G593-SD0 (rev. AAX1)

HPC/AI Server - 4th Gen Intel® Xeon® - 5U DP HGX™ H100 8-GPU | Application: AI , AI Training , AI Inference & HPC

- NVIDIA-Certified system for scalability, manageability, security, and performance
- NVIDIA HGX™ H100 with 8 x SXM5 GPUs
- NVIDIA[®] NVLink[®] and NVSwitch[™] technology
- Up to 900GB/s GPU to GPU interconnection
- 4th Gen Intel[®] Xeon[®] Scalable Processors
- Intel[®] Xeon[®] CPU Max Series
- Dual processor, LGA 4677
- 8-Channel RDIMM DDR5 per processor, 32 x DIMMs
- Dual ROM Architecture
- Compatible with NVIDIA BlueField-2 DPUs
- 2 x 10Gb/s BASE-T LAN ports (Intel[®] X710-AT2)
- 1 x Dedicated management port
- 8 x 2.5" Gen5 NVMe/SATA/SAS hot-swappable bays
- 12 x LP PCle Gen5 x16 slots
- 1 x LP PCle Gen4 x16 slot
- 4+2 3000W (240V) 80 PLUS Titanium redundant power supplies













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OVERVIEW

SPECIFICATIONS

SUPPORT

RESOURCES

BUY

Dimensions (WxHxD, mm)

5U

447 x 222.25 x 945

Motherboard

MSB3-G40

CPU

4th Generation Intel® Xeon® Scalable Processors Intel® Xeon® CPU Max Series Dual processor, CPU TDP up to 350W

NOTE: If only 1 CPU is installed, some PCIe or memory functions might be unavailable

Socket

2 x LGA 4677 Socket E

Chipset

Intel C741 Chipset

Memory

32 x DIMM slots DDR5 memory supported only 8-Channel memory per processor architecture RDIMM modules up to 96GB supported 3DS RDIMM modules up to 256GB supported Memory speed: Up to 4800 MHz (1DPC), 4400 MHz (2DPC)

LAN

Front side:

2 x 10Gb/s BASE-T LAN ports (Intel® X710-AT2) NCSI function supported

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:

8 x 2.5" Gen5 NVMe/SATA/SAS hot-swappable bays, from PEX89104

SAS card is required for SAS devices support

SAS

Depends on SAS add-on card

RAID

Intel® SATA RAID 0/1/10/5

Expansion Slots

NVIDIA HGX™ H100 with 8 x SXM5 GPUs

8 x PCIe x16 (Gen5 x16) low-profile slots, from PEX89104

2 x PCle x16 (Gen5 x16) low-profile slots, from CPU 0

2 x PCIe x16 (Gen5 x16) low-profile slots, from CPU_1

1 x PCle x16 (Gen4 x16) low-profile slot, from CPU_0

Internal I/O

1 x TPM header

1 x VROC connector

1 x Front panel header

Front I/O

2 x USB 3.2 Gen1

1 x VGA

2 x RJ45

1 x MLAN (default port)

1 x Power button with LED

1 x ID button with LED

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1 x System status LED

1 x HDD access LED

Rear I/O

1 x MLAN

Backplane I/O

Speed and bandwidth:

PCIe Gen5 x4 or SATA 6Gb/s or SAS 12Gb/s

TPM

1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010

Power Supply

4+2 3000W (240V) 80 PLUS Titanium redundant power supplies

AC Input:

- 115-127V~/ 14.2A, 50-60Hz

- 200-220V~/ 15.8A, 50-60Hz

- 220-240V~/ 14.9A, 50-60Hz

DC Input:

- 240Vdc/ 14A

DC Output:

Max 1450W at 115-127V~

+54V/ 26.6A

+12Vsb/3A

Max 2900W at 200-220V~

+54V/53.4A

+12Vsb/3A

Max 3000W at 220-240V~ or 240Vdc

+54V/55.6A

+12Vsb/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.)

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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

System Fans

Front: 5 x 80x80x80mm (17,200rpm), 6 x 60x60x76mm (21,700rpm) Rear: 6 x 80x80x80mm (17,000rpm), 3 x 40x40x56mm (29,700rpm) Internal: 6 x 40x40x28mm (25,000rpm), 4 x 60x60x56mm (24,000rpm)

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

N/A

Packaging Content

1 x G593-SD0

2 x CPU heatsinks

6 x Carrier clips

1 x L-shape Rail kit