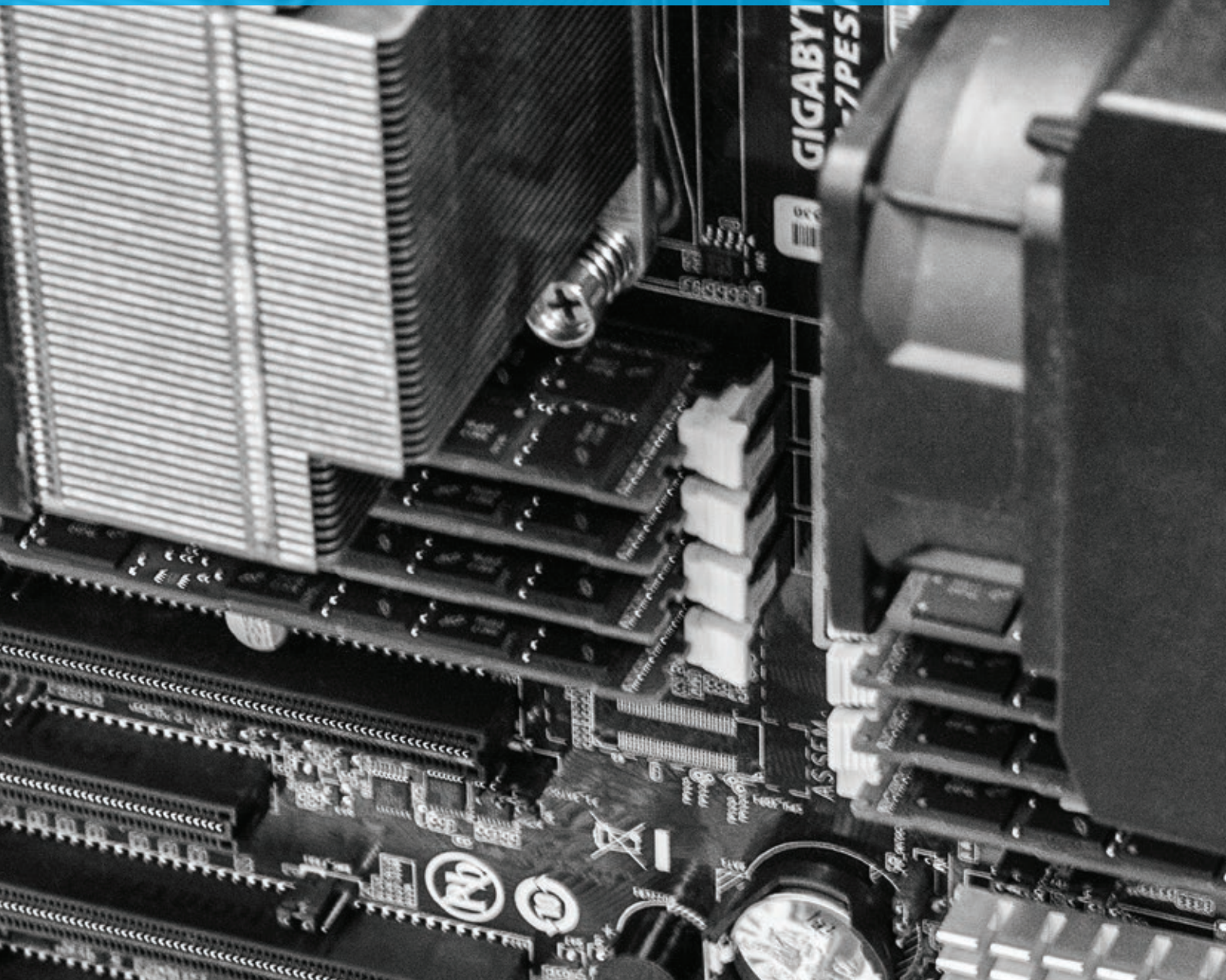
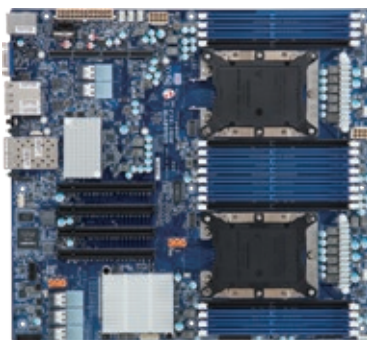
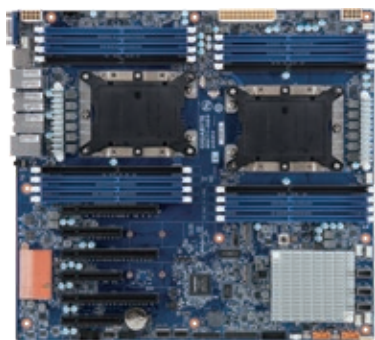


Server Motherboard

We put our three decades of know-how in motherboard design at the service of cutting-edge server motherboards. Always built with the best and most durable components, we make products suitable for both tower and rackmount servers with features for a wide range of professional applications:

- **Standard Web, Storage, Database Servers, etc.**
- **High Performance Computing**
- **Parallel Computing**
- **Virtual RAM Drives**
- **Mass Storage**
- **Virtualized Applications**





MD71-HB0

MD61-SC2

MW51-HP0

Form Factor	E-ATX (305 x 330mm)	E-ATX (305 x 330mm)	CEB (304.8 x 266.7mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	Intel Xeon W Processor Family 1 x LGA 2066 socket, TDP up to 140W
Memory	6-Channel DDR4 memory, 16 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 16 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	4-Channel DDR4 memory, 8 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2666/ 2400 MHz
LAN	2 x 10GbE BASE-T LAN 2 x GbE LAN 1 x GbE MLAN	2 x 10GbE SFP+ LAN (QLogic QL41102) 2 x GbE LAN 1 x GbE MLAN	2 x GbE LAN (Intel I210)
Storage	3 x SlimSAS for 12 x SATA III 2 x 7-pin SATA III support SATA DOM 2 x M.2 (3.0 x4, M-key) 2 x U.2 (3.0 x4, SlimSAS type) Intel SATA RAID 0/ 1/ 10/ 5 1 x VROC connector	3 x SlimSAS for 12 x SATA III 2 x 7-pin SATA III support SATA DOM 2 x U.2 (3.0 x4, SlimSAS type) - Shared with mezzanine card x8 signal Intel SATA RAID 0/ 1/ 10/ 5 1 x VROC connector	8 x SATA III with 2 x SATA DOM supported 2 x SATA III (Marvell 88SE9172) 1 x M.2 (3.0 x4, M-key) 1 x U.2 (3.0 x4, Mini-SAS HD type) Intel SATA RAID 0/ 1/ 10/ 5 1 x VROC connector
Expansion Slots	3 x PCIe x16 (3.0 x16) 2 x PCIe x8 (3.0 x8) 1 x PCIe x8 (3.0 x4)	4 x PCIe x16 (3.0 x16) 1 x mezzanine card slot (3.0 x8 + x8) - Optional for OCP mezzanine card with low profile type	4 x PCIe x16 (3.0 x16) 3 x PCIe x8 (3.0 x8) Support NVIDIA SLI and AMD CrossFireX technologies
Rear I/O	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 4 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 2 x SFP+ 2 x RJ45 1 x MLAN 1 x ID button with LED 2 x LAN activity LEDs	8 x USB 3.0 2 x USB 3.1 in Type-A & Type-C 1 x PS/2 2 x RJ45 5 x Audio jacks 1 x Optical S/PDIF-Out
TPM	1 x TPM header	1 x TPM header	1 x TPM header
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9 / 7.3 SLES 11.4 / 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9 / 7.3 SLES 11.4 / 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows 10 RHEL 6.8 / 7.3 SLES 11.4 / 12.2 Ubuntu 16.04 / 16.10 LTS
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	-
Part Numbers	Retail: 9MD71HB0MR-00 Bulk: 9MD71HB0NR-00	Retail: 9MD61SC2MR-00 Bulk: 9MD61SC2NR-00	Retail: 9MW51HP0MR-00 Bulk: 9MW51HP0NR-00



MF51-ES0

MF51-ES1

MF51-ES2

Form Factor	CEB (304.8 x 266.7mm)	CEB (304.8 x 266.7mm)	CEB (304.8 x 266.7mm)
CPU	Intel Xeon W Processor Family 1 x LGA 2066 socket, TDP up to 140W	Intel Xeon W Processor Family 1 x LGA 2066 socket, TDP up to 140W	Intel Xeon W Processor Family 1 x LGA 2066 socket, TDP up to 140W
Memory	4-Channel DDR4 memory, 8 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2666/ 2400 MHz	4-Channel DDR4 memory, 8 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2666/ 2400 MHz	4-Channel DDR4 memory, 8 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2666/ 2400 MHz
LAN	2 x 10GbE BASE-T LAN (Intel X550-BT2) 2 x GbE LAN (Intel I210) 1 x GbE MLAN	2 x GbE LAN (Intel I350-BT2) 2 x GbE LAN (Intel I210) 1 x GbE MLAN	2 x GbE LAN (Intel I210) 1 x GbE MLAN
Storage	8 x SATA III with 2 x SATA DOM supported 1 x M.2 (3.0 x4, M-key) 2 x U.2 (3.0 x4, SlimSAS type) Intel SATA RAID 0/ 1/ 10/ 5 1 x VROC connector	8 x SATA III with 2 x SATA DOM supported 1 x M.2 (3.0 x4, M-key) 2 x U.2 (3.0 x4, SlimSAS type) Intel SATA RAID 0/ 1/ 10/ 5 1 x VROC connector	8 x SATA III with 2 x SATA DOM supported 1 x M.2 (3.0 x4, M-key) 2 x U.2 (3.0 x4, SlimSAS type) Intel SATA RAID 0/ 1/ 10/ 5 1 x VROC connector
Expansion Slots	2 x PCIe x16 (3.0 x16) 1 x PCIe x16 (3.0 x8)	2 x PCIe x16 (3.0 x16) 1 x PCIe x16 (3.0 x8)	2 x PCIe x16 (3.0 x16) 1 x PCIe x16 (3.0 x8)
Rear I/O	1 x COM 1 x VGA 2 x USB 3.0 2 x USB 2.0 4 x RJ45 1 x MLAN 1 x ID button with LED	1 x COM 1 x VGA 2 x USB 3.0 2 x USB 2.0 4 x RJ45 1 x MLAN 1 x ID button with LED	1 x COM 1 x VGA 2 x USB 2.0 2 x USB 3.0 2 x RJ45 1 x MLAN 1 x ID button with LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	Retail: 9MF51ES0MR-00 Bulk: 9MF51ES0NR-00	Retail: 9MF51ES1MR-00 Bulk: 9MF51ES1NR-00	Retail: 9MF51ES2MR-00 Bulk: 9MF51ES2NR-00

