



NEXCOM International Co., Ltd.

Intelligent Platform & Services Business Unit
Embedded Computing (Industrial Motherboard)
NEX 650-ADU
User Manual

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PREFACE

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Acknowledgements

NEX 650-ADU is a trademark of NEXCOM International Co., Ltd. All other product names mentioned herein are registered trademarks of their respective owners.

Regulatory Compliance Statements

This section provides the FCC compliance statement for Class B devices and describes how to keep the system CE compliant.

Declaration of Conformity

FCC

This equipment has been tested and verified to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area (domestic environment) is likely to cause harmful interference, in which case the user will be required to correct the interference (take adequate measures) at their own expense.

CE

The product(s) described in this manual complies with all applicable European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques.

RoHS Compliance



NEXCOM RoHS Environmental Policy and Status Update

NEXCOM is a global citizen for building the digital infrastructure. We are committed to providing green products and services, which are compliant with European Union RoHS (Restriction on Use of Hazardous Substance in Electronic Equipment) directive 2011/65/EU, to be your trusted green partner and to protect our environment.

RoHS restricts the use of Lead (Pb) < 0.1% or 1,000ppm, Mercury (Hg) < 0.1% or 1,000ppm, Cadmium (Cd) < 0.01% or 100ppm, Hexavalent Chromium (Cr6+) < 0.1% or 1,000ppm, Polybrominated biphenyls (PBB) < 0.1% or 1,000ppm, and Polybrominated diphenyl Ethers (PBDE) < 0.1% or 1,000ppm.

In order to meet the RoHS compliant directives, NEXCOM has established an engineering and manufacturing task force in to implement the introduction of green products. The task force will ensure that we follow the standard NEXCOM development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which NEXCOM are renowned.

The model selection criteria will be based on market demand. Vendors and suppliers will ensure that all designed components will be RoHS compliant.

How to recognize NEXCOM RoHS Products?

For existing products where there are non-RoHS and RoHS versions, the suffix "(LF)" will be added to the compliant product name.

All new product models launched after January 2013 will be RoHS compliant. They will use the usual NEXCOM naming convention.

Warranty and RMA

NEXCOM Warranty Period

NEXCOM manufactures products that are new or equivalent to new in accordance with industry standard. NEXCOM warrants that products will be free from defect in material and workmanship for 2 years, beginning on the date of invoice by NEXCOM. HCP series products (Blade Server) which are manufactured by NEXCOM are covered by a three year warranty period.

NEXCOM Return Merchandise Authorization (RMA)

- Customers shall enclose the “NEXCOM RMA Service Form” with the returned packages.
- Customers must collect all the information about the problems encountered and note anything abnormal or, print out any on-screen messages, and describe the problems on the “NEXCOM RMA Service Form” for the RMA number apply process.
- Customers can send back the faulty products with or without accessories (manuals, cable, etc.) and any components from the card, such as CPU and RAM. If the components were suspected as part of the problems, please note clearly which components are included. Otherwise, NEXCOM is not responsible for the devices/parts.
- Customers are responsible for the safe packaging of defective products, making sure it is durable enough to be resistant against further damage and deterioration during transportation. In case of damages occurred during transportation, the repair is treated as “Out of Warranty.”
- Any products returned by NEXCOM to other locations besides the customers’ site will bear an extra charge and will be billed to the customer.

Repair Service Charges for Out-of-Warranty Products

NEXCOM will charge for out-of-warranty products in two categories, one is basic diagnostic fee and another is component (product) fee.

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System Level

- Component fee: NEXCOM will only charge for main components such as SMD chip, BGA chip, etc. Passive components will be repaired for free, ex: resistor, capacitor.
- Items will be replaced with NEXCOM products if the original one cannot be repaired. Ex: motherboard, power supply, etc.
- Replace with 3rd party products if needed.
- If RMA goods can not be repaired, NEXCOM will return it to the customer without any charge.

Board Level

- Component fee: NEXCOM will only charge for main components, such as SMD chip, BGA chip, etc. Passive components will be repaired for free, ex: resistors, capacitors.
- If RMA goods can not be repaired, NEXCOM will return it to the customer without any charge.

Warnings

Read and adhere to all warnings, cautions, and notices in this guide and the documentation supplied with the chassis, power supply, and accessory modules. If the instructions for the chassis and power supply are inconsistent with these instructions or the instructions for accessory modules, contact the supplier to find out how you can ensure that your computer meets safety and regulatory requirements.

Cautions

Electrostatic discharge (ESD) can damage system components. Do the described procedures only at an ESD workstation. If no such station is available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the computer chassis.

Safety Information

Before installing and using the device, note the following precautions:

- Read all instructions carefully.
- Do not place the unit on an unstable surface, cart, or stand.
- Follow all warnings and cautions in this manual.
- When replacing parts, ensure that your service technician uses parts specified by the manufacturer.
- Avoid using the system near water, in direct sunlight, or near a heating device.
- The load of the system unit does not solely rely for support from the rackmounts located on the sides. Firm support from the bottom is highly necessary in order to provide balance stability.
- The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Installation Recommendations

Ensure you have a stable, clean working environment. Dust and dirt can get into components and cause a malfunction. Use containers to keep small components separated.

Adequate lighting and proper tools can prevent you from accidentally damaging the internal components. Most of the procedures that follow require only a few simple tools, including the following:

- A Philips screwdriver
- A flat-tipped screwdriver
- A grounding strap
- An anti-static pad

Using your fingers can disconnect most of the connections. It is recommended that you do not use needle-nose pliers to disconnect connections as these can damage the soft metal or plastic parts of the connectors.

Safety Precautions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a stable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection to protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Place the power cord in a way so that people will not step on it. Do not place anything on top of the power cord. Use a power cord that has been approved for use with the product and that it matches the voltage and current marked on the product's electrical range label. The voltage and current rating of the cord must be greater than the voltage and current rating marked on the product.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. 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 and damaged.
 - f. The equipment has obvious signs of breakage.
15. Do not place heavy objects on the equipment.
16. The unit uses a three-wire ground cable which is equipped with a third pin to ground the unit and prevent electric shock. Do not defeat the purpose of this pin. If your outlet does not support this kind of plug, contact your electrician to replace your obsolete outlet.
17. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Technical Support and Assistance

1. For the most updated information of NEXCOM products, visit NEXCOM's website at www.nexcom.com.
2. For technical issues that require contacting our technical support team or sales representative, please have the following information ready before calling:
 - Product name and serial number
 - Detailed information of the peripheral devices
 - Detailed information of the installed software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wordings of the error messages

Warning!

1. Handling the unit: carry the unit with both hands and handle it with care.
2. Maintenance: to keep the unit clean, use only approved cleaning products or clean with a dry cloth.

Conventions Used in this Manual



Warning:

Information about certain situations, which if not observed, can cause personal injury. This will prevent injury to yourself when performing a task.



Caution:

Information to avoid damaging components or losing data.



Note:

Provides additional information to complete a task easily.

Global Service Contact Information

Headquarters

NEXCOM International Co., Ltd.

9F, No. 920, Zhongzheng Rd.,
Zhonghe District, New Taipei City, 23586,
Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7782
www.nexcom.com

Asia

Taiwan

NexAIoT Headquarters

Industry 4.0 and Cloud Services

13F, No.922, Zhongzheng Rd.,
Zhonghe District, New Taipei City,
23586, Taiwan, R.O.C.
Tel: +886-2-8226-7796
Fax: +886-2-8226-7926
Email: jacobhuang@nexaiot.com
www.nexaiot.com

NexAIoT Co., Ltd.

Taichung Office

16F, No.250, Sec.2, Chongde Rd.,
Beitun District,
Taichung City, 406, Taiwan, R.O.C.
Tel: +886-4-2249-1179
Fax: +886-4-2249-1172
Email: jacobhuang@nexaiot.com
www.nexaiot.com

NexCOBOT Taiwan Co., Ltd.

13F, No.916, Zhongzheng Rd.,
Zhonghe District,
New Taipei City, 23586, Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7926
Email: jennyshern@nexcobot.com
www.nexcobot.com

GreenBase Technology Corp.

13F, No.922, Zhongzheng Rd.,
Zhonghe District,
New Taipei City, 23586, Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7900
Email: vivianlin@nexcom.com.tw
www.nexcom.com.tw

DivioTec Inc.

19F-1A, No.97, Sec.4, ChongXin Rd.,
Sanchong District,
New Taipei City, 24161, Taiwan, R.O.C.
Tel: +886-2-8976-3077
Email: sales@diviotec.com
www.diviotec.com

AIoT Cloud Corp.

