ADVANTECH

ASMB-823I Intel Xeon® E5-2600v3 Series ATX Server Board with DDR4, 4 PCIe x16, 6 USB 3.0, 9 SATA3 Startup Manual

Packing List

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

- 1 ASMB-823I Startup Manual
- 1 Driver CD (user's manual is included)
- 2 Serial ATA HDD data cables
- 2 Serial ATA HDD power cables
- 2 CPU power cables (8P)
- 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 1: 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 M/B Functions

- **CPU:** Dual LGA2011-R3 Intel Xeon® E5-2600v3 series
- **BIOS:** AMI 128 Mb SPI BIOS
- **Chipset:** Intel® C612 PCH
- **System Memory:** 6* DDR4-1600/1866/2133 Registered ECC DIMM, Max. Capacity 192 GB

Note 2: Due to the inherent limitations of the PC architecture, the system may not fully detect 192 GB RAM when 192 GB RAM is installed.

- **SATA Interface:** 9 SATA3 6 Gb/s ports Intel Rapid Storage (for Windows only) (SATA0-SATA4 and sSATA0-sSATA3 Supports software RAID 0, 1, 10 & 5)
- **Serial Ports:** One onboard header, only support RS-232
- **Keyboard/Mouse Header (KBMS2):** Supports the standard PS/2 keyboard and mouse via PS/2 cable
- **Watchdog Timer:** 255 level timer intervals
- **USB Port:** Supports up to 6 USB 3.0 ports (2 ports from onboard 20-pin header) and 3 USB 2.0 ports (1*Type-A, 2 ports from onboard 10-pin header)

VGA Interface

- **Chipset:** Aspeed AST2400/1400
- **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 I210; LAN2: Intel I210

Mechanical and Environment

- **Dimensions (L x W):** 244 x 304 mm (9.6" x 12")
- **Power Supply Voltage:** +3.3 V, +5 V, ±12 V, +5 Vsb
- **Power Consumption (mainboard only, excluding IO device):** Max. load: +3.3 V @ 1.67 A, +5 V @ 0.85 A, +12 V @ 18.11 A, +5 Vsb @ 0.05 A, -12 V @ 0.004 A
- **Operating Temperature:** 0 ~ 40° C (depending on CPU)
- **Weight:** 1 kg (weight of board)

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 of the jumpers and connectors.

Connectors	
Label	**Function**
ATXPWR1	ATX 24 Pin main power connector
ATX12V1	Processor power connector (for CPU0)
ATX12V2	Processor power connector(for CPU1)
SLOT12V1	For PCIe slot 12V input only
SATA0~SATA4 sSATA0~sSATA3	Serial ATA0~4, Slave serial ATA0~3
USB6_7	USB 2.0 header 6, 7
USB10	USB 2.0 port 10 (Type-A)
USB0_1, USB2_3, USB4_5	USB 3.0 port 0, 1, 4, 5; USB 3.0 port 2, 3 (20-pin header)
SLOT1	PCIE x8 slot (x4 link) (PCH)
SLOT2	PCIE x16 slot (CPU1)
SLOT3	PCIE x8 slot (CPU1)
SLOT4	PCIE x16 slot (CPU0)
SLOT5	PCIE x16 slot (CPU1)
SLOT6	PCIE x16 slot (CPU0)
SLOT7	PCIE x8 slot (CPU0)
DIMMA1, DIMMA2, DIMMB1, DIMMG1, DIMMG2, DIMMH1	DDR4 slot
CPUFAN0,CPUFAN1	CPU FAN connector
SYSFAN0,SYSFAN1, SYSFAN2	System FAN connector
LAN1,LAN2	RJ-45 LAN connector
VGA1	VGA connector
KBMS2	External keyboard and mouse connector (6 pin)
BIOS1	BIOS SPI ROM
LANLED1	LAN LED extension connector
SYS_LED1	System LED connector
SMBUS1	SMBus header
BMC1, BMC2	IPMI module header
SGPIO1, SGPIO2	SATA SGPIO header

Jumpers and Connectors

JCASE1	Chassis case open alarm header
HDAUD1	Audio header
COM2	Serial port: RS-232
JFP1, JFP2, JFP3	Front panel header
GPIO1	GPIO connector
PMBUS1	PMBUS connector
VOLT1	Voltage monitoring connector for Intelligent System module
EX_THR1	Connector for external thermistor
SPI_CN1	Connector for BIOS update tool
LPC1	TPM connector

Jumper list	
Label	**Function**
JCMOS1	CMOS clear
JME1	ME update

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	

Keep CMOS data/Disable ME update   Clear CMOS data/Enable ME update

Installation Note

JFP1, JFP2	
Pin.3	#PWR_SW
Pin.6	GND
Pin.9	#RST_SW
Pin.12	GND
Pin.8, Pin.11	HWM_SMB_DATA, HWM_SMB_CLK

*Power button pin is located in Pin 3 & 6 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

The 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.
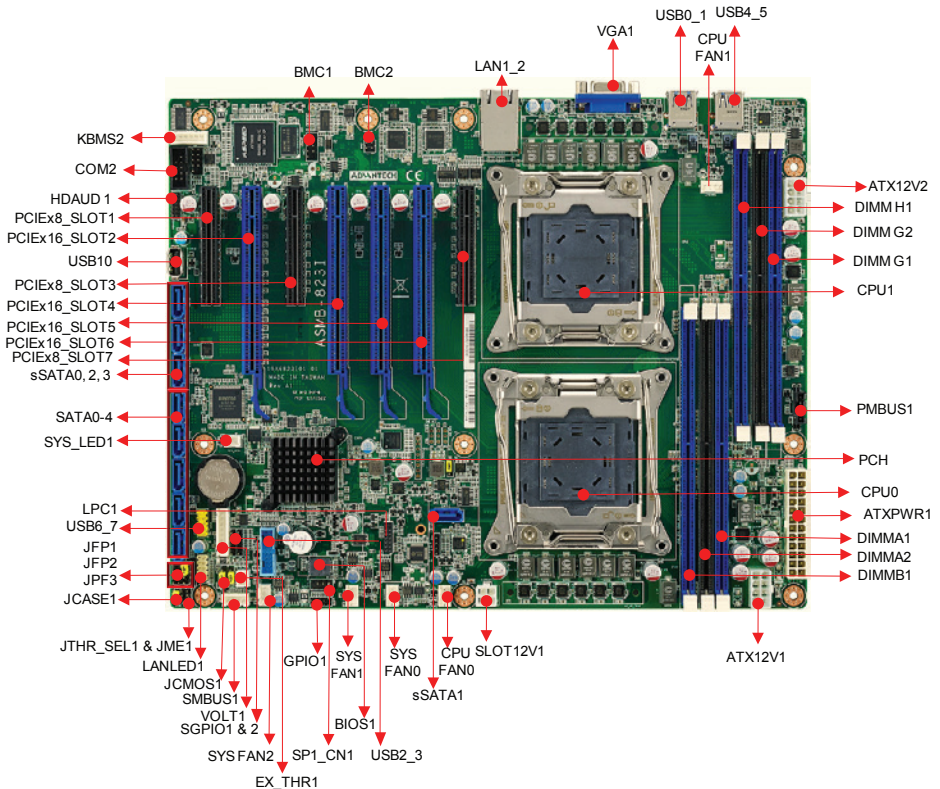
Board Layout

Figure 1: Board Layout: Jumper and Connector Locations