

## ASUS Z11PA-U12

Scalable server motherboard with 12 DIMM slots



### Unmatched memory expandability with 12 DIMM slots

Z11PA-U12 features 12 DIMM slots — the most on any compact ATX motherboard — giving it unmatched memory expandability. Together with support for dual double-deck GPUs, Z11PA-U12 makes an ideal platform for deep learning application development and education.

### Highlights

- 1st and 2nd Gen Xeon® Scalable Processor platform
- Unmatched memory expandability with 12 DIMM slots
- Dual OCuLink for efficient connections to NVMe devices
- Support for up to 13 6Gb/s SATA storage devices
- Comprehensive IT infrastructure management solution with ASMB9-iKVM and ASUS Control Center (ACC)
- Increased energy efficiency with ASUS ProCool Power Connectors

### Dual OCuLink for efficient connections to NVMe devices

ASUS Z11PA-U12 features dual onboard OCuLink to provide efficient port-to-port connection with most OCuLink-supported NVMe devices, eliminating the need for PCIe transaction cards.

### Connect up to 13 6Gb/s SATA storage devices

ASUS Z11PA-U12 comes with three mini-SAS HD connectors that support up to twelve SATA ports each for high-speed 6Gb/s connectivity with external devices and cleaner cable routing. Additionally, a 7-pin SATA port provides flexibility to connect an optical drive or extra SATA device.

### Comprehensive IT infrastructure management solution

The latest ASMB9-iKVM module enables remote BIOS updates, standalone KVM/Java utilities, video recording and BSOD capture. With out-of-band management, ASMB9-iKVM provides around-the-clock remote monitoring and diagnostics — even if the server operating system is down or offline — through a user-friendly, web-based graphical interface that works with all major browsers.

### Increased energy efficiency with ASUS ProCool Power Connectors

ASUS Z11PA-U12 comes with ASUS ProCool Power Connectors, which decrease power connector temperature for reduced power loss and increased cost savings.

# Specification

Processor / System Bus	1 x Socket P (LGA 3647) 1st and 2nd Gen Xeon® Scalable Processor Family (Up to 165W) *Refer to support page for more information UPI (10.4 GT/s)
Core Logic	Intel® Lewisburg PCH C621
Memory	<b>Total Slots</b> : 12(6 – channel per CPU, 12 DIMM per CPU) Capacity : Maximum up to 384GB RDIMM/Maximum up to 768GB LRDIMM/Maximum up to 1536GB LR-DIMM 3DS <b>Memory Type</b> : Single Channel DDR4 2933/2666/2400 LR-DIMM 3DS <b>Memory Size</b> : 32GB, 16GB, 8GB, 4GB RDIMM 64GB, 32GB LRDIMM 128GB, 64GB LR-DIMM 3DS * Refer to support page for more information * Actual memory frequency differs from Intel CPU types and memory module. Please check Intel official site for more detail about the memory types supported by each CPU.
Expansion Slots	Total Slot : 4 Slot Location 1 : PCI-E x8 (Gen3 X4 Link) Slot Location 2 : PCI-E x16 (Gen3 X16 Link) Slot Location 3 : PCI-E x8 (Gen3 X8 Link) Slot Location 4 : PCI-E x16 (Gen3 X16 Link), Auto switch to x8 link if slot 3 is occupied
Graphic	Aspeed AST2500 with 64MB VRAM
ASUS Features	ASUS Fan Speed control technology ASUS Control Center (ASWM Enterprise 2.0) ASMB9-iKVM for KVM-over-Internet
Storage	<b>SATA Controller</b> : Intel® C621 13 x SATA3 6Gb/s ports (12 by 3 mini-SAS Connector) Intel® Rapid Storage Technology Enterprise(RSTe) (For Linux/Windows) (Support Software RAID 0, 1, 5, 10 ) Intel® VROC (for Windows only; Support software RAID 0, 1, 10 & 5) 2 x OCuLink for U.2 <b>SAS Controller</b> : ASUS PIKE II 3008-8i 8-port SAS 12G RAID card (Optional) ASUS PIKE II 3108-8i 8-port SAS 12G HW RAID card (Optional)
Networking	2 x Intel® I210AT + 1 x Mgmt LAN
On Board I/O	1 x TPM header 1 x PSU Power Connector (24-pin ATX power connector + 8-pin ATX 12V power connector) 1 x USB 3.0 pin header , Up to 2 Devices 1 x USB 2.0 pin header , Up to 2 Devices 6 x Fan Header , 4pin (3pin/4pin fan dual support) 1 x Serial Port Header 1 x SMBus 1 x Chassis Intruder 2 x Front LAN LED 1 x M.2 Connector , NGFF Type : 2280/2260/2242 1 x VROC Key Header 1 x Q-Code/Port 80 LED
Back I/O Ports	2 x USB 3.0 ports 1 x VGA port 2 x RJ-45 GbE LAN ports 1 x RJ-45 Mgmt LAN port  Rear Switch/LED: 1 x Power switch 1 x Message LED 1 x HDD LED 1 x Location LED 1 x BMC LED 1 x P5V LED
Environment	Operation temperature: 10°C ~ 35°C Non operation temperature: -40°C ~ 70°C Non operation humidity: 20% ~ 90% (Non condensing)
Form Factor	ATX (12"x9.6", 305mm x 244mm)