13F, No.922, Zhongzheng Rd.,
Zhonghe District,
New Taipei City, 23586, Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7782
Email: alantsai@aiotcloud.net
www.aiotcloud.dev

EMBUX TECHNOLOGY CO., LTD.

13F, No.916, Zhongzheng Rd.,
Zhonghe District,
New Taipei City, 23586, Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7782
Email: info@embux.com
www.embux.com

TMR TECHNOLOGIES CO., LTD.

13F, No.916, Zhongzheng Rd.,
Zhonghe District,
New Taipei City, 23586, Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7782
Email: services@tmrtek.com
www.tmrtek.com

China NEXSEC Incorporated

201, Floor 2, Unit 2, Building 15, Yard 3,
Gaolizhang Road, Haidian District,
Beijing, 100094, China
Tel: +86-10-5704-2680
Fax: +86-10-5704-2681
Email: marketing@nexsec.cn
www.nexsec.cn

NEXCOM Shanghai

Room 406-407, Building C, No 154, Lane 953,
Jianchuan Road, Minhang District,
Shanghai, 201108, China
Tel: +86-21-5278-5868
Fax: +86-21-3251-6358
Email: sales@nexcom.cn
www.nexcom.cn

NEXCOM Surveillance Technology Corp.

Floor 8, Building B3, Xiufeng Industrial Zone,
GanKeng Community, Buji Street,
LongGang District,
ShenZhen, 518112, China
Tel: +86-755-8364-7768
Fax: +86-755-8364-7738
Email: steveyang@nexcom.com.tw
www.nexcom.cn

NEXGOL Chongqing

1st Building No.999,
Star Boulevard, Yongchuan Dist,
Chongqing City, 402160, China
Tel: +86-23-4960-9080
Fax: +86-23-4966-5855
Email: sales@nexgol.com.cn
www.nexcom.cn

Beijing NexGemo Technology Co.,Ltd.

Room 205, No.1, Fazhan Rd.,
Beijing International Information Industry Base,
Changping District,
Beijing, 102206, China
Tel: +86-10-8072-2025
Fax: +86-10-8072-2022
Email: sales@nexgemo.cn
www.nexgemo.com

Japan

NEXCOM Japan

9F, Tamachi Hara Bldg.,
4-11-5, Shiba Minato-ku,
Tokyo, 108-0014, Japan
Tel: +81-3-5419-7830
Fax: +81-3-5419-7832
Email: sales@nexcom-jp.com
www.nexcom-jp.com

America

USA NEXCOM USA

46665 Fremont Blvd.,
Fremont CA 94538, USA
Tel: +1-510-656-2248
Fax: +1-510-656-2158
Email: sales@nexcom.com
www.nexcomusa.com

Europe

United Kingdom NEXCOM EUROPE

10 Vincent Avenue,
Crownhill Business Centre,
Milton Keynes, Buckinghamshire
MK8 0AB, United Kingdom
Tel: +44-1908-267121
Fax: +44-1908-262042
Email: sales.uk@nexcom.eu
www.nexcom.com



Package Contents

Before continuing, verify that the NEX 650-ADU package that you received is complete. Your package should have all the items listed in the following table.

| Item | Name | Qty |
|------|---|-----|
| 1 | NEXCOM NEX 650-ADU Motherboard | 1 |
| 2 | 60233PW149X00 SATA POWER CABLE EDI:354204040201-RS | 1 |
| 3 | 60233ATA48X00 SATA CABLE BEST | 1 |
| 4 | I/O Panel Shield | 1 |



Ordering Information

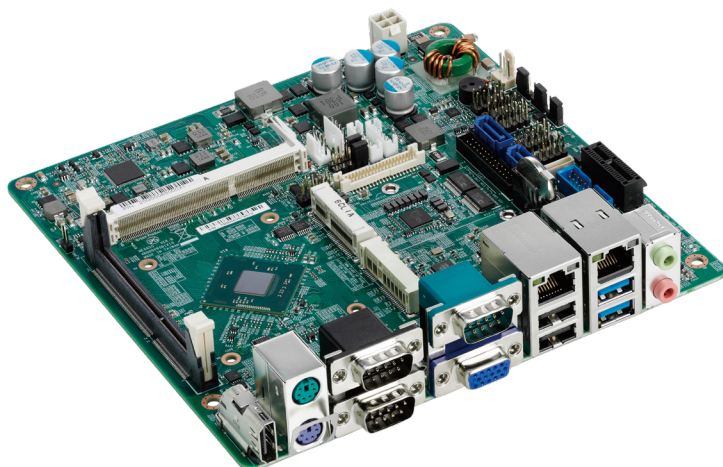
The following information below provides ordering information for NEX 650-ADU.

NEX 650-ADU (P/N:10G00065007X0)

Mini-ITX form factor powered by onboard 4-core Intel® Celeron® J1900 processor that integrates with 24/48-bit LVDS & up to 8GB DDR3/L memory & rich I/Os

CHAPTER 1: PRODUCT INTRODUCTION

Overview



Key Features

- Intel® Celeron® processor J1900
- Integrated Intel® Gen7 Intel® Graphics DX 11*, OGL3.2
- Supports dual channel DDR3L 1333MHz, 2 x SO-DIMM, up to 8GB system memory
- 3 x COM (RS-232/422/485), 2 x COM (RS-232); 1 x HDMI, 1 x D-Sub,
- 1 x Dual channel 24-bit LVDS; 4 x USB 3.0, 6 x USB 2.0, 2 x SATA2; Gigabit LAN: 2 x Realtek LAN
- 12~24 V DC-in power support

Hardware Specifications

Form Factor

- Dimensions: Mini-ITX (6.7-in x 6.7-in)

Processor System

- CPU: Intel® Celeron® processor J1900
- Core number: 4
- L3 cache: 2MB
- Chipset: N/A
- BIOS: UEFI

Expansion Slot

- Mini-PCIe: 1 (full size)
- mSATA: 1
- PCIe: 1

Memory

- Technology: dual channel DDR3L 1333 MHz SDRAM
- Max.: 8GB
- Socket: 2 x SO-DIMM

Graphics

- Controller: Intel® Gen7 Intel® graphics DX 11*, OGL3.2
- VRAM: shared memory
- VGA: supports max. resolution 1920 x 1200
- LVDS: dual channel 24-bit, max resolution 1920 x 1200 @ 60Hz
- HDMI: supports HDMI 1.3a, max resolution 1920 x 1200

Ethernet

- Ethernet: 10/100/1000 Mbps
- Controller: GbE LAN: 2 x Realtek RTL8111H-CG
- Connector: 2 x RJ-45

Rear I/O

- VGA: 1
- HDMI: 1
- Ethernet: 2
- USB: 4 (2 x USB 3.0, 2 x USB 2.0)
- Audio: 2 (Mic-in, Line-out)
- Serial: 3 (RS-232/422/485)
- PS2: 2 (1 x keyboard, 1 x mouse)

Internal Connector

- USB: 6 (2 x USB 3.0, 4 x USB 2.0)
- LVDS/inverter: 1/1
- VGA: 1 (shared with rear I/O VGA COM)
- Serial: 2 (RS-232)
- SATA: 2 x SATA2 (3.0Gb/s)
- mPCIe: 1
- Parallel: 1
- mSATA: 1 (shared)
- GPIO 8-bit: 4 x GPI + 4 x GPO
- SATA PWR output con: 1
- Speaker header: 1



Watchdog Timer

- Output: from super I/O to drag RESETCON#
- Interval: 256 segments, 0, 1, 2...255sec/min

