

GPU SuperServer SYS-740GP-TNRT

4U Rackmountable Tower Dual Processor (3rd Gen Intel® Xeon®) Workstation with 4 PCIe GPUs



Key Applications

Scientific Virtualization
 High Performance Computing
 Rendering
 AI/Deep Learning Training

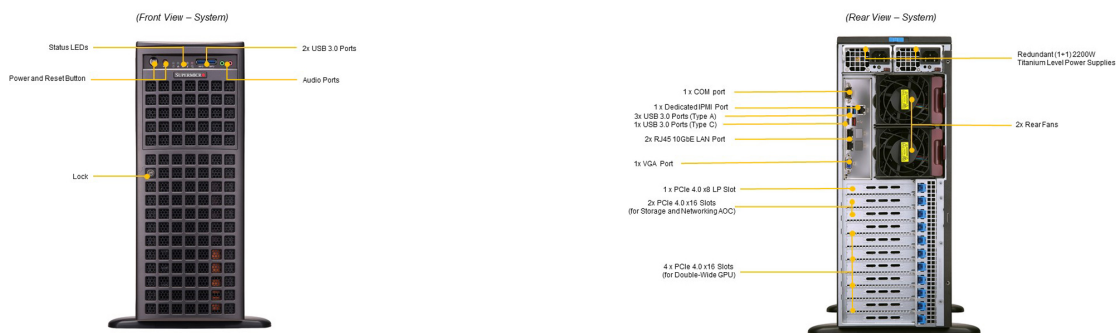
Key Features

- Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable Processors;
- Intel® C621A Chipset;
- 16 DIMM Slots; Up to 4TB DRAM; Up to 4TB Intel® Optane™ Persistent Memory (up to 6TB with DRAM) ; 3200/2933/2666 ECC DDR4 LRDIMM; RDIMM; Intel® Optane™ Persistent Memory 200 series;
- 1 PCI-E 4.0 x8 LP; 4 PCI-E 4.0 x16 (double-width) slots, 2 PCI-E 4.0 x16 (single-width) slots,;
- 2 M.2 NVMe or SATA for boot drive only; Total 8x 3.5" Hot-swap drive bays; Up to 8 NVMe drives (4 NVMe drives supported by default);
- 4 Removable heavy duty fans w/ Optimal Fan Speed Control;
- 2x 2200W redundant Titanium level power supplies;

[More details here](#)



Form Factor	Full-Tower Rackmount Enclosure: 178 x 460 x 673mm (7" x 18.1" x 26.5") Package: 685.8 x 322.6 x 952.5mm (27" x 12.7" x 37.5")
Processor	3rd Gen Intel® Xeon® Scalable processors Dual Socket LGA-4189 (Socket P+) supported TDP up to 270W; 3 UPI
GPU	Supported GPU: NVIDIA A100,A40, and RTX A6000 CPU-GPU Interconnect: PCI-E 4.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: PCI-E
System Memory	16 DIMM slots Up to 4TB ECC LRDIMM, DDR4-3200MHz
Drive Bays	8x 3.5" hot-swap NVMe/SATA/SAS Support drive bays; 10x 2.5" NVMe dedicated;
Expansion Slots	Slot 1: PCI-E 4.0 x16 FHFL Slot 2: PCI-E 4.0 x16 FHFL Slot 3: PCI-E 4.0 x16 FHFL Slot 4: PCI-E 4.0 x16 FHFL Slot 5: PCI-E 4.0 x16 LP Slot 6: PCI-E 4.0 x16 LP Slot 7: PCI-E 4.0 x8 LP
On-Board Devices	SATA: SATA3 (6Gbps); RAID 0/1/5/10 support Chipset: Intel® C621A Network Connectivity: 2x 10GbE BaseT with Intel® X550-AT2 IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Input / Output	Video: 1 VGA port(s)



Cooling System	4 heavy duty fan(s)
Power Supply	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm Dimension (W x H x L): 76 x 40 x 336 mm Output Type: Gold Finger Connector
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	SuperDoctor® 5; Watch Dog; NMI; SUM; KVM with dedicated LAN; SPM; Intel® Node Manager; SSM; IPMI 2.0; Redfish API; OOB Management Package (SFT-OOB-LIC)
PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory 7 +1 Phase-switching voltage regulator FAN: Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors Temperature: Monitoring for CPU and chassis environment Thermal Control for fan connectors
Dimensions and Weight	Height: 18.1" (460 mm) Width: 7" (178 mm) Depth: 26.5" (673 mm) Gross Weight: 57 lbs (25.85 kg) Net Weight: 52.9 lbs (24 kg) Packaging: 12.7" (H) x 27" (W) x 37.5" (D) Available Color: black
Operating Environment	Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)
Motherboard	Super X12DPG-QT6
Chassis	CSE-747BTS-R2K20BP

