G294-S42-AAP1
HPC/AI Server - 2U DP 8 x PCIe Gen5 GPUs (with PCIe switches)

### Features
- Supports up to 8 Dual slot Gen5 GPUs
- Dual Intel® Xeon® 6 Processors, LGA 4710
- 8-Channel DDR5 RDIMM / MCR DIMM, 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-swappable 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

### Application
AI, AI Inference, AI Training, Visual Computing, High-Performance Computing Server

### Specification

**Dimensions**
- 2U (W448 x H87.5 x D880 mm)

**Motherboard**
- MS44-G20

**CPU**
- Intel® Xeon® 6 Processors
  - Intel® Xeon® 6700E-Series Processors
  - Intel® Xeon® 6700P-Series Processors
  - Intel® Xeon® 6500P-Series Processors
- Dual processor, TDP up to 225W

**Sock**
- 2 x LGA 4710 (Socket E2)

**Chipset**
- System on Chip

**Memory**
- 8-Channel DDR5 RDIMM / MCR DIMM, 24 x DIMM slots*
  - RDIMM: Up to 6400 MT/s (1DPC), 5200 MT/s (2DPC)
  - MCR DIMM: Up to 8000 MT/s**

**LAN**
- 2 x 10Gb/s LAN ports (1 x Intel® X710-AT2) - Supported NCSI
- 1 x 10/100/1000 Mbps Management LAN

**Video**
- ASPEED® AST2600 Integrated 2D Graphic

**Storage**
- 8 x 2.5" Gen5 NVMe/SATA/SAS-4* hot-swappable bays
  - SAS card is required to support SAS drives.

**Expansion Slots**
- 8 x PCIe x16 (Gen5 x16) FHFL slots for GPUs
- 2 x PCIe x16 (Gen5 x16) low-profile slots

**I/O Ports**
- Rear: 2 x USB 3.2 Gen1, 2 x RJ45, 1 x MLAN
- Internal: 1 x TPM header, 1 x Pr0T connector, 1 x VROC connector
- 8 x FHFL PCIe Gen5 x16 slots for GPUs
- 2 x LP PCIe Gen5 x16 slots
- Dual 3000W 80 PLUS Titanium redundant power supply

**Backplane I/O**
- PCIe Gen5 x4 or SATA 6Gb/s or SAS-4 24Gb/s

**Security Modules**
- 1 x TPM header with SPI interface
- 1 x Pr0T module connector (M.2 M-key)
- Optional Pr0T module (AST1060 solution): CSC1200

**Power Supply**
- Dual 3000W 80 PLUS Titanium redundant power supply
- AC Input: 100-240V
  - The system power supply requires C19 power cord.

**System Management**
- ASPEED® AST2600 management controller
  - GIGABYTE Management Console (AMI MegaRAC SP-X)

**System Fans**
- 2 x 80x80x38mm (18,300rpm)
- 6 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**
- 1 x G294-S42-AAP1
- 2 x CPU heatsinks
- 4 x Carriers
- 1 x L-shape Rail kit

**Part Numbers**
- Barebone package: 6NG294S42DR000AAP1*
  - L-shape Rail kit: 25HY2-A86102-KOR
  - Power supply: 25EP0-230005-G1S
  - C19 power cord 125V/15A (US): 25CP1-018000-Q0R (optional)
  - C19 power cord 250V/16A (EU): 25CP3-01830H-Q0R (optional)
  - C19 power cord 125V/15A (JP): 25CPA-01830B-Q0R (optional)

Learn more about GIGABYTE server at https://www.gigabyte.com/Enterprise

* All specifications are subject to change without notice. Please visit our website for the latest information.
* Intel, the Intel logo, Xeon, and other Intel marks are trademarks of Intel Corporation or its subsidiaries.
* All other brands, logos and names are property of their respective owners.

© 2024 Giga Computing Technology Co., Ltd. All rights reserved.