# H261-H60

# **High Density Server - 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
- 12 x 3.5" SAS/SATA hot-swap HDD/SSD bays
- 8 x Low profile PCIe Gen3 expansion slots
- 4 x OCP Gen3 x16 mezzanine slots
- Aspeed® AST2500 remote management controller
- 2+0 2200W 80 PLUS Platinum 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.



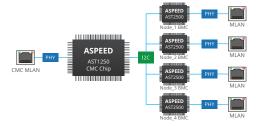
#### Intel® Optane™ DC Persistent Memory Ready

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)**

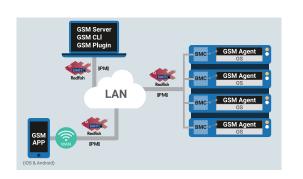
This GIGABYTE server product utilizes a AMI MegaRAC SP-X platform for BMC server management, with a feature rich and easy to use browser-based graphical user interface.

- 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** 2U 4 Nodes - Rear access **Power Supply** 2+0 2200W 80 PLUS Platinum power supply (WxHxD) 440 x 87 x 820 AC Input: - 100-127V~/ 14A, 47-63Hz Motherboard MH61-HD5 - 200-240V~/ 12.6A, 47-63Hz CPU 2nd Gen. Intel® Xeon® Scalable and Intel® Xeon® Scalable Processors DC Output: Intel® Xeon® Platinum Processor, Intel® Xeon® Gold Processor, - Max 1200W/ 100-127V~ Intel® Xeon® Silver Processor and Intel® Xeon® Bronze Processor +12.12V/95.6A CPU TDP up to 165W +12Vsb/ 3.5A NOTE: If only 1 CPU is installed, some PCIe or memory functions - Max 2200W/ 200-240V might be unavailable +12.12V/ 178.1A +12Vsb/ 3.5A Per node: 2 x LGA 3647 / Total: 8 x LGA 3647 Socket NOTE: \* The system power supply requires C19 type power cord \* 2000W 80 PLUS Titanium PSU as an option Socket P Chipset Intel® C621 Express Chipset System Aspeed® AST2500 management controller Management GIGABYTE Management Console (AMI MegaRAC SP-X) Per node: 16 x DIMM slots / Total: 64 x DIMM slots Memory DDR4 memory supported only Dashboard 6-channel memory per processor architecture JAVA Based Serial Over LAN RDIMM modules up to 64GB supported HTMI 5 KVM LRDIMM modules up to 128GB supported Sensor Monitor (Voltage, RPM, Temperature, CPU Status ...etc.) Supports Intel® Optane™ DC Persistent Memory (DCPMM) Sensor Reading History Data 1.2V modules: 2933( 1DPC)/2666/2400/2133 MHz **FRU** Information NOTE: 1. 2933MHz for 2nd Generation Intel® Xeon® Scalable Processors only 2. Intel® Optane™ DC Persistent Memory for 2nd Generation Intel® SEL Log in Linear Storage / Circular Storage Policy Hardware Inventory Xeon® Scalable Processors only Fan Profile 3. The maximum number of DCPMM that can be installed is based on a maximum operating (ambient) temperature of 35°C

4. To enquire about installing a greater number of DCPMM, please consult with your GIGABYTE technical or sales representative System Firewall Power Consumption Power Control LDAP / AD / RADIUS Support Per node: 1 x Dedicated management port LAN Backup & Restore Configuration Total: 4 x Dedicated management ports Remote BIOS/BMC/CPLD Update 1 x 10/100/1000 \*CMC global management port **Event Log Filter** User Management \* CMC: Chassis Management Controller, to monitor all status of computing nodes Media Redirection Settings \* Please contact FAE if NCSI function of OCP mezzanine card is needed PAM Order Settings SSL Settings Video Integrated in Aspeed® AST2500 **SMTP Settings** 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM For Cascade Lake processors: os Management chip in CMC board: Integrated in Aspeed® AST1250 Compatibility Windows Server 2012 R2 with Update Windows Server 2016 Storage Per node: 3 x 3.5" SATA/SAS hot-swappable HDD/SSD bays Windows Server 2019 Onboard SATA DOM support (PIN\_7, PIN\_8 or external cable) Red Hat Enterprise Linux 7.6 (x64) or later Total: 12 x 3.5" SATA/SAS hot-swappable HDD/SSD bays Red Hat Enterprise Linux 8.0 (x64) or later 2.5" HDD/SSD supported SUSE Linux Enterprise Server 12.3 (x64) or later SAS card is required for SAS devices support SUSE Linux Enterprise Server 15 (x64) or later Ubuntu 18.04 LTS (x64) or later **RAID** Intel® SATA RAID 0/1/5 VMware ESXi 6.0 Update3 or later VMware ESXi 6.5 Update2 or later Expansion Per node: 1 x Half-length low-profile slot with PCle x16 (Gen3 x16) VMware ESXi 6.7 Update1 or later Slots 1 x Half-length low-profile slot with PCle x8 (Gen3 x8) Citrix Xenserver 7.1.0 CU2 or later 1 x OCP mezzanine slot with PCIe Gen3 x16 Citrix Xenserver 7.5.0 or later Total: 4 x Half-length low-profile slot with PCle x16 (Gen3 x16) Citrix Hypervisor 8.0.0 or later 4 x Half-length low-profile slot with PCIe x8 (Gen3 x8) 4 x OCP mezzanine slot with PCIe Gen3 x16 Weight 35 kg (full packaging) Internal I/O Per node: 1 x COM header, 1 x TPM header, 1 x BMC SGPIO **System Fans** 4 x 80x80x38mm (16,300rpm) header, 1 x JTAG BMC header, 1 x PLD header, 1 x Clear CMOS jumper, 1 x IPMB connector, 1 x Buzzer Operating Operating temperature: 10°C to 35°C **Properties** Operating humidity: 8%-80% (non-condensing) Front I/O Per node: 1 x Power button with LED, 1 x ID button with LED, Non-operating temperature: -40°C to 60°C 1 x Status LED Non-operating humidity: 20%-95% (non-condensing) Total: 4 x Power button with LED, 4 x ID button with LED, 4 x Status LED, 1 x CMC status LED Packaging 1 x H261-H60, 8 x CPU heatsinks Content 1 x Rail Kit. 8 x Non-Fabric CPU carrier Rear I/O Per node: 2 x USB 3.0, 1 x VGA, 1 x RJ45 MLAN, 1 x ID LED **Part Numbers** Barebone package: 6NH261H60MR-00 Total: 8 x USB 3 0, 4 x VGA, 4 x BJ45 MLAN Motherboard: 9MH61HD5NR-00 4 x ID LEDs, 1 x CMC global management port Rail kit: 25HB2-NJ2102-N1R - CPU heatsink: 25ST1-253203-F2R/25ST1-253204-F2R - Back plane board: 9CBPH0C1NR-00 Backplane I/O 12 x ports - Power Supply: 25EP0-222001-D0S 12Gb/s & 6Gb/s compatible - C19 type power cord 125V/15A (US): 25CP1-018000-Q0R (in option) - C19 type power cord 250V/16A (EU): 25CP3-01830H-Q0R (in option) **TPM** 1 x TPM header with LPC interface - C19 type power cord 250V/15A (US): 25CP1-018300-Q0R (in option) Optional TPM2.0 kit: CTM000 - Ring topology kit: 6NH23NR48SR-00 (in option)

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