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X12DPG-QT6	1	Super X12DPG-QT6 Motherboard
	CSE-747BTS-R2K20BP	1	Full-Tower Chassis
Backplane	BPN-NVME4-747N-S8	1	8-port 3.5" HDD/NVMe backplane for 4U Tower chassis, all 8 ports support NVMe Gen4 / SAS / SATA devices.,RoHS
Cable 1	CBL-PWCD-0900	2	PWCD,US/EU/Canada/China/Australia,IEC60320 C14 TO C13,4FT,17
Cable 2	CBL-PWEX-1040	4	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
Cable 3	CBL-SAST-1230-100	2	Slimline x4 (LE) to Slimline x4 (STR),INT,30CM,100 OHM,
Cable 4	CBL-SAST-1230-85	2	Slimline x8 (LE) to Slimline x8 (RE),INT,30CM,85 OHm,R
Drive Tray(s)	MCP-220-00150-0B	4	NVMe Panetone 159C on Latch
Parts	MCP-260-00150-0N	1	STD I/O Shield for X12DPG-QT with EMI Gasket
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0080AP4	2	4U Active CPU Heat Sink for X12 Generation DP Workstations and 4U Servers
*Power Supply	PWS-2K20A-1R	2	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm
*Power Distributor	PDB-PT747-6824	1	Power Distributor Board is for 4U GPU solution using regular
*Cable 5	CBL-0071L	1	ROUND 16 TO 16 PIN RIBBON FP CABLE 30"L, LF
*Cable 6	CBL-0160L	2	US POWER CORD 16AWG, PB FREE
*Cable 7	CBL-0216L	4	4 TO 4 PIN FAN POWER CABLE, 210MM
*Cable 8	CBL-0286L	2	4 TO 4 PIN REAR FAN PWR EXT W/ SQUARE HEADER, 30CM (PWM)
*FAN 1	FAN-0082L4	2	80x80x38 mm 4-pin PWM Fan Assembly for SC743, SC745
*FAN 2	Fan-0114L4	2	92x38mm 4-PIN PWM FAN W/ HUS for SC747
*FAN 3	FAN-0138L4	2	92x92x38 mm, 7.5K RPM, SC747 Middle Fan for Passive Cooling GPU
*Front Bezel	MCP-210-74701-0B	1	SC747 plastic front bezel
*Drive Tray(s)	MCP-220-00073-0B	3	Black 5.25 drive tray w/o rail (SC747)
*Front Panel	MCP-280-74702-0N	1	SC747BTQ-R2K04B Front Control Panel PCB (2x USB3.0, Audio)
*Parts	MCP-290-74701-0B	1	Black plastic top cover for SC747
*Parts	MCP-290-74702-0N	1	GPU Card Holder (11 slots) for SC747TQ, SC842
*Parts	MCP-290-74703-0B	1	fixed 3.5" dummy cover for SC747
*Parts	MCP-290-74709-0B	1	Plastic feet (2 pcs/set) for 4U tower chassis, black color

Notes:

1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List			
	Part Number	Qty	Description
CacheVaults	1x BTR-TFM8G-LSICVM02 & 1x BKT-BBU-BRACKET-05	-	LSI Supercap w 8GB CV 24 cable (whole kit) & Supercap mounting bracket for PCI-E location
DVD Kit	CBL-0044L <i>eStore</i>	1	SATA CABLE 57.5CM FLAT S-S PBF.26AWG flat
	CBL-0082L <i>eStore</i>	1	Y split , big 4 pin to two RA SATA power extension 15cm , 18AWG
	DVMLITE-DVDRW24-HBT	1	BLACK LITE-ON 5.25" HH 24X DVD-RW SATA DRIVE PBF
Front Bezel	MCP-210-74703-0B	1	Front bezel cover (for 5.25" bay) for rackmount
Global Services & Support	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
GPU Kit	MCP-120-74703-0N	-	GPU long offset extender for A100 and MI100
	MCP-240-00096-0N	-	SC747B GPU / Add-on Card Dummy Assembly (2 Slots)-Single Pack
	MCP-320-74702-0N-KIT <i>eStore</i>	1	X11 GPU Kit for passive GPU/Coprocessor support
HDD Converter	MCP-220-93801-0B <i>eStore</i>	-	Black Hotswap Gen 6 3.5 to 2.5 HDD Tray (SC747, 936, 938 and Blade)
Intel® VROC RAID Key Options	<u>AOC-VROCINTMOD</u>	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	<u>AOC-VROCPREMOD</u>	1	Intel VROC Premium, RAID 0, 1, 5, 10
	<u>AOC-VROCSTNMOD</u>	1	Intel VROC Standard, RAID 0, 1, 10
Mounting Rails	MCP-290-00059-0B <i>eStore</i>	1	Rail set+handles, quick/quick, optional for 4U 17.2"W tower
Network Card(s)	AOC-STG-i4T	-	PCI-E Low Profile form factor, Quad 10GBase-T Ports (RJ45), based on Intel XL710 + X557-AT4.,RoHS
	AOC-STG-i4S	-	Standard Low-Profile Quad-port 10GbE controller with 4x SFP+ ports.
	AOC-S25G-m2S	-	Standard low-profile 2-port 25GbE with SFP+, based on Mellanox ConnectX-4 LX EN chipset.
	AOC-S40G-i2Q	-	Standard Low-Profile Dual-port 40GbE controller with 2x QSFP ports.
NVMe Kit	MCP-220-00150-0B <i>eStore</i>	4	NVMe version of 3.5" HDD Tray (Convert 3.5" to 2.5" for 747/936/938)
	CBL-SAST-1263-85	2	LaneRvsl, Slimline x8 (STR) to Slimline x8 LE,60CM,85 O
	AOC-SLG4-4E4T	1	4 Port NVMe PCIe Gen4 X16 Retimer,HF
Optional Storage Controller Card + Cable(s)	<u>AOC-S3108L-H8iR-16DD</u> & 2x CBL-SAST-1275-100	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 16HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,30AWG
	AOC-S3008L-L8i & 2x CBL-SAST-1275-100	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, RAID 0,1,10; MINI SAS HD x4 (STR) to Slimline x4 (LE),INT,75CM,100 OH
	AOC-S3108L-H8iR & 2x CBL-SAST-1275-100	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 16HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,30AWG
Software	SFT-DCMS-Single	-	DataCenter Management +A17:D53Package (per node license)
Trusted Platform Module Options	AOM-TPM-9670V-S-O	1	SPI capable vertical TPM 2.0 provisioned for server,RoHS