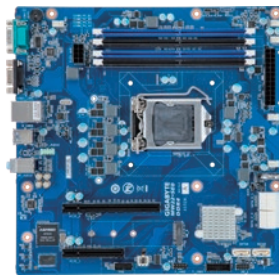


MB51-PS0

MX32-BS0

MX32-4L0

Form Factor	ATX (305 x 244mm)	microATX (244 x 244mm)	microATX (244 x 244mm)
CPU	Intel Xeon D-2123IT / D-2143IT Processor 1 x FCBGA 2518 socket, TDP 60W	Intel Xeon E Product Family 1 x LGA 1151 socket	Intel Xeon E Product Family 1 x LGA 1151 socket
Memory	4-Channel DDR4 memory, 8 x DIMMs RDIMM up to 256GB, LRDIMM up to 512GB 1.2V modules: 2400 MHz	2-Channel DDR4 memory, 4 x DIMMs ECC UDIMM up to 64GB 1.2V modules: 2666/ 2400 MHz	2-Channel DDR4 memory, 4 x DIMMs ECC UDIMM up to 64GB 1.2V modules: 2666/ 2400 MHz
LAN	2 x 10GbE BASE-T LAN (Intel X557-AT2) 1 x GbE MLAN	2 x GbE LAN (Intel I210) 1 x GbE MLAN	4 x GbE LAN (Intel I210) 1 x GbE MLAN
Storage	14 x 7-pin SATA III 2 x M.2 (3.0 x4, M-key) 2 x U.2 (3.0 x4, SlimSAS type) 1 x VROC connector	6 x SATA III SATA4 /SATA5 support SATA DOM Intel SATA RAID 0/ 1/ 10/ 5 1 x M.2 (3.0 x4, M-key) - Intel Optane Memory Ready	8 x SATA III SATA4 /SATA5 support SATA DOM Intel SATA RAID 0/ 1/ 10/ 5 1 x M.2 (3.0 x4, M-key) - Intel Optane Memory Ready
Expansion Slots	1 x PCIe x16 (3.0 x16) 1 x PCIe x16 (3.0 x16 or x8)	1 x PCIe x16 (3.0 x16) 1 x PCIe x8 (3.0 x4)	1 x PCIe x16 (3.0 x16) 1 x PCIe x8 (3.0 x4)
Rear I/O	2 x USB 3.0 1 x VGA 2 x RJ45 1 x MLAN 1 x COM_1	1 x COM 1 x VGA 2 x RJ45 1 x MLAN 2 x USB 3.0 1 x ID switch	1 x COM 1 x VGA 4 x RJ45 1 x MLAN 2 x USB 3.0 1 x ID switch
TPM	1 x TPM header	1 x TPM header	1 x TPM header
OS Supported	Windows Nano Server Windows Server 2012 R2 Update1 Windows Server 2016 RHEL SLES Ubuntu VMware	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller AMI MegaRAC SP-X Solution Web interface	Aspeed AST2500 management controller AMI MegaRAC SP-X Solution Web interface
Part Numbers	Bulk: 9MB51PS0NR-00, D-2123IT 9MB51PS1NR-00, D-2143IT	Retail: 9MX32BS0MR-00 Bulk: 9MX32BS0NR-00	Retail: 9MX324L0MR-00 Bulk: 9MX324L0NR-00



MW32-SP0

MW22-SE0

MA10-ST0

Form Factor	ATX (305 x 244mm)	microATX (244 x 244mm)	Mini-ITX (170 x 170mm)
CPU	Intel Xeon E Product Family 1 x LGA 1151 socket	Intel Xeon E Product Family 1 x LGA 1151 socket	Intel Atom C3958 SoC 1 x BGA 1310 socket, TDP 31W
Memory	2-Channel DDR4 memory, 4 x DIMMs ECC UDIMM up to 64GB 1.2V modules: 2666/ 2400 MHz	2-Channel DDR4 memory, 4 x DIMMs ECC UDIMM up to 64GB 1.2V modules: 2666/ 2400 MHz	2-Channel DDR4 memory, 4 x DIMMs ECC R-DIMM up to 128GB ECC/non-ECC UDIMM up to 64GB 1.2V modules: 2400/ 2133/ 1866 MHz
LAN	2 x GbE LAN (Intel I210 and I219LM)	1 x GbE LAN port (Intel I219LM)	2 x 10GbE SFP+ LAN 2 x GbE LAN (Intel I210-AT) 1 x GbE MLAN
Storage	10 x SATA III with 2 x SATA DOM supported Intel SATA RAID 0/ 1/ 10/ 5 Marvell SATA RAID 0/ 1/ 10 1 x M.2 (3.0 x4, M-key) - Intel Optane Memory Ready 1 x U.2 (3.0 x4, SlimSAS type)	6 x SATA III Intel SATA RAID 0/ 1/ 10/ 5 1 x M.2 (3.0 x4, M-key) - Intel Optane Memory Ready	4 x Mini-SAS up to 16 x SATA III - 2 x Mini-SAS are shared with PCIe x8 slot5
Expansion Slots	2 x PCIe x16 (3.0 x16) from PCIe switch 1 x PCIe x1 (3.0 x1) from Intel C246 1 x PCIe x16 (3.0 x8) from PCIe switch 1 x PCIe x4 (3.0 x4) from Intel C246	1 x PCIe x16 (3.0 x16) connector 1 x PCIe x8 (3.0 x4) connector	1 x PCIe x8 (3.0 x8) - Shared with Mini-SAS, Mini_CN2, Mini_CM3
Rear I/O	4 x USB 3.1 1 x HDMI 1 x COM 5 x Audio jacks 1 x Optical S/PDIF-Out	2 x USB 2.0 1 x DisplayPort 2 x RJ45	2 x USB 2.0 1 x DisplayPort 2 x RJ45
TPM	1 x TPM header	3 x Audio jacks	1 x VGA 2 x USB 2.0 2 x SFP+ 2 x RJ45 1 x MLAN
OS Supported	Windows 10	1 x TPM header	1 x TPM header
Board Management	-	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2/ 2016 RHEL 7.1 SLES 12 Ubuntu 14.04.2 LTS Fedora 22 CentOS 7.1
Part Numbers	Retail: 9MW31SP0MR-00 Bulk: 9MW31SP0NR-00	-	Aspeed AST2400 management controller Avocent MergePoint IPMI 2.0 web interface
		Retail: 9MW22SE0MR-00 Bulk: 9MW22SE0NR-00	Retail: 9MA10ST0MR-SI

Rack Server

GIGABYTE offers rack-mounted solutions based on its server motherboards. Equipped with the best power supplies and cooling fans, they are ready-to-integrate solutions combining a high level of performance, energy efficiency, and overall reliability for the most demanding server applications:

- **Web Hosting**
- **Virtualized Infrastructures**
- **Databases & Analytics**





R281-G30

R281-2O0

R281-NO0

Form Factor	2U (438 x 87.5 x 730mm) 3 x PCIe GPUs supported	2U (438 x 87.5 x 730mm)	2U (438 x 87.5 x 730mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN
Storage	24 x 2.5" SATA/ SAS hot-swap HDD LSI SAS35x36 expander SAS devices supported via SAS add-on card 1 x 7-pin SATA III supports SATA DOM	24 x 2.5" + 2 x 2.5" SATA/ SAS hot-swap HDD LSI SAS35x36 expander SAS devices supported via SAS add-on card 1 x 7-pin SATA III supports SATA DOM	24 x NVMe + 2 x SATA/ SAS 2.5" hot-swap HDD Intel VROC RAID 0/ 1/ 5 Intel SATA RAID 0/ 1 1 x 7-pin SATA III supports SATA DOM
Expansion Slots	3 x PCIe x16 (3.0 x16) for GPUs 3 x PCIe x8 (3.0 x8), FHFL 2 x PCIe x8 (3.0 x8), FHHL 2 x OCP mezzanine (3.0 x16)	2 x PCIe x16 (3.0 x16), FHHL 4 x PCIe x8 (3.0 x8), FHHL 1 x PCIe x16 (3.0 x16), LPHL 1 x PCIe x8 (3.0 x8), LPHL 2 x OCP mezzanine (3.0 x16)	1 x PCIe x16 (3.0 x16), FHHL 4 x PCIe x8 (3.0 x8), FHHL 1 x PCIe x8 (3.0 x8), LPHL 1 x OCP mezzanine (3.0 x16)
Rear I/O	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3. 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	2 x 2000W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1600W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NR281G30MR-00	6NR2812O0MR-00	6NR281NO0MR-00

