ADVANTECH

PCE-9228G2(I) Intel® Xeon® E5-2600v3 PICMG1.3 Server Board with DDR4 (ECC-REG), SATA 3.0, USB 3.0, Dual GbE Startup Manual

Packing List

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

- 1 PCE-9228G2(I) CPU board
- 1 PCE-9228G2(I) Startup manual
- 1 Driver CD (Users manual is included)
- 2 Serial ATA HDD data cables
- 1 Serial ATA HDD power cables
- 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)

For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com

http://www.advantech.com/eplatform

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

http://support.advantech.com

This manual is for the PCE-9228 series Rev. A1

Specifications

Standard SBC Functions

- **CPU:** Dual LGA2011-R3 Intel Xeon® E5-2600v3 series
- **BIOS:** AMI 128 Mb SPI BIOS
- **Chipset:** Intel® C612 PCH
- **System Memory:** 8* DDR4 ECC-REG 1600/1866/2133 DIMM, Max. 256 GB
- **SATA Interface:** 8 SATA3 6 Gb/s ports Intel Matrix Storage (for Windows only) (SATA0-SATA3 and sSATA0-sSATA3 Supports software RAID 0, 1, 10 & 5)
- **Serial ports:** One serial ports, only support RS-232
- **Watchdog timer:** 255 level timer intervals
- **USB port:** Supports up to six USB 2.0 ports () and four USB 3.0 ports (2 ports from on-board 20-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, PCE-9228G2I sku only)

Mechanical and Enviroment

- **Dimensions (L x W):** 338 x 122 mm
- **Power supply voltage:** +3.3 V, +5 V, ±12 V, +5 Vsb
- **Power consumption:** CPU: Intel Xeon E5 2680v3@2.5GHz*2
- **Memory:** ATP 16GB DDR4-2133 ECC REG*8
- **Max. load:** +3.3 V @ 2.61A, +5 V@ 1.07A, +12 V @ 26.73A,+5 Vsb@ 0.07A, -12V@ 0.01A
- **Operating temperature:** 0 ~ 40 °C (depending on CPU)
- **Weight:** 1.0 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
BMC_LAN1	Realtek RTL8201 for IPMI function(optional)
JCASE1	Case Open
VGA1	VGA connector
COM1	RS-232 (9-pin Box Header)
GPIO1	GPIO pin header (SMD pitch-2.0 mm)
LPC1	LPC module expansion pin-header
JFP3 (Keyboard Lock and Power LED)	Power LED
	Suspend: Fast flash (ATX/AT)
	System On: ON (ATX/AT)
	System Off: OFF (ATX/AT)
JFP1 + JFP2	Power Switch / Reset connector / External speaker / SATA HDD LED connector
SATA0~3	Master Series ATA Port 0 ~3
sSATA0~3	Slave Series ATA Port 0 ~3
USB4_5	USB2 Port 4, 5; USB3 Port 3,4
LAN1	Intel I210AT
LAN2	Intel I210AT
USB3_0	USB2 Port 0; USB3 Port 1
USB3_1	USB2 Port 1; USB3 Port 2
USB11	USB2 Port 11
USB10	USB2 Port 10
CPUFAN0	CPU0 FAN Power connector
CPUFAN1	CPU1 FAN Power connector
HDAUD1	HD audio extension module connector
SGPIO1	HDD RAID status indicator for SATA0~3
SGPIO2	HDD RAID status indicator for SSATA0~3
ATX12V1	12V Power for CPU
LANLED1	LANLED

Jumpers and Connectors

Jumper list	
Label	Function
JOBS1	HW Monitor Alarm
JWDT1	Watchdog timer output selection
JCMOS1	CMOS clear
JME1	Clear ME data
JAT1	ATX / AT mode select
SGPIO1	SATA LED
SGPIO2	sSATA LED

JCMOS1/JME1: Clear CMOS/ME data	
Closed pins	Result
1-2	Keep CMOS/ME data (Default)
2-3	Clear CMOS/ME data

1   2   3
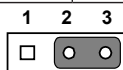
Keep CMOS data/Disable ME update   Clear CMOS data/Enable ME update

JOBS1: H/W monitor alarm	
Status	Result
1 2	Enable OBS alarm (Default with Jumper)
1 2	Disable OBS alarm

WDT1: Watchdog timer output option	
Closed Pins	Result
1-2	Reseved
2-3	System reset (Default)

1   2   3
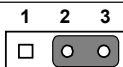
JAT1	
Closed Pins	Result
1-2	AT
2-3	ATX(Default)

1   2   3
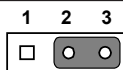
JFP1 & JFP2	3	6	9	12
	2(+)	5(-)	8	11
▶	1(+)	4	7	10(-)

PWRSW	RESET
HDDLED	SNMP SM_BUS
SPEAKER	

JFP3   ▼
| 1 2 3 4 5 |

PWRLED & KEYLOCK

JFP1, JFP2	
Pin.3	#PWR_SW
Pin.6	GND
Pin.9	#RST_SW
Pin.12	GND

*Power button pin is located in Pin 3 & 6 of front panel connector

Board Layout
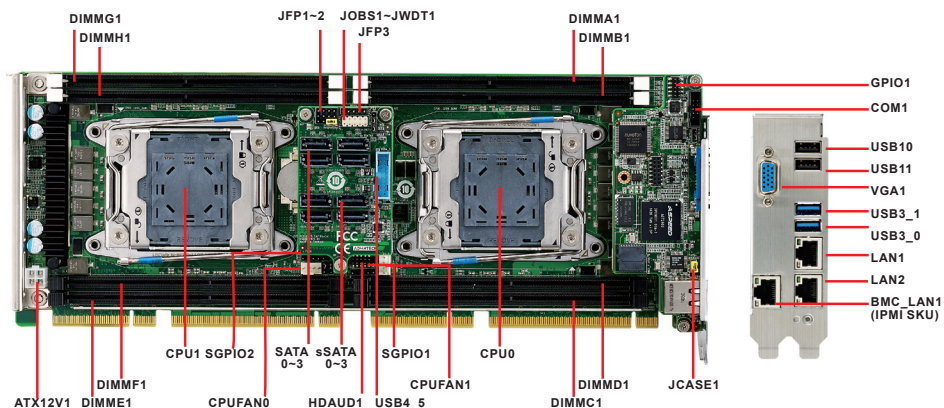
Software Installation

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.

Declaration of Conformity

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. 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.