Power Requirements

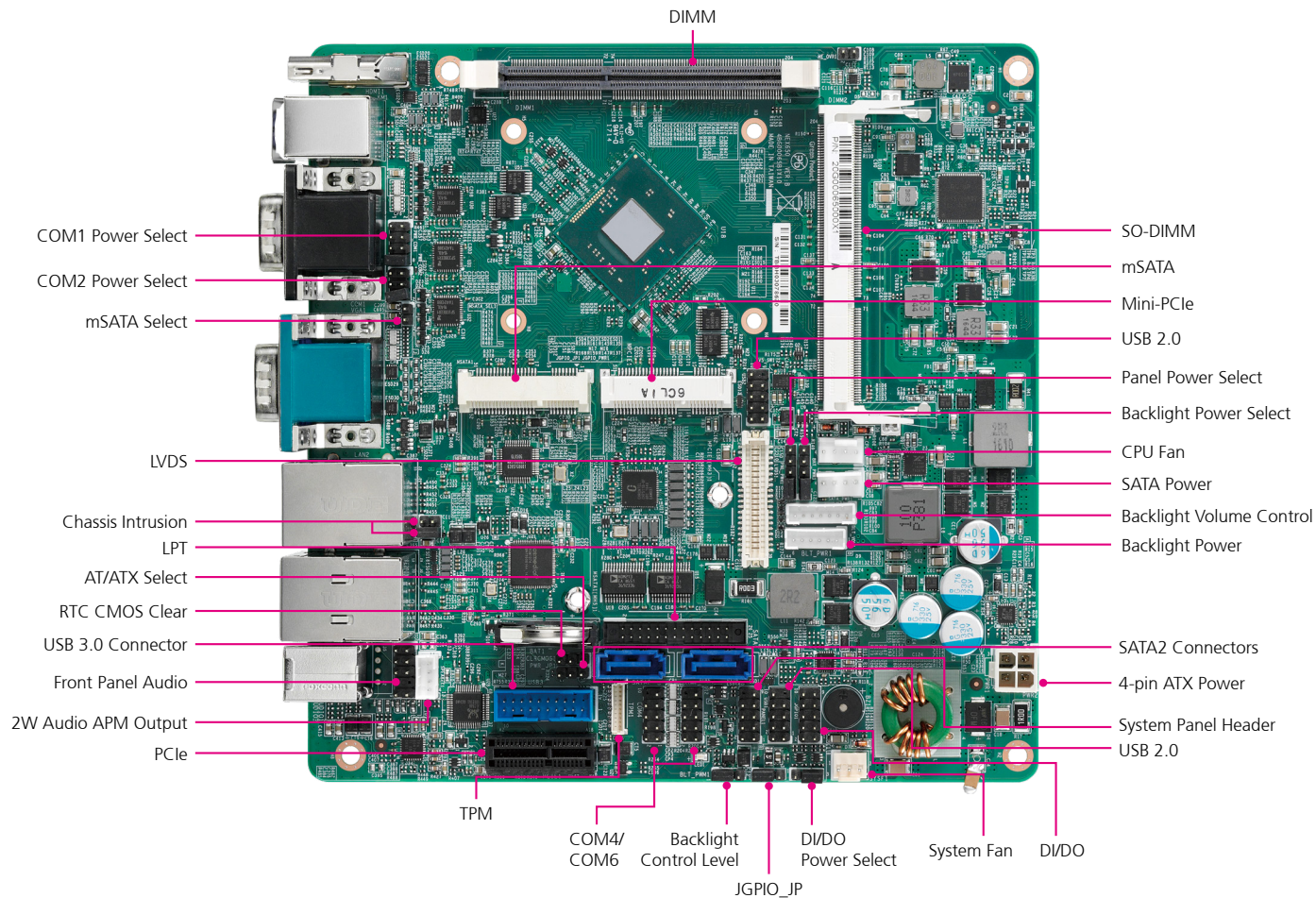
- Input PWR: 12~24V DC-in (4-pin ATX PWR Con)
- Power on: AT/ATX supported
- AT: directly PWR on as power input ready
- ATX: press button to PWR on after power input ready

Environment

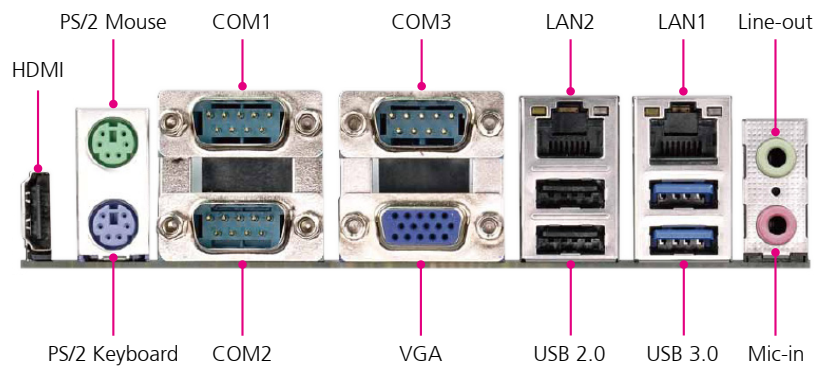
- Temperature: 0°C~60°C

Knowing Your NEX 650-ADU

Top View



Rear I/O View



CHAPTER 2: JUMPERS AND CONNECTORS

This chapter describes how to set the jumpers and connectors on the NEX 650-ADU motherboard.

Before You Begin

- Ensure you have a stable, clean working environment. Dust and dirt can get into components and cause a malfunction. Use containers to keep small components separated.
- Adequate lighting and proper tools can prevent you from accidentally damaging the internal components. Most of the procedures that follow require only a few simple tools, including the following:
 - A Philips screwdriver
 - A flat-tipped screwdriver
 - A set of jewelers screwdrivers
 - A grounding strap
 - An anti-static pad
- Using your fingers can disconnect most of the connections. It is recommended that you do not use needle-nosed pliers to disconnect connections as these can damage the soft metal or plastic parts of the connectors.
- Before working on internal components, make sure that the power is off. Ground yourself before touching any internal components, by touching a metal object. Static electricity can damage many of the electronic components. Humid environments tend to have less static electricity than

dry environments. A grounding strap is warranted whenever danger of static electricity exists.

Precautions

Computer components and electronic circuit boards can be damaged by discharges of static electricity. Working on computers that are still connected to a power supply can be extremely dangerous.

Follow the guidelines below to avoid damage to your computer or yourself:

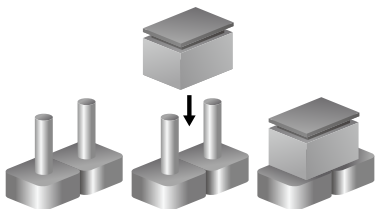
- Always disconnect the unit from the power outlet whenever you are working inside the case.
- If possible, wear a grounded wrist strap when you are working inside the computer case. Alternatively, discharge any static electricity by touching the bare metal chassis of the unit case, or the bare metal body of any other grounded appliance.
- Hold electronic circuit boards by the edges only. Do not touch the components on the board unless it is necessary to do so. Don't flex or stress the circuit board.
- Leave all components inside the static-proof packaging that they shipped with until they are ready for installation.
- Use correct screws and do not over tighten screws.

Jumper Settings

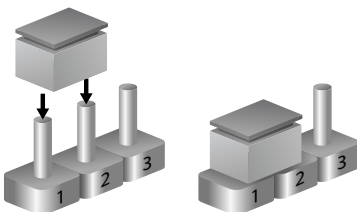
A jumper is the simplest kind of electric switch. It consists of two metal pins and a cap. When setting the jumpers, ensure that the jumper caps are placed on the correct pins. When the jumper cap is placed on both pins, the jumper is short. If you remove the jumper cap, or place the jumper cap on just one pin, the jumper is open.

Refer to the illustrations below for examples of what the 2-pin and 3-pin jumpers look like when they are short (on) and open (off).

Two-Pin Jumpers: Open (Left) and Short (Right)

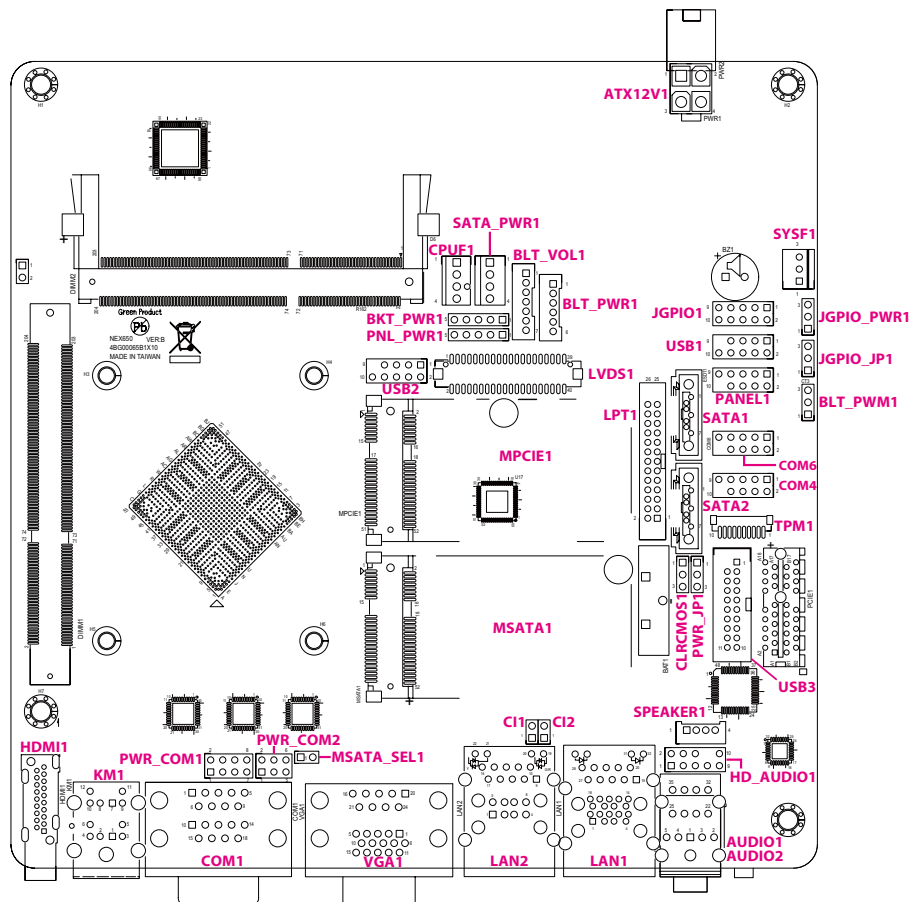


Three-Pin Jumpers: Pins 1 and 2 are Short



Locations of the Jumpers and Connectors

The figure below shows the location of the jumpers and connectors.





