

ASMB-920IR Intel® Xeon® E5-2600 series dual 2011 Socket EATX Server Board with 2 PCIe x16 Expansion Slots

Startup Manual

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

- 1 ASMB-920IR Startup Manual
- 1 Driver CD (user's manual is included)
- 2 Serial ATA HDD data cables
- 2 Serial ATA HDD power cables
- 1 I/O port bracket
- 1 Warranty card

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Products/acrobat/readstep2.html (Acrobat is a trademark of Adobe)

Specifications

Standard SBC Functions

- **CPU:** LGA2011 Intel® Xeon® E5-2600 series
- **BIOS:** AMI 64 Mb SPI BIOS
- **Chipset:** Intel® C600
- **System memory:** 8* DDR3 REG/ECC/Non-ECC 1066/1333/1600 unbuffered DIMM, Max. 128 GB
- Note:** Due to the inherent limitations of PC architecture, the system may not fully detect 128 GB RAM when 128 GB RAM is installed.
- **SATA Interface:** 4 SATA2 3 Gb/s ports, 2 SATA3 6Gb/s, supports Intel Matrix Storage (for Windows only) software RAID 0, 1, 10 & 5.
- **SAS Interface(ASMB-920IR sku only):** 8 SAS2 6Gb/s ports, supports RAID 0, 1, 1E.
- **Serial ports:** Two serial ports, only support RS-232
- **Keyboard/mouse connector:** Supports standard PS/2 keyboard and mouse
- **Watchdog timer:** 255 level timer intervals
- **USB 2.0:** Supports up to eleven USB 2.0 ports (1* Type-A)

VGA Interface

- **Chipset:** Aspeed AST2300
- **Display Memory:** 64 MB
- **Resolution:** Supports VGA up to resolution 1920 x 1200 @ 60 Hz refresh rate

Ethernet interface

- **Interface:** 10/100/1000 Mbps
- **Controller:** LAN1: Intel 82579LM; LAN2: Intel 82574L; LAN3: Realtek 8201EL(10/100Mbps for IPMI, ASMB-920IR sku only)

Mechanical and Environmental

- **Dimensions (L x W):** 330 x 304 mm (13" x 12")
- **Power supply voltage:** +3.3 V, +5 V, ±12 V, +5 Vsb
- **Power consumption(Main board only, excluded IO device):** Max. load: +3.3 V @ 13.69 A, +5 V @ 8.77 A, +12 V @ 11.48 A, +12 V(8P1) @ 22 A, +12 V(8P2) @ 22 A, +5 Vsb @ 2 A
- **Operating temperature:** 0 ~ 40° C (depending on CPU)
- **Weight:** 1.1 kg (weight of board)

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<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the ASMB-920I series Rev. A1

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Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each jumper and connector.

| Connector list | |
|---------------------------------|--|
| Label | Function |
| ATX24P_P1 | ATX 24 Pin main power connector |
| ATX8P_P0 | Processor power connector(for CPU0) |
| ATX8P_P1 | Processor power connector(for CPU1) |
| SATA0~SATA5 | Serial ATA0~5 |
| USB45,USB67,USB89 | USB port 4,5,6,7,8,9 (Header) |
| USB01,USB23 USB10 | USB port 0,1,2,3,10(type A) |
| PCIE_PME1 | PCIE x16 slot (For PME) |
| PCIEX16_SLOT6, PCIEX16_SLOT7 | PCIE x16 slot |
| DIMMA1 ~ DIMMH1 | DDR3 slot |
| CPUFAN0,CPUFAN1 | CPU FAN connector |
| SYSFAN0,SYSFAN1, SYSFAN2 | System FAN connector |
| LAN1,LAN2 | LAN connector |
| BMC LAN1 | LAN connector for IPMI |
| VGA_COM1 | VGA+COM connector |
| KBMS1 | Keyboard and mouse connector |
| KBMS2 | External keyboard and mouse connector(6 pin) |
| BIOS_SKT1 | BIOS SPI ROM |
| LANLED1 | LAN LED extension connector |
| SMBUS1 | Front panel SMBus header |
| IPMI1 | IPMI header |
| SATA_SGPIO_1 | SATA SGPIO header |
| SAS_SGPIO_1, SAS_SGPIO_2 | SAS SGPIO header |
| AUDIO1 | Audio header |
| COM2 | Serial port: RS-232 |
| JFP1 | Front panel header |

Jumpers and Connectors

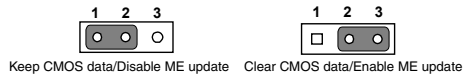
Jumper list

| Label | Function |
|--------|---------------------|
| JCMOS1 | CMOS clear |
| JME1 | ME update |
| JWDT1 | Watch dog selection |

JCMOS1/JME1: CMOS clear/ME update function

| Closed pins | Result |
|-------------|-----------------------------------|
| 1-2 | Keep CMOS data/Disable ME update* |
| 2-3 | Clear CMOS data/Enable ME update |

*: Default



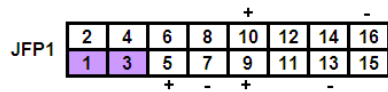
JWDT1: Watchdog timer function selection

| Pins | Result |
|------|---------|
| 1-2 | Enable* |
| 2-3 | Disable |

*: Default
**Note: To enable WDT function must to be set as Enable both in Jumper & BIOS setting.