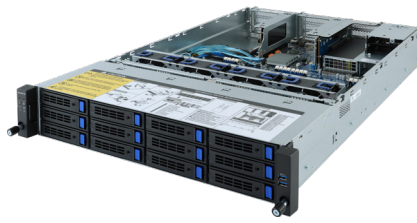


R281-N40

R281-3C2

R281-3C1

Form Factor	2U (438 x 87.5 x 730mm)	2U (438 x 87.5 x 730mm) 2 x PCIe GPUs supported	2U (438 x 87.5 x 730mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN
Storage	4 x NVMe & 22 x SATA/ SAS 2.5" hot-swap HDD Intel VROC RAID 0/ 1/ 5 LSI SAS35x36 expander SAS devices supported via SAS add-on card 1 x 7-pin SATA III supports SATA DOM	12 x 3.5" + 2 x 2.5" SATA/ SAS hot-swap HDD SAS devices supported via SAS add-on card Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM	12 x 3.5" + 2 x 2.5" SATA/ SAS hot-swap HDD LSI SAS35x36 expander SAS devices supported via SAS add-on card 1 x 7-pin SATA III supports SATA DOM
Expansion Slots	2 x PCIe x16 (3.0 x16), FHHL 4 x PCIe x8 (3.0 x8), FHHL 1 x PCIe x16 (3.0 x16), LPHL 1 x PCIe x8 (3.0 x8), LPHL 1 x OCP mezzanine (3.0 x16)	2 x PCIe x16 (3.0 x16) for GPUs 2 x PCIe x8 (3.0 x8), FHFL 2 x PCIe x8 (3.0 x8), FHHL 1 x PCIe x16 (3.0 x16), LPHL 1 x PCIe x8 (3.0 x8), LPHL 2 x OCP mezzanine (3.0 x16)	2 x PCIe x16 (3.0 x16), FHHL 4 x PCIe x8 (3.0 x8), FHHL 1 x PCIe x16 (3.0 x16), LPHL 1 x PCIe x8 (3.0 x8), LPHL 2 x OCP mezzanine (3.0 x16)
Rear I/O	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NR281N40MR-00	6NR2813C2MR-00	6NR2813C1MR-00

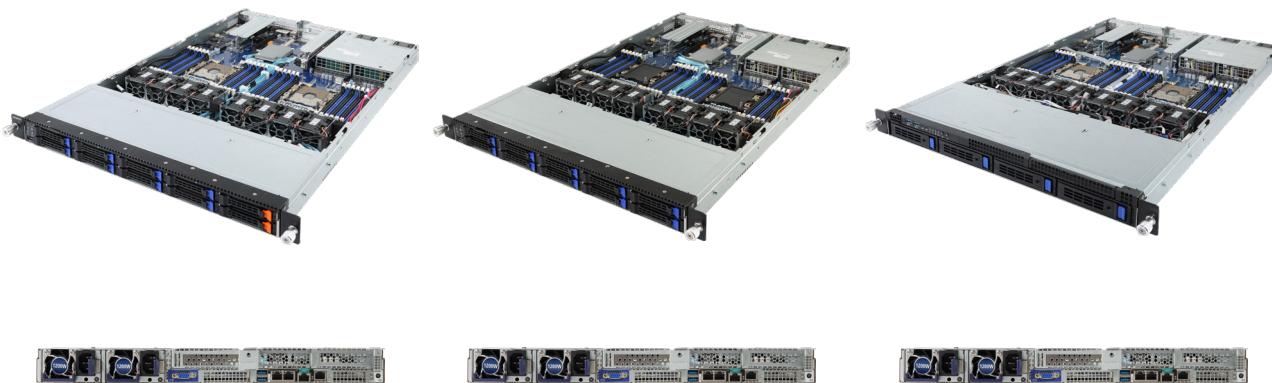


R281-3C0

R261-3C0

R181-NA0

Form Factor	2U (438 x 87.5 x 730mm)	2U (430 x 87 x 710mm)	1U (438 x 43.5 x 730mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 125W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 16 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I210) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN
Storage	12 x 3.5" + 2 x 2.5" SATA/ SAS hot-swap HDD SAS devices supported via SAS add-on card Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM	12 x 3.5" + 2 x 2.5" SATA/ SAS hot-swap HDD SAS devices supported via SAS add-on card Intel SATA RAID 0/ 1/ 10/ 5 2 x 7-pin SATA III supports SATA DOM	10 x 2.5" NVMe hot-swap HDD Intel VROC RAID 0/ 1/ 5 1 x 7-pin SATA III supports SATA DOM
Expansion Slots	2 x PCIe x16 (3.0 x16), FHHL 4 x PCIe x8 (3.0 x8), FHHL 1 x PCIe x16 (3.0 x16), LPHL 1 x PCIe x8 (3.0 x8), LPHL 2 x OCP mezzanine (3.0 x16)	6 x PCIe x16 (3.0 x16), FHHL 2 x PCIe x16 (3.0 x16), LPHL	1 x PCIe x16 (3.0 x16), FHHL 1 x OCP mezzanine (3.0 x16)
Rear I/O	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC	1 x 800W single PSUs 80 PLUS Platinum, 100~240V AC	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NR2813C0MR-00	6NR2613C0MR-00	6NR181NA0MR-00

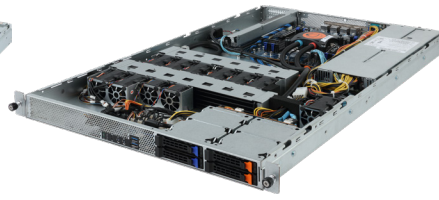


R181-N20

R181-2A0

R181-340

Form Factor	1U (438 x 43.5 x 730mm)	1U (438 x 43.5 x 730mm)	1U (438 x 43.5 x 730mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN
Storage	2 x 2.5" NVMe & 8 x SATA/ SAS hot-swap HDD Intel VROC RAID 0/ 1/ 5 Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM SAS devices supported via SAS add-on card	10 x 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM SAS devices supported via SAS add-on card	4 x 3.5" / 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM SAS devices supported via SAS add-on card 1 x 2.5" internal fixed HDD
Expansion Slots	2 x PCIe x8 (3.0 x8), LPHL 1 x PCIe x16 (3.0 x16), LPHL 2 x OCP mezzanine (3.0 x16)	2 x PCIe x8 (3.0 x8), LPHL 1 x PCIe x16 (3.0 x16), LPHL 2 x OCP mezzanine (3.0 x16)	2 x PCIe x8 (3.0 x8), LPHL 1 x PCIe x16 (3.0 x16), LPHL 2 x OCP mezzanine (3.0 x16)
Rear I/O	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM (RJ45 type) 2 x RJ45 1 x MLAN 1 x ID button with LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NR181N20MR-00	6NR1812A0MR-00	6NR181340MR-00



R161-340

R161-R12

R161-R13

Form Factor	1U (438 x 43.5 x 730mm)	1U (438 x 43.5 x 730mm) Liquid Cooling Solution	1U (438 x 43.5 x 730mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 125W	9th Gen. Intel Core X Series Processors 1 x LGA 2066 socket	9th Gen. Intel Core X Series Processors 1 x LGA 2066 socket
Memory	6-Channel DDR4 memory, 16 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	4-Channel DDR4 memory, 8 x DIMMs Support for non-ECC Un-buffered DIMM DDR4 modules: 2667/ 2400/ 2133 MHz	4-Channel DDR4 memory, 8 x DIMMs Support for non-ECC Un-buffered DIMM DDR4 modules: 2667/ 2400/ 2133 MHz
LAN	2 x GbE LAN (Intel I210) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN
Storage	4 x 3.5" / 2.5" SATA/SAS hot-swap HDD 1 x 2.5" internal fixed SATA HDD/SSD 2 x 7-pin SATA III supports SATA DOM Intel SATA RAID 0/ 1/ 10/ 5 SAS devices supported via SAS add-on card 2 x M.2 (3.0 x4, M-key)	2 x 2.5" NVMe + 2 x 2.5" SATA/ SAS or 4 x 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 SAS devices supported via SAS add-on card 2 x M.2 (3.0 x4, M-key)	2 x 2.5" NVMe + 4 x 2.5" SATA/SAS or 6 x 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 SAS devices supported via SAS add-on card 2 x M.2 (3.0 x4, M-key)
Expansion Slots	2 x PCIe x16 (3.0 x16), FHHL	2 x PCIe x16 (3.0 x16), LPHL	2 x PCIe x16 (3.0 x16), LPHL
Rear I/O	2 x USB 3.0 1 x VGA 2 x RJ45 1 x MLAN 1 x ID button with LED	2 x USB 3.0 1 x VGA 1 x COM 2 x RJ45 1 x MLAN	2 x USB 3.0 1 x VGA 1 x COM 2 x RJ45 1 x MLAN
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	1 x 550W single PSUs 80 PLUS Platinum, 100~240V AC	2 x 1100W redundant PSUs 80 PLUS Platinum, 100~240V AC	1 x 850W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 Windows Server 2019 RHEL 6.9/ 7.3 SLES 11.4/ 12.2/ 15 Ubuntu 16.04.2 LTS/ 18.04 LTS VMware ESXi 6.0/ 6.5/ 6.7 Citrix XenServer 7.1.0 CU2/ 7.4.0	Windows Server 2012 R2 Update1 Windows Server 2016 Windows 10 RHEL 6.9/ 7.5 SLES 11.4/ 12.3 Ubuntu 16.04.5 LTS/ 18.04 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 Windows 10 RHEL 6.9/ 7.5 SLES 11.4/ 12.3 Ubuntu 16.04.5 LTS/ 18.04 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NR161340MR-00	6NR161R12MR-00	6NR161R13MR-00

Tower Server

GIGABYTE's tower servers are ideal for SOHO, SMB, SME, and enterprise environments with heavy-duty workloads. Engineered to support the latest generation processors and high-end GPU expansion cards, end users are able to fully exploit extremely high I/O, configuration flexibility, ease of management, and rock-solid reliability in addition to an abundance of expansion options.

