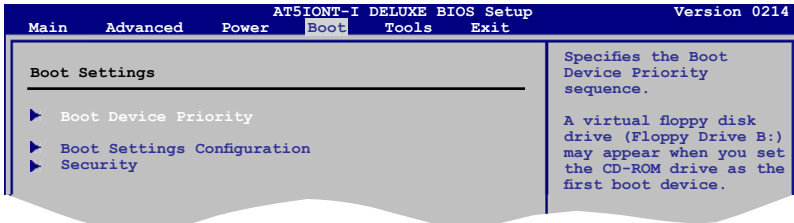
The onboard hardware monitor automatically detects and displays the CPU/chassis/power fan speeds in rotations per minute (RPM). If the fan is not connected to the motherboard, the field shows **N/A**. Select Ignored if you do not wish to display the detected speed.

VCORE Voltage, 3.3V Voltage, 5V Voltage, 12V Voltage [xxxV] or [Ignored]

The onboard hardware monitor automatically detects the voltage output through the onboard voltage regulators.

2.6 Boot menu

The **Boot** menu items allow you to change the system boot options. Select an item then press **<Enter>** to display the sub-menu.



2.6.1 Boot Device Priority

1st ~ xxth Boot Device

These items specify the boot device priority sequence from the available devices. The number of device items that appears on the screen depends on the number of devices installed in the system. Configuration options: [Removable Dev.] [Hard Drive] [ATAPI CD-ROM] [Disabled]



-
- To select the boot device during system startup, press <F8> when ASUS Logo appears.
 - To access Windows® OS in Safe Mode, do any of the following:
 - Press <F5> when ASUS Logo appears.
 - Press <F8> after POST.
-

2.6.2 Boot Settings Configuration

Quick Boot [Enabled]

Enabling this item allows the BIOS to skip some power on self tests (POST) while booting to decrease the time needed to boot the system. When set to **[Disabled]**, BIOS performs all the POST items. Configuration options: [Disabled] [Enabled]

Full Screen Logo [Enabled]

This allows you to enable or disable the full screen logo display feature. Configuration options: [Disabled] [Enabled]



Set this item to **[Enabled]** to use the ASUS MyLogo2™ feature.

AddOn ROM Display Mode [Force BIOS]

Sets the display mode for option ROM. Configuration options: [Force BIOS] [Keep Current]

Bootup Num-Lock [On]

Allows you to select the power-on state for the NumLock. Configuration options: [Off] [On]

Wait For 'F1' If Error [Enabled]

When set to **Enabled**, the system waits for the F1 key to be pressed when error occurs. Configuration options: [Disabled] [Enabled]

Hit 'DEL' Message Display [Enabled]

When set to **[Enabled]**, the system displays the message **Press DEL to run Setup** during POST. Configuration options: [Disabled] [Enabled]

2.6.3 Security

The **Security** menu items allow you to change the system security settings. Select an item then press <Enter> to display the configuration options.

Change Supervisor Password

Select this item to set or change the supervisor password. The **Supervisor Password** item on top of the screen shows the default **Not Installed**. After you set a password, this item shows **Installed**.

To set a Supervisor Password:

1. Select the **Change Supervisor Password** item and press <Enter>.
2. In the password box, key in a password containing up to six letters or numbers, or both, then press <Enter>.
3. Confirm the password when prompted.

The message **Password Installed** appears after you successfully set your password.

To change the supervisor password, follow the same steps in setting a supervisor password.

To clear the supervisor password, select the **Change Supervisor Password** then press **<Enter>** twice. The message **Password uninstalled** appears.



If you forget your BIOS password, you can clear it by erasing the CMOS Real Time Clock (RTC) RAM. See section 1.6 **Jumpers** for information on how to erase the RTC RAM.

After you have set a supervisor password, the other items appear to allow you to change other security settings.

User Access Level [Full Access]

This item allows you to select the access restriction to the Setup items.

