

ASMB-813I Intel® Xeon® E5-2600v3 Series ATX Server Board with 8 DDR4, 5 PCIe x8, 6 USB 3.0, 8 SATA3 Startup Manual

Packing List

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

- 1 ASMB-813I 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: 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:** 8* DDR4-1600/1866/2133 Registered ECC DIMM, Max. Capacity 256 GB
- Note:** Due to the inherent limitations of PC architecture, the system may not fully detect 256 GB RAM when 256 GB RAM is installed.
- **SATA Interface:** 8 SATA3 6 Gb/s ports Intel Rapid Storage (for Windows only) (SATA0-SATA3 and sSATA0-sSATA3 Supports software RAID 0, 1, 10 & 5)
- **Serial ports:** One onboard header, only support RS-232
- **Keyboard/mouse connector:** Supports standard PS/2 keyboard and mouse
- **Watchdog timer:** 255 level timer intervals
- **USB port:** Supports up to 6 USB 3.0 ports (2 ports from onboard 20-pin header) and 5 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; LAN3: Realtek 8201EL(10/100Mbps for IPMI, ASMB-813I sku only)

Mechanical and Environmental

- **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(Main board only, excluded IO device):** Max. load: +3.3 V @ 1.53 A, +5 V @ 0.92 A, +12 V @ 12.21 A, +5 Vsb @ 0.04 A, -12 V @ 0.04 A
- **Operating temperature:** 0 ~ 60° C (depending on CPU)
- **Weight:** 1 kg (weight of board)

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

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

This manual is for the ASMB-813I 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
ATXPWR1	ATX 24 Pin main power connector
ATX12V1	Processor power connector (for CPU0)
SLOT12V1	For PCIe slot 12V input only
SATA0~SATA3 sSATA0~sSATA3	Serial ATA0~3, Slave serial ATA0~3
USB0_1, USB2_3, USB6_7	USB 3.0 port 0, 1, 2, 3; USB 3.0 port 6, 7 (20-pin header)
USB4_5, USB8_9	USB 2.0 header 4, 5, 8, 9
USB10	USB 2.0 port 10 (Type-A)
VGA1	VGA connector
SLOT1	PCIe x1 slot (x1 link) (PCH)
SLOT2	PCIe x16 slot (x8 link)
SLOT3	PCIe x16 slot (x8 link)
SLOT4	PCIe x16 slot (x16 or x8 link)
SLOT5	PCIe x16 slot (x8 link)
SLOT6	PCIe x16 slot (x16 or x8 link)
SLOT7	PCIe x8 slot (x4 link) (PCH)
DIMMA1/2, DIMMB1/2, DIMMC1/2, DIMMD1/2	DDR4 slot
CPUFAN0, SYSFAN1, SYSFAN2	System FAN connector
LAN1, LAN2	RJ-45 LAN connector
KBMS1	Keyboard and mouse 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
JCASE1	Chassis case open alarm header
HDAUD1	Audio header
COM2	Serial port: RS-232
JFP1, JFP2, JFP3	Front panel header

Jumpers and Connectors

Connector list

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
JPRSNT 1/2	Manual switch PCIe slot 3/4 or slot 5/6 to PCIe x8 link

Jumper list

Label	Function
JCMOS1	CMOS clear
JME1	ME update

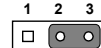
JCMOS1/JME1: CMOS clear/ME update function

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	3 6 9 12	PWRSW	RESET
&	2(+) 5(-) 8 11	HDDLED	SNMP SM_BUS
JFP2	1(+) 4 7 10(-)	SPEAKER	
JFP3	1 2 3 4 5	PWRLD & KEYLOCK	

JFP1

Pin.3	#PWR_SW
Pin.6	GND
Pin.9	#RST_SW
Pin.12	GND
Pin8, Pin11	HWM_SMB_DATA, HWM_SMB_CLK

*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.

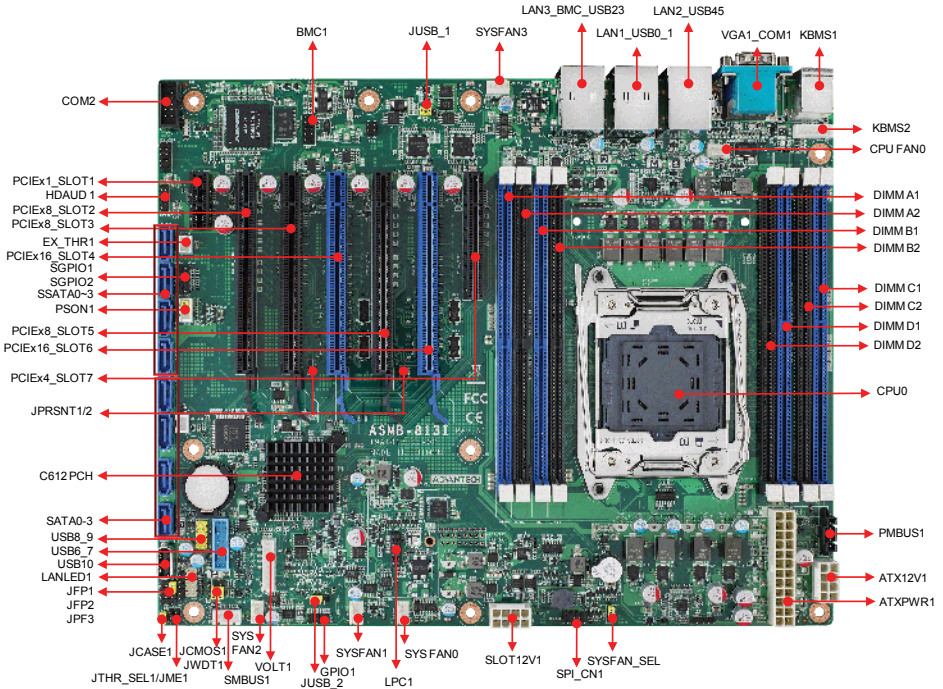
The computer is supplied with a battery-powered realtime clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

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