

Mainstream SuperServer SYS-620P-TRT

NEW

Key Applications

- Virtualization
- Enterprise Server
- Data Center Optimized
- Application and data serving
- Model analysis
- Compute Intensive Applications



Key Features

1. Dual sockets P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors
CPU TDP supports Up to 270W TDP
3 UPI up to 11.2 GT/s
2. Intel® C621A Chipset
SATA: Intel® C621A controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
3. Up to 4TB 3DS ECC RDIMM, DDR4-3200MHz, Up to 4TB 3DS ECC LRDIMM, DDR4-3200MHz
- Up to 4TB Intel® Optane™ Persistent Memory 200 Series, DDR4-3200MHz, in 18 DIMM slots (P1-DIMMB2 and P2-DIMMB2 are reserved for Intel® Optane Persistent Memory 200 Series only)
4. 4 PCI-E 4.0 x16 Low Profile (LP)
2 PCI-E 4.0 x8 Low Profile (LP)
5. Dual 10GBase-T LAN with Intel® X550 Ethernet Controller

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Specifications

Product SKUs

SYS-620P-TRT	■ SuperServer SYS-620P-TRT (Black)
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Motherboard

Super X12DPi-NT6

Processor

CPU	■ Dual Socket P+ (LGA-4189) ■ 3rd Gen Intel® Xeon® Scalable processors ■ Support CPU TDP 270W
Cores	■ Up to 36C/72T; Up to 60MB Cache

System Memory

Memory	■ Memory Capacity: 16 DIMM slots ■ Up to 4TB: PMem and DRAM ■ Memory Type: 3200MHz ECC LRDIMM/RDIMM DDR4 ■ Intel® Optane™ persistent memory 200 series
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On-Board Devices

Chipset	■ Intel® C621A
Network Connectivity	■ 2x 10GbE port(s)
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

LAN	■ 1 decicated IPMI LAN port
USB	■ 2 USB 2.0 port(s) (2 front) ■ 4 USB 3.0 port(s) (4 rear)
Video	■ 1 VGA port(s)
Serial Port	■ 2 COM Port(s) (1 front; 1 rear)
DOM	■ 2 Super DOM (Disk on Module) port

System BIOS

BIOS Type	■ AMI 32MB SPI Flash EEPROM
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Management

Chassis

Form Factor	■ 2U Rackmount
Model	■ CSE-825BTS-R1K23LPP1

Dimensions and Weight

Height	■ 3.5" (89mm)
Width	■ 17.2" (437mm)
Depth	■ 25.5" (647mm)
Package	■ 11.4" (H) x 26.7" (W) x 34.5" (D)
Weight	■ Net Weight: 35.5 lbs (16.1 kg) ■ Gross Weight: 69 lbs (31.2 kg)
Available Color	■ Black

Front Panel

Buttons	■ Power On/Off ■ System Reset
LEDs	■ HDD activity ■ Network activity ■ Power status ■ System information (overheat/UID)

Expansion Slots

PCI-Express (PCI-E)	■ Slot 1: PCI-E 4.0 x8 LP ■ Slot 2: PCI-E 4.0 x16 LP ■ Slot 3: PCI-E 4.0 x16 LP ■ Slot 4: PCI-E 4.0 x16 LP ■ Slot 5: PCI-E 4.0 x16 LP ■ Slot 6: PCI-E 4.0 x8 LP
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Drive Bays / Storage

Hot-swap	■ 8x 3.5" hot-swap SATA3 drive bays
M.2	■ 1 M.2 NVMe
Peripheral Bays	■ 1x slim DVD drive bays (optional)

System Cooling

Fans	■ 3 heavy duty fans with optimal fan speed control
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Power Supply

AC 1200W, Titanium Level, Redundancy,PMBUS 1.2, +12V/+5Vsb, 360x76x40 mm,HF,RoHS/REACH	
Dimension (W x H x L)	■ 76 x 40 x 336 mm
Output Type	■ Gold Finger
Certification	 Titanium Level [Test Report]

Software	▪ <u>Supermicro Out of Band (OOB) License</u> (included in the unit) ▪ <u>IPMI2.0</u> ▪ Redfish API ▪ <u>SSM</u> ▪ Intel® Node Manager ▪ <u>SPM</u> ▪ KVM with dedicated LAN ▪ <u>SUM</u> ▪ NMI
Power Configurations	▪ ACPI/APM Power Management

PC Health Monitoring

CPU	▪ 4+1 Phase-switching voltage regulator ▪ Monitors for CPU Cores, Chipset Voltages, Memory
FAN	▪ Fans with tachometer monitoring ▪ Pulse Width Modulated (PWM) fan connectors ▪ Status monitor for speed control
Temperature	▪ Monitoring for CPU and chassis environment ▪ Thermal Control for fan connectors