- **Professional workstations**
- **Data modelling**
- **High density hot storage**
- **Media transcoding, editing, and rendering**





W281-G40

W131-X30

Form Factor	Pedestal (482.6 x 178 x 595mm)	Mini-Tower (361 x 189 x 410mm)
CPU	Intel Xeon W Processor Family 1 x LGA 2066 socket, TDP up to 140W	Intel Xeon Processor E3-1200 V6/ V5 Product Family 7th/ 6th Gen. Intel Core i3/ Celeron/ Pentium processors 1 x LGA 1151 socket
Memory	4-Channel DDR4 memory, 8 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2666/ 2400 MHz	2-Channel DDR4 memory, 4 x DIMMs ECC UDIMM up to 64GB 1.2V modules: 2400/ 2133 MHz
LAN	2 x GbE LAN (Intel I210)	2 x GbE LAN (Intel I210 + I219LM) 1 x GbE MLAN
Storage	4 x 3.5"/ 2.5" SATAIII hot-swap HDD/SSD bays 1 x 2.5" SATAIII internal fixed drive bay SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 10/ 5 1 x M.2 (3.0 x4, M-key) 1 x U.2 (3.0 x4, mini-SAS HD type)	2 x peripheral 5.25" drive bays 1 x 3.5" fixed drive bay 1 x 2.5" fixed drive bay Intel SATA RAID 0/ 1/ 10/ 5 ODD drive as an option
Expansion Slots	4 x PCIe x16 (3.0 x16) 3 x PCIe x8 (3.0 x 8) Supports NVIDIA SLI and AMD CrossFireX technologies	2 x PCIe x16 (3.0 x8) 1 x PCIe x4 (3.0 x4) 1 x PCIe x1 (3.0 x1)
Rear I/O	1 x PS/2 8 x USB 3.0 2 x USB 3.1 in Type-A & Type-C 2 x RJ45 5 x Audio jacks 1 x Optical S/PDIF-Out	1 x Serial (COM1) 1 x VGA 3 x RJ45 4 x USB 3.0
TPM	1 x TPM header	1 x TPM header
Power Supply	1 x 1200W PSU 80 PLUS Gold	1 x 500W PSU 80 PLUS Bronze
OS Supported	Windows 10 RHEL 6.8 / 7.3 SLES 11.4 / 12.2 Ubuntu 16.04 / 16.10 LTS	Windows Server 2012 R2 Windows Server 2016 RHEL 7.2 SLES 11.4/ 12 Ubuntu 12.04 LTS/ 14.04 LTS VMware 5.5 U3/ 6.0 U1
Board Management	-	Aspeed AST2400 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NW281G40MR-00	6NW131X30MR-00

High Performance Computing System

GIGABYTE is an industry leader in high performance computing, delivering systems with the highest GPU density available in the market combined with excellent cooling performance, power efficiency and superior networking flexibility. These systems can provide massive parallel computing capabilities to your organization. They are designed for:

- **Artificial Intelligence**
- **Deep Learning**
- **Scientific Analysis & Simulation**



G481-S80

G481-HA0

G481-HA1

Form Factor	4U (448 x 176 x 880mm) 8 x SXM2 GPUs supported	4U (448 x 176 x 880mm) 10 x PCIe GPUs supported (Dual-Root)	4U (448 x 176 x 880mm) 10 x PCIe GPUs supported (Single-Root)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	1 x GbE MLAN 2 x GbE BASE-T LAN (Intel I350-AM2) 4 x Omni-Path QSFP28 LAN (as an option)	1 x GbE MLAN 2 x GbE BASE-T LAN (Intel I350-AM2) 2 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x Omni-Path QSFP28 LAN (as an option)	1 x GbE MLAN 2 x GbE BASE-T LAN (Intel I350-AM2) 2 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x Omni-Path QSFP28 LAN (as an option)
Storage	6 x 2.5" SATA/ SAS + 4 x 2.5" NVMe hot-swap HDD Intel SATA RAID 0/1/10/5 Intel VROC RAID 0, 1, 5	2 x 2.5" SATA/ SAS & 8 x 2.5" NVMe + 12 x 3.5" SATA/ SAS hot-swap HDD Pre installed Broadcom SAS3008 SAS card Software RAID, IR mode Intel VROC RAID 0, 1, 5	2 x 2.5" SATA/ SAS & 8 x 2.5" NVMe + 12 x 3.5" SATA/ SAS hot-swap HDD Pre installed Broadcom SAS3008 SAS card Software RAID, IR mode Intel VROC RAID 0, 1, 5
Expansion Slots	8 x NVIDIA Tesla V100/ P100 SXM2 modules 4 x PCIe3.0 x16, LPHL, 1 x PCIe3.0 x8, LPHL 1 x OCP mezzanine (3.0 x8)	10 x PCIe x16 (3.0 x16) for GPUs 1 x PCIe3.0 x16, LPHL 1 x PCIe3.0 x8, LPHL (occupied by CRA3338)	10 x PCIe x16 (3.0 x16) for GPUs 1 x PCIe3.0 x16, LPHL 1 x PCIe3.0 x8, LPHL (occupied by CRA3338)
Rear I/O	1 x MLAN	2 x RJ45 1 x MLAN	2 x RJ45 1 x MLAN
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	4 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	3 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	3 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NG481S80MR-00	6NG481HA0MR-00	6NG481HA1MR-00



G481-H80

G481-H81

G291-2G0

Form Factor	4U (448 x 176 x 880mm) 8 x PCIe GPUs supported	4U (448 x 176 x 880mm) 8 x PCIe GPUs supported	2U (448 x 87.5 x 800mm) 16 x PCIe GPUs supported
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	1 x GbE MLAN 2 x GbE BASE-T LAN (Intel I350-AM2) 2 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x Omni-Path QSFP28 LAN (as an option)	1 x GbE MLAN 2 x GbE BASE-T LAN (Intel I350-AM2) 2 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x Omni-Path QSFP28 LAN (as an option)	2 x 10Gb/s BASE-T LAN (Intel X550-AT2) 1 x GbE MLAN
Storage	8 x 2.5" SATA/ SAS & 2 x 2.5" NVMe hot-swap HDD Intel SATA RAID 0/ 1 / 10/ 5 Intel VROC RAID 0, 1, 5	12 x 3.5" SATA/ SAS hot-swap HDD Default configuration supports: 8 x SATA drives SAS card is required to enable 4 x drive bays Intel SATA RAID 0/ 1 / 10/ 5	8 x 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM SAS devices supported via SAS add-on card
Expansion Slots	8 x PCIe x16 (3.0 x16) for GPUs 1 x PCIe3.0 x16, LPHL 1 x PCIe3.0 x8, LPHL (occupied by CNV3024)	8 x PCIe x16 (3.0 x16) for GPUs 1 x PCIe3.0 x16, LPHL 1 x PCIe3.0 x8, LPHL	16 x PCIe x16 (3.0 x16) for GPUs 2 x PCIe x16 (3.0 x16), LPHL OCP type add-on card as an option
Rear I/O	2 x RJ45 1 x MLAN	2 x RJ45 1 x MLAN	2 x USB 3.0 1 x VGA 2 x RJ45 1 x MLAN 1 x power button with LED 1 x NMI button 1 x ID button with LED 1 x reset button 1 x system status LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	3 x 1600W redundant PSUs 80 PLUS Platinum, 100~240V AC	3 x 1600W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NG481H80MR-00	6NG481H81MR-00	6NG2912G0MR-00



G291-280

G291-281

G191-H44

Form Factor	2U (448 x 87.5 x 800mm) 8 x PCIe GPUs supported	2U (448 x 87.5 x 800mm) 8 x PCIe GPUs supported	1U (440 x 43.5 x 900mm) 4 x PCIe GPUs supported
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W
Memory	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 24x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	2 x 10Gb/s BASE-T LAN (Intel X550-AT2) 1 x GbE MLAN	2 x 10Gb/s BASE-T LAN (Intel X550-AT2) 1 x GbE MLAN	2 x GbE LAN (Intel I350-AM2) 1 x GbE MLAN
Storage	8 x 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM SAS devices supported via SAS add-on card	8 x 2.5" SATA/ SAS hot-swap HDD Intel SATA RAID 0/ 1/ 10/ 5 1 x 7-pin SATA III supports SATA DOM SAS devices supported via SAS add-on card	2 x 2.5" SATA/ SAS hot-swap HDD 2 x 2.5" SATA/ SAS internal HDD Intel SATA RAID 0/ 1/ 5/ 10 SAS devices supported via SAS add-on card
Expansion Slots	8 x PCIe x16 (3.0 x16) for GPUs 2 x PCIe x16 (3.0 x16), LPHL OCP type add-on card as an option	8 x PCIe x16 (3.0 x16) for GPUs 2 x PCIe x16 (3.0 x16), LPHL OCP type add-on card as an option	4 x PCIe x16 (3.0 x16) for GPUs 2 x PCIe x16 (3.0 x16), LPHL
Rear I/O	2 x USB 3.0 1 x VGA 2 x RJ45 1 x MLAN 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	2 x USB 3.0 1 x VGA 2 x RJ45 1 x MLAN 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	2 x USB 3.0 1 x VGA 1 x Serial 2 x RJ45 1 x MLAN 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 activity LED
TPM	1 x TPM header	1 x TPM header	1 x TPM header
Power Supply	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 2000W redundant PSUs 80 PLUS Titanium, 100~240V AC	2 x 2000W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NG291280MR-00	6NG291281MR-00	6NG191H44MR-00-200



