

G292-Z40

HPC System - 2U DP 8 x Gen4 GPU Server



Features

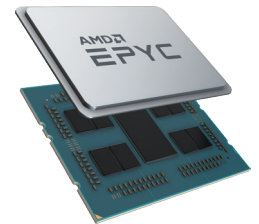
Able to support up to 8 double slot GPGPU or co-processor cards, the G292 Series enables world-leading HPC within a 2U chassis.

- Supports up to 8 x double slot GPU cards
- Dual AMD EPYC™ 7002 series processor family
- 8-Channel RDIMM/LRDIMM DDR4, total 16 x DIMMs
- 2 x 10Gb/s BASE-T LAN ports (Intel® X550-AT2)
- 1 x Dedicated management port
- 4 x NVMe, 4 x SATA/SAS 2.5" hot-swap HDD/SSD bays
- 8 x PCIe Gen4 expansion slots for GPUs
- 2 x PCIe Gen4 x16 low-profile slots for add-on cards
- Aspeed® AST2500 remote management controller
- 2+0 2200W 80 PLUS Platinum power supply

AMD EPYC™ 7002 Series Processor (Rome)

The next generation of AMD EPYC has arrived, providing incredible compute, IO and bandwidth capability – designed to meet the huge demand for more compute in big data analytics, HPC and cloud computing.

- ✓ Built on **7nm** advanced process technology, allowing for denser compute capabilities with lower power consumption
- ✓ Up to **64 core** per CPU, built using Zen 2 high performance cores and AMD's innovative chiplet architecture
- ✓ Supporting **PCIe Gen 4.0** with a bandwidth of up to 64GB/s, twice of PCIe Gen 3.0
- ✓ **Embedded security protection** to help defend your CPU, applications, and data



AMD Radeon Instinct™ MI50 Support

This GIGABYTE server features support for AMD's Radeon Instinct™ MI50 compute card, designed to deliver high levels of performance for deep learning, high performance computing (HPC), cloud computing, and rendering systems.



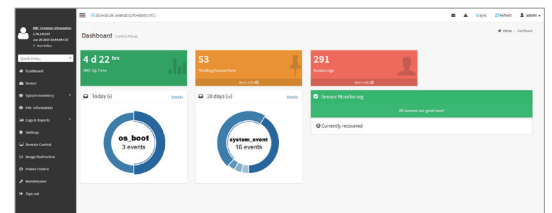
NVIDIA® Tesla® V100 Support

GIGABYTE's AMD EPYC server systems and motherboards are fully compatible and qualified to use with NVIDIA's Tesla® V100 GPU, an advanced data center GPU built to accelerate AI, HPC, and graphics. Powered by NVIDIA's Volta™ architecture and with 640 Tensor Cores, the Tesla® V100 has broken the 100 teraflops (TFLOPS) barrier of deep learning performance — enabling data scientists, researchers, and engineers to tackle challenges that were once impossible.

GIGABYTE Management Console (AMI MegaRAC SP-X)

This GIGABYTE server product utilizes a AMI MegaRAC SP-X platform for BMC server management, with a feature rich and easy to use browser-based graphical user interface. Notable features include:

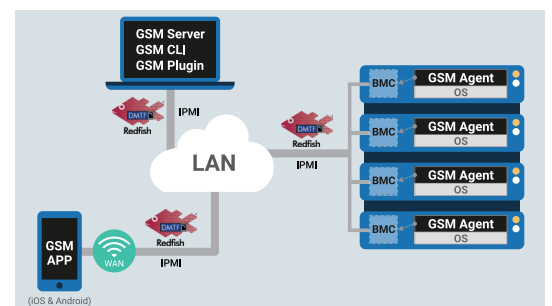
- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed FRU information** from SMBIOS
- **Pre-event automatic video recording** feature from 10 to 30 seconds
- **SAS / RAID controller monitoring** feature



GIGABYTE Server Management (GSM)

GIGABYTE Server Management (GSM) is GIGABYTE's proprietary multiple server remote management software platform, available as a free download from each GIGABYTE server product page. GSM is compatible with either IPMI or Redfish (RESTful API) connection interfaces, and comprises the following sub-programs:

