

## R282-Z91

Rack Server - 2U DP 26-Bay



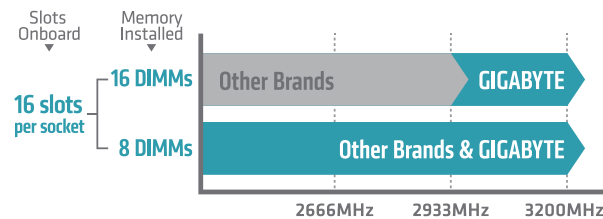
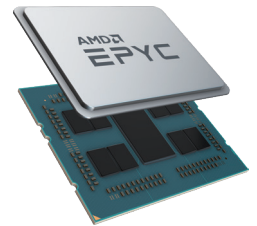
### Features

- 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
- 24 x 2.5" 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 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

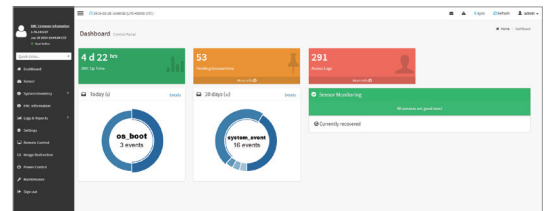
#### 3200Mhz Even at 2 DIMMS Per Channel

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:

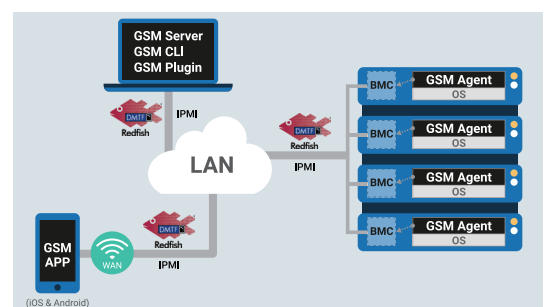
- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed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

<b>Dimensions (WxHxD)</b>	2U 438 x 87 x 730 mm	<b>Power Supply</b>	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
<b>Motherboard</b>	MZ92-FS0	<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 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	<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: 18.5 kg Gross Weight: 25.5 kg
<b>Chipset</b>	System on Chip	<b>System Fans</b>	4 x 80x80x38mm (16,300rpm)
<b>Memory</b>	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	<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 Dimensions</b>	982 x 588 x 268 (mm)
<b>Video</b>	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM	<b>Packaging Content</b>	1 x R282-Z91 system 2 x CPU heatsinks 1 x Rail kit
<b>Storage</b>	Front side: 24 x 2.5" SATA/SAS hot-swappable HDD/SSD bays Rear side: 2 x 2.5" SATA/SAS hot-swappable HDD/SSD bays, connected to SAS expander  Broadcom SAS35x36R expander Default configuration supports: 0 x SAS/SATA drives SAS card is required to enable the SAS drives Suggested 12Gb/s SAS cards: CRA4448, CRA3338	<b>Part Numbers</b>	Barebone package: 6NR282Z91MR-00 - Motherboard: 9MZ92FS0NR-00 - Rail kit: 25HB2-3A0202-K0R - CPU heatsink: 25ST1-15320E-J1R - Back plane board_24-port: 9CBP2005NR-00 - Back plane board_2-port: 9CBP2020NR-00 - Expander board: 9CEP2600NR-00 - Front panel board: 9CFP2001NR-00 - Fan module: 25ST2-883829-D0R - 4 x NVMe optional kit: 6NR282Z9CSR-00-100 - Power supply: 25EP0-216008-L0S
<b>Expansion Slots</b>	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		
<b>Internal I/O</b>	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		
<b>Front I/O</b>	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)		
<b>Rear I/O</b>	2 x USB 3.0, 1 x VGA, 2 x RJ45, 1 x MLAN, 1 x ID button with LED		
<b>Backplane I/O</b>	Front side_CBP2005: 24 x SATA/SAS ports Rear side_CBP2020: 2 x SATA/SAS ports Speed and bandwidth: SATA 6Gb/s or SAS 12Gb/s per port		
<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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