G190-G30

G180-G00

Form Factor 1U (440 x 43.5 x 900mm)
4 x SXM2 GPUs supported

1U (438 x 43.5 x 740mm)
2 x PCIe GPUs supported

CPU Intel Xeon Processor E5-2600 V3/ V4 Product Family
2 x LGA 2011-3 sockets, TDP up to 145W

Intel Xeon Processor E5-2600 V3/ V4 Product Family
2 x LGA 2011-3 sockets, TDP up to 145W

Memory 4-Channel DDR4 memory, 16 x DIMMs
RDIMM up to 32GB, LRDIMM up to 64GB
3DS LRDIMM up to 128GB
1.2V modules: 2400/ 2133 MHz

4-Channel DDR4 memory, 16 x DIMMs
RDIMM up to 32GB, LRDIMM up to 64GB
3DS LRDIMM up to 128GB
1.2V modules: 2400/ 2133 MHz

LAN 2 x GbE LAN (Intel I350-AM2)
1 x GbE MLAN

2 x GbE LAN ports (Intel I210-AT)
1 x GbE MLAN

Storage 4 x 2.5" SATA/ SAS hot-swap HDD
Intel SATA RAID 0/ 1/ 5/ 10
SAS devices supported via SAS add-on card

4 x 2.5" SATA/ SAS hot-swap HDD
Intel SATA RAID 0/ 1/ 5/ 10
SAS devices supported via SAS add-on card

Expansion Slots 4 x NVIDIA Tesla V100/ P100 SXM2 modules
2 x PCIe x16 (3.0 x16), LPHL

2 x PCIe x16 (3.0 x16) for GPUs
1 x PCIe x16 (3.0 x16 or x8), LPHL
1 x PCIe x8 (3.0 x0 or x8), LPHL

Front I/O 2 x USB 3.0
3 x RJ45
1 x VGA
1 x power button with LED
1 x ID button with LED
1 x reset button
1 x NMI button

2 x USB 3.0
3 x RJ45
1 x VGA 1 x Serial
1 x Power button with LED
1 x ID button with LED
1 x Status LED
1 x NMI button
1 x Reset button

TPM 1 x TPM header

1 x TPM header

Power Supply 2 x 2000W redundant PSUs
80 PLUS Titanium, 100~240V AC

2 x 1200W redundant PSUs
80 PLUS Platinum

OS Supported Windows Server 2008 R2/ 2012 R2
Windows Server 2016
RHEL 6.9/ 7.3
SLES 11.4/ 12
Ubuntu 12.04 LTS/ 14.04 LTS
VMware ESXi 5.1 U2/ 5.5 U2/ 6.0 U1/ 6.5

Windows Server 2008 R2/ 2012 R2
Windows Server 2016
RHEL 6.9/ 7.3
SLES 11.4/ 12
Ubuntu 12.04 LTS/ 14.04 LTS
VMware ESXi 5.1 U2/ 5.5 U2/ 6.0 U1/ 6.5

Board Management Aspeed AST2400 management controller
Avocent MergePoint IPMI 2.0 web interface

Aspeed AST2400 management controller
Avocent MergePoint IPMI 2.0 web interface

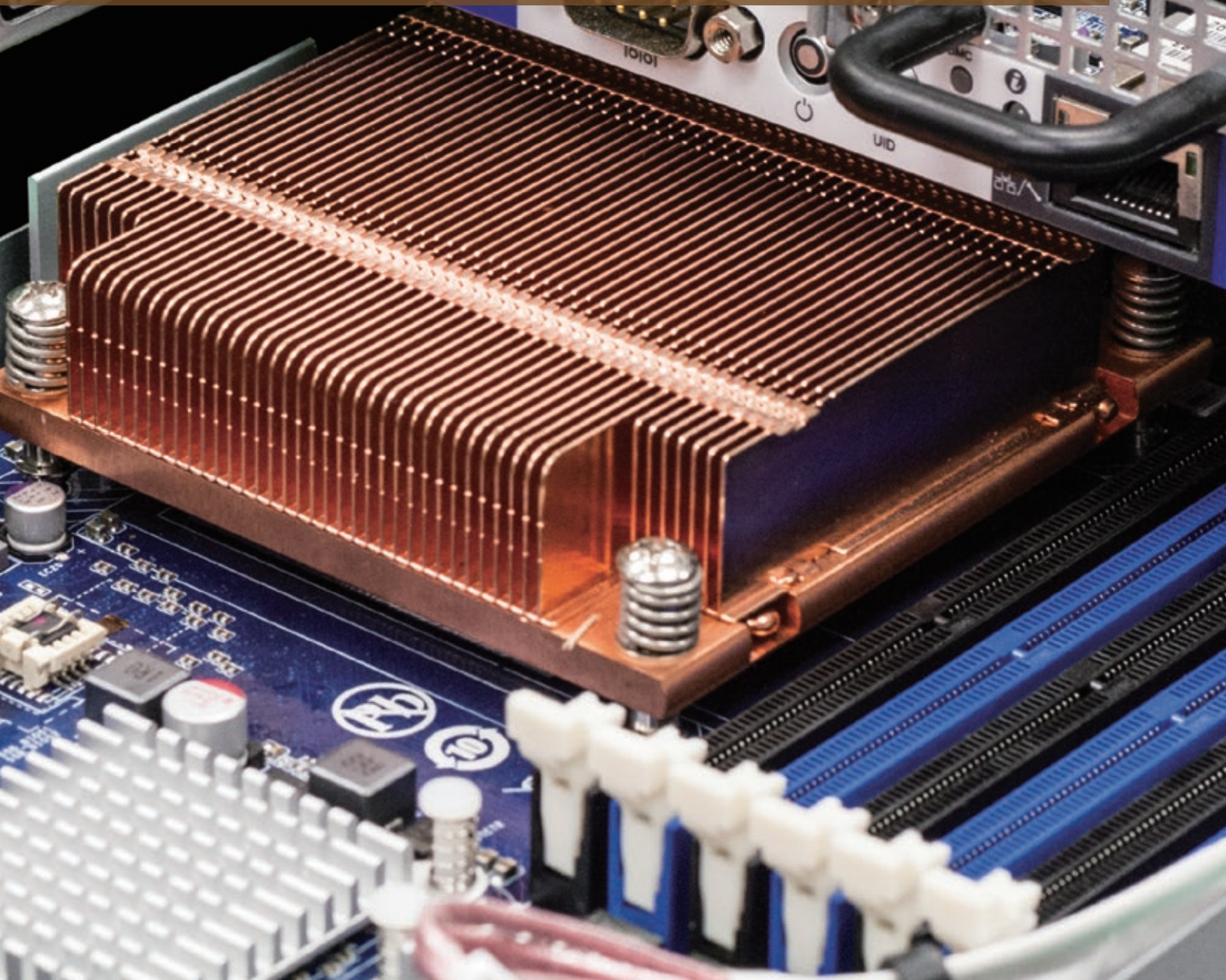
Part Numbers 6NG190G30MR-00

6NG180G00MR-00

Hyper-Converged System

Our systems designed for HCI (Hyper-Converged Infrastructure) are high-density multi-node rackmounts, utilizing an innovative design to combine compute, storage, networking and even GPU support into a single system. GIGABYTE's HCI systems often lead the market in terms of thermal performance and expansion slot capacity. They are ideal for:

- **Cloud Service Infrastructure**
- **Virtualization**
- **HPC Infrastructure**



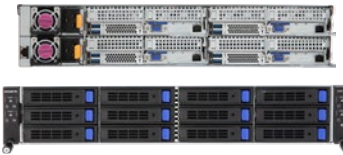
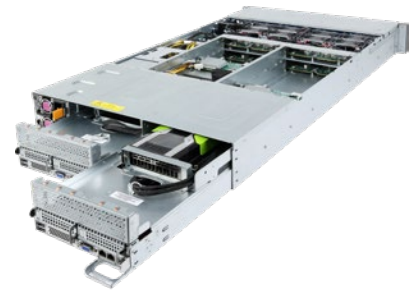
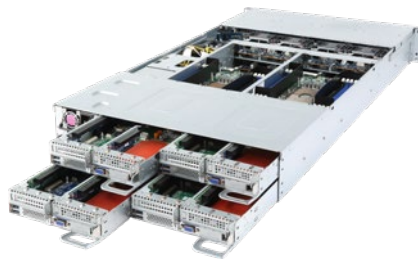
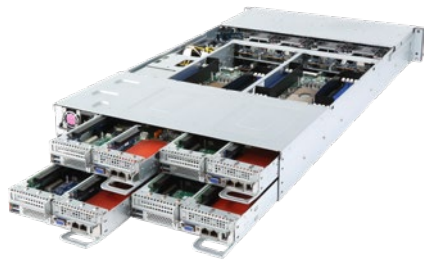


