G242-Z11
HPC System - 2U UP 4 x GPU Gen4 Server

Features

- Up to 4 x NVIDIA Tesla® PCIe Gen4 GPU cards
- Single AMD EPYC™ 7002 series processor family
- 8-Channel RDIMM/LRDIMM DDR4, 8 x DIMMs
- 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 Gen4 expansion slots
- 1 x OCP 3.0 Gen4 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

#### Power Supply
- 2 x 80 PLUS Platinum 1600W redundant PSUs
  - AC Input:
    - 100-120V~/ 12A, 50-60Hz
    - 200-240V~/ 10A, 50-60Hz
  - DC Output:
    - Max 1600W/ 200-240V or 240Vdc Input
    - +12V/ 133A
    - +12Vsb/ 2.5A

#### 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
  - 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

#### 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
- Ubuntu 20.04 LTS (x64) or later
- VMware ESXi 6.5 EP15 or later
- VMware ESXi 6.7 Updated or later
- VMware ESXi 7.0 or later
- Citrix Hypervisor 8.1.0 or later

#### System Fans
- 5 x 80x80x38mm (16,300rpm)

#### 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 Content
- 1 x G242-Z11, 1 x CPU heatsink, 1 x Rail kit

#### Part Numbers
- Barebone with rail kit: 5NG242Z11MR-00
  - Motherboard: 9MZ12HD3NR-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
  - Riser Card: 9CRSG02CNR-00
  - Front panel board: 9CFP1000NR-00
  - Power supply: 25EP0-216007-L0S

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