

## G242-Z10

HPC System - 2U UP 4 x GPU Server



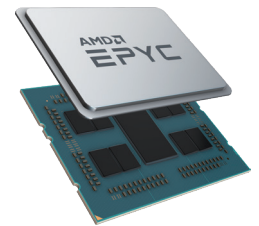
### Features

- Up to 4 x NVIDIA Tesla® PCIe GPU cards
- Single AMD EPYC™ 7002 series processor family
- 8-Channel RDIMM/LRDIMM DDR4, 8 x DIMMs
- 2 x 1Gb/s LAN ports (Intel® I350-AM2)
- 1 x dedicated management port
- 4 x SATA 3.5" hot-swap HDD/SSD bays in front side
- 2 x NVMe/SATA 2.5" hot-swap SSD bays in rear side
- 2 x FHHL PCIe Gen3 expansion slots
- 1 x OCP 2.0 Gen3 x16 mezzanine slot
- Aspeed® AST2500 remote management controller
- 2 x 80 PLUS Platinum 1600W redundant PSU

### 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.

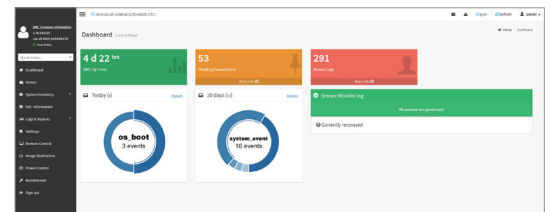
### NVIDIA® Tesla® V100 Support

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:

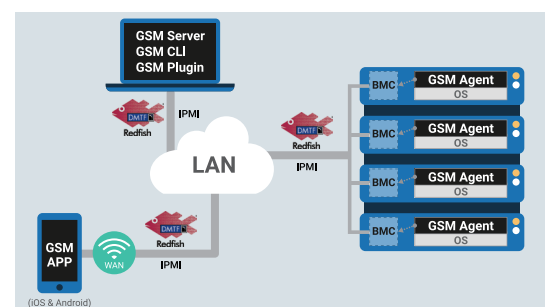
- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed 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

<b>Dimensions (WxHxD)</b>	2U 438 x 87.5 x 820 mm	<b>Power Supply</b>	2 x 80 PLUS Platinum 1600W redundant PSUs  AC Input: - 100-127V~/ 12A, 47-63Hz - 200-240V~/ 9.48A, 47-63Hz  DC Output: - Max 1000W/ 100-127V +12V/ 82A +12Vsb/ 2.1A - Max 1600W/ 200-240V +12V/ 132A +12Vsb/ 2.1A
<b>Motherboard</b>	MZ12-HD1	<b>System Management</b>	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
<b>CPU</b>	AMD EPYC™ 7002 series processor family Single processor, 7nm technology Up to 64-core, 128 threads per processor TDP up to 225W, cTDP up to 240W Fully support 280W  Compatible with AMD EPYC™ 7001 series processor	<b>OS Compatibility</b>	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
<b>Socket</b>	Socet SP3	<b>Weight</b>	Net Weight: 18.2 kg Gross Weight: 28.5 kg
<b>Chipset</b>	System on Chip	<b>System Fans</b>	5 x 80x80x38mm (16,300rpm)
<b>Memory</b>	8 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	<b>Operating Properties</b>	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)
<b>LAN</b>	2 x 1GbE LAN ports (1 x Intel® I350-AM2) 1 x 10/100/1000 management LAN	<b>Packaging Content</b>	1 x G242-Z10 1 x CPU heatsink 1 x Rail kit
<b>Video</b>	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM	<b>Part Numbers</b>	Barebone with rail kit: 6NG242Z10MR-00 - Motherboard: 9MZ12HD1NR-00 - Rail kit: 25HB2-3A0202-K0R - CPU heatsink: 25ST1-15320E-J1R - Back plane board_4-port: 9CBPG041NR-00 - Back plane board_2-port: 9CBP2021NR-00 - Front panel board: 9CFP1000NR-00 - Power supply: 25EP0-216007-L0S
<b>Storage</b>	Front side: 4 x 3.5" SATA hot-swap HDD/SSD bays 2.5" HDD/SSD supported SATA devices supported only  Rear side: 2 x 2.5" NVMe/SAS/SATA hybrid hot-swap HDD/SSD bays SAS card is required for SAS devices support	<b>Internal I/O</b>	1 x TPM header, 1 x Front panel header
<b>SATA</b>	Supported	<b>Front I/O</b>	1 x USB 3.0, 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, 1 x HDD activity LED, 2 x LAN activity LEDs
<b>SAS</b>	Depend on SAS Card	<b>Rear I/O</b>	2 x USB 3.0, 1 x VGA, 2 x RJ45, 1 x MLAN, 1 x ID LED
<b>RAID</b>	-	<b>Backplane I/O</b>	Front side_CBP041: 4 x SATA/SAS ports Rear side_CBP2021: 2 x NVMe/SATA/SAS ports Speed and bandwidth: SATA 6Gb/s, SAS 12Gb/s or PCIe x4
<b>Expansion Slots</b>	4 x PCIe x16 slots (Gen3 x16 bus) for GPUs  Riser Card CRSG027: - 1 x PCIe x16 slot (Gen3 x16 or x8), FHHL - 1 x PCIe x8 slots (Gen3 x0 or x8), FHHL  1 x OCP 2.0 mezzanine slot with PCIe Gen3 x16 bandwidth (Type1, P1, P2, P3, P4)  1 x onboard M.2 slot: - M-key, PCIe Gen3 x4 - Supports NGFF-2242/2260/2280/22110 cards - CPU TDP is limited to 180W if using M.2 device  - System is validated for population with a uniform GPU model - Support is not provided for mixed GPU populations	<b>TPM</b>	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010

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

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