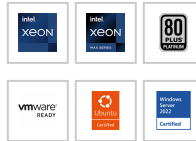


# R283-S91 (rev. AAE1) | (rev.AAE2) | (rev.AAJ1) | (rev.AAJ2)

4th Gen Intel® Xeon® Scalable Server System - 2U DP 12+2-Bay NVMe/SATA/SAS | Application: Networking

- 4th Gen Intel® Xeon® Scalable Processors
- Intel® Xeon® CPU Max Series
- Dual processor, LGA 4677
- 8-Channel RDIMM DDR5 per processor, 32 x DIMMs
- Dual ROM Architecture supported
- 2 x 1Gb/s LAN ports (Intel® I350-AM2)
- 1 x Dedicated management port
- 4 x 3.5"/2.5" Gen4 NVMe/SATA hot-swappable bays
- 8 x 3.5"/2.5" SATA hot-swappable bays
- 2 x 2.5" SATA hot-swappable bays on rear side
- Onboard 12Gb/s SAS expander
- 6 x FHHL PCIe Gen5 x16 slots
- 2 x LP PCIe Gen5 x8 slots
- 2 x OCP 3.0 Gen5 x16 mezzanine slots
- Dual 2000W (240V) 80 PLUS Platinum redundant power supply



OVERVIEW SPECIFICATIONS SUPPORT RESOURCES BUY

## Dimensions (WxHxD, mm)

2U  
438 x 87.5 x 815

## Motherboard

MS93-F50

## CPU

4th Generation Intel® Xeon® Scalable Processors  
Intel® Xeon® CPU Max Series  
Intel® Xeon® Platinum Processor, Intel® Xeon® Gold Processor, Intel® Xeon® Silver Processor  
Dual processor, CPU TDP up to 350W

**NOTE: If only 1 CPU is installed, some PCIe or memory functions might be unavailable**

## Socket

2 x LGA 4677  
Socket E

## Chipset

Intel® C741 Chipset

## Memory

32 x DIMM slots  
DDR5 memory supported only  
8-Channel memory architecture  
RDIMM modules up to 128GB supported  
3DS RDIMM modules up to 256GB supported  
Memory speed: Up to 4800 MHz (1DPC), 4400 MHz (2DPC)

## LAN

### Rear side:

2 x 1Gb/s LAN ports (1 x Intel® I350-AM2)  
Support NCSI function

1 x 10/100/1000 management LAN

## Video

Integrated in Aspeed® AST2600  
2D Video Graphic Adapter with PCIe bus interface  
1920x1200@60Hz 32bpp, DDR4 SDRAM

## Storage

### Front side:

4 x 3.5"/2.5" Gen4 NVMe/SATA/SAS hot-swappable bays, from CPU\_1  
8 x 3.5"/2.5" SATA/SAS hot-swappable bays

### Rear side:

2 x 2.5" SATA/SAS hot-swappable bays

Broadcom SAS35x24R expander  
Bandwidth: SATA 6Gb/s or SAS 12Gb/s per port

- a) SAS card is required to enable the drives
- b) All SATA/SAS devices are connected to SAS expander
- c) Please select enterprise SATA devices for SAS expander system

## SAS

Supported

## RAID

Intel® SATA RAID 0/1/10/5

## Expansion Slots

### Riser Card CRS101J:

- 1 x PCIe x16 (Gen5 x16) FHHL slot, from CPU\_0

### Riser Card CRS101K:

- 1 x PCIe x16 (Gen5 x16) FHHL slot, from CPU\_1

### Riser Card CRS202E:

- 2 x PCIe x16 (Gen5 x8) low-profile slots, from CPU\_0

### Riser Card CRS202G:

- 2 x PCIe x16 (Gen5 x16) FHHL slots, from CPU\_0\*

\*NOTE: Slot\_10 would be downgraded to Gen4 if using XCC CPU with 4 x UPI

### Riser Card CRS202H:

- 2 x PCIe x16 (Gen5 x16) FHHL slots, from CPU\_1

1 x OCP 3.0 slot with PCIe Gen5 x16 bandwidth, from CPU\_0  
Supports NCSI function

1 x OCP 3.0 slot with PCIe Gen5 x16 bandwidth, from CPU\_1  
Supports NCSI function

## Internal I/O

1 x TPM header  
1 x VRCC connector  
2 x OCP 3.0 mezzanine slots

## Front I/O

2 x USB 3.2 Gen1  
1 x Power button with LED  
1 x ID button with LED  
1 x NMI button  
1 x Reset button  
2 x LAN activity LEDs  
1 x HDD activity LED  
1 x System status LED

## Rear I/O

2 x USB 3.2 Gen1  
1 x Mini-DP  
2 x RJ45  
1 x MLAN  
1 x ID LED

## Backplane I/O

Front side Backplane P/N: 9CBP21C1NR-00  
Rear side Backplane P/N: 9CBP2022NR-00

Speed and bandwidth:  
PCIe Gen4 x4 or SATA 6Gb/s or SAS 12Gb/s on front side  
SATA 6Gb/s or SAS 12Gb/s on rear side

## TPM

1 x TPM header with SPI interface  
Optional TPM2.0 kit: [CTM010](#)

## Power Supply

Dual 2000W (240V) 80 PLUS Platinum redundant power supply

AC Input:  
- 100-120V~/ 12A, 50-60Hz  
- 180-240V~/ 10A, 50-60Hz

DC Input:  
- 240Vdc/ 10A

DC Output:  
- Max 1000W/ 100-120V~  
+ 12.2V/ 81.5A  
+ 12Vsb/ 2.5A  
- Max 1600W/ 180-199V~  
+ 12.2V/ 131A  
+ 12Vsb/ 2.5A  
- Max 1800W/ 200-220V~  
+ 12.2V/ 147.5A  
+ 12Vsb/ 2.5A  
- Max 2000W/ 221-240V~  
+ 12.2V/ 163.5A  
+ 12Vsb/ 2.5A

## System Management

Aspeed® AST2600 management controller  
GIGABYTE Management Console (AMI MegaRAC SP-X) web interface

Dashboard  
HTML5 KVM  
Sensor Monitor (Voltage, RPM, Temperature, CPU Status ...etc.)  
Sensor Reading History Data  
FRU Information  
SEL Log in Linear Storage / Circular Storage Policy  
Hardware Inventory  
Fan Profile  
System Firewall  
Power Consumption  
Power Control  
LDAP / AD / RADIUS Support  
Backup & Restore Configuration  
Remote BIOS/BMC/CPUD Update  
Event Log Filter  
User Management  
Media Redirection Settings  
PAM Order Settings  
SSL Settings  
SMTP Settings

## OS Compatibility

Please refer to OS compatibility table in support page

## Additional certifications:

[Windows Server 2022 \(x64\)](#)  
[VMware ESXi 8.0](#)  
[Ubuntu 22.04 LTS \(x64\)](#)

## System Fans

4 x 80x80x38mm (18,300rpm)

## Operating Properties

Operating temperature: 10°C to 35°C  
Operating humidity: 8%-80% (non-condensing)  
Non-operating temperature: -40°C to 60°C  
Non-operating humidity: 20%-95% (non-condensing)

## Packaging Dimensions

1077 x 679 x 300 mm