

R282-Z90

Rack Server - 2U DP 12-Bay



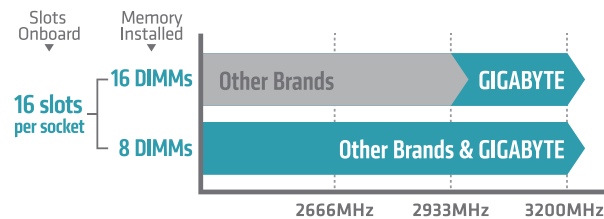
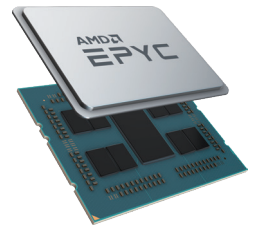
Features

- 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
- 12 x 3.5" SATA/SAS hot-swap HDD/SSD bays in front side
- 2 x 2.5" SATA/SAS hot-swap HDD/SSD bays in rear side
- Ultra-Fast M.2 with PCIe Gen3 x4 interface
- 8 x PCIe Gen4 x16 and x8 expansion slots
- 1 x OCP 3.0 Gen4 x16 mezzanine slot
- 1 x OCP 2.0 Gen3 x8 mezzanine slot
- Aspeed® AST2500 remote management controller
- 1+1 1200W 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

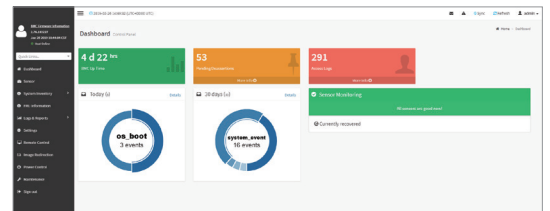
3200Mhz Even at 2 DIMMS Per Channel

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:

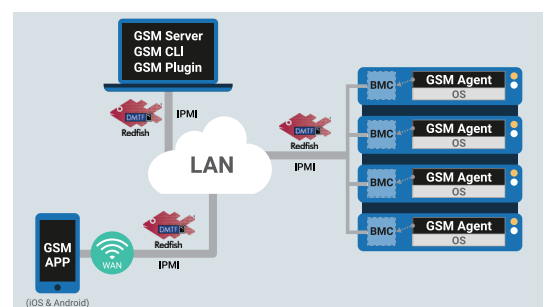
- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed 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	Power Supply	1+1 1200W 80 PLUS Platinum redundant PSUs 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 NOTE: Select 1600W power supply if using 280W CPU with full loading configuration
Motherboard	MZ92-FS0	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 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	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	Socet SP3	Weight	Net Weight: 18.5 kg / Gross Weight: 25.5 kg
Chipset	System on Chip	System Fans	4 x 80x80x38mm (16,300rpm)
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	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)
LAN	2 x 1GbE LAN ports (1 x Intel® I350-AM2) 1 x 10/100/1000 management LAN	Packaging Dimensions	982 x 588 x 268 (mm)
Video	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM	Packaging Content	1 x R282-Z90 system, 2 x CPU heatsinks, 1 x Rail kit
Storage	Front side: 12 x 3.5" SATA/SAS hot-swap HDD/SSD bays from onboard SATA ports (2.5" HDD/SSD supported) Rear side: 2 x 2.5" SATA/SAS hot-swap HDD/SSD bays from onboard SATA ports Front side default configuration supports:12 x SATA drives or 4 x SATA drives + 8 x SAS drives via SAS HBA SAS card is required for SAS devices support	Part Numbers	Barebone package: 6NR282Z90MR-00 - Motherboard: 9MZ92FS0NR-00 - Rail kit: 25HB2-3A0202-K0R - CPU heatsink: 25ST1-15320E-J1R - Back plane board_12-port: 9CBP20C4NR-00 - Back plane board_2-port: 9CBP2020NR-00 - Front panel board: 9CFP2001NR-00 - Fan module: 25ST2-883829-D0R - 4 x NVMe optional kit: 6NR282Z9BSR-00-100 - Power supply: 25EP0-212007-F3S
Expansion Slots	Riser Card CRS2027: - 2 x PCIe x8 slot (Gen4 x8), LPHL Riser Card CRS2033: - 1 x PCIe x16 slot (Gen4 x16), FHHL - 2 x PCIe x8 slot (Gen4 x8), FHHL Riser Card CRS2033: - 1 x PCIe x16 slot (Gen4 x16), FHHL - 2 x PCIe x8 slot (Gen4 x8), FHHL 1 x OCP 3.0 mezzanine slot with PCIe Gen4 x16 bandwidth 1 x OCP 2.0 mezzanine slot with PCIe Gen3 x8 bandwidth 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_CBP20C4: 12 x SATA/SAS ports Rear side_CBP2020: 2 x SATA/SAS ports Speed and bandwidth: SATA 6Gb/s or SAS 12Gb/s per port		
TPM	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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