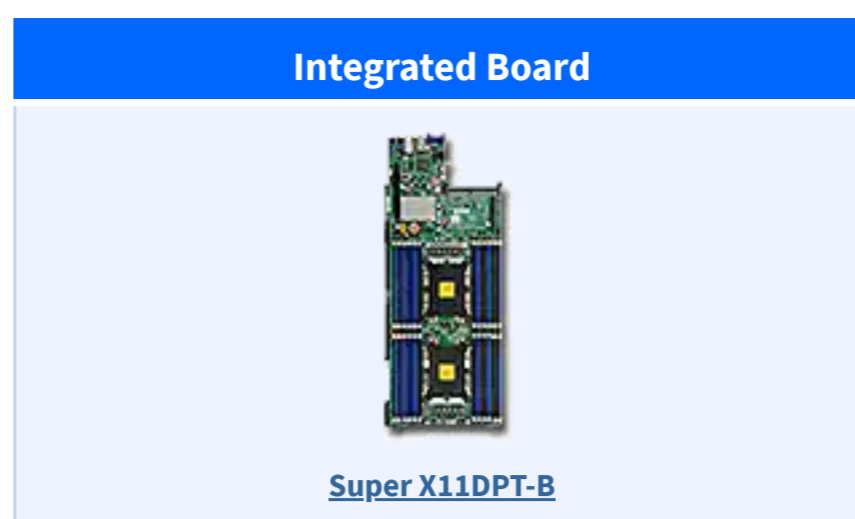


SuperServer 2029BT-HTR (Complete System Only)



Views: [Angled View](#) | [Node View](#) | [Front View](#) | [Rear View](#)



Key Features

- Compute Intensive Application
- HPC, Data Center, Enterprise Server
- Hyperscale / Hyperconverged

Four hot-pluggable systems (nodes) in a 2U form factor. Each node supports the following:

- Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)[†]
- 24 DIMMs; up to 6TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM^{††}
- 3.0 PCI-E 3.0 x16 (LP) slot; 1 [SIOM](#) card support (flexible networking)
Note: must bundle with Network card
- 6 Hot-swap 2.5" SATA3 drive bays
- IPMI 2.0 + KVM with dedicated LAN
- Video via Aspeed AST2500 BMC
- 4 Heavy duty 8cm PWM fans with air shroud
- 2200W Redundant Power Supplies **Titanium Level (96%)**

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs, 2 DIMMs, 1 HDD/NVMe and 1 SIOM card per node).

- [Drivers & Utilities](#)
- [BIOS](#)
- [IPMI](#)
- [Tested Memory](#)
- [Manuals](#)
- [OS Certification Matrix](#)
- [Quick-References Guide](#)
- [Drive Options](#)
- [Tested SIOM](#)
- [Network Card \(AOC\) Matrix](#)

Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.

Specifications ^

Product SKUs

SYS-2029BT-HTR SuperServer 2029BT-HTR (Black)

Motherboard

Super X11DPT-B

Processor (per Node)

- CPU** Dual Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors[†], Dual UPI up to 10.4GT/s Support CPU TDP 70-205W^{*}
- Cores** Up to 28 Cores
- Note** ^{*} 200W/205W CPUs are supported under certain configurations. Please contact Supermicro Technical Support for additional information about specialized system optimization
- Note** [†] BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R).

Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.

System Memory (per Node)

- Memory Capacity** 24 DIMM slots Up to 6TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM Supports Intel® Optane™ DCPMM^{††}
- Memory Type** 2933[†]/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
- Note** [†] 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro ^{††} Cascade Lake only. Contact your Supermicro sales rep for more info.

On-Board Devices

- Chipset** Intel® C621 chipset
- Storage** SATA3 (6Gbps) via Intel C620 controller; RAID 0, 1, 5, 10 per node
- Network** Must bundle with at least one [SIOM](#) network card
- IPMI** Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- Video** ASPEED AST2500 BMC

Input / Output (per Node)

- LAN** 1 RJ45 Dedicated IPMI LAN port
- USB** 2 USB 3.0 ports (rear)
- Video** 1 VGA port
- DOM** 1 SuperDOM (Disk on Module) port
- Others** **SATA DOM for boot drive only**

System BIOS

BIOS Type AMI 32Mb SPI Flash ROM

Management

- Software** Intel® Node Manager [IPMI 2.0](#) KVM with dedicated LAN [SSM](#), [SPM](#), [SUM](#) [SuperDoctor® 5](#) Watch Dog

