

# G294-Z42-AAP2

HPC/AI Server - AMD EPYC™ 9005/9004 - 2U DP 8 x PCIe Gen5 GPUs



## Key Features

- Supports up to 8 x Dual slot Gen5 GPUs
- Supports
  - 4 x NVIDIA H200 NVL PCIe GPUs with 2-way NVLink bridges or
  - 4 x NVIDIA RTX PRO™ 6000 Blackwell Server Edition GPUs
- Supports 8 x AMD Radeon™ AI PRO R9700S
- Dual AMD EPYC™ 9005/9004 Series Processors
- 12-Channel DDR5 RDIMM, 24 x DIMMs
- 2 x 10Gb/s LAN ports via Broadcom® BCM57416
- 4 x 2.5" Gen5 NVMe/SATA/SAS-4 hot-swap bays
- 4 x 2.5" SATA/SAS-4 hot-swap bays
- 8 x FHFL PCIe Gen5 x16 for GPUs
- 2 x LP PCIe Gen5 x16 slots for add-in cards
- Dual 3000W 80 PLUS Titanium redundant power supply

## Applications

AI Platform, AI Training Server, AI Inference Server, Visual Computing, High-Performance Computing Server...

## Specification

|                         |   |                              |   |
|-------------------------|---|------------------------------|---|
| <b>Dimensions</b>       | 2U (448 x 87.5 x 962 mm, depth incl. 112 mm rear fans)  | <b>PCIe Expansion Slots</b>  | 8 x FHFL PCIe Gen5 x16, for GPUs<br>2 x LP PCIe Gen5 x16, for add-in cards  |
| <b>Motherboard</b>      | MZ43-G20  |                              |   |
| <b>CPU</b>              | AMD EPYC™ 9005 Series Processors<br>AMD EPYC™ 9004 Series Processors<br>Dual processor, cTDP up to 240W<br>- At 30°C ambient, cTDP up to 300W |                              | *The system supports 4 x NVIDIA H200 NVL PCIe GPUs at 25°C ambient, arranged as two 2-GPU sets, each with a 2-way NVLink bridge.<br>*The system supports 4 x RTX PRO™ 6000 Blackwell Server Edition GPUs at 25°C ambient. |
| <b>OS Compatibility</b> | <a href="#">OS Support List</a>   | <b>I/O Ports</b>             | <b>Rear:</b><br>2 x USB 3.2 Gen1, 1 x VGA, 2 x RJ45, 1 x MLAN   |
| <b>Socket</b>           | 2 x LGA 6096 (Socket SP5)   | <b>Backplane Board</b>       | PCIe Gen5 x4 or SATA 6Gb/s or SAS-4 24Gb/s  |
| <b>Chipset</b>          | System on Chip  | <b>TPM</b>                   | 1 x TPM header (SPI), Optional TPM2.0 kit: CTM012   |
| <b>Memory</b>           | 12-Channel DDR5 RDIMM, 24 x DIMMs<br>[EPYC 9005] Up to 6400 MT/s<br>[EPYC 9004] Up to 4800 MT/s   | <b>Power Supply</b>          | Dual 3000W 80 PLUS Titanium redundant power supply<br>AC Input: 100-240V<br><br>*The system power supply requires C19 power cord.   |
| <b>LAN</b>              | 2 x 10Gb/s LAN (1 x Broadcom® BCM57416), Support NCSI<br>1 x 10/100/1000 Mbps Management LAN  | <b>System Management</b>     | ASPEED® AST2600 Baseboard Management Controller<br>GIGABYTE Management Console web interface  |
| <b>Video</b>            | Integrated in ASPEED® AST2600<br>- 1 x VGA port   | <b>System Fans</b>           | 8 x 80x80x80mm  |
| <b>Storage</b>          | <b>Front hot-swap:</b><br>4 x 2.5" Gen5 NVMe/SATA/SAS-4 [1]<br>4 x 2.5" SATA/SAS-4 [1]<br><br>[1] SAS card is required to support SAS drives. | <b>Operating Properties</b>  | Operating: 10°C to 35°C, 8% to 80% (non-condensing)<br>Non-operating: -40°C to 60°C, 20% to 95% (non-condensing)  |
| <b>RAID</b>             | Require RAID add-in cards   | <b>Packaging Content</b>     | 1 x G294-Z42-AAP2<br>2 x CPU heatsinks<br>4 x GPU power cables (16-pin, 250mm)<br>4 x GPU power cables (16-pin, 280mm)<br>1 x L-shape Rail kit  |
|                         |   | <b>Ordering Part Numbers</b> | 6NG294Z42DR000ACP2*   |



Learn more at: <https://www.gigabyte.com/Enterprise>

\* All specifications are subject to change without notice. Please visit our website for the latest information.

\* All trademarks and logos are the properties of their respective holders.

© 2026 Giga Computing Technology Co., Ltd. All rights reserved.

Last updated: Mar 18, 2026

Designed by