Configuration options: [No Access] [View Only] [Limited] [Full Access]

[No Access] - prevents user access to the Setup utility.

[View Only] - allows access but does not allow change to any field.

[Limited] - allows changes only to selected fields, such as Date and Time.

[Full Access] - allows viewing and changing all the fields in the Setup utility.

Change User Password

Select this item to set or change the user password. The **User Password** item on top of the screen shows the default **Not Installed**. After you set a password, this item shows **Installed**.

To set a User Password:

1. Select the **Change User Password** item and press **<Enter>**.
2. In the password box, key in a password containing up to six letters or numbers, or both, then press **<Enter>**.
3. Confirm the password when prompted.

The message **Password Installed** appears after you set your password successfully.

To change the user password, follow the same steps in setting a user password.

Clear User Password

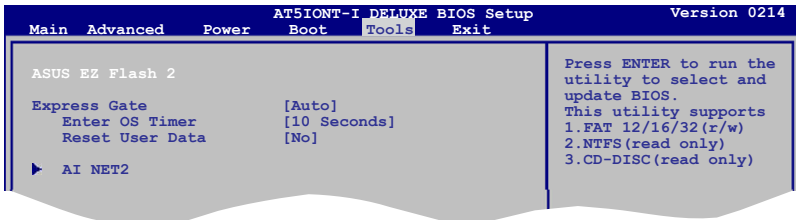
Select this item to clear the user password.

Password Check [Setup]

When set to **[Setup]**, BIOS checks for user password when accessing the Setup utility. When set to **[Always]**, BIOS checks for user password both when accessing Setup and booting the system. Configuration options: [Setup] [Always]

2.7 Tools menu

The Tools menu items allow you to configure options for special functions. Select an item then press **<Enter>** to display the sub-menu.



2.7.1 ASUS EZ Flash 2

Allows you to run ASUS EZ Flash 2. When you press **<Enter>**, a confirmation message appears. Use the left/right arrow key to select between **[Yes]** or **[No]**, then press **<Enter>** to confirm your choice. See section 2.1.2 **ASUS EZ Flash 2** for details.

2.7.2 Express Gate [Auto]

Allows you to enable or disable the ASUS Express Gate feature. ASUS Express Gate is a unique instant-on environment that provides quick access to the Internet and Skype. Configuration options: [Enabled] [Disabled] [Auto]

Enter OS Timer [10 Seconds]

Sets countdown duration that the system waits at the Express Gate's first screen before starting Windows or other installed OS. Choose **[Prompt User]** to stay at the first screen of Express Gate for user action. Configuration options: [Prompt User] [1 second] [3 seconds] [5 seconds] [10 seconds] [15 seconds] [20 seconds] [30 seconds]

Reset User Data [No]

Allows you to clear Express Gate's user data. Configuration options: [No] [Reset] When setting this item to **[Reset]**, ensure to save the setting to the BIOS so that the user data will be cleared the next time you enter the Express Gate. User data includes the Express Gate's settings as well as any personal information stored by the web browser (bookmarks, cookies, browsing history, etc.). This is useful in the rare case where corrupt settings prevent the Express Gate environment from launching properly.



The first time wizard will run again when you enter the Express Gate environment after clearing its settings.

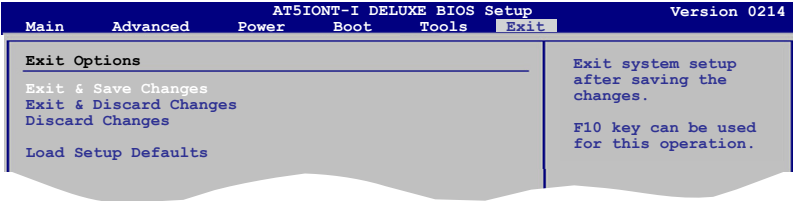
2.7.3 AI NET 2

Check Realtek LAN cable [Disabled]

Enables or disables checking of the Realtek LAN cable during the Power-On Self-Test (POST). Configuration options: [Disabled] [Enabled]

2.8 Exit menu

The Exit menu items allow you to load the optimal or failsafe default values for the BIOS items, and save or discard your changes to the BIOS items.