Jumpers

ATX/AT Mode Jumper

Connector type: 1x3 3-pin header
Connector location: PWR_JP1

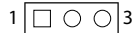


| Pin | Status | Settings |
|--------|--------|----------|
| 1-2 On | Short | AT Mode |
| 2-3 On | Short | ATX Mode |

1-2 On: default

Backlight Control Level

Connector type: 1x3 3-pin header
Connector location: BLT_PWM1



| Pin | Status | Settings |
|--------|--------|-----------|
| 1-2 On | Short | +3V Level |
| 2-3 On | Short | +5V Level |

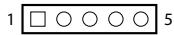
1-2 On: default





Panel Power Selection (LCD_VCC)

Connector type: 1x5 5-pin header
Connector location: PNL_PWR1

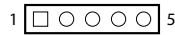


| Pin | Status | Settings |
|--------|--------|------------|
| 1-2 On | Short | LVDD: +3V |
| 2-3 On | Short | LVDD: +5V |
| 4-5 On | Short | LVDD: +12V |

1-2 On: default

Backlight Power Selection (LCD_BLT_VCC)

Connector type: 1x5 5-pin header
Connector location: BKT_PWR1



| Pin | Status | Settings |
|--------|--------|--------------------|
| 1-2 On | Short | LCD_BLT_VCC: +5V |
| 2-3 On | Short | LCD_BLT_VCC: +12V |
| 4-5 On | Short | LCD_BLT_VCC: DC_IN |

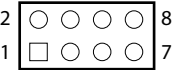
1-2 On: default





COM1 Power Select

Connector type: 2x4 8-pin header, 2.54mm pitch
Connector location: PWR_COM1

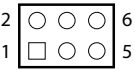


| Pin | Status | Settings |
|--------|--------|----------|
| 1-2 On | Short | +5V |
| 3-4 On | Short | +12V |
| 5-6 On | Short | +5VSB |
| 7-8 On | Short | RI# |

7-8 On: default

COM2 Power Select

Connector type: 2x3 6-pin header, 2.54mm pitch
Connector location: PWR_COM2



| Pin | Status | Settings |
|--------|--------|----------|
| 1-2 On | Short | +5V |
| 3-4 On | Short | +12V |
| 5-6 On | Short | RI# |

5-6 On: default



mSATA Select

Connector type: 1x2 2-pin header
Connector location: mSATA_SEL1

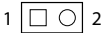


| Pin | Status | Settings |
|---------|--------|------------|
| 1-2 On | Short | For mSATA1 |
| 1-2 Off | Open | For SATA2 |

1-2 Off: default

CMOS Clear Select

Connector type: 1x2 2-pin header
Connector location: CLRCMOS1



| Pin | Status | Settings |
|-----|--------|------------|
| 1-2 | Short | Normal |
| 2-3 | Short | Clear CMOS |

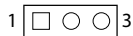
1-2 On: default





Digital Input/Output Power Select

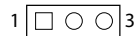
Connector type: 1x3 3-pin header
Connector location: JGPIO_PWR1



| Pin | Status | Settings |
|--------|--------|----------|
| 1-2 On | Short | +12V |
| 2-3 On | Short | +5V |

JGPIO_JP Jumper

Connector type: 1x3 3-pin header
Connector location: JGPIO_JP1



| Pin | Status | Settings |
|--------|--------|----------|
| 1-2 On | Short | High |
| 2-3 On | Short | Low |

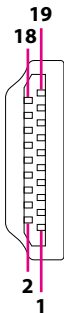


Connector Pin Definitions

External Connectors

HDMI Port

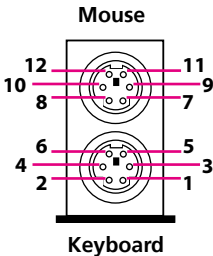
Connector type: HDMI port
Connector location: HDMI1



| Pin | Definition | Pin | Definition |
|-----|-----------------|-----|------------------|
| 1 | HDMI_DATA2_P_C | 2 | GND |
| 3 | HDMI_DATA2_N_C | 4 | HDMI_DATA1_P_C |
| 5 | GND | 6 | HDMI_DATA1_N_C |
| 7 | HDMI_DATA0_P_C | 8 | GND |
| 9 | HDMI_DATA0_N_C | 10 | HDMI_CLK_P_C |
| 11 | GND | 12 | HDMI_CLK_N_C |
| 13 | NC | 14 | NC |
| 15 | HDMI_CTRL_CLK_C | 16 | HDMI_CTRL_DATA_C |
| 17 | GND | 18 | +5V_HDMI |
| 19 | HDMI_HPD_C | | |

PS/2 Keyboard and Mouse

Connector type: PS/2, Mini-DIN-6
Connector location: KM1

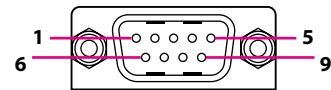


| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | KDAT_C | 2 | NC |
| 3 | GND | 4 | +5V_PS2 |
| 5 | KCLK_C | 6 | NC |
| 7 | MDAT_C | 8 | NC |
| 9 | GND | 10 | +5V_PS2 |
| 11 | MCLK_C | 12 | NC |



COM1 Port

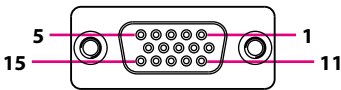
Connector type: DB-9 port, 9-pin D-Sub
Connector location: COM1



| RS232 | | RS422 | | RS485 | |
|-------|------------|-------|------------|-------|------------|
| Pin | Definition | Pin | Definition | Pin | Definition |
| 1 | DCD# | 1 | TX- | 1 | RTX- |
| 2 | RXD | 2 | TX+ | 2 | RTX+ |
| 3 | TXD | 3 | RX+ | 3 | NC |
| 4 | DTR# | 4 | RX- | 4 | NC |
| 5 | GND | 5 | GND | 5 | GND |
| 6 | DSR# | 6 | NC | 6 | NC |
| 7 | RTS# | 7 | NC | 7 | NC |
| 8 | CTS# | 8 | NC | 8 | NC |
| 9 | RI# | 9 | NC | 9 | NC |

VGA Port

Connector type: DB-15 port, 15-pin D-Sub
Connector location: VGA1

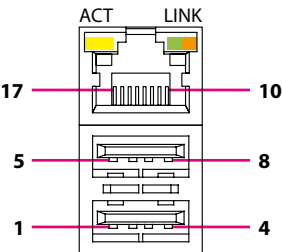


| Pin | Definition | Pin | Definition |
|-----|-------------|-----|--------------|
| 1 | VGA_R | 2 | VGA_G |
| 3 | VGA_B | 4 | GND |
| 5 | GND | 6 | GND |
| 7 | GND | 8 | GND |
| 9 | VCC | 10 | GND |
| 11 | ID2 | 12 | VGA_DDC_DATA |
| 13 | G_HSYNC | 14 | G_VSYNC |
| 15 | VGA_DDC_CLK | | |



LAN2 and USB 2.0 Ports

Connector type: RJ45 port with LEDs
Dual USB 2.0 ports, Type A
Connector location: LAN2



| Act | Status |
|-----------------|---------------|
| Flashing Yellow | Data activity |
| Off | No activity |

| Link | Status |
|---------------|----------------------|
| Steady Green | 1G network link |
| Steady Orange | 100Mbps network link |
| Off | 10Mbps or no link |