Operating Environment

RoHS	▪ RoHS Compliant
Environmental Spec.	▪ 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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X12DPi-NT6	1	Super X12DPi-NT6 Motherboard
	CSE-825BTS-R1K23LPP1	1	2U Chassis
Backplane	BPN-SAS3-825TQ	1	8-port 2U SAS3 12Gbps TQ backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-0343L-01	2	30AWG IPASS/4SATA 76/66/54/45CM W/SB
Drive Tray(s)	MCP-220-00007-01	1	Black USB/COM port tray for SC825, 836
Parts	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
Manual	MNL-2241-QRG	1	SYS-620P-TR(T) Quick Reference Guide
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0078P	1	2U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
Heatsink / Retention	SNK-P0078PC	1	2U Passive CPU Heat Sink w/ a Side Air Channel for X12 Generation Intel Whitley and Cedar Island Platforms
*Power Supply	PWS-1K23A-1R	2	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 336x76x40 mm,HF,RoHS/REACH
*Power Distributor	PDB-PT825-S8824	1	SC825 24PIN REDUNDANT PWR DISTRIBUTOR W/ SHORT CBL
*Cable 2	CBL-0071L	1	ROUND 16 TO 16 PIN RIBBON FP CABLE 30"L, LF
*Cable 3	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
*Cable 4	CBL-PWEX-1078	3	PWEX,FAN,1X4/P2.5 TO 1X4/P2.54,20CM,22AWG,5A/PIN,RoHS
*FAN 1	FAN-0206L4	3	80x80x38 mm, 13.5K RPM, Middle Cooling Fan for 2U and above Servers
*Front Panel	FPB-FP836-D	1	Front control board Dual color LED(FP836-D)forSC823M,825,825M,828,829,835,836
*Drive Tray(s)	MCP-220-00023-01	1	Black USB dummy tray support 1x 2.5" slim HDD for SC825, 836
*Drive Tray(s)	MCP-220-00075-0B	8	Black gen 5.5 hot-swap 3.5" HDD tray
*Drive Tray(s)	MCP-220-82502-0B	2	Black fixed 3.5" HDD tray or FDD dummy tray
*Rear Window	MCP-240-82608-0N	1	216B/826B LP rear window,RoHS/REACH,PBF
*Peripheral Drive1	MCP-290-00007-01	1	Black DVD dummy cover for SC825, 836
*Rail Set	MCP-290-00053-0N	1	Rail set, quick/quick, default for 2,3U 17.2";W
*Rail Set	MCP-290-00060-0N	1	Threaded rail adapter default for round hole rack
*Drive Tray(s)	MCP-290-82607-0N	1	826B/216B rear dummy cover for 2 X 2.5
*Air Shroud	MCP-310-29001-0N	1	SC825/826/216/213 Intel DP X9,X8 air shroud 13.68x13/12x13

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
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Optional Gen3 8-ports SAS Raid controller kit for SYS-620P-TRT	1x AOC-S3108L-H8IR or AOC-S3108L-H8IR-16DD + 2x CBL-SAST-0699 (or 2x CBL-SAST-0556)	1	Convert 8x hotswap SATA drives to SAS drives
Optional Gen4 8-ports SAS Raid controller kit for SYS-620P-TRT	1x AOC-S3908L-H8IR-P or AOC-S3908L-H8IR-16DD-P or AOC-S3908L-H8IR-32DD-P + 1x CBL-SAST-1270S-100	1	Convert 8x hotswap SATA drives to SAS drives
Optional parts needed to support 2x fixed NVMe drives	1x CBL-SAST-0953 (Slimline x8 to PCIe 2x SFF-8639 Power) and 2x MCP-110-82501-0N	1	1x MCP-110-82501-0N can support 1x 2.5 inch NVMe fixed drives and 1x CBL-SAST-0953 can support 2x 2.5 inch NVMe drives
Optional parts needed to support 2x fixed SATA drives	2x CBL-0044L(SATA CABLE 61CM FLAT S-S PBF.26AWG flat) and 1x CBL-0082L (Y split , big 4 pin to two RA SATA power extension 15cm, 18AWG)	1	1x CBL-0044L can support can support 1x 2.5 inch SATA drives and 1x CBL-0082L can support can support 2x 2.5 inch SATA drives
use 1x BTR-TFM8G-LSICVM02 and 1x BKT-BBU-BRACKET-05 with AOC-S3108L-H8IR-16DD or AOC-S3108L-H8IR	use 1x BTR-TFM8G-LSICVM02 and 1x BKT-BBU-BRACKET-05 with AOC-S3108L-H8IR-16DD or AOC-S3108L-H8IR	1	SuperCap and mounting bracket used for SAS raid controllers