

G241-G40

HPC Server - 2U 4 x PCIe GPU Server



Features

- Supports up to 4 x double slot GPU cards
- NVIDIA® validated GPU platform; Supports for NVIDIA® Tesla®
- 2nd Gen. Intel® Xeon® Scalable Processors
- 6-Channel RDIMM/LRDIMM DDR4, 12 x DIMMs
- 2 x 10Gb/s BASE-T and 2 x 1Gb/s LAN ports
- 1 x Dedicated management port
- 4 x 3.5" SATA/SAS hot-swap HDD/SSD bays
- 4 x PCIe Gen3 expansion slots for GPUs
- 1 x PCIe x16 Half-length low-profile slots for add-on cards
- Aspeed® AST2500 remote management controller
- Dual 2000W 80 PLUS Platinum redundant power supply

Intel® Xeon® Scalable Family Processors

GIGABYTE's Intel® Xeon® Scalable Processor family servers are available in dual socket configurations, and are compatible with the full family of different SKUs (Bronze, Silver, Gold and Platinum) that are workload optimized to support different applications, from enterprise IT database, cloud and storage to the most high-demand HPC workloads.

Compute:

- Up to 28 cores / 56 threads per socket
- Up to 38.5 MB L3 cache (non-inclusive)
- Up to 3x UPI socket interconnects @10.4 GT/s
- CPU TDP 70W – 205W

Memory:

- 6 channels, 2 DIMMs per channel
- Up to 12 DIMMS per socket
- Up to 2933MHz max memory speed
- Intel Optane DC Persistent Memory ready



I/O:

- 48 PCIe 3.0 lanes per socket



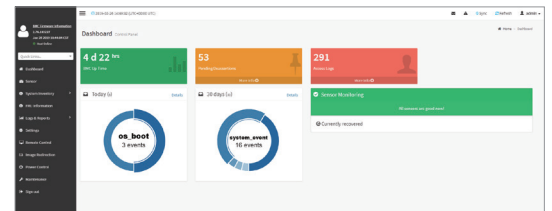
NVIDIA® Tesla® V100 Support

GIGABYTE's Intel® Xeon® Scalable servers 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.

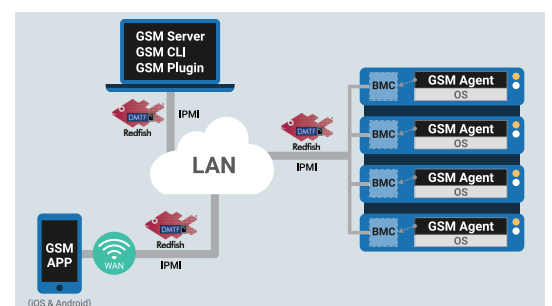
- **RESTful API support** (including the latest DMTF standards of Redfish) allows the administrator to integrate with 3rd party applications for server management
- **HTML5-based iKVM** remote management client included as a standard feature, no additional add-on license required to purchase
- **Detailed 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 87.5 x 820 mm	Power Supply	2 x 80 PLUS Platinum 2000W redundant PSUs AC Input: - 100-120V~/ 12A, 50-60Hz - 180-240V~/ 10A, 50-60Hz DC Input: - 240Vdc/ 10A DC Output: - 1000W@100-120V, +12.2V/ 81.5A, +12Vsb/ 2.5A - 1600W@180-199V, +12.2V/ 131A, +12Vsb/ 2.5A - 1800W@200-220V, +12.2V/ 147.5A, +12Vsb/ 2.5A - 2000W@221-240V, +12V/ 163.5A, +12Vsb/ 2.5A
Motherboard	MD71-HB1	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	2nd Generation Intel® Xeon® Scalable Processors Intel® Xeon® Platinum Processor, Intel® Xeon® Gold Processor, Intel® Xeon® Silver Processor and Intel® Xeon® Bronze Processor System TDP up to 165W NOTE: If only 1 CPU is installed, some PCIe or memory functions might be unavailable	OS Compatibility	For Cascade Lake processors: Windows Server 2012 R2 with Update Windows Server 2016 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 12.3 (x64) or later SUSE Linux Enterprise Server 15 (x64) or later Ubuntu 18.04 LTS (x64) or later VMware ESXi 6.0 Update3 or later VMware ESXi 6.5 Update2 or later VMware ESXi 6.7 Update1 or later Citrix Xenoserver 7.1.0 CU2 or later Citrix Xenoserver 7.5.0 or later Citrix Hypervisor 8.0.0 or later
Socket	2 x LGA 3647, Socket P	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)
Chipset	Intel® C622 Express Chipset	Packaging Content	1 x G241-G40 2 x CPU heatsink 1 x Rail kit
Memory	12 x DIMM slots DDR4 memory supported only 6-channel memory architecture RDIMM modules up to 64GB supported LRDIMM modules up to 128GB supported 1.2V modules: 2933/2666/2400 MHz NOTE: Memory frequency 2933MHz is for 2nd Gen. Intel® Xeon® Scalable Processors only	Part Numbers	Barebone with rail kit: 6NG241G40MR-00 - Motherboard: 9MD71HB1NR-00 - Rail kit: 25HB2-3A0202-K0R - CPU heatsink: 25ST1-253106-F2R / 25ST1-253209-F2R - HDD Back plane board: 9CBPG041NR-00 - System PDB: 9CPDGDSANR-00 - Front panel board: 9CFP1000NR-00 - Power supply: 25EP0-22000A-L0S
LAN	2 x 1Gb/s BASE-T LAN ports (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	4 x 3.5" SATA/SAS hot-swappable HDD/SSD bays 2.5" HDD/SSD supported SAS card is required to enable the drive bays		
SATA	Supported		
SAS	-		
RAID	Intel® SATA RAID 0/1/10/5		
Expansion Slots	4 x PCIe x16 slots (Gen3 x16 bus) for GPUs Slot_2: 1 x PCIe x8 (Gen3 x8 bus) slot from CPU_0, shared with M.2 PCIe x4 bus Slot_6: 1 x PCIe x16 (Gen3 x16 bus) slot from CPU_1 2 x M.2 slots: - M-key - PCIe Gen3 x4 per slot from CPU_0 - Supports NGFF-22110/2280 cards		
Internal I/O	1 x TPM header 1 x Front panel header		
Front I/O	1 x USB 3.0, 1 x Power button with LED, 1 x ID button with LED, 1 x Reset button, 1 x System status LED, 1 x HDD activity LED, 2 x LAN activity LEDs, 1 x MLAN (Reserved)		
Rear I/O	2 x USB 3.0, 1 x VGA, 4 x RJ45, 1 x MLAN, 1 x ID button with LED		
Backplane I/O	Speed and bandwidth: SATA 6Gb/s, SAS 12Gb/s per port		
TPM	1 x TPM header with LPC interface Optional TPM2.0 kit: CTM000		
System Fans	5 x 80x80x38mm (16,300rpm)		
Weight	Net Weight: 18.2 kg Gross Weight: 28.5 kg		

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

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