Pressing **<Esc>** does not immediately exit this menu. Select one of the options from this menu or **<F10>** from the legend bar to exit.

Exit & Save Changes

Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved to the CMOS RAM. An onboard backup battery sustains the CMOS RAM so it stays on even when the PC is turned off. When you select this option, a confirmation window appears. Select **OK** to save changes and exit.

Exit & Discard Changes

Select this option only if you do not want to save the changes that you made to the Setup program. If you made changes to fields other than System Date, System Time, and Password, the BIOS asks for a confirmation before exiting.

Discard Changes

This option allows you to discard the selections you made and restore the previously saved values. After selecting this option, a confirmation appears. Select **OK** to discard any changes and load the previously saved values.

Load Setup Defaults

This option allows you to load the default values for each of the parameters on the Setup menus. When you select this option or if you press **<F5>**, a confirmation window appears. Select **OK** to load default values. Select **Exit & Save Changes** or make other changes before saving the values to the non-volatile RAM.

ASUS contact information

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Support Fax	+49-2102-9599-11
Online support	support.asus.com

* EUR 0.14/minute from a German fixed landline; EUR 0.42/minute from a mobile phone.

DECLARATION OF CONFORMITY

Per FCC Part 2, Section 2.1077(a)



Responsible Party Name: **Asus Computer International**

Address: **800 Corporate Way, Fremont, CA 94539.**

Phone/Fax No: **(510)739-3777/(510)608-4555**

hereby declares that the product

Product Name : Motherboard

Model Number : A75IONT-I

Conforms to the following specifications:

- FCC Part 15, Subpart B, Unintentional Radiators
- FCC Part 15, Subpart C, Intentional Radiators
- FCC Part 15, Subpart E, Intentional Radiators

Supplementary Information:

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.

Representative Person's Name : Steve Chang / President

Signature :

Date : Jun. 09, 2010

EC Declaration of Conformity



We, the undersigned,

Manufacturer: **ASUSTek COMPUTER INC.**
Address, City: **No. 150, LI-TE RD., PEITOU, TAIPEI 112, TAIWAN R.O.C.**
Country: **TAIWAN**
Authorized representative in Europe: **ASUS COMPUTER GmbH**
Address, City: **HARKORT STR. 21-23, 40880 RATINGEN**
Country: **GERMANY**

declare the following apparatus:

Product name : **Motherboard**
Model name : **AT5IONT-I**

conform with the essential requirements of the following directives:

2004/108/EC-EMC Directive
 EN 55022:1989+A1:2007+ A2:2005
 EN 61000-3-2:2006
 EN 61000-3-3:2008
 EN 55020:2007

1989/5/EC-R & TTE Directive
 EN 300 328 V1.7.1(2006-05)
 EN 300 440 V1.4.1(2006-05)
 EN 300 440 V1.4.2(2006-05)
 EN 301 511 V9.0.2(2003-03)
 EN 301 988-1 V3.2.1(2007-05)
 EN 301 988-2 V3.2.1(2007-05)
 EN 301 988-3 V1.4.1(2005-05)
 EN 50367:2001
 EN 50371:2002
 EN 50384:2002

2006/95/EC-LVD Directive
 EN 60950-1:2007+A11:2004
 EN 60950-1:2006
 EN 60950-1:2006+A11:2009

2009/125/EC-EP Directive
Regulation (EC) No. 1275/2008
 EN 62301:2005

Regulation (EC) No. 278/2009
 EN 62301:2005

CE marking



(EC conformity marking)

Position : **CEO**
Name : **Jerry Shien**

Signature : _____

Declaration Date: **Jun. 09, 2010**
Year to begin affixing CE marking: **2010**