USB

| Pin | Definition | Pin | Definition |
|-----|----------------|-----|-------------|
| 1 | +5V_H_USB2_P12 | 2 | S_USB_C_DN1 |
| 3 | S_USB_C_DP1 | 4 | GND |
| 5 | +5V_H_USB2_P12 | 6 | S_USB_C_DN2 |
| 7 | S_USB_C_DP2 | 8 | GND |

LAN

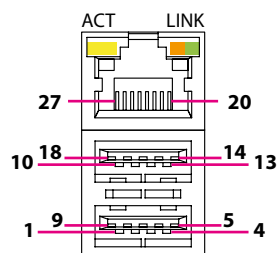
| Pin | Definition | Pin | Definition |
|-----|---------------|-----|---------------|
| 9 | LAN1_VCT | 10 | MDI0P_LAN1 |
| 11 | MDI0N_LAN1 | 12 | MDI1P_LAN1 |
| 13 | MDI1N_LAN1 | 14 | MDI2P_LAN1 |
| 15 | MDI2N_LAN1 | 16 | MDI3P_LAN1 |
| 17 | MDI3N_LAN1 | 18 | GND |
| 19 | LAN1_ACT_P | 20 | LAN1_LED_ACT# |
| 21 | LAN1_LINK100# | 22 | LAN1_1000_P |

LAN1 and USB 3.0 Ports

Connector type: RJ45 port with LEDs

Dual USB 3.0 ports, Type A

Connector location: LAN1



| Act | Status |
|-----------------|---------------|
| Flashing Yellow | Data activity |
| Off | No activity |

| Link | Status |
|---------------|----------------------|
| Steady Green | 1G network link |
| Steady Orange | 100Mbps network link |
| Off | 10Mbps or no link |

USB

| Pin | Definition | Pin | Definition |
|-----|--------------|-----|--------------|
| 1 | +5V_USB3_P12 | 2 | USB2_C_N1 |
| 3 | USB2_C_P1 | 4 | GND |
| 5 | USB3_RX_C_N1 | 6 | USB3_RX_C_P1 |
| 7 | GND | 8 | USB3_TX_C_N1 |
| 9 | USB3_TX_C_P1 | 10 | +5V_USB3_P12 |
| 11 | USB2_C_N2 | 12 | USB2_C_P2 |
| 13 | GND | 14 | USB3_RX_C_N2 |
| 15 | USB3_RX_C_P2 | 16 | GND |
| 17 | USB3_TX_C_N2 | 18 | USB3_TX_C_P2 |

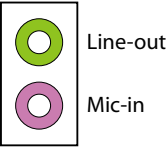
LAN

| Pin | Definition | Pin | Definition |
|-----|---------------|-----|---------------|
| 19 | LAN0_VCT | 20 | MDI0P_LAN0 |
| 21 | MDI0N_LAN0 | 22 | MDI1P_LAN0 |
| 23 | MDI1N_LAN0 | 24 | MDI2P_LAN0 |
| 25 | MDI2N_LAN0 | 26 | MDI3P_LAN0 |
| 27 | MDI3N_LAN0 | 28 | GND |
| 29 | LAN0_ACT_P | 30 | LAN0_LED_ACT# |
| 31 | LAN0_LINK100# | 32 | LAN0_1000_P |



Audio Connectors

Connector type: 2x 3.5mm jack
Connector location: AUDIO1 and AUDIO2

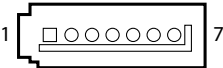


| Pin | Definition | Pin | Definition |
|-----|--------------|-----|--------------|
| 1 | GND | 2 | MIC_OUT_L_C |
| 3 | MIC1_JD | 4 | AGND_P |
| 5 | MIC_OUT_R_C | N/A | N/A |
| 22 | LINE_OUT_L_C | 23 | LINEOUT1_JD |
| 24 | AGND_G | 25 | LINE_OUT_R_C |

Internal Connectors

SATA Connectors

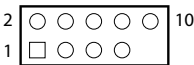
Connector type: Standard Serial ATA 7P (1.27mm, SATA-M-180)
Connector location: SATA1 and SATA2



| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | GND | 2 | TXP0 |
| 3 | TXN0 | 4 | GND |
| 5 | RXN0 | 6 | RXP0 |
| 7 | GND | | |

USB 2.0 Headers

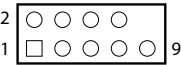
Connector type: 2x5 10-pin header
Connector location: USB1 and USB2



| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | USB_PWR | 2 | USB_PWR |
| 3 | -A | 4 | -B |
| 5 | +A | 6 | +B |
| 7 | GND | 8 | GND |
| | | 10 | DUMMY |

System Panel Header

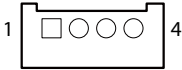
Connector type: 2x5 10-pin header
Connector location: PANEL1



| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | HDLED+ | 2 | PLED+ |
| 3 | HDLED- | 4 | PLED- |
| 5 | GND | 6 | PWRBTN# |
| 7 | RESET# | 8 | GND |
| 9 | GND | | |

2W Audio AMP Output Wafer

Connector type: 1x4 4-pin header
Connector location: SPEAKER1

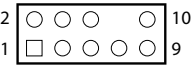


| Pin | Definition |
|-----|------------|
| 1 | OUTLN |
| 2 | OUTLP |
| 3 | OUTRP |
| 4 | OUTRN |



Front Panel Audio Header

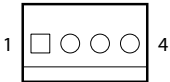
Connector type: 2x5 10-pin header
Connector location: HD_AUDIO1



| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | MIC2_L | 2 | GND |
| 3 | MIC2_R | 4 | PRESENCE# |
| 5 | OUT2_R | 6 | MIC_RET |
| 7 | J_SENSE | | |
| 9 | OUT2_L | 10 | OUT_RET |

CPU FAN Connector

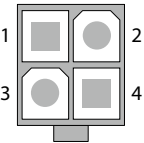
Connector type: 1x4 4-pin Wafer
Connector location: CPUF1



| Pin | Definition |
|-----|-------------------|
| 1 | GND |
| 2 | +12V |
| 3 | CPU_FAN_SPEED |
| 4 | FAN_SPEED_CONTROL |

DC-In Power Connector

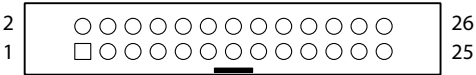
Connector type: 2x2 4-pin power connector
Connector location: ATX12V1



| Pin | Definition |
|-----|------------|
| 1 | GND |
| 2 | GND |
| 3 | DC Input |
| 4 | DC Input |

Printer Port Box Header

Connector type: 2x13 26-pin header
Connector location: LPT1

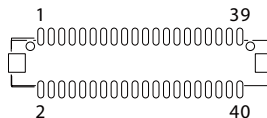


| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | STB# | 2 | AFD# |
| 3 | SPD0 | 4 | ERROR# |
| 5 | SPD1 | 6 | PINIT# |
| 7 | SPD2 | 8 | SLIN# |
| 9 | SPD3 | 10 | GND |
| 11 | SPD4 | 12 | GND |
| 13 | SPD5 | 14 | GND |
| 15 | SPD6 | 16 | GND |
| 17 | SPD7 | 18 | GND |
| 19 | ACK# | 20 | GND |
| 21 | BUSY | 22 | GND |
| 23 | PE | 24 | GND |
| 25 | SLCT | | |

LVDS Connector

Connector type: 2x20 40-pin header

Connector location: LVDS1

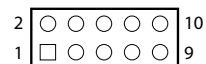


| Pin | Definition | Pin | Definition |
|-----|---------------|-----|---------------|
| 1 | LCD_VCC | 2 | LCD_VCC |
| 3 | +3.3V | 4 | LDDC_CLK |
| 5 | LDDC_DATA | 6 | LVDS_A_DATA0# |
| 7 | LVDS_A_DATA0 | 8 | GND |
| 9 | LVDS_A_DATA1# | 10 | LVDS_A_DATA1 |
| 11 | GND | 12 | LVDS_A_DATA2# |
| 13 | LVDS_A_DATA2 | 14 | GND |
| 15 | LVDS_A_DATA3# | 16 | LVDS_A_DATA3 |
| 17 | GND | 18 | LVDS_A_CLK# |
| 19 | LVDS_A_CLK | 20 | GND |
| 21 | LVDS_B_DATA0# | 22 | LVDS_B_DATA0 |
| 23 | GND | 24 | LVDS_B_DATA1# |
| 25 | LVDS_B_DATA1 | 26 | GND |
| 27 | LVDS_B_DATA2# | 28 | LVDS_B_DATA2 |
| 29 | DPLVDD_EN | 30 | LVDS_B_DATA3# |
| 31 | LVDS_B_DATA3 | 32 | GND |
| 33 | LVDS_B_CLK# | 34 | LVDS_B_CLK |
| 35 | GND | 36 | CON_LBKLT_EN |
| 37 | CON_LBKLT_CTL | 38 | LCD_BLT_VCC |
| 39 | LCD_BLT_VCC | 40 | LCD_BLT_VCC |

