

# R163-Z32 (rev. AAC2) | (rev.AAB1) | (rev.AAC1) | (rev.AAG1) | (rev.AAH1) | (rev.AAH2)

Rack Server - AMD EPYC™ 9004 - 1U UP 12-Bay Gen4 NVMe/SATA/SAS | Application: **Networking & Hybrid/Private Cloud Server**

- AMD EPYC™ 9004 Series processors
- AMD EPYC™ 9004 Series processors with AMD 3D V-Cache™ Technology
- Single processor, 5nm technology
- 12-Channel RDIMM DDR5, 12 x DIMMs
- Dual ROM Architecture
- 1 x 1Gb/s LAN port (Intel® I210-AT)
- 1 x Dedicated management port
- 4 x 2.5" Gen4 NVMe hot-swappable bays
- 8 x 2.5" SATA/SAS hot-swappable bays
- 1 x M.2 slot with PCIe Gen3 x4 interface
- 2 x FHHL PCIe Gen5 x16 slots
- 2 x OCP 3.0 Gen5 x16 slots
- 1+1 1300W 80 PLUS Platinum redundant power supplies



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## Dimensions (WxHxD, mm)

1U  
438 x 43.5 x 710

## Motherboard

MZ33-DC0

## CPU

AMD EPYC™ 9004 Series processors  
AMD EPYC™ 9004 Series processors with AMD 3D V-Cache™ Technology  
Single processor, 5nm technology  
\*Up to 128-core, 256 threads per processor  
cTDP up to 300W at ambient 35°C

**\*cTDP supported up to 400W under limited thermal conditions.  
Please contact technical support for more details.**

## Socket

1 x LGA 6096  
Socket SP5

## Chipset

System on Chip

## Memory

12 x DIMM slots  
DDR5 memory supported only  
12-Channel memory architecture  
RDIMM modules up to 96GB supported  
3DS RDIMM modules up to 256GB supported  
Memory speed: Up to 4800 MHz

## LAN

### Rear side

1 x 1Gb/s LAN port (1 x Intel® I210-AT)  
Supports 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 2.5" Gen4 NVMe hot-swappable bays  
8 x 2.5" SATA/SAS hot-swappable bays

**SAS card is required for SAS devices support**

## SAS

Depends on SAS add-in card

## RAID

N/A

## Expansion Slots

### Riser Card CRS101V:

- 1 x PCIe x16 (Gen5 x16) FHHL slot

### Riser Card CRS101W:

- 1 x PCIe x16 (Gen5 x16) FHHL slot

2 x OCP 3.0 slots with PCIe Gen5 x16 bandwidth  
Support NCSI function

1 x M.2 slot:

- M-key
- PCIe Gen3 x4
- Supports 2280/22110 cards

## Internal I/O

1 x TPM header

## Front I/O

1 x USB 3.2 Gen1  
1 x Power button with LED  
1 x ID button with LED  
1 x Reset button  
2 x LAN activity LEDs (1 x LED disabled)  
1 x Storage activity LED  
1 x System status LED

## Rear I/O

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

## Backplane Board

Speed and bandwidth:  
PCIe Gen4 x4 or SATA 6Gb/s or SAS 12Gb/s

## TPM

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

## Power Supply

1+1 1300W 80 PLUS Platinum redundant power supplies

AC Input:

- 100-240V~/ 12-7A, 50-60Hz
- 200-240V~/ 8A, 50-60Hz

DC Input:

- 240Vdc/ 6.5A

DC Output:

- Max 1000W/ 100-240V~
- + 12V/ 80.5A
- + 12Vsb/ 3A
- Max 1300W/ 200-240V~ or 240Vdc Input
- + 12V/ 105.4A
- + 12Vsb/ 3A

**Note:** The default power supply is based on a basic system configuration. Please contact with technical representatives to determine the best power supply selection for your system configuration requirements and preferred efficiency.

## System Management

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

Dashboard  
HTML5 KVM  
Sensor Monitor (Voltage, RPM, Temperature, CPU)  
Sensor Reading History Data  
FRU Information  
SEL Log in Linear Storage / Circular Storage Policy  
Hardware Inventory  
Fan Profile  
System Firewall  
Power Consumption  
Power Control  
Advanced power capping  
LDAP / AD / RADIUS Support  
Backup & Restore Configuration  
Remote BIOS/BMC/CPLD 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 \(x64\)](#)

## System Fans

4 x 40x40x56mm (29,700rpm)  
2 x 40x40x28mm (25,000rpm)

## 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

977 x 588 x 236 mm

## Packaging Content

1 x R163-Z32  
1 x CPU heatsink  
1 x Mini-DP to D-Sub cable  
1 x 2-Section Rail kit