HPS Industrial bv

GIGABYTE G481-S80 4U SERVER

EIGENSCHAPPEN

- Up to 8 x NVIDIA Tesla® V100 SXM2 modules
- Up to 300GB/s GPU interconnection by NVIDIA® NVLINK™ technology
- 2nd Gen. Intel® Xeon® Scalable and Intel® Xeon® Scalable Processors
- Intel® Omni-Path Architecture Technology support as an option
- 6-Channel RDIMM/LRDIMM DDR4, 24 x DIMMs
- Supports Intel® Optane™ DC Persistent Memory
- 2 x GbE LAN ports (Intel® I350-AM2)
- 1 x dedicated management port
- 4 x 2.5" NVMe, 6 x 2.5" SATA/SAS hot-swappable HDD/SSD bays
- 5 x low profile PCIe Gen3 expansion slots
- 1 x OCP Gen3 x8 mezzanine slot
- Aspeed® AST2500 remote management controller
- 4 x 80 PLUS Platinum 2200W 2+2 redundant PSU
- Optimized performance with Mellanox Infiniband EDR and Ethernet 100G products

SPECIFICATIES

Dimensions (WxHxD, mm)	4U 448 x 176 x 880
Motherboard	MG61-G40
CPU	2nd Generation 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 NOTE: If only 1 CPU is installed, some PCIe and memory functions might be unavailable
Socket	2 x LGA 3647 Socket P TDP up to 205W
Chipset	Intel® C621 Express Chipset
Memory	24 x DIMM slots DDR4 memory supported only 6-channel memory architecture RDIMM modules up to 64GB supported LRDIMM modules up to 128GB supported Supports Intel® Optane™ DC Persistent Memory (DCPMM) 1.2V modules: 2933/2666/2400/2133 MHz Maximum verified DCPMM configuration: * Ambient temperature 35°C * 2nd Generation Intel® Xeon® Scalable processor 205W (Max.) * DCPMM 256GB x12 pcs DCPMM installation locations: DIMM_P0_(A1, B1, C1) DIMM_P0_(D1, E1, F1) DIMM_P1_(G1, H1, I1) DIMM_P1_(J1, K1, L1) 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 enquire about installing a greater number of DCPMM, please consult with your GIGABYTE technical or sales representative

LAN	Rear Side: 1 x 10/100/1000 management LAN (in option) Front Side: 2 x 1Gb/s BASE-T LAN ports (Intel® I350-AM2) 1 x 10/100/1000 management LAN * 4 x QSFP28 LAN ports with Intel® Omni-Path Host Fabric Interface (as an option) - Provides 25Gb/s bandwidth per port, total 100Gb/s bandwidth with 4 QSFP28 LAN ports * NOTE: Please select Intel® Xeon processors with Omni-Path Architecture to enable Intel® Omni-Path Host Fabric Interface
Video	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp, DDR4 SDRAM
Storage	10 x 2.5” hot-swappable HDD/SSD bays - 2 x amber HDD trays compatible with NVMe devices only - 2 x amber HDD trays compatible with NVMe, SATA/SAS devices - 6 x blue HDD trays compatible with SATA/SAS devices only SAS card is required to enable SAS devices support
SATA	Supported
SAS	-
RAID	For SATA/SAS drives: Intel® SATA RAID 0/1/10/5 For NVMe drives: Intel® Virtual RAID On CPU (VROC) RAID 0, 1, 10, 5 Note: VROC module is compatible for Intel®SSD only
Peripheral Drives	-
Expansion Slots	8 x SXM2 sockets (Gen3 x16 bus) for NVIDIA Tesla® V100 SXM2 modules Rear Side: 4 x PCIe x16 (Gen3 x16 bus) Half-length low-profile slots 1 x OCP mezzanine slot - PCIe Gen3 x8 - Type1, P1, P2, P3, P4, K2, K3 - Dedicated for GIGABYTE LAN Cards only Front Side: 1 x PCIe x16 (Gen3 x8 bus) Half-length low-profile slot
Internal I/O	1 x TPM header 1 x VROC connector 1 x Front VGA header 1 x Serial header

Front I/O	2 x USB 3.0 1 x VGA (Primary port) 3 x RJ45 4 x Omni-Path QSFP28 LAN ports (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 1 x Omni-Path activity LED
Rear I/O	1 x MLAN (Reserved, enabled by cable switch)
Backplane I/O	2 x ports compatible with NVMe only 2 x hybrid ports compatible with NVMe, SATA/SAS 6 x ports compatible with SATA/SAS only
TPM	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010
Power Supply	4 x 2200W 2+2 redundant PSUs 80 PLUS Platinum 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
System Management	Aspeed® AST2500 management controller Avocent® MergePoint IPMI 2.0 web interface: Network settings Network security settings Hardware information Users control Services settings IPMI settings Sessions control LDAP settings Power control Fan profiles Voltages, fans and temperatures monitoring System event log Events management (platform events, trap settings, email settings) Serial Over LAN vKVM & vMedia (HTML5)

OS Supported	For Skylake processors: Windows Server 2012 R2 with Update Windows Server 2016 Windows Server 2019 Red Hat Enterprise Linux 6.9 (x64) or later Red Hat Enterprise Linux 7.3 (x64) or later Red Hat Enterprise Linux 8.0 (x64) or later SUSE Linux Enterprise Server 11.4 (x64) or later SUSE Linux Enterprise Server 12.2 (x64) or later SUSE Linux Enterprise Server 15 (x64) or later Ubuntu 16.04.1 LTS (x64) or later Ubuntu 18.04 LTS (x64) or later VMware ESXi 6.0 Update3 or later VMware ESXi 6.5 or later VMware ESXi 6.7 or later VMware ESXi 7.0 or later Citrix Xenserver 7.1.0 CU2 or later Citrix Xenserver 7.4.0 or later Citrix Hypervisor 8.0.0 or later 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 VMware ESXi 7.0 or later Citrix Xenserver 7.1.0 CU2 or later Citrix Xenserver 7.5.0 or later Citrix Hypervisor 8.0.0 or later
Weight	Net Weight: 39 kg Gross Weight: 58.1 kg
System Fans	6 x 60x60x76mm (21,700rpm)
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 Content	1 x G481-S80 8 x SXM2 heatsinks 2 x CPU heatsinks 1 x Rail kit 2 x Non-Fabric CPU carrier

Part Numbers	Barebone with rail kit: 6NG481S80MR-00 - Motherboard: 9MG61G40NR-00 - VROC module: 25FD0-R181N0-10R - Rail kit: 25HB2-420100-CGR - SXM2 heatsink: 25ST1-353208-F2R (Front Side) / 25ST1-353209-F2R (Rear Side) - CPU heatsink: 25ST1-323206-A0R - Fan module kit: 6NG481HAASR-00-100 - Power supply: 25EP0-222001-D0S - C19 type power cord 125V/15A (US): 25CP1-018000-Q0R (in option) - C19 type power cord 250V/16A (EU): 25CP3-01830H-Q0R (in option) - C19 type power cord 250V/15A (US): 25CP1-018300-Q0R (in option)