Installation Note



| | | | |
|--------|-----------|---------|----|
| RSTBTN | Case Open | SPEAKER | |
| PWRBTN | HDDLED | PWRLED | NC |

JFP1

| | |
|-------|---------|
| Pin.1 | #PWR_SW |
| Pin.3 | GND |
| Pin.2 | #RST_SW |
| Pin.4 | GND |

*Power button pin is located in Pin 1 & 3 of front panel connector

Software Installation

The CD disc contains a driver installer program that will lead you through the installation of various device drivers needed to take full advantage of your motherboard.

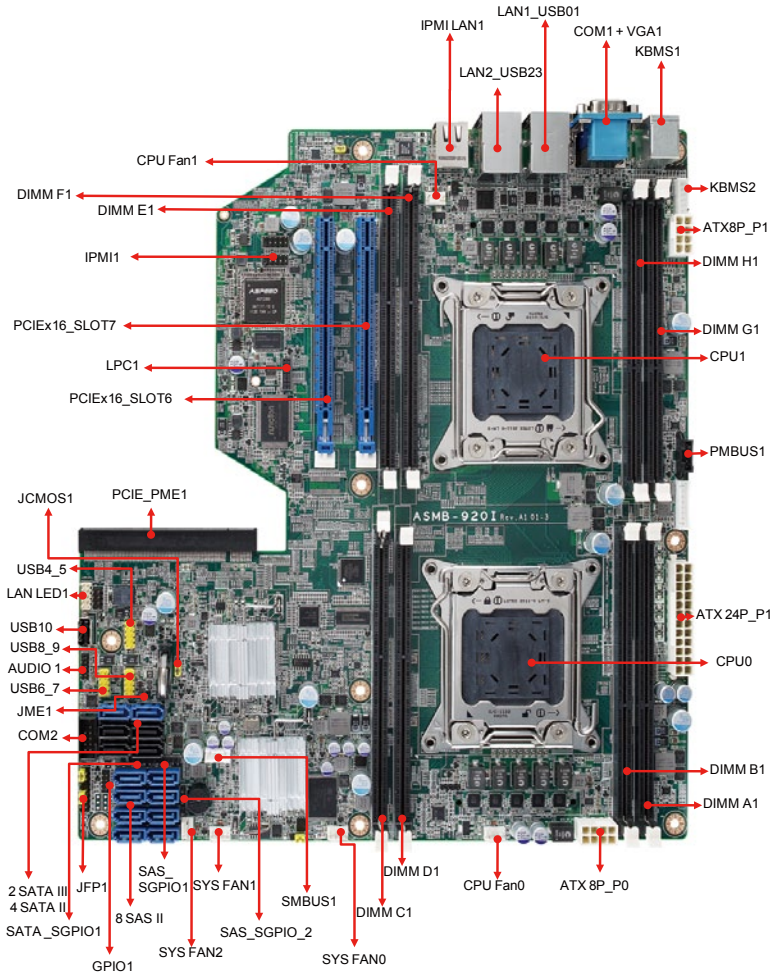
The computer is supplied with a battery-powered realtime clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

Declaration of Conformity

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

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

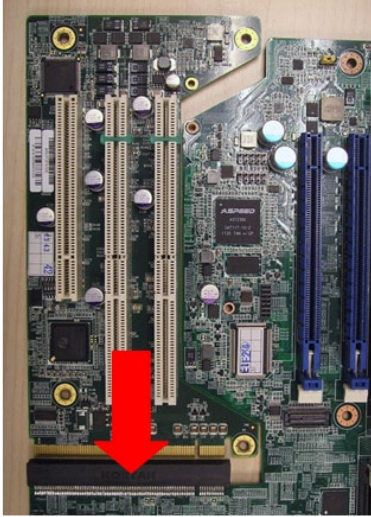
Board Layout



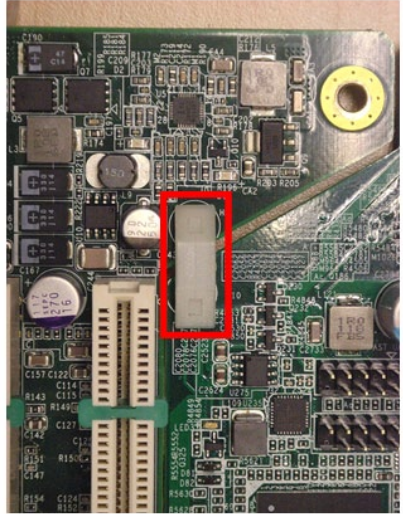
Board Layout: Jumper and Connector Locations

The Procedures of Assembling PME Module to ASMB-920IR Motherboard

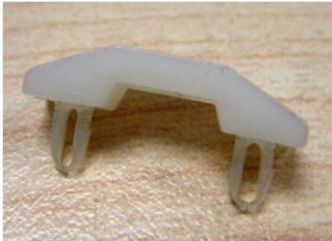
1. Insert PME module to PME slot of ASMB-920IR.



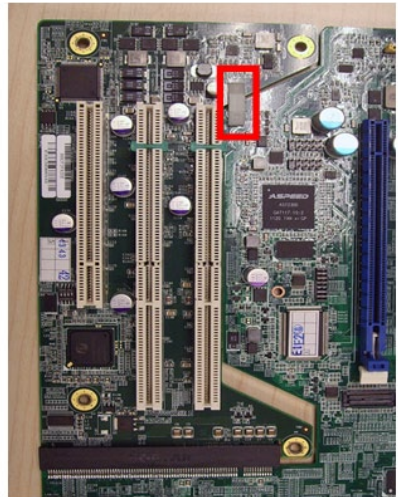
4. Push plastic holder and make the latch pass through into those two holes.



2. Take the plastic holder out from zip bag.



5. Check and make sure that plastic holder connected two PCBs stably.



3. Find out two PME fixed hole.