H281-PE0

H261-N80

H261-H61

Form Factor	2U 4-Node front access (447 x 87 x 902.3mm)	2U 4-Node rear access (440 x 87 x 820mm)	2U 4-Node rear access (440 x 87 x 820mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 8 x LGA 3647 sockets, TDP up to 165W	2nd Gen. Intel Xeon Scalable Processor Family 8 x LGA 3647 sockets, TDP up to 165W	2nd Gen. Intel Xeon Scalable Processor Family 8 x LGA 3647 sockets, TDP up to 165W
Memory	6-Channel DDR4 memory, 96 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 64 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 64 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	8 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x GbE MLAN 1 x GbE CMC LAN	8 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x GbE MLAN 1 x GbE CMC LAN	4 x GbE MLAN 1 x GbE CMC LAN
Storage	8 x 2.5" 7mm SATA/SAS hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1 1 x M.2 (3.0 x4, M-key)	16 x 2.5" SATA/ SAS & 8 x NVMe hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 5 Intel VROC RAID 0/ 1/ 5	16 x 2.5" SATA/ SAS & 8 x NVMe hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 5 Intel VROC RAID 0/ 1/ 5
Expansion Slots	12 x PCIe x16 (3.0 x16), LPHL 4 x OCP mezzanine (3.0 x16)	4 x PCIe x16 (3.0 x16), LPHL 4 x PCIe x8 (3.0 x8), LPHL 4 x OCP mezzanine (3.0 x16)	4 x PCIe x16 (3.0 x16), LPHL 4 x PCIe x8 (3.0 x8), LPHL 4 x OCP mezzanine (3.0 x16)
Rear I/O	8 x USB 3.0 8 x RJ45 4 x Power button with LED 4 x ID button with LED 4 x Status LED 4 x NMI button 4 x Reset button 1 x CMC LAN	8 x USB 3.0 4 x VGA 8 x RJ45 4 x MLAN 4 x ID LEDs 1 x CMC LAN	8 x USB 3.0 4 x VGA 4 x MLAN 4 x ID LEDs 1 x CMC LAN
TPM	1 x TPM header per node	1 x TPM header per node	1 x TPM header per node
Power Supply	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NH281PE0MR-00	6NH261N80MR-00	6NH261H61MR-00

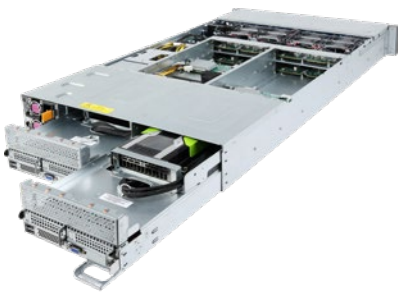


H261-3C0

H261-H60

H231-G20

Form Factor	2U 4-Node rear access (440 x 87 x 820mm)	2U 4-Node rear access (440 x 87 x 820mm)	2U 2-Node rear access (448 x 87.5 x 800mm) 2 x PCIe GPUs supported
CPU	2nd Gen. Intel Xeon Scalable Processor Family 8 x LGA 3647 sockets, TDP up to 165W	2nd Gen. Intel Xeon Scalable Processor Family 8 x LGA 3647 sockets, TDP up to 165W	2nd Gen. Intel Xeon Scalable Processor Family 4 x LGA 3647 sockets, TDP up to 165W
Memory	6-Channel DDR4 memory, 64 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 64 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	6-Channel DDR4 memory, 32 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready
LAN	8 x 10GbE BASE-T LAN (Intel X550-AT2) 4 x GbE MLAN 1 x GbE CMC LAN	4 x GbE MLAN 1 x GbE CMC LAN	4 x 10GbE BASE-T LAN (Intel X550-AT2) 2 x GbE MLAN 1 x GbE CMC LAN
Storage	12 x 3.5"/ 2.5" SATA/ SAS hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 5	12 x 3.5"/ 2.5" SATA/ SAS hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 5	20 x SATA/ SAS & 4 x NVMe 2.5" hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 10/ 5 Intel VROC RAID 0/ 1/ 5
Expansion Slots	4 x PCIe x16 (3.0 x16), LPHL 4 x PCIe x8 (3.0 x8), LPHL 4 x OCP mezzanine (3.0 x16)	4 x PCIe x16 (3.0 x16), LPHL 4 x PCIe x8 (3.0 x8), LPHL 4 x OCP mezzanine (3.0 x16)	2 x PCIe x16 (3.0 x16) for GPU 2 x PCIe x16 (3.0 x16), LPHL 2 x PCIe x8 (3.0 x8), LPHL 2 x OCP mezzanine (3.0 x16)
Rear I/O	8 x USB 3.0 4 x VGA 8 x RJ45 4 x MLAN 4 x ID LEDs 1 x CMC LAN	8 x USB 3.0 4 x VGA 4 x MLAN 4 x ID LEDs 1 x CMC LAN	4 x USB 3.0 2 x VGA 4 x RJ45 2 x MLAN 2 x ID LEDs 1 x CMC LAN
TPM	1 x TPM header per node	1 x TPM header per node	1 x TPM header per node
Power Supply	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NH2613C0MR-00	6NH261H60MR-00	6NH231G20MR-00



H231-H60

H270-F4G

H27N-H70/ H270-H70

Form Factor	2U 2-Node rear access (448 x 87.5 x 800mm) 2 x PCIe GPUs supported	2U 4-Node rear access (447 x 87.2 x 780mm)	2U 4-Node rear access (447 x 87.2 x 780mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 4 x LGA 3647 sockets, TDP up to 165W	Intel Xeon Processor E5-2600 V3/ V4 Product Family, 8 x LGA 2011-3 sockets	Intel Xeon Processor E5-2600 V3/ V4 Product Family, 8 x LGA 2011-3 sockets
Memory	6-Channel DDR4 memory, 32 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	4-Channel DDR4 memory, 64 x DIMMs RDIMM up to 32GB, LRDIMM up to 64GB 3DS LRDIMM up to 128GB 1.2V modules: 2400/ 2133 MHz	4-Channel DDR4 memory, 64 x DIMMs RDIMM up to 32GB, LRDIMM up to 64GB 3DS LRDIMM up to 128GB 1.2V modules: 2400/ 2133 MHz
LAN	2 x GbE MLAN 1 x GbE CMC LAN	8 x 10GbE QSFP+ LAN (Intel 82599ES) 4 x GbE MLAN	8 x GbE LAN (Intel I350-AM2) 4 x GbE MLAN
Storage	20 x SATA/ SAS & 4 x NVMe 2.5" hot-swap HDD - SAS card is required for SAS device support Intel SATA RAID 0/ 1/ 10/ 5 Intel VROC RAID 0/ 1/ 5	16 x 2.5" SATA hot-swap HDD Intel SATA RAID 0/ 1/ 5/ 10	H27N-H70: 8 x 2.5" SATA & 8 x 2.5" NVMe hot-swap HDD H270-H70: 16 x 2.5" SATA hot-swap HDD Intel SATA RAID 0/ 1/ 5/ 10
Expansion Slots	2 x PCIe x16 (3.0 x16) for GPU 2 x PCIe x16 (3.0 x16), LPHL 2 x PCIe x8 (3.0 x8), LPHL 2 x OCP mezzanine (3.0 x16)	4 x PCIe x16 (3.0 x16), LPHL 4 x mezzanine PCIe x8 (3.0 x8)	4 x PCIe x16 (3.0 x16), LPHL 4 x mezzanine PCIe x8 (3.0 x8)
Rear I/O	4 x USB 3.0 2 x VGA 2 x MLAN 2 x ID LEDs 1 x CMC LAN	8 x USB 3.0 4 x VGA 4 x Serial 4 x QSFP+ 4 x RJ45 4 x Power buttons with LEDs 4 x ID buttons with LEDs 4 x System status LEDs 8 x LAN activity LEDs 4 x NMI buttons 4 x Reset buttons	8 x USB 3.0 4 x VGA 4 x Serial 12 x RJ45 4 x Power buttons with LED 4 x ID buttons with LED 4 x System status LEDs 8 x LAN activity LEDs 4 x NMI buttons 4 x Reset buttons
TPM	1 x TPM header per node	1 x TPM header per node	1 x TPM header per node
Power Supply	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1600W redundant PSUs 80 PLUS Platinum, 100~240V AC	2 x 1600W redundant PSUs 80 PLUS Platinum, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2008 R2/ 2012 R2 Windows Server 2016 RHEL 6.7/ 7.2 SLES 11.4/ 12 Ubuntu 12.04 LTS/ 14.04 LTS VMware ESXi 5.1 U2/ 5.5 U2/ 6.0 U1	Windows Server 2008 R2/ 2012 R2 Windows Server 2016 RHEL 6.7/ 7.2 SLES 11.4/ 12 Ubuntu 12.04 LTS/ 14.04 LTS VMware ESXi 5.1 U2/ 5.5 U2/ 6.0 U1
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2400 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2400 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NH231H60MR-00	6NH270F4GMR-00	H27N-H70: 6NH27NH70MR-00 H270-H70: 6NH270H70MR-00

Storage Server

GIGABYTE's storage servers are designed to offer excellent storage density, configuration flexibility, high availability and reliability features to guarantee data integrity, and user friendly design features for easy deployment and maintenance. They are extremely suitable for:

- **Scale-out software defined storage**
- **Big Data and cloud hosting workloads**
- **Rich media & content storage**

