

## G482-Z51

HPC System - 4U DP 8 x Gen4 GPU Server



### Features

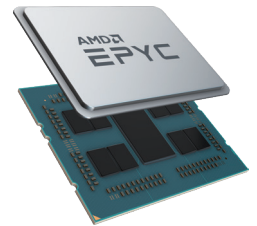
The G482-Z51 is one of the world's first PCIe Gen4 GPU server systems to be released to the market, featuring support for up to eight dual-width PCIe Gen4 GPU cards.

- Up to 8 x PCIe Gen4 GPGPU cards
- Dual AMD EPYC™ 7002 series processor family
- 8-Channel RDIMM/LRDIMM DDR4, 32 x DIMMs
- 2 x 10Gb/s BASE-T LAN ports (Intel® X550-AT2)
- 2 x 1Gb/s BASE-T LAN ports (Intel® I350-AM2)
- 1 x dedicated management port
- 10 x SATA 2.5" hot-swappable HDD/SSD bays
- Aspeed® AST2500 remote management controller
- 3 x 80 PLUS Platinum 2200W 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.



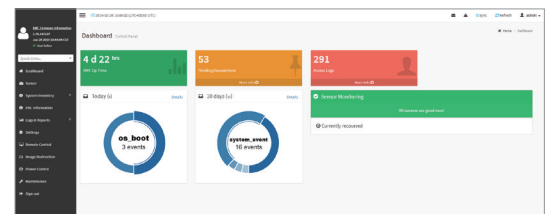
### NVIDIA® Tesla® V100 Support

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:

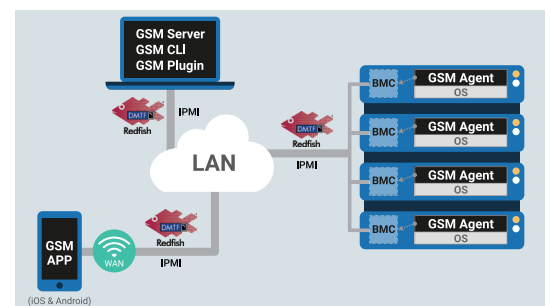
- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed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

<b>Dimensions (WxHxD)</b>	4U 448 x 176 x 880 mm	<b>Power Supply</b>	3 x 80 PLUS Platinum 2200W redundant PSUs  AC Input: - 100-127V~/ 14A, 47-63Hz - 200-240V~/ 12.6A, 47-63Hz  DC Output: - Max 1200W/ 100-127V~ +12.12V/ 95.6A +12Vsb/ 3.5A - Max 2200W/ 200-240V +12.12V/ 178.1A +12Vsb/ 3.5A  NOTE: The system power supply requires C19 type power cord
<b>Motherboard</b>	MZ52-G40	<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 Fully 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>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>Chipset</b>	System on Chip	<b>Weight</b>	Net Weight: 29.5 kg Gross Weight: 47.5 kg
<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>Part Numbers</b>	Barebone with rail kit: 6NG482Z51MR-00 - Motherboard: 9MZ52G40NR-00 - Rail kit: 25HB2-A96100-K0R - CPU fan-sink: 12SF2-01A067-00R - LAN adapter: 9CLNP222NR-00 - Fan module kit: 6NG481HAASR-00-100 - Power supply: 25EP0-222003-D0S - C19 type power cord 125V/15A (US): 25CP1-018000-Q0R (an as option) - C19 type power cord 250V/16A (EU): 25CP3-01830H-Q0R (an as option) - C19 type power cord 250V/15A (US): 25CP1-018300-Q0R (an as option)
<b>LAN</b>	Rear Side: 2 x 10Gb/s BASE-T LAN ports (Intel® X550-AT2) 1 x 10/100/1000 management LAN  Front Side: 2 x 1Gb/s BASE-T LAN ports (Intel® I350-AM2)		
<b>Video</b>	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM		
<b>Storage</b>	10 x 2.5" SATA hot-swappable HDD/SSD bays SATA devices supported only		
<b>SATA</b>	Supported		
<b>SAS</b>	Supported		
<b>RAID</b>	-		
<b>Expansion Slots</b>	8 x PCIe x16 slots (Gen4 x16 bus) for GPUs - System is validated for population with a uniform GPU model - Support is not provided for mixed GPU populations - Support PCIe Gen3 only if AMD Naples processor installed		
<b>Internal I/O</b>	1 x TPM header, 1 x Front panel header		
<b>Front I/O</b>	2 x USB 3.0, 1 x VGA, 2 x RJ45, 1 x MLAN (Reserved), 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 access LED		
<b>Rear I/O</b>	2 x RJ45, 1 x MLAN (Primary port)		
<b>Backplane I/O</b>	10 x 2.5" ports Supports SATA 6Gb/s		
<b>TPM</b>	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010		
<b>System Fans</b>	6 x 60x60x76mm (21,700rpm)		
<b>Packaging Content</b>	1 x G482-Z51 2 x CPU fan-sinks 1 x Rail kit		

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

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