GIGABYTE™

R282-Z92

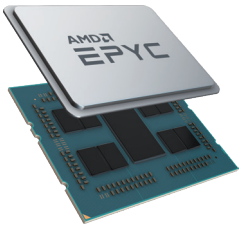
Rack Server - 2U DP 24-Bay NVMe

Features

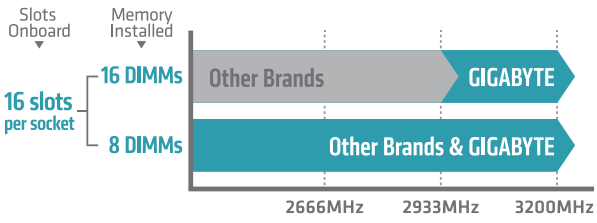
- Dual AMD EPYC™ 7002 series processor family
- 8-Channel RDIMM/LRDIMM DDR4, 32 x DIMMs
- 2 x 1Gb/s LAN ports (Intel® I350-AM2)
- 1 x Dedicated management port
- 24 x 2.5" NVMe hot-swappable SSD bays
- 2 x 2.5" SATA/SAS hot-swappable HDD/SSD bays in rear side
- Ultra-Fast M.2 with PCIe Gen3 x4 interface
- 2 x PCIe Gen4 expansion slots
- Aspeed® AST2500 remote management controller
- 1+1 1600W 80 PLUS Platinum redundant 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



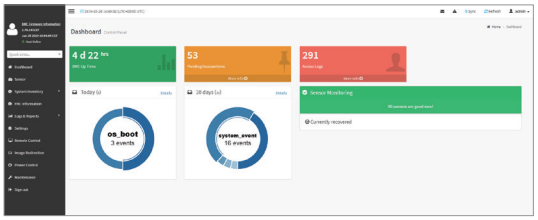
Get the Memory Performance Edge

3200Mhz Even at 2 DIMMS Per Channel

On previous AMD server platforms, memory speed has been automatically downgraded by design when a user installed two DIMMs per channel. GIGABYTE has now developed a unique solution to overcome this performance downgrade headache: with our new 2nd Generation AMD EPYC 7002 Series server platforms, maximum memory speed (3200Mhz) is now supported even when using 2 DIMMS per channel*. GIGABYTE's server platforms give you the performance edge, with more memory capacity at faster speeds than competing solutions!

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:

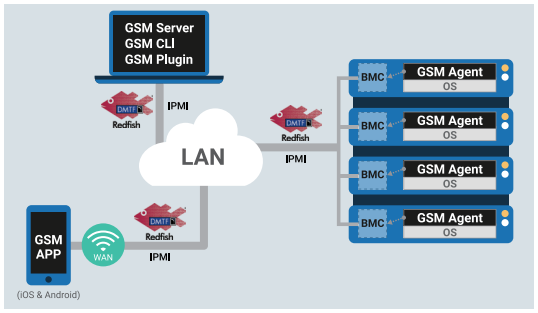


- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed 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 438 x 87 x 730 mm
Motherboard	MZ92-FS0
CPU	AMD EPYC™ 7002 series processor family Dual processors, 7nm Up to 64-core, 128 threads per processor TDP up to 225W, cTDP up to 240W Conditional support 280W NOTE: If only 1 CPU is installed, some PCIe or memory functions might be unavailable Compatible with AMD EPYC™ 7001 series processor
Socket	Socet SP3
Chipset	System on Chip
Memory	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*/ 2933 MHz * Follow BIOS setting and memory QVL list if running 3200 Mhz with 2DPC
LAN	2 x 1GbE LAN ports (1 x Intel® I350-AM2) 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	Front side: 24 x 2.5" NVMe hot-swappable HDD/SSD bays Rear side: 2 x 2.5" SATA/SAS hot-swappable HDD/SSD bays
Expansion Slots	Riser Card CRS2014: - 1 x PCIe x16 slot (Gen4 x16), Occupied by CNV3024, 4 x NVMe HBA Riser Card CRS2033: - 1 x PCIe x16 slot (Gen4 x16), FHHL, Occupied by CNV3024, 4 x NVMe HBA - 1 x PCIe x8 slot (Gen4 x8), FHHL, Occupied by CNV3022, 2 x NVMe HBA - 1 x PCIe x8 slot (Gen4 x8), FHHL Riser Card CRS2033: - 1 x PCIe x16 slot (Gen4 x16), FHHL, Occupied by CNV3024, 4 x NVMe HBA - 1 x PCIe x8 slot (Gen4 x8), FHHL, Occupied by CNV3022, 2 x NVMe HBA - 1 x PCIe x8 slot (Gen4 x8), FHHL 1 x OCP 3.0 mezzanine slot with PCIe Gen4 x16 bandwidth - Supported NCSI function, Occupied by CNVO134, 4 x NVMe HBA 1 x OCP 2.0 mezzanine slot with PCIe Gen3 x8 bandwidth - Supported NCSI function, Occupied by CNVO022, 2 x NVMe HBA 1 x M.2 slot: - M-key, PCIe Gen3 x4 - Supports NGFF-2242/2260/2280/22110 cards - CPU TDP is limited to 225W if using M.2 device
Internal I/O	1 x M.2 slot, 1 x USB 3.0 header, 1 x COM header, 1 x TPM header, 1 x Front panel header, 1 x HDD back plane board header, 1 x PMBus connector, 1 x IPMB connector, 1 x Clear CMOS jumper, 1 x BIOS recovery jumper
Front I/O	2 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, 2 x RJ45, 1 x MLAN (Primary port)
Rear I/O	2 x USB 3.0, 1 x VGA, 2 x RJ45, 1 x MLAN, 1 x ID button with LED
Backplane I/O	Front side_CBP20O5: 24 x NVMe ports Rear side_CBP2020: 2 x SATA/SAS ports
TPM	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010
Power Supply	1+1 1600W 80 PLUS Platinum 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
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: 18.5 kg / Gross Weight: 25.5 kg
System Fans	4 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) Ambient temperature limited to 30°C if using 280W CPU
Packaging Dimensions	982 x 588 x 268 (mm)
Packaging Content	1 x R282-Z92 system, 2 x CPU heatsinks, 1 x Rail kit
Part Numbers	Barebone package: 6NR282Z92MR-00 Spare parts: - Motherboard: 9MZ92FS0NR-00 - Rail kit: 25HB2-3A0202-K0R - CPU heatsink: 25ST1-15320E-J1R - Back plane board_24-port: 9CBP20O5NR-00 - Back plane board_2-port: 9CBP2020NR-00 - Front panel board: 9CFP2001NR-00 - Fan module: 25ST2-883829-D0R - Power supply: 25EP0-216008-L0S

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