Digital Input/Output Pin Header

Connector type: 2x5 10-pin header

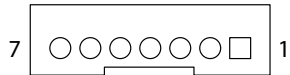
Connector location: JGPIO1



| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | SIO_GP24 | 2 | SIO_GP20 |
| 3 | SIO_GP25 | 4 | SIO_GP21 |
| 5 | SIO_GP26 | 6 | SIO_GP22 |
| 7 | SIO_GP27 | 8 | SIO_GP23 |
| 9 | JGPIO_PWR | 10 | GND |

Backlight Volume Control

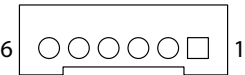
Connector type: 1x7 7-pin header
Connector location: BLT_VOL1



| Pin | Definition | Pin | Definition |
|-----|-------------|-----|-------------|
| 1 | GPIO_VOL_UP | 2 | GPIO_VOL_DW |
| 3 | PWRDN | 4 | LVDS1 BLUP |
| 5 | LVDS1 BLDW | 6 | GND |
| 7 | GND | | |

Backlight Power Connector

Connector type: 1x6 6-pin header
Connector location: BLT_PWR1

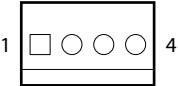


| Pin | Definition | Pin | Definition |
|-----|-------------|-----|-------------|
| 1 | GND | 2 | GND |
| 3 | BL CTL | 4 | BL EN |
| 5 | LCD_BLT_VCC | 6 | LCD_BLT_VCC |



SATA Power Output Connector

Connector type: 1x4 4-pin Wafer
Connector location: SATA_PWR1



| Pin | Definition |
|-----|------------|
| 1 | +12V |
| 2 | GND |
| 3 | GND |
| 4 | +5V |

Chassis Intrusion Pin Headers

Connector type: 1x2 2-pin header
Connector location: CI1 and CI2



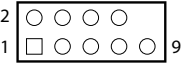
| Pin | Definition |
|-----|------------|
| 1 | Signal |
| 2 | GND |





COM4 and COM6 Pin Headers

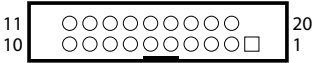
Connector type: 2x5 10-pin header
Connector location: COM4 and COM6



| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | DDCD# | 2 | RRXD |
| 3 | TTXD | 4 | DDTR# |
| 5 | GND | 6 | DDSR# |
| 7 | RRTS# | 8 | CCTS# |
| 9 | CM_P9 | | |

USB 3.0 + USB 2.0 Connector

Connector type: 2x10 20-pin header
Connector location: USB3

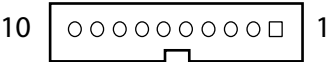


| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | Dummy | 2 | PORT B USB |
| 3 | PORT B USB | 4 | GND |
| 5 | PORT B USB | 6 | PORT B USB |
| 7 | GND | 8 | PORT B USB |
| 9 | PORT B USB | 10 | Vbus |
| 11 | PORT A USB | 12 | PORT A USB |
| 13 | GND | 14 | PORT A USB |
| 15 | PORT A USB | 16 | GND |
| 17 | PORT A USB | 18 | PORT A USB |
| 19 | Vbus | 20 | |



TPM Connector

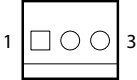
Connector type: 1x10 10-pin header
Connector location: TPM1



| Pin | Definition | Pin | Definition |
|-----|-----------------|-----|------------------|
| 1 | GND | 2 | PLTRST_3P3# |
| 3 | S_ILB_LPC_CLK_1 | 4 | S_ILB_LPC_FRAME# |
| 5 | S_ILB_LPC_AD_3 | 6 | S_ILB_LPC_AD_2 |
| 7 | S_ILB_LPC_AD_1 | 8 | S_ILB_LPC_AD_0 |
| 9 | ILB_LPC_SERIRQ | 10 | +3.3V |

System Fan Connector

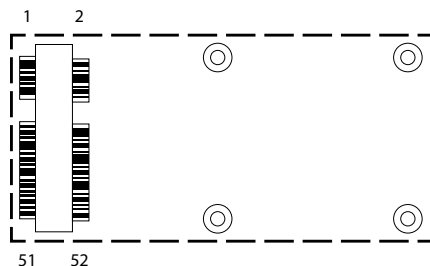
Connector type: 1x3 3-pin Wafer
Connector location: SYSF1



| Pin | Definition |
|-----|------------|
| 1 | GND |
| 2 | +12V |
| 3 | FAN_SPEED |

Mini-PCIe/mSATA Connector

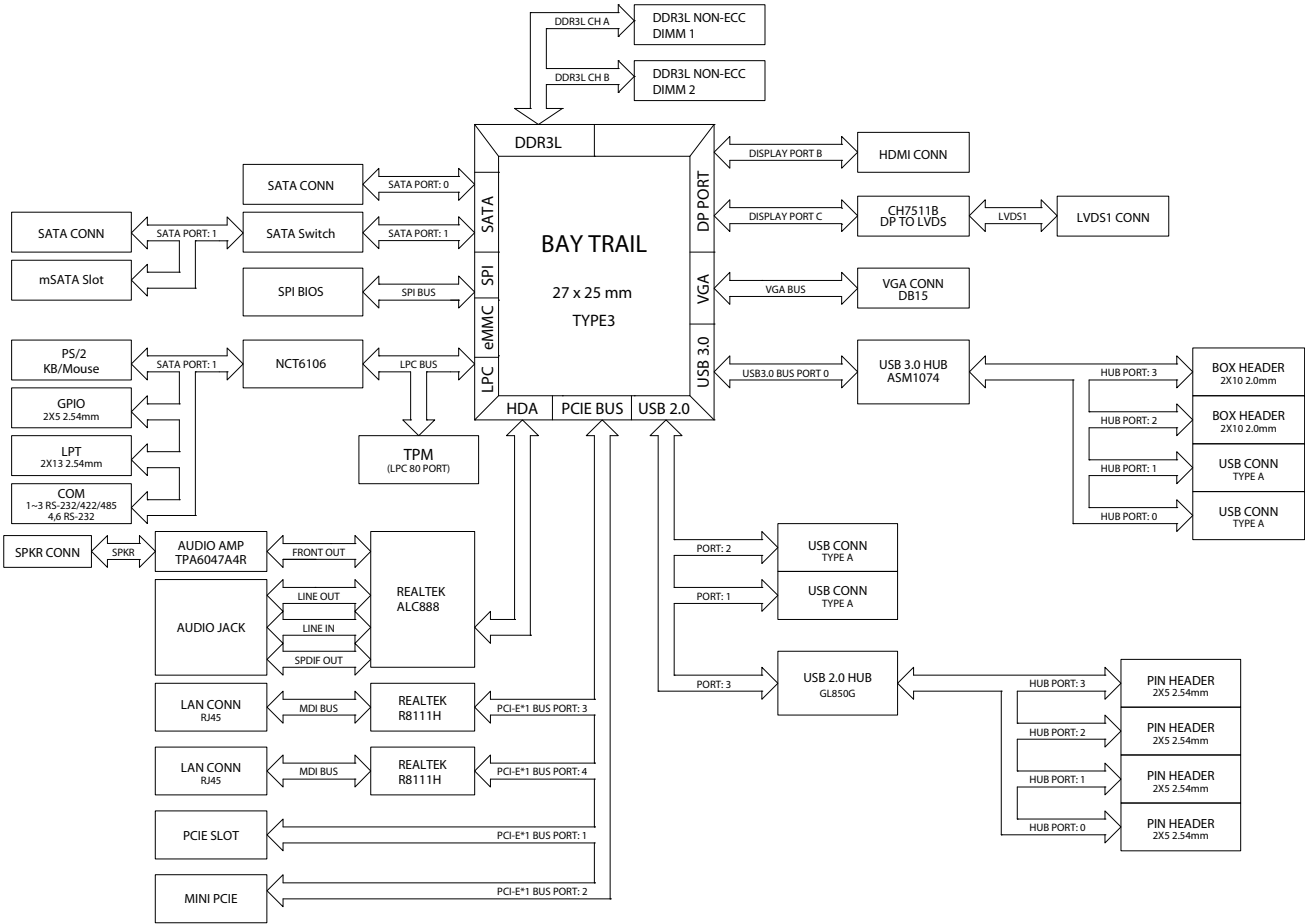
Connector location: MPCIE1 and MSATA1



| Pin | Definition | Pin | Definition |
|-----|--------------|-----|------------|
| 1 | WAKE# | 2 | 3.3VSB_3 |
| 3 | COEX1 | 4 | GND12 |
| 5 | COEX2 | 6 | 1.5V_3 |
| 7 | CLKREQ# | 8 | UIM_PWR |
| 9 | GND6 | 10 | UIM_DATA |
| 11 | REFCLK- | 12 | UIM_CLK |
| 13 | REFCLK+ | 14 | UIM_RESET |
| 15 | GND5 | 16 | UIM_VPP |
| 17 | REV10/UIM_C8 | 18 | GND11 |
| 19 | REV9/UIM_C4 | 20 | W_DISABLE# |
| 21 | GND4 | 22 | PERST# |
| 23 | PERn0 | 24 | +3.3VSB_1 |
| 25 | PERp0 | 26 | GND10 |

| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 27 | GND3 | 28 | 1.5V_2 |
| 29 | GND2 | 30 | SMBCLK |
| 31 | PETn0 | 32 | SMBDAT |
| 33 | PETp0 | 34 | GND9 |
| 35 | GND0 | 36 | USB_D- |
| 37 | GND13 | 38 | USB_D+ |
| 39 | +3.3VSB_4 | 40 | GND8 |
| 41 | +3.3VSB_5 | 42 | LED_WWAN# |
| 43 | GND14 | 44 | LED_WLAN# |
| 45 | REV4 | 46 | LED_WPAN# |
| 47 | REV3 | 48 | 1.5V_1 |
| 49 | REV2 | 50 | GND7 |
| 51 | REV1 | 52 | 3.3VSB_2 |

Block Diagram



CHAPTER 3: BIOS SETUP

This chapter describes how to use the BIOS setup program for NEX 650-ADU. The BIOS screens provided in this chapter are for reference only and may change if the BIOS is updated in the future.

To check for the latest updates and revisions, visit the NEXCOM website at www.nexcom.com.tw.

About BIOS Setup

The BIOS (Basic Input and Output System) Setup program is a menu driven utility that enables you to make changes to the system configuration and tailor your system to suit your individual work needs. It is a ROM-based configuration utility that displays the system's configuration status and provides you with a tool to set system parameters.

These parameters are stored in non-volatile battery-backed-up CMOS RAM that saves this information even when the power is turned off. When the system is turned back on, the system is configured with the values found in CMOS.

With easy-to-use pull down menus, you can configure items such as:

- Hard drives, diskette drives, and peripherals
- Video display type and display options
- Password protection from unauthorized use
- Power management features

The settings made in the setup program affect how the computer performs. It is important, therefore, first to try to understand all the setup options, and second, to make settings appropriate for the way you use the computer.

When to Configure the BIOS

- This program should be executed under the following conditions:
- When changing the system configuration
- When a configuration error is detected by the system and you are prompted to make changes to the setup program
- When resetting the system clock
- When redefining the communication ports to prevent any conflicts
- When making changes to the Power Management configuration
- When changing the password or making other changes to the security setup

Normally, CMOS setup is needed when the system hardware is not consistent with the information contained in the CMOS RAM, whenever the CMOS RAM has lost power, or the system features need to be changed.

Default Configuration


Most of the configuration settings are either predefined according to the Load Optimal Defaults settings which are stored in the BIOS or are automatically detected and configured without requiring any actions. There are a few settings that you may need to change depending on your system configuration.

Entering Setup














When the system is powered on, the BIOS will enter the Power-On Self Test (POST) routines. These routines perform various diagnostic checks; if an error is encountered, the error will be reported in one of two different ways:

- If the error occurs before the display device is initialized, a series of beeps will be transmitted.
- If the error occurs after the display device is initialized, the screen will display the error message.

Powering on the computer and immediately pressing allows you to enter Setup.

Press the  key to enter Setup:


Legends

| Key | Function |
|---|--|
|   | Moves the highlight left or right to select a menu. |
|   | Moves the highlight up or down between sub-menus or fields. |
|  | Exits the BIOS Setup Utility. |
|  | Scrolls forward through the values or options of the highlighted field. |
|  | Scrolls backward through the values or options of the highlighted field. |
|  | Selects a field. |
|  | Displays General Help. |
|  | Load previous values. |
|  | Load optimized default values. |
|  | Saves and exits the Setup program. |
|  | Press <Enter> to enter the highlighted sub-menu |


Scroll Bar

When a scroll bar appears to the right of the setup screen, it indicates that there are more available fields not shown on the screen. Use the up and down arrow keys to scroll through all the available fields.

Submenu

When “▶” appears on the left of a particular field, it indicates that a submenu which contains additional options are available for that field. To display the submenu, move the highlight to that field and press  .

BIOS Setup Utility

Once you enter the AMI BIOS Setup Utility, the Main Menu will appear on the screen. The main menu allows you to select from several setup functions and one exit. Use arrow keys to select among the items and press  to accept or enter the submenu.

Main

The Main menu is the first screen that you will see when you enter the BIOS Setup Utility.



System Date

The date format is <day>, <month>, <date>, <year>. Day displays a day, from Monday to Sunday. Month displays the month, from January to December. Date displays the date, from 1 to 31. Year displays the year, from 1999 to 2099.

System Time

The time format is <hour>, <minute>, <second>. The time is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00. Hour displays hours from 00 to 23. Minute displays minutes from 00 to 59. Second displays seconds from 00 to 59.

Advanced

The Advanced menu allows you to configure your system for basic operation. Some entries are defaults required by the system board, while others, if enabled, will improve the performance of your system or let you set some features according to your preference.



Setting incorrect field values may cause the system to malfunction.



OS Selection

Configures the target OS. The options are Windows 7 and Windows 8.X.

ACPI Settings

This section is used to configure ACPI Settings.



Enable Hibernation

Enables or disables system ability to hibernate (OS/S4 Sleep State). This option may not be effective with some OS.

ACPI Sleep State

Select the highest ACPI sleep state the system will enter when the suspend button is pressed. The options are Suspend Disabled and S3 (Suspend to RAM).



NCT6106D Super IO Configuration

This section is used to configure the serial ports.



Super IO Chip

Displays the Super I/O chip used on the board.

Serial Port 1 Configuration

This section is used to configure serial port 1.



Serial Port

Enables or disables the serial port.

Serial Port Mode

Select this to change the serial port mode to RS232, RS422 or RS485.



Serial Port 2 Configuration

This section is used to configure serial port 2.

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Advanced

Serial Port 2 Configuration

Serial Port

[Enabled]

Device Settings

IO=2F8h; IRQ=3;

Serial Port Mode

[RS232]

Enable or Disable Serial Port (COM)

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F3: Optimized Defaults

F4: Save & Exit

ESC: Exit

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Serial Port

Enables or disables the serial port.

Serial Port Mode

Select this to change the serial port mode to RS232, RS422 or RS485.

Serial Port 3 Configuration

This section is used to configure serial port 3.

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Advanced

Serial Port 3 Configuration

Serial Port

[Enabled]

Device Settings

IO=3E8h; IRQ=6;

Serial Port Mode

[RS232]

Enable or Disable Serial Port (COM)

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F3: Optimized Defaults

F4: Save & Exit

ESC: Exit

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Serial Port

Enables or disables the serial port.

Serial Port Mode

Select this to change the serial port mode to RS232, RS422 or RS485.





Serial Port 4 Configuration

This section is used to configure serial port 4.

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Advanced

Serial Port 4 Configuration

Serial Port
Device Settings

[Enabled]
IO=2E8h; IRQ=10;

Enable or Disable Serial Port (COM)

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

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Serial Port

Enables or disables the serial port.

Serial Port 6 Configuration

This section is used to configure serial port 6.

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Advanced

Serial Port 6 Configuration

Serial Port
Device Settings

[Enabled]
IO=2F0h; IRQ=7;

Enable or Disable Serial Port (COM)

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

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Serial Port

Enables or disables the serial port.





Parallel Port Configuration

This section is used to configure the parallel port.



Parallel Port

Enables or disables the parallel port.

