Hyper-Converged System - DP 2U 4 Nodes Server

Features

- 2U - 4 nodes with rear access to the node trays
- 2nd Gen. Intel® Xeon® Scalable Processors
- 6-Channel RDIMM/LRDIMM DDR4, 64 x DIMMs
- Supports Intel® Optane™ DC Persistent Memory
- 4 x Dedicated management ports
- 1 x CMC global management port
- 24 x 2.5” SATA/SAS hot-swappable HDD/SSD bays
- 8 x Low profile PCIe Gen3 expansion slots
- 4 x OCP Gen3 x16 mezzanine slots
- Aspeed® AST2500 remote management controller
- 2200W 80 PLUS Platinum redundant PSU
- Optimized performance with Mellanox Infiniband products

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.

Intel® Optane™ DC Persistent Memory Ready

GIGABYTE’s 2nd Gen. Intel® Xeon® Scalable family servers come ready to support Intel Optane DC Persistent Memory, a revolutionary new product that re-defines traditional memory & storage architectures by enabling a large persistent memory tier between DRAM and SSDs, that’s higher capacity than DRAM and faster than SSDs, enabling the user to bring more data closer to the CPU for faster time for insight.

CMC for Chassis Management & Multi-Node Monitoring

GIGABYTE’s H-Series Servers feature an Aspeed CMC (Central Management Controller) for chassis-level management and node-level monitoring (by connecting internally to Aspeed BMCs integrated on each node). This results only in one MLAN connection required to perform monitoring of all four nodes*, resulting in less ToR (Top of Rack) cabling and switch connections.

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 4 Nodes - Rear access  
440 x 87 x 820

**Motherboard**
MH61-HD3

**CPU**
2nd Gen. Intel Xeon Scalable and Intel Xeon Scalable Processors  
Intel® Xeon® Platinum Processor, Intel® Xeon® Gold Processor, Intel® Xeon® Silver Processor and Intel® Xeon® Bronze Processor  
CPU TDP up to 165W  
NOTE: If only 1 CPU is installed, some PCIe or memory functions might be unavailable

**Socket**
Per node: 2 x LGA 3647 / Total: 8 x LGA 3647; Socket P

**Chipset**
Intel® C621 Express Chipset

**Memory**
Per node: 16 x DIMM slots / Total: 64 x DIMM slots  
DDR4 memory supported only  
6-channel memory per processor architecture  
RDIMM modules up to 64GB supported  
LRDIMM modules up to 128GB supported  
Supports Intel® Optane™ DC Persistent Memory (DCPMM)  
1.2V modules: 2933 (10PC/2666/240/2133 MHz  
NOTE: 1. 2933MHz for 2nd Generation Intel® Xeon® Scalable Processors only  
2. Intel® Optane™ DC Persistent Memory for 2nd Generation Intel® Xeon® Scalable Processors only  
3. The maximum number of DCPMM that can be installed is based on a maximum operating (ambient) temperature of 35°C  
4. To ensure about installing a greater number of DCPMM, please consult with your GIGABYTE technical or sales representative

**Slots**
Expansion Slots  
Per node: 1 x Half-length low-profile slot with PCIe x16 (Gen3 x16)  
4 x Half-length low-profile slot with PCIe x8 (Gen3 x8)  
4 x OCP mezzanine slot with PCIe Gen3 x16

**RAID**
Intel® SATA RAID 0/1/5/10

**LAN**
Per node: 1 x Dedicated management port  
Total: 4 x Dedicated management ports  
1 x 10/100/1000 "CMC global management port  
* CMC: Chassis Management Controller, to monitor all status of computing nodes  
* Please contact FAE if NCSI function of OCP mezzanine card is needed

**Video**
Integrated in Aspeed® AST2500  
2D Video Graphic Adapter with PCIe bus interface  
1920x1200@60Hz, 32bpp  
DDRM SDRAM  
Management chip in CMC board: Integrated in Aspeed® AST1250

**Storage**
Per node: 6 x 2.5" SAS/SATA hot-swappable HDD/SSD bays  
Total: 24 x 2.5" SAS/SATA hot-swappable HDD/SSD bays  
Onboard SATA DOM support (PIN_7, PIN_8 or external cable)  
SAS card is required for SAS devices support

**RAID**
Intel® SATA RAID 0/1/5/10

**Expansion Slots**
Per node: 1 x Half-length low-profile slot with PCIe x16 (Gen3 x16)  
4 x Half-length low-profile slot with PCIe x8 (Gen3 x8)  
4 x OCP mezzanine slot with PCIe Gen3 x16

**Internal I/O**
Per node: 1 x COM header, 2 x SATA 7-pin connectors,  
1 x TPM header, 1 x BMC SGPIO header,  
1 x JTAG BMC header, 1 x PLD header,  
1 Clear CMOS jumper, 1 x IPMB connector,  
1 x Buzzer

**Front I/O**
Per node: 1 x Power button with LED, 1 x ID button with LED,  
1 x Status LED, 1 x Reset button  
Total: 4 x Power button with LED, 4 x ID button with LED,  
4 x Status LED, 1 x Reset button, 1 x BMC status LED*,  
1 x CMC Reset button*  
*Only one CMC Status LED and Reset button per system

**Rear I/O**
Per node: 2 x USB 3.0, 1 x VGA, 1 x RJ45 MLAN, 1 x iEDL  
Total: 8 x USB 3.0, 4 x VGA, 4 x RJ45 MLAN, 4 x iEDLs,  
1 x CMC global management port*  
*Only one CMC global management port per system

**Backplane I/O**
24 x ports  
Pcie Gen3 x4 U.2 port

**TPM**
1 x TPM header with LPC interface  
Optional TPM2.0 kit: CTM000

### Power Supply
2 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  
+12V/ 3.5A  
- Max 2200W/ 200-240V+  
+12.12V/ 178.1A  
+12V/ 3.5A

NOTE: * The system power supply requires C19 type power cord

### 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**
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 Xenserver 7.1.0  
Citrix Xenserver 7.5.0 or later  
Citrix Hypervisor 8.0.0 or later

### Weight
Net Weight: 27.3 kg  
Gross Weight: 45.92 kg

### System Fans
8 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)

### Packaging
1 x H261-PC0, 8 x CPU heatsinks,  
1 x Rail Kit, 8 x Non-Fabric CPU carrier

### Part Numbers
Barebone package: 6NH262Z65SR-00  
- Motherboard: 9MH61-HD6NR-00  
- VROC module: 25FD0-R181N0-10R  
- Rail kit: 25HB2-AN6103-KOR  
- CPU heatsink: 25ST1-253208-F2R/25ST1-253209-F2R  
- Back plane board: 9CBPH0O4NR-00  
- Power Supply: 25EP0-222003-D0S  
- C19 type power cord 125V/15A (US): 25CP1-018000-Q0R (optional)  
- C19 type power cord 220V~/12.6A, 47-63Hz

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