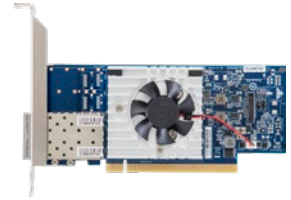


S451-3R0

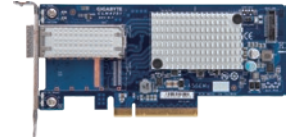
D120-C21

Form Factor	4U (482.6 x 177 x 625mm)	1U (438 x 43.5 x 867mm)
CPU	2nd Gen. Intel Xeon Scalable Processor Family 2 x LGA 3647 sockets, TDP up to 205W	Intel Xeon D-1541 Processor 1 x FCBGA 1667 socket, 45W TDP
Memory	6-Channel DDR4 memory, 16 x DIMMs RDIMM up to 64GB, LRDIMM up to 128GB 1.2V modules: 2933/ 2666/ 2400 MHz Intel Optane DC Persistent Memory Ready	2-Channel DDR4 memory, 4x DIMMs Single & dual rank modules supported ECC & non-ECC modules supported RDIMM up to 32GB, UDIMM up to 16GB 1.2V modules: 2400/ 2133/ 1866/ 1600 MHz
LAN	2 x 10GbE SFP+ LAN (QLogic QL41102) 2 x GbE LAN (Intel X722) 1 x GbE MLAN	2 x 10GbE SFP+ LAN (Intel X552) 2 x GbE LAN (Intel I210) 1 x GbE MLAN
Storage	36 x 3.5" SATA/SAS hot-swap HDD 2 x 2.5" SATA hot-swap HDD for booting device - SAS card is required for SAS device support 2 x 7-pin SATA III with SATA DOM supported SAS expander with 12Gb/s transfer speed 1 x VROC connector	16 x 3.5" easy-swap HDD supports SATA III 1 x M.2 (PCIe 3.0 x4, M-key) Software RAID 0, 1, 1E, 10
Expansion Slots	4 x PCIe x16 (3.0 x16) 1 x mezzanine card slot (3.0 x8 + x8) - Optional riser card for OCP mezzanine low profile card slot	1 x PCIe x16 (3.0 x16), LPHL - The slot is occupied by CSA323-G
Rear I/O	2 x USB 3.0 1 x VGA 2 x RJ45 2 x SFP+ 1 x MLAN 1 x ID button with LED 2 x LAN activity LEDs	2 x USB 3.0 3 x RJ45 2 x SFP+ 1 x power button with LED 1 x system status LED
TPM	1 x TPM header	1 x TPM header
Power Supply	2 x 2200W redundant PSUs 80 PLUS Platinum, 100~240V AC	1 x 400W PSU 80 PLUS Gold, 100~240V AC
OS Supported	Windows Server 2012 R2 Update1 Windows Server 2016 RHEL 6.9/ 7.3 SLES 11.4/ 12.2 Ubuntu 16.04.2 LTS VMware ESXi 6.5	Windows Server 2008 R2/ 2012 R2/ 2016 RHEL 7.2 SLES 12 Ubuntu 14.04.2 LTS Fedora 22 CentOS 7.1
Board Management	Aspeed AST2500 management controller Avocent MergePoint IPMI 2.0 web interface	Aspeed AST2400 management controller Avocent MergePoint IPMI 2.0 web interface
Part Numbers	6NS4513R0MR-00	6ND120C21MR-00

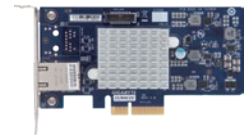
LAN Adapter



	CLNO832	CLN4C44	CLN4C42
I/O	2 x SFP+ LAN ports Supports 10Gb/s per port	4 x SFP28 LAN Supports 25Gb/s per port	2 x SFP28 LAN ports Supports 25Gb/s per port
Controller	Intel 82599ES	Mellanox ConnectX-4	Mellanox ConnectX-4
Interface	PCIe 2.0 x8	PCIe 3.0 x16	PCIe 3.0 x16
Format	OCP mezzanine (Type1)	MD2 low profile type	MD2 low profile type
Dimension	115 x 67 mm	160 x 68.9 mm	160 x 68.9 mm
Part Numbers	9CLNO832NR-00	9ALN4C44NR-00	9CLN4C42NR-00



	CLN4M34	CLN4752	CLN4751
I/O	4 x SFP28 LAN ports Supports 10Gb/s per port	2 x QSFP+ LAN Supports 40Gb/s, 10Gb/s, 1Gb/s per port	1 x QSFP+ LAN Supports 40Gb/s, 10Gb/s, 1Gb/s per port
Controller	2 x Mellanox ConnectX-4	Intel XL710-BM2	Intel XL710-BM1
Interface	PCIe 3.0 x16	PCIe 3.0 x8	PCIe 3.0 x8
Format	MD2 low profile type	Half-length low-profile	Half-length low profile
Dimension	160 x 68.9 mm	148.5 x 68.9 mm	148.5 x 68.9 mm
Part Numbers	9ALN4M34NR-00	9CLN4752NR-00	9CLN4751NR-00



	CLN4224	CLN4222	CLN4121
I/O	4 x 10G BASE-T RJ45 LAN Supports 10Gb/s, 1Gb/s per port	2 x 10G BASE-T RJ45 LAN Supports 10Gb/s, 1Gb/s per port	1 x 10GBASE-T RJ45 LAN Supports 10Gb/s, 1Gb/s per port
Controller	2 x Intel X550-AT2	Intel X550-AT2	Intel X550-AT
Interface	PCIe 3.0 x8	PCIe 3.0 x4	PCIe 3.0 x4
Format	Half-length low profile	Half-length low-profile	Half-length low profile
Dimension	168 x 68.9 mm	131 x 68.9 mm	131 x 68.9 mm
Part Numbers	9CLN4224NR-00	9CLN4222NR-00	9CLN4121NR-00

LAN Adapter



CLN4522

I/O 2 x 10GBASE-T RJ45 LAN
Supports 10Gb/s, 1Gb/s per port

Controller Intel X540-BT2

Interface PCIe 2.0 x8

Format Half-length low profile

Dimension 131 x 68.9 mm

Part Numbers 9CLN4522NR-00

CLN4832

I/O 2 x SFP+ LAN
Supports 10Gb/s per port

Controller Intel 82599ES

Interface PCIe 2.0 x8

Format Half-length low profile

Dimension 143 x 68.9 mm

Part Numbers 9CLN4832NR-00

CLN4831

I/O 1 x SFP+ LAN
Supports 10Gb/s per port

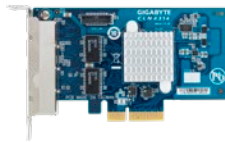
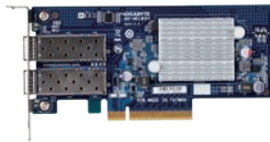
Controller Intel 82599EN

Interface PCIe 2.0 x8

Format Half-length low profile

Dimension 143 x 68.9 mm

Part Numbers 9CLN4831NR-00



GC-MLBZ1

I/O 2 x 10GbE SFP+ LAN

Controller QLogic BCM57810S

Interface PCIe 2.0 x8

Format Half-length

Dimension 145 x 68.9 mm

Part Numbers 9CMLBZ1NR-00

CLN4314

I/O 4 x 1000BASE-T RJ45 LAN
Supports 1Gb/s, 100Mb/s per port

Controller Intel I350-AM4

Interface PCIe 2.0 x4

Format Half-length low-profile

Dimension 120 x 68.9 mm

Part Numbers 9CLN4314NR-00

CLN4312

I/O 2 x 1000BASE-T RJ45 LAN
Supports 1Gb/s, 100Mb/s per port

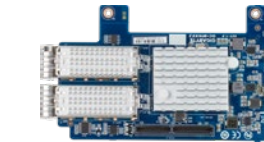
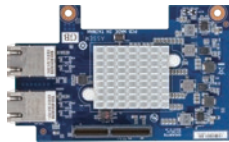
Controller Intel I350-AM2

Interface PCIe 2.0 x4

Format Half-length low profile

Dimension 120 x 68.9 mm

Part Numbers 9CLN4312NR-00



GC-MLIZ

I/O 2 x 10GbE BASE-T LAN

Controller Intel X540

Interface PCIe 2.0 x8

Format Mezzanine H type card

Dimension 76.8 x 98 mm

Part Numbers 9CMLIZNR-00

GC-MLIZS

I/O 2 x 10GbE SFP+ LAN

Controller Intel 82599ES

Interface PCIe 2.0 x8

Format Mezzanine H type card

Dimension 76.8 x 98 mm

Part Numbers 9CMLIZSNR-00

GC-MNXE2

I/O 2 x QSFP+ LAN
Supports 56Gb/s FDR InfiniBand, 40GbE

Controller Mellanox MT27508A1-FCCR-FV

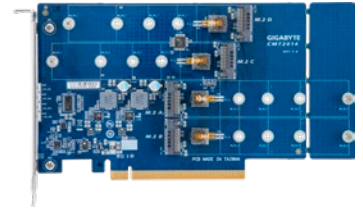
Interface PCIe 3.0 x8

Format Mezzanine H type card

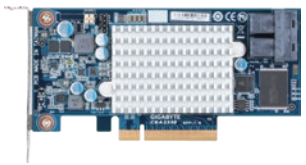
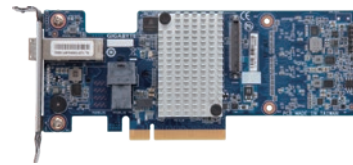
Dimension 76.8 x 98 mm

Part Numbers 9CMNXE2NR-00

Storage Adapter

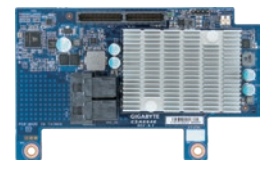
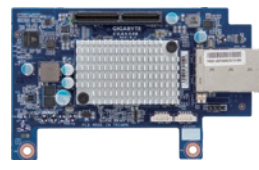
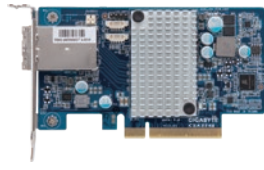


	CMT4032	CMT4034	CMT2014
I/O	2 x M.2 sockets: Socket 3, M key Type 2280/ 22110 PCIe SSD supports only	4 x M.2 sockets: Socket 3, M key Type 2280/ 22110 PCIe SSD supports only	4 x M.2 sockets: Socket 3, M key Type 2242/ 2260/ 2280/ 22110 PCIe SSD supports only
Controller	-	-	-
Interface	PCIe 3.0 x8	PCIe 3.0 x16	PCIe 3.0 x16
Format	PCIe type, low profile form factor	PCIe type, low profile form factor	PCIe type, full height form factor
Dimension	150 x 68.9mm	150 x 68.9mm	210 x 130mm
Part Numbers	9CMT4032NR-00	9CMT4034NR-00	9CMT2014NR-00