- **GSM Server** • **GSM CLI** • **GSM Agent** • **GSM Mobile** • **GSM Plugin**



Specification

Dimensions (WxHxD)	2U 448 x 87.5 x 800 mm	Power Supply	2+0 2200W 80 PLUS Platinum power supply AC Input: - 100-127V~/ 14A, 47-63Hz - 200-240V~/ 12.6A, 47-63Hz DC Output: - Max 1200W/ 100-127V~ +12.12V/ 95.6A +12Vsb/ 3.5A - Max 2200W/ 200-240V +12.12V/ 178.1A +12Vsb/ 3.5A NOTE: The system power supply requires C19 type power cord
Motherboard	MZ42-G20	System Management	Aspeed® AST2500 management controller GIGABYTE Management Console (AMI MegaRAC SP-X) Dashboard JAVA Based Serial Over LAN 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/CPLD Update Event Log Filter User Management Media Redirection Settings PAM Order Settings SSL Settings SMTP Settings
CPU	AMD EPYC™ 7002 series processor family Dual processors, 7nm Up to 64-core, 128 threads per processor cTDP up to 240W NOTE: If only 1 CPU is installed, some PCIe or memory functions might be unavailable	OS Compatibility	Windows Server 2016 (X2APIC/256T not supported) Windows Server 2019 Red Hat Enterprise Linux 7.6 (x64) or later Red Hat Enterprise Linux 8.0 (x64) or later SUSE Linux Enterprise Server 12 SP4 (x64) or later SUSE Linux Enterprise Server 15 SP1 (x64) or later Ubuntu 16.04.6 LTS (x64) or later Ubuntu 18.04.3 LTS (x64) or later VMware ESXi 6.5 EP15 or later VMware ESXi 6.7 Update3 or later Citrix Hypervisor 8.1.0
Socket	Socket SP3	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)
Chipset	System on Chip	Packaging Content	1 x G292-Z40 2 x CPU heatsinks 1 x Rail kit
Memory	16 x DIMM slots DDR4 memory supported only 8-Channel memory architecture RDIMM modules up to 64GB supported LRDIMM modules up to 128GB supported Memory speed: Up to 3200 MHz	Part Numbers	Barebone with rail kit: 6NG292Z40MR-00 - Motherboard: 9MZ42G20NR-00 - Tool-less rail kit: 25HB2-A86102-K0R - CPU heatsink: 25ST1-44320N-A3R/ 25ST1-44320P-A3R - Back plane board: 9CBPG083NR-00 - Fan module: 25ST2-883827-D0R - Power supply: 25EP0-222001-D0S - C19 type power cord 125V/15A (US): 25CP1-018000-Q0R (optional) - C19 type power cord 250V/16A (EU): 25CP3-01830H-Q0R (optional) - C19 type power cord 250V/15A (US): 25CP1-018300-Q0R (optional)
LAN	2 x 10Gb/s BASE-T LAN ports (Intel® X550-AT2 controller) 1 x 10/100/1000 management LAN		
Video	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM		
Storage	8 x 2.5" hot-swappable HDD/SSD bays - 4 x amber HDD trays compatible with NVMe or SATA/SAS devices - 4 x blue HDD trays compatible with SATA/SAS devices only SAS card is required for SAS devices support Recommended 12Gb/s SAS cards: CRA4448, CRA4548		
SATA	Supported		
SAS	Supported via add-on SAS Card		
RAID	Depends on RAID HBA		
Expansion Slots	8 x PCIe x16 slots (Gen4 x16 bus) for GPUs 2 x PCIe x16 (Gen4 x16 bus) Half-length low-profile slots - Maximum limitation of GPU card: 285mm (L) x 111.5mm (W) x 39.5mm (H) - System is validated for population with a uniform GPU model - Support is not provided for mixed GPU populations - For the latest GPU cards QVL, please contact your GIGABYTE representative		
Internal I/O	1 x TPM header, 1 x Serial header, 1 x Buzzer		
Front I/O	1 x Power button with LED, 1 x ID button with LED, 2 x LAN activity LEDs, 1 x HDD activity LED, 1 x System status LED, 1 x Reset button		
Rear I/O	2 x USB 3.0, 1 x VGA, 2 x RJ45, 1 x MLAN, 1 x Power button with LED, 1 x ID button with LED, 1 x Reset button, 1 x NMI button, 1 x System status LED		
Backplane I/O	8 x SAS/SATA or 4 x NVMe ports and 4 x SAS/SATA Backplane P/N: 9CBPG083NR-00 Bandwidth: SATA 6Gb/s, SAS 12Gb/s and PCIe x4		
TPM	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010		
Weight	Net Weight: 30 kg Gross Weight: 36 kg		
System Fans	8 x 80x80x38mm (16,300rpm)		

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

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