Change Settings

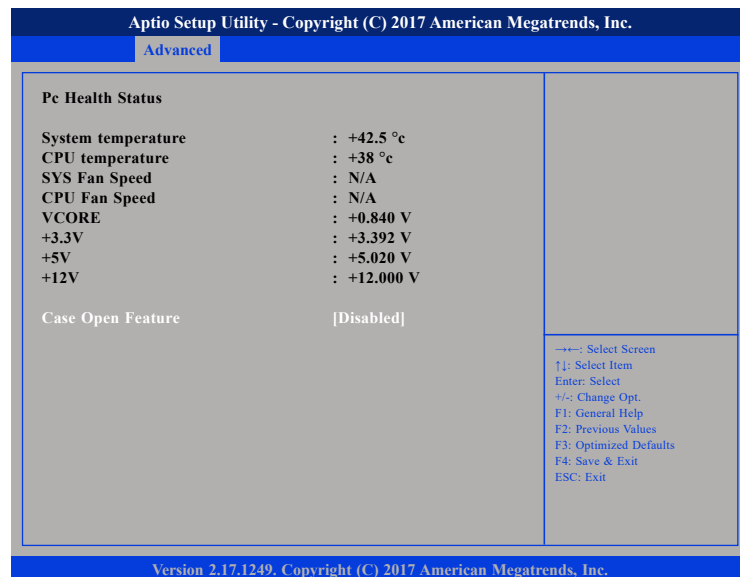
Selects the optimal setting for the Super IO device.

Device Mode

Selects the parallel port mode.

NCT6106D HW Monitor

This section is used to monitor hardware status such as temperature, fan speed and voltages.



System Temperature

Detects and displays the current system temperature.

CPU Temperature

Detects and displays the current CPU temperature.

SYS Fan Speed

Detects and displays the current system fan speed.

CPU Fan Speed

Detects and displays the current CPU fan speed.

VCORE

Detects and displays the Vcore CPU voltage.

+3.3V

Detects and displays the 3.3V voltage.

+5V

Detects and displays the 5V voltage.

+12V

Detects and displays the 12V voltage.

Case Open Feature

Enables or disables the case open detection feature.



CPU Configuration

This section is used to configure the CPU.



Limit CPUID Maximum

The CPUID instruction of some newer CPUs will return a value greater than 3. The default is Disabled because this problem does not exist in the Windows series operating systems. If you are using an operating system other than Windows, this problem may occur. To avoid this problem, enable this field to limit the return value to 3 or lesser than 3.

Execute Disable Bit

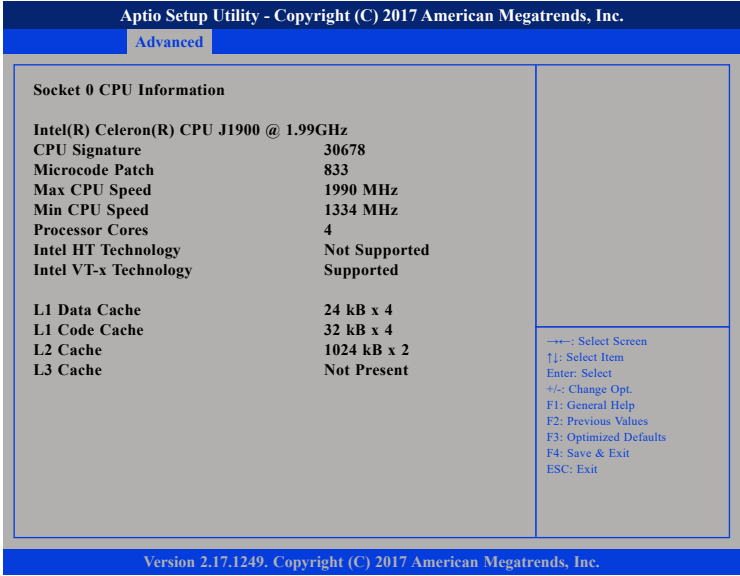
When this field is set to Disabled, it will force the XD feature flag to always return to 0. XD can prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS (Windows Server 2003 SP1, Windows XP SP2, SuSE Linux 9.2, RedHat Enterprise 3 Update 3).

Intel® Virtualization Technology

Enables or disables Intel® Virtualization technology.

Socket 0 CPU Information

Display information on the CPU installed on socket 0.





PPM Configuration

This section is used to configure the Processor Power Management (PPM) configuration.



CPU C State Report

Enables or disables CPU C-State report to OS.

S0ix

Enables or disables CPU S0ix state.

IDE Configuration

This section is used to configure the SATA drives.



Serial-ATA (SATA)

Enables or disables the SATA device.

SATA Test Mode

Enables or disables SATA test mode.

Serial-ATA Port 0 and Serial-ATA Port 1

Enables or disables SATA port 0 and SATA port 1.

SATA Port0 Hotplug and SATA Port1 Hotplug

Enables or disables hotplug support on SATA port 0 and SATA port 1.

SATA Mode

Configures the SATA as IDE or AHCI mode.

- | | |
|------|---|
| IDE | This option configures the Serial ATA drives as Parallel ATA physical storage device. |
| AHCI | This option configures the Serial ATA drives to use AHCI (Advanced Host Controller Interface). AHCI allows the storage driver to enable the advanced Serial ATA features which will increase storage performance. |



USB Configuration

This section is used to configure the USB.

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Advanced

USB Configuration

USB Module Version10

USB Devices:
1 Keyboard, 3 Hubs

Legacy USB Support[Enabled]

XHCI Hand-off[Enabled]

EHCI Hand-off[Disabled]

Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications.

→+/-: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

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Legacy USB Support

- Enable Enables Legacy USB.
- Auto Disables support for Legacy when no USB devices are connected.
- Disable Keeps USB devices available only for EFI applications.

XHCI Hand-off and EHCI Hand-off

This is a workaround for OSs that does not support XHCI hand-off and EHCI hand-off. The XHCI and EHCI ownership change should be claimed by the XHCI and EHCI driver respectively.

Chipset

This section gives you functions to configure the system based on the specific features of the chipset. The chipset manages bus speeds and access to system memory resources.

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MainAdvancedChipsetSecurityBootSave & Exit

LVDS Panel Support[Enabled]

LVDS Panel Type[800x600/18-bit/1-ch. . .]

▶ South Bridge

Enable/Disable LVDS function

→+/-: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

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LVDS Panel Support

Enables or disables LVDS function.

LVDS Panel Type

Configures the LVDS display resolution.



South Bridge



High Precision Timer

Enables or disables the high precision event timer.

Azalia HD Audio



Audio Controller

Control detection of the Azalia device.

Disabled Azalia will be unconditionally disabled.
Enabled Azalia will be unconditionally enabled.

Azalia HDMI Codec

Enables or disables internal HDMI codec for Azalia.



USB Configuration

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Chipset

USB Configuration

XHCI Mode

[Disabled]

USB 2.0(EHCI) Support

[Enabled]

USB EHCI debug

[Disabled]

Control the USB EHCI (USB 2.0) functions. One EHCI controller must always be enabled.

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F3: Optimized Defaults

F4: Save & Exit

ESC: Exit

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USB 2.0(EHCI) Support

Enables or disables the Enhanced Host Controller Interface (USB 2.0), one EHCI controller must always be enabled.

USB EHCI Debug

Enables or disables PCH EHCI debug capability.

PCI Express Configuration

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Chipset

PCI Express Configuration

PCI Express Port 0

[Enabled]

PCI Express Port 1

[Enabled]

PCI Express Port 2

[Enabled]

PCI Express Port 3

[Enabled]

Enable or Disable the PCI Express Port 0 in the Chipset.

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F3: Optimized Defaults

F4: Save & Exit

ESC: Exit

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PCI Express Port 0 to PCI Express Port 3

Enables or disables the PCI Express ports 0 to 3 on the chipset.



Security



Administrator Password
Select this to reconfigure the administrator’s password.

User Password
Select this to reconfigure the user’s password.

Boot



Bootup NumLock State
This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on wherein the function of the numeric keypad is the number keys. When set to Off, the function of the numeric keypad is the arrow keys.

Fast Boot
When enabled, the BIOS will shorten or skip some check items during POST.

Onboard LAN PXE
Enables or disables onboard LAN PXE ROM for LAN1 or LAN2.

Boot Option Priorities
Adjust the boot sequence of the system. Boot Option #1 is the first boot device that the system will boot from, next will be #2 and so forth.



Save & Exit



Save Changes and Reset

To save the changes and reset, select this field then press <Enter>. A dialog box will appear. Confirm by selecting Yes.

Discard Changes and Reset

To exit the Setup utility without saving the changes, select this field then press <Enter>. You may be prompted to confirm again before exiting.

Restore Defaults

To restore the BIOS to default settings, select this field then press <Enter>. A dialog box will appear. Confirm by selecting Yes.