

G294-S42-AAP1

HPC/AI Server - 2U DP 8 x PCIe Gen5 GPUs



Key Features

- Supports up to 8 x Dual slot Gen5 GPUs
- Dual Intel® Xeon® 6 Processors, LGA 4710
- 8-Channel DDR5 RDIMM / MRDIMM, 24 x DIMMs
- Dual ROM Architecture
- 2 x 10Gb/s LAN ports via Intel® X710-AT2
- 8 x 2.5" Gen5 NVMe/SATA/SAS-4 hot-swap bays
- 8 x FHFL PCIe Gen5 x16 slots for GPUs
- 2 x LP PCIe Gen5 x16 slots
- Dual 3000W 80 PLUS Titanium redundant power supply

Applications

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

Specification

Dimensions	2U (W448 x H87.5 x D850 mm)	PCIe Expansion Slots	8 x FHFL PCIe Gen5 x16, for GPUs 2 x LP PCIe Gen5 x16
Motherboard	MS44-G20	I/O Ports	Rear: 2 x USB 3.2 Gen1, 1 x VGA, 2 x RJ45, 1 x MLAN
CPU	Intel® Xeon® 6 Processors - Intel® Xeon® 6700-Series Processors - Intel® Xeon® 6500-Series Processors Dual processor, TDP up to 225W	Backplane Board	PCIe Gen5 x4 or SATA 6Gb/s or SAS-4 24Gb/s
OS Compatibility	OS Support List	TPM	1 x TPM header (SPI), Optional TPM2.0 kit: CTM012 1 x PRoT connector (only enabled on RoT SKU)
Socket	2 x LGA 4710 (Socket E2)	Power Supply	Dual 3000W 80 PLUS Titanium redundant power supply AC Input: 100-240V *The system power supply requires C19 power cord.
Chipset	System on Chip	System Management	ASPEED® AST2600 Baseboard Management Controller GIGABYTE Management Console web interface
Memory	8-Channel DDR5 RDIMM / MRDIMM, 24 x DIMMs ^[1] [RDIMM] Up to 6400 MT/s (1DPC), 5200 MT/s (2DPC) [MRDIMM] Up to 8000 MT/s ^[2] ^[1] Intel® Xeon® 6700E-Series Processors only support up to 16 x DIMM slots. ^[2] MRDIMMs are only supported with Intel® Xeon® 6 Processors with P-cores and in a 1DPC configuration.	System Fans	4 x 80x80x38mm (18,300rpm) 4 x 80x80x80mm (18,700rpm)
LAN	2 x 10Gb/s LAN (1 x Intel® X710-AT2), Support NCSI 1 x 10/100/1000 Mbps Management LAN	Operating Properties	Operating: 10°C~35°C, 8%~80% (non-condensing) Non-operating: -40°C~60°C, 20%~95% (non-condensing)
Video	Integrated in ASPEED® AST2600 - 1 x VGA port	Packaging Content	1 x G294-S42-AAP1 2 x CPU heatsinks 4 x GPU power cables (12VHPWR, 250mm) 4 x GPU power cables (12VHPWR, 280mm) 4 x Carriers 1 x L-shape Rail kit
Storage	Front hot-swap: 8 x 2.5" Gen5 NVMe/SATA/SAS-4 ^[1] ^[1] SAS card is required to support SAS drives.	Ordering Part Numbers	6NG294S42DR000AAP1*
RAID	Require RAID add-in cards Onboard VROC key headers	Optional Parts	- C19 power cord 125V/15A (US): 25CP1-018000-Q0R - C19 power cord 250V/16A (EU): 25CP3-01830H-Q0R - C19 power cord 125V/15A (JP): 25CPA-01830B-Q0R



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.

© 2025 Giga Computing Technology Co., Ltd. All rights reserved.

Designed by