Power Configurations ACPI / APM Power Management

PC Health Monitoring

- CPU** Monitors for CPU Cores, Chipset Voltages, Memory, 4+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

Chassis

Form Factor 2U Rackmount

Model **CSE-217BHQ+-R2K22BP2**

Dimensions and Weight

- Width** 17.6" (447mm)
- Height** 3.47" (88mm)
- Depth** 28.75" (730mm)
- Package** 24.65" (H) x 9.76" (W) x 45.28" (D)
- Weight** Gross Weight: 85 lbs (38.6kg) Net Weight: 54.5 lbs (24.7 kg)

Available Colors Black

Front Panel

- Buttons** Power On/Off button UID button
- LEDs** Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED

Expansion Slots (per Node)

PCI-Express 2 PCI-E 3.0 (x16) Low-profile slots 1 [SIOM](#) card support (must bundle with network card)

Drive Bays (per Node)

Hot-swap 6 Hot-swap 2.5" SATA3 drive bays

System Cooling

Fans 4 Heavy duty 8cm PWM fans with air shroud

Power Supply

2200W Redundant Power Supplies with PMBus

Total Output Power 1200W/1800W/1980W/2090/2200W

Dimension (W x H x L) 45 x 40 x 480 mm

Input 1200W: 100-127Vac / 50-60Hz 1800W: 200-220Vac / 50-60Hz 1980W: 220-230Vac / 50-60Hz 2090W: 230-240Vac / 50-60Hz 2090W: 180-220Vac (for UL/cUL only) 2200W: 220-240Vac (for UL/cUL only) 2090W: 230-240Vdc (for CCC only)

+12V Max: 100A / Min: 0A (100-127Vac) Max: 150A / Min: 0A (200-220Vac) Max: 165A / Min: 0A (220-230Vac) Max: 174.17A / Min: 0A (230-240Vac) Max: 174.17A / Min: 0A (180-220Vac, UL/cUL only) Max: 183.33A / Min: 0A (220-240Vac, UL/cUL only) Max: 174.17A / Min: 0A (230-240Vdc, CCC only)

12Vsb Max: 2.1A / Min: 0A

Output Type Gold Finger

Certification **Titanium Level [Test Report]**

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-X11DPT-B	4	Super X11DPT-B Motherboard
	CSE-217BHQ+-R2K22BP2	1	2U Chassis
Backplane	BPN-ADP-6SATA3-1UB	4	Support 6 SATA HDD adaptor card for Big Twin
Backplane	BPN-SAS3-217BHQ	1	2U 4-Node 24-Port Backplane Supports 6x2.5" SATA3/SAS3 SSD/HDD per Node
Cable 1	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
Drive Tray(s)	MCP-220-00141-0B-BULK	24	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Parts	MCP-240-21722-0N	1	217B/827B BigTwin type II (Edge card) BPN retention bkt assy
Air Shroud	MCP-310-21718-0B	4	Bigtwin air box for X11DPT-B(4pcs/set)
Air Shroud	MCP-310-21724-0B	4	Bigtwin 2U4N plastic air shroud (2pcs) for Cascade lake MB
Manual	MNL-1948-QRG	1	2029BT-H(N/T/NC0)R Quick Reference Guide
Riser Card	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
Riser Card	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
Heatsink / Retention	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Heatsink / Retention	SNK-P0067PSM	4	1U Passive CPU Heat Sink with a 26-mm Wide Middle Air Channel for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Fan	FAN-0183L4	4	80x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan
Power Supply	PWS-2K22A-1R	2	1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48

Optional Parts List

	Part Number	Qty	Description
TPM security module	AOM-TPM-9670H-S	1	SPI Capable TPM 2.0 Provisioned for Server, Horizontal Form Factor
TPM security module	AOM-TPM-9671H-S	1	SPI Capable TPM 1.2 Provisioned for Server, Horizontal Form Factor
Intel VROC RAID Key	AOC-VROCINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCPSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREMOMD	1	Intel VROC Premium, RAID 0, 1, 5, 10
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-QOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)
SuperDOM	-	-	Supermicro SATA DOM Solutions [Details]
Network Card(s)	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, based on Intel Fortville XL710
	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350AM2
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STG-b4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STGN-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	AOC-STGN-i1S	-	Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STG-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB

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