

# H273-Z81 (rev. AAW1) | (rev.AAN1)

High Density Server – AMD EPYC™ 9004 DP 2U 4-Node Server 8 x Gen4 NVMe/SATA 3000W | Application: **HCI & Hybrid/Private Cloud Server**

- 2U 4-node rear access server system
- AMD EPYC™ 9004 series processor family
- Dual processor per node, 5nm technology
- 12-Channel RDIMM DDR5 per processor, 96 x DIMMs
- Dual ROM Architecture supported
- 8 x 1Gb/s LAN ports (Intel® I350-AM2)
- 4 x Dedicated management ports
- 8 x 2.5" Gen4 NVMe/SATA hot-swappable bays
- 4 x M.2 slots with PCIe Gen4 x4 interface **(optional)**
- 8 x LP PCIe Gen5 x16 slots
- 4 x OCP 3.0 Gen5 x16 mezzanine slots
- Dual 3000W (240V) 80 PLUS Titanium redundant power supply



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### Dimensions (WxHxD, mm)

2U 4-Node - Rear access  
440 x 87.5 x 877

### Motherboard

MZB3-HD0

### CPU

AMD EPYC™ 9004 series processor family  
Dual processor, 5nm technology  
Up to 96-core, 192 threads per processor  
Supports CPU 240W at ambient 35°C  
Supports CPU 300W at ambient 30°C with 1 x low-profile card  
Supports CPU 300W at ambient 25°C if using OCP 3.0

### Socket

**Per Node:**  
2 x LGA 6096

**Total:**  
8 x LGA 6096

Socket SP5

### Chipset

System on Chip

### Memory

**Per node:**  
24 x DIMM slots

**Total:**  
96 x DIMM slots  
DDR5 memory supported only  
12-Channel memory architecture  
RDIMM modules up to 128GB supported  
3DS RDIMM modules up to 256GB supported  
Memory speed: Up to 4800 MHz

### LAN

**Per node:**  
2 x 1GbE LAN ports (1 x Intel® I350-AM2)  
Support NCSI function  
1 x Dedicated management port

**Total:**  
8 x 1GbE LAN ports (4 x Intel® I350-AM2)  
Support NCSI function  
4 x Dedicated management ports

### Video

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

Management chip on CMC board:  
Integrated in Aspeed® AST2520A2-GP

### Storage

**Per node:**  
2 x 2.5" Gen4 NVMe/SATA/SAS hot-swappable bays

**Total:**  
8 x 2.5" Gen4 NVMe/SATA/SAS hot-swappable bays

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

### SAS

Supported via add-on SAS Card

### RAID

N/A

### Expansion Slots

**Per node:**

### Riser Card CRSH01Q:

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

### Riser Card CRSH01R:

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

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

\*1 x M.2 slot:  
- M-key  
- PCIe Gen4 x4, from CPU\_0  
- Supports NGFF-2280/22110 cards

**Total:**  
**Riser Card CRSH01Q x 4:**  
- 4 x PCIe x16 (Gen5 x16) low-profile slots, from CPU\_0

**Riser Card CRSH01R x 4:**  
- 4 x PCIe x16 (Gen5 x16) low-profile slots, from CPU\_0

4 x OCP 3.0 mezzanine slots with PCIe Gen5 x16 bandwidth, from CPU\_0  
Support NCSI function

\*4 x M.2 slots:  
- M-key  
- PCIe Gen4 x4, from CPU\_0  
- Support NGFF-2280/22110 cards

**\*Optional kit for M.2 extension riser card**  
**PN: 9CMTP192NR-00**

### Internal I/O

**Per node:**  
1 x TPM header

### Front I/O

**Per node:**  
1 x Power button with LED  
1 x ID button with LED  
1 x Status LED  
1 x System reset button

**Total:**  
4 x Power buttons with LED  
4 x ID buttons with LED  
4 x Status LEDs  
4 x System reset buttons  
\*1 x CMC status LED  
\*1 x CMC reset button

**\*Only one CMC status LED and reset button per system**

### Rear I/O

**Per node:**  
2 x USB 3.2 Gen1  
1 x Mini-DP  
2 x RJ45  
1 x RJ45 MLAN  
1 x Node Status LED

**Total:**  
8 x USB 3.2 Gen1  
4 x Mini-DP  
8 x RJ45  
4 x RJ45 MLAN  
4 x Node Status LEDs

**\*Spanning Tree Protocol (STP) must be enabled in LAN switch function if using ring topology**

### Backplane I/O

Backplane P/N: 9CBPH081NR-00  
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

Dual 3000W (240V) 80 PLUS Titanium redundant power supply

AC Input:  
- 100-127V~/16A, 50-60Hz

200-240V~/16A, 50-60Hz

DC Input:  
- 240Vdc/16A

DC Output:  
- Max 1200W/100-127V~  
+ 12.2V/ 98.36A  
+ 12.2Vsb/ 3A  
- Max 2600W/200-207V~  
+ 12.2V/ 213A  
+ 12.2Vsb/ 3A  
- Max 3000W/208-240V~  
+ 12.2V/ 245.9A  
+ 12.2Vsb/ 3A

**NOTE: The system power supply requires C19 power cord**

### 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

[Certification for VMware 8.0](#)  
[Certification for Citrix Hypervisor 8.2.1](#)

### System Fans

4 x 80x80x80mm (16,500rpm)

### 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

1179 x 700 x 380 mm

### Packaging Content

1 x H273-Z81  
8 x CPU heatsinks  
1 x Rail Kit

### Part Numbers

- Barebone package: 6NH273Z81DR000AAW1\*  
- Motherboard: 9MZB3HD0UR-000  
- Rail kit: 25HB2-A6612S-K0R  
- CPU heatsink: 25ST1-25320N-M1R/25ST1-25320Q-M1R  
- M.2 extension riser card: 9CMTP192NR-00 **(optional)**  
- Backplane board: 9CBPH081NR-00  
- Fan module: 25ST2-888020-S1R  
- Riser card - CRSH01Q: 9CRSH01QNR-00  
- Riser card - CRSH01R: 9CRSH01RNR-00  
- Rear IO board (incl. LAN chip): 9CLBH160NR-00  
- Mini-DP to D-Sub cable: 25CRN-200801-K1R  
- Power Supply: 25EP0-230009-L0S  
- C19 power cord 125V/15A (US): 25CP1-018000-Q0R **(optional)**  
- C19 power cord 250V/16A (EU): 25CP3-01830H-Q0R **(optional)**

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\* Advertised performance is based on maximum theoretical interface values from respective Chipset vendors or organization who defined the interface specification. Actual performance may vary by system configuration.

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\* Due to standard PC architecture, a certain amount of memory is reserved for system usage and therefore the actual memory size is less than the stated amount.

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