GIGABYTE™

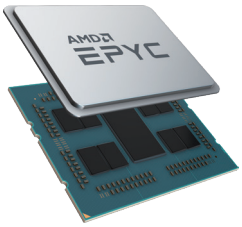
H242-Z10

Edge Server - AMD UP 2U 4 Nodes

Features

- Supports 5G network infrastructure
- 2U - 4 nodes rear access server system for Edge Computing
- Single AMD EPYC™ 7002 series processor family
- 4 x LGA 4094 sockets
- 8-Channel RDIMM/LRDIMM DDR4, 32 x DIMMs
- 8 x 1Gb/s LAN ports (Intel® I350-AM2)
- 4 x 2.5" NVMe hot-swappable SSD bays
- 8 x M.2 with PCIe Gen3 x4 interface
- 8 x Low profile PCIe x16 expansion slots
- 4 x OCP 2.0 Gen3 x16 mezzanine slots
- Aspeed® AST2500 remote management controller
- 2+0 1200W 80 PLUS Platinum power supply

AMD EPYC™ 7002 Series Processor (Rome)



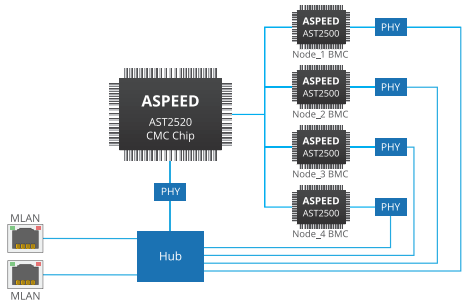
The next generation of AMD EPYC has arrived, providing incredible compute, IO and bandwidth capability – designed to meet the huge demand for more compute in big data analytics, HPC and cloud computing.

- 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

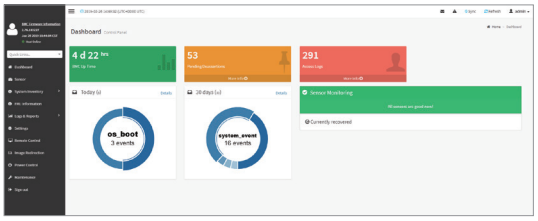
Optional CMC / Ring Topology Module

GIGABYTE's H242-Series servers include support for an optional CMC / Ring Topology Module, featuring an Aspeed CMC (Central Management Controller), LAN hub and dual MLAN ports for multi-node management (including iKVM support) by connecting internally to Aspeed BMCs integrated on each node. This results only in one MLAN connection required to perform management of all four nodes, resulting in less ToR (Top of Rack) cabling and switch connections.

In addition, the LAN hub and dual MLAN ports support the ability to create a "ring" connection for management of all servers in the rack - only two ToR (Top of Rack) switch connections are needed to create the ring system, and the ring will not be broken even if one server in the chain is shut down, reducing cabling and switch port usage for greater cost savings and management efficiency.



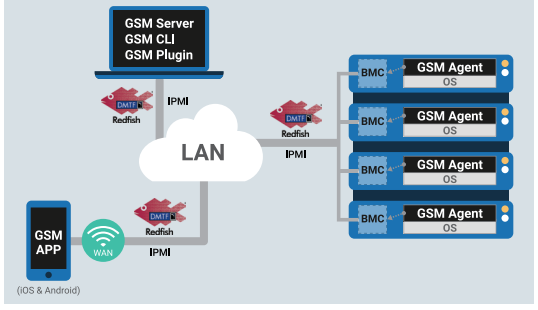
GIGABYTE Management Console (AMI MegaRAC SP-X)



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 4 Nodes - Rear access 440 x 87.5 x 475 mm
Motherboard	MZ12-HD0
CPU	AMD EPYC™ 7002 series processor family Single processors, 7nm technology Up to 64-core, 128 threads per processor TDP up to 225W, cTDP up to 240W Conditional support 280W Compatible with AMD EPYC™ 7001 series processor family
Socket	Per node: 1 x LGA 4094 Total: 4 x LGA 4094 Socket SP3
Chipset	System on Chip
Memory	Per node: 8 x DIMM slots Total: 32 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
LAN	Per node: 2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Dedicated management port Total: 8 x 1GbE LAN ports (Intel® I350-AM2) 4 x Dedicated management ports
Video	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM
Storage	Per node: 1 x 2.5" NVMe hot-swappable SSD bay Total: 4 x 2.5" NVMe hot-swappable SSD bays All storage bays are compatible with SATA devices
Expansion Slots	Per node: 1 x Half-length low-profile slot with PCIe x16 (Gen4 x16) 1 x Half-length low-profile slot with PCIe x16 (Gen3 x16) 1 x OCP mezzanine slot with PCIe Gen3 x16 bandwidth 2 x M.2 slots Total: 4 x Half-length low-profile slot with PCIe x16 (Gen4 x16) 4 x Half-length low-profile slot with PCIe x16 (Gen3 x16) 4 x OCP 2.0 mezzanine slots with PCIe Gen3 x16 bandwidth 8 x M.2 slots - M-key, PCIe Gen3 x4 - Supports NGFF-2242/2260/2280/22110 cards - CPU TDP is limited to 155W if using M.2 device
Internal I/O	Per node: 2 x M.2 slots, 1 x USB 3.0 header, 1 x TPM header, 1 x OCP 2.0 mezzanine slots, 1 x Front panel header, 1 x Back plane board header, 1 x IPMB connector, 1 x Clear CMOS jumper, 1 x BIOS recovery jumper
Front I/O	Per node: 1 x Power button with LED, 1 x ID button with LED, 1 x Status LED, 1 x Reset button Total: 4 x Power button with LED, 4 x ID button with LED, 4 x Status LED, 4 x Reset button
Rear I/O	Per node: 2 x USB 3.0, 1 x VGA, 2 x RJ45, 1 x MLAN, 1 x ID LED Total: 8 x USB 3.0, 4 x VGA, 8 x RJ45, 4 x MLAN, 4 x ID LEDs
Backplane I/O	4 x ports Speed and bandwidth: SATA 6Gb/s or SAS 12Gb/s or PCIe Gen3 x4 per port
TPM	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010
Power Supply	2+0 1200W 80 PLUS Platinum power supply AC Input: - 100-240V~/ 12-7A, 50-60Hz DC Input: - 240Vdc/ 6A DC Output: - Max 1000W/ 100-240V~ +12V/ 80.5A +12Vsb/ 3A - Max 1200W/ 200-240V~ or 240Vdc input +12V/ 97A +12Vsb/ 3A
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
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
Weight	Net Weight: 17.2 kg / Gross Weight: 28.9 kg
System Fans	3 x 80x80x38mm (16,300rpm), 1 x 40x40x28mm (25,000rpm)
Operating	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) Ambient temperature limited to 30°C if using 280W CPU
Packaging Dimensions	857 x 670 x 280 mm
Packaging Content	1 x H242-Z10, 4 x CPU heatsinks,1 x Rail Kit
Part Numbers	Barebone package: 6NH242Z10MR-00 - Motherboard: 9MZ12HD0NR-00 - Back plane board: 9CBPH043NR-00 - Rail kit: 25HB2-AA6107-K0R - CPU heatsink: 25ST1-44320J-A0R - Back plane board: 9CBPH043NR-00 - Fan module: 25ST2-44282D-D0R/ 25ST2-88382E-D0R - Power Supply: 25EP0-212007-F3S

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