	CRA4448	CRA4548	CRA3338
I/O	2 x internal Mini-SAS HD SFF8643 connectors for up to 8 x SAS 12Gb/s Up to 32 x physical devices supported via expander	1 x internal Mini-SAS HD SFF8643 connector for up to 4 x SAS 12Gb/s 1 x external Mini-SAS HD SFF8644 connector Up to 1024 physical devices supported via expander	2 x internal Mini-SAS HD SFF8643 connectors for up to 8 x SAS 12Gb/s
Controller	LSI SAS3108	LSI SAS3108	LSI SAS3008
RAID	HWRAID 0/ 1/ 5/ 6/ 10/ 50/ 60 2GB DDR3 cache memory	HW RAID 0/ 1/ 5/ 6/ 10/ 50/ 60 2GB DDR3 cache memory	RAID 0/1/1E/10 IR RAID
Interface	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8
Format	Half-length low profile card	Half-length low profile card	Half-length card
Dimension	168 x 68.9 mm	168 x 68.9 mm	167.6 x 64.4 mm
Part Numbers	9CRA4448NR-00	9CRA4548NR-00	9CRA3338NR-00

Storage Adapter



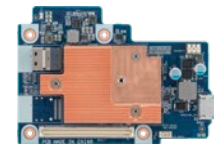
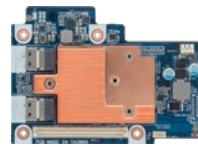
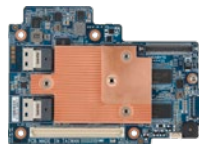
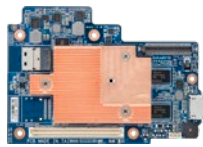
CSA4648

CSA3548

CSA6548

CSA6648

I/O	2 x internal Mini-SAS HD SFF8643 connectors for up to 8 x SAS 12Gb/s	2 x external Mini-SAS HD SFF8644 connectors Up to 1024 physical devices supported via expander	2 x external Mini-SAS HD SFF8644 connectors Up to 1024 physical devices supported via expander	2 x internal Mini-SAS HD for up to 8 x SAS 12Gb/s Up to 1024 physical devices supported via expander
Controller	LSI SAS3008	LSI SAS3008	LSI SAS3008	LSI SAS3008
RAID	IT mode firmware; up to 1024 x physical devices supported via SAS expander	SW RAID 0/ 1/ 1E/ 10 IR RAID	RAID 0/1/1E/10 IR RAID	SW RAID 0/ 1/ 1E/ 10 IR RAID
Interface	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8
Format	Half-length card	Half-length low profile card	Mezzanine type	Mezzanine type
Dimension	167.6 x 64.4 mm	120 x 64.4 mm	130 x 81.28 mm	130 x 81.28 mm
Part Numbers	9CSA4648NR-00	9CSA3548MR-00	9CSA6548NR-00	9CSA6648NR-00



CRAO558

CRAO438

CRAO338

CRAO358

I/O	1 x internal SlimSAS for up to 4 x SAS 12Gb/s 1 x external OcuLink for JBOD Up to 240 x physical devices supported via SAS expander	2 x internal SlimSAS for up to 8 x SAS 12Gb/s Up to 32 x physical devices supported via expander	2 x internal SlimSAS for up to 8 x SAS 12Gb/s Up to 1024 x physical devices supported via expander	1 x internal SlimSAS for up to 4 x SAS 12Gb/s 1 x external OcuLink for JBOD up to 1024 SAS/ SATA deices
Controller	LSI SAS3108	LSI SAS3108	LSI SAS3008	LSI SAS3008
RAID	HW RAID 0/ 1/ 5/ 6/ 10/ 50/ 60 2GB DDR3 1866 cache memory	HW RAID 0/ 1/ 5/ 6/ 10/ 50/ 60 2GB DDR3 cache memory	SW RAID 0/ 1/ 1E/ 10 IR RAID	SW RAID 0/ 1/ 1E/ 10 IR RAID
Interface	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8
Format	OCP mezzanine (Type1)	OCP mezzanine (Type1)	OCP mezzanine (Type1)	OCP mezzanine (Type1)
Dimension	110.85 x 78 mm	110.85 x 78 mm	110.85 x 78 mm	110.85 x 78 mm
Part Numbers	9CRAO558NR-00	9CRAO438NR-00	9CRAO338NR-00	9CRAO358NR-00

Security Module



	CTM010	CTM000	GC-MUFL
I/O	-	-	-
Controller	Infineon SLB9670VQ2	Infineon SLB9665TT2.0	Infineon SLB9635TT1.2
Interface	Serial Peripheral Interface 2 x 7 pin	Low pin count interface 2 x 7 pin	Low pin count interface 2 x 7 pin
Format	-	-	-
Dimension	20 x 15 (mm)	20 x 15 (mm)	20 x 15 (mm)
Part Numbers	9CTM010NR-00	9CTM000NR-00	9CMUFLNR-00

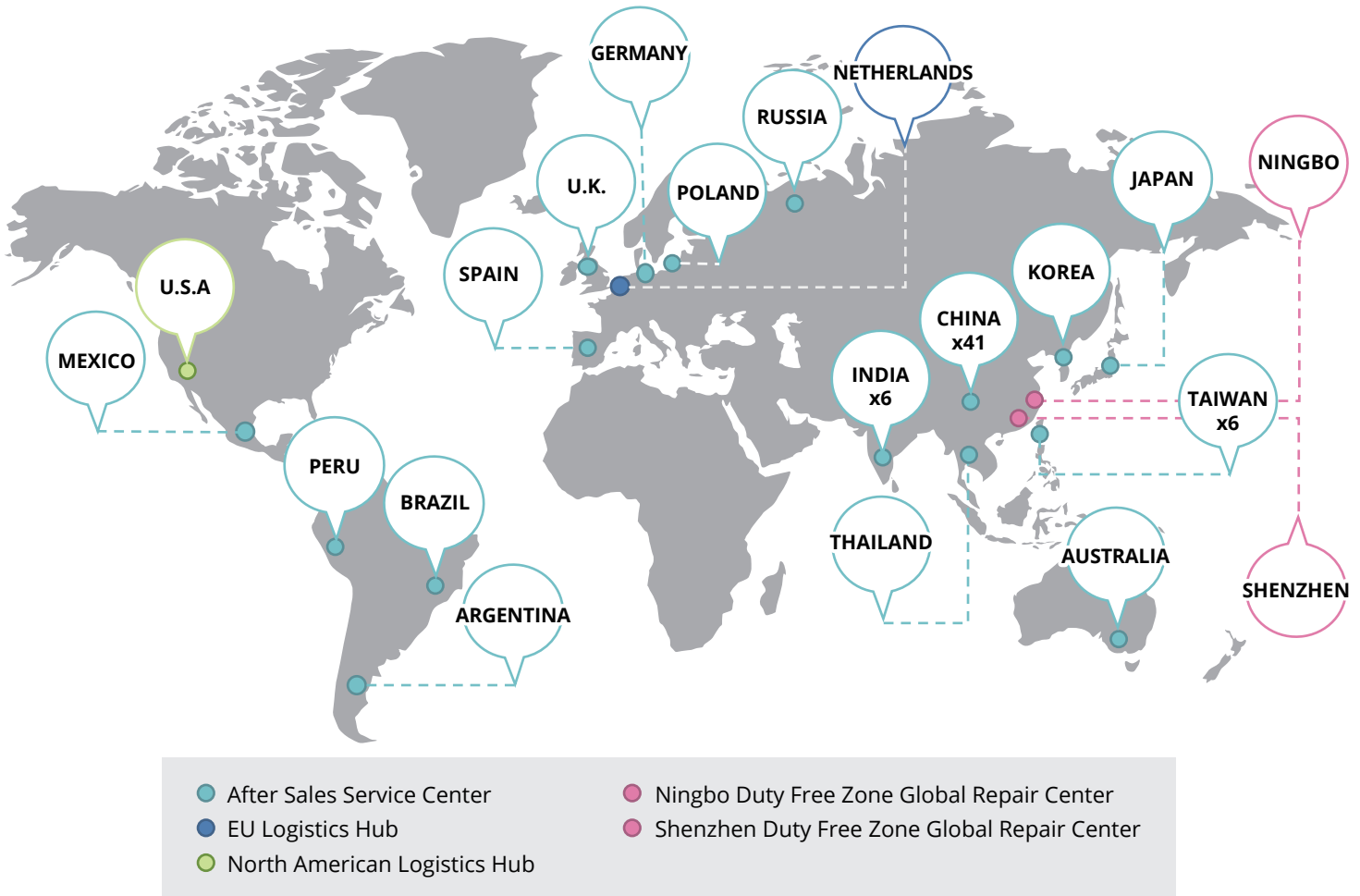
Management Module



Ring Topology Kit	
I/O	1x GbE port
Controller	Realtek RTL8370N-VB Realtek RTL8211E-VB
Interface	-
Format	-
Dimension	CLSH10: 76x54mm CLBH020: 66x38mm
Part Numbers	6NH23NR48SR-00

Global After Sales Service & Support

GIGABYTE's global after sales service and support division includes 68 physical repair & support centers located in 18 countries as well as authorized partners in an additional 12 countries.



Authorized Partner Locations:

- | | | | |
|------------|-----------|--------------|---------|
| Bangladesh | Indonesia | Philippines | Turkey |
| Dubai | Iraq | Russia | Vietnam |
| Egypt | Israel | Saudi Arabia | |
| Hong Kong | Malaysia | Singapore | |

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Globally located RMA & repair centers, onsite technical support services



Reverse logistics, product warehousing & component storage solutions

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