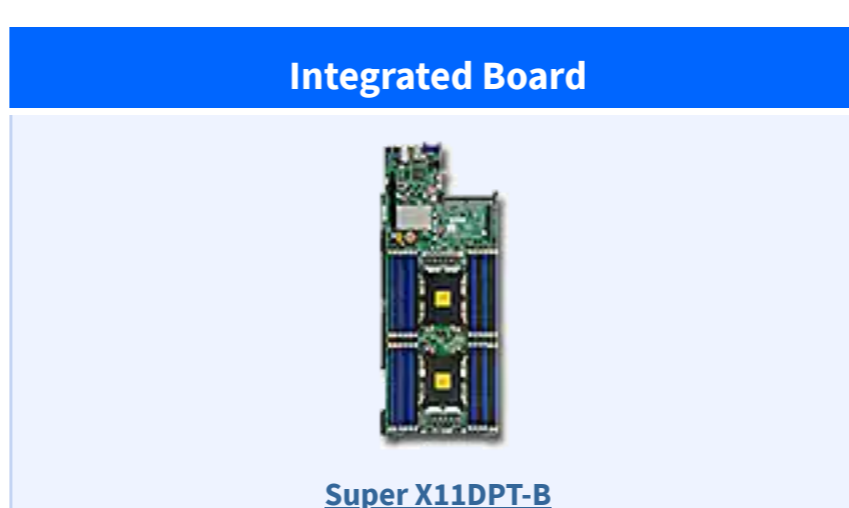


## SuperServer 2029BT-HNC0R (Complete System Only)



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



### Key Applications / 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:

1. Dual Socket P (LGA 3647) support  
2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/SkyLake)<sup>†</sup>
2. 24 DIMMs: up to 6TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM. Supports Intel® Optane™ DCPMM<sup>††</sup>
3. 2 PCI-E 3.0 x16 (LP) slot; 1 [SIOM](#) card support (flexible networking)  
Note: must bundle with Network card
4. 6 SAS3 or 4 NVMe + 2 SAS3 Hot-swap 2.5" drive bays;  
2 M.2 SATA3 or NVMe support
5. SAS3 support via Broadcom 3008; IT mode
6. 1 Carrier Card slot (M.2 support)
7. IPMI 2.0 + KVM with dedicated LAN
8. Video via Aspeed AST2500 BMC
9. 4 Heavy duty 8cm PWM fans with air shroud
10. 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](#) [Tested M.2 List](#) [NVMe Options](#) [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	
<b>SYS-2029BT-HNC0R</b>	SuperServer 2029BT-HNC0R (Black)
Motherboard	
<b>Super X11DPT-B</b>	
Processor (per Node)	
<b>CPU</b>	Dual Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors <sup>†</sup> ; Dual UPI up to 10.4GT/s Support CPU TDP 70-205W*
<b>Cores</b>	Up to 28 Cores
<b>Note</b>	* 200W/205W CPUs are supported under certain configurations. Please contact Supermicro Technical Support for additional information about specialized system optimization
<b>Note</b>	<sup>†</sup> 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)	
<b>Memory Capacity</b>	24 DIMM slots Up to 6TB 3DS ECC DDR4-2933MHz <sup>†</sup> RDIMM/LRDIMM Supports Intel® Optane™ DCPMM <sup>††</sup>
<b>Memory Type</b>	2933 <sup>†</sup> /2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
<b>Note</b>	<sup>†</sup> 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro <sup>††</sup> Cascade Lake only. Contact your Supermicro sales rep for more info.
On-Board Devices	
<b>Chipset</b>	Intel® C621 chipset
<b>SAS</b>	SAS3 (12Gbps) via Broadcom 3008; IT mode
<b>Network</b>	Must bundle with at least one <a href="#">SIOM</a> network card
<b>IPMI</b>	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
<b>Video</b>	ASPEED AST2500 BMC
Input / Output (per Node)	
<b>LAN</b>	1 RJ45 Dedicated IPMI LAN port
<b>USB</b>	2 USB 3.0 ports (rear)
<b>Video</b>	1 VGA port
<b>DOM</b>	1 SuperDOM (Disk on Module) port
<b>Others</b>	M.2 and SATA DOM for boot drive only
System BIOS	
<b>BIOS Type</b>	AMI 32Mb SPI Flash ROM
Management	
<b>Software</b>	Intel® Node Manager <a href="#">IPMI 2.0</a> KVM with dedicated LAN <a href="#">SSM</a> , <a href="#">SPM</a> , <a href="#">SUM</a> <a href="#">SuperDoctor® 5</a> Watch Dog
<b>Power Configurations</b>	ACPI / APM Power Management
PC Health Monitoring	
<b>CPU</b>	Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator
<b>FAN</b>	Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
<b>Temperature</b>	Monitoring for CPU and chassis environment Thermal Control for fan connectors

Chassis	
<b>Form Factor</b>	2U Rackmount
<b>Model</b>	<b>CSE-217BHQ+-R2K22BP2</b>
Dimensions and Weight	
<b>Width</b>	17.6" (447mm)
<b>Height</b>	3.47" (88mm)
<b>Depth</b>	28.75" (730mm)
<b>Package</b>	24.65" (H) x 9.76" (W) x 45.28" (D)
<b>Weight</b>	Gross Weight: 85 lbs (38.6kg) Net Weight: 54.5 lbs (24.7 kg)
<b>Available Colors</b>	Black
Front Panel	
<b>Buttons</b>	Power On/Off button UID button
<b>LEDs</b>	Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED
Expansion Slots (per Node)	
<b>PCI-Express</b>	2 PCI-E 3.0 (x16) Low-profile slots 1 <a href="#">SIOM</a> card support (must bundle with network card)
Drive Bays / Storage (per Node)	
<b>Hot-swap</b>	6 Hot-swap 2.5" SAS3 drive bays or 4 NVMe + 2 SAS3 Hot-swap 2.5"  <b>Please contact Supermicro Technical Support for additional information about HDD and SSD if mixed. Some restrictions and configuration rules that apply to SSD are different from HDD.</b>
<b>M.2</b>	2 M.2 NVMe or SATA (2240/2260/2280) via optional AOC-SMG3-2H8M2-B
System Cooling	
<b>Fans</b>	4 Heavy duty 8cm PWM fans with air shroud
Power Supply	
2200W Redundant Power Supplies with PMBus	
<b>Total Output Power</b>	1200W/1800W/1980W/2090/2200W
<b>Dimension (W x H x L)</b>	45 x 40 x 480 mm
<b>Input</b>	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)
<b>+12V</b>	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)
<b>12Vsb</b>	Max: 2.1A / Min: 0A
<b>Output Type</b>	Gold Finger
<b>Certification</b>	<b>Titanium Level</b> [ <a href="#">Test Report</a> ]
Operating Environment	
<b>RoHS</b>	RoHS Compliant
<b>Environmental Spec.</b>	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
<b>Motherboard / Chassis</b>	MBD-X11DPT-B	4	Super X11DPT-B Motherboard
	CSE-217BHQ+-R2K22BP2	1	2U Chassis
<b>Backplane</b>	BPN-ADP-6S3008N4-1UB	4	Big Twin 1U hybrid ADP supporting 6x SAS3 and 4x NVMe
	BPN-SAS3-217BHQ-N4	1	2U 4-Node 24-Port Backplane Supports 2x2.5" SATA3/SAS3 SSD/HDD and 4x2.5" SATA3/SAS3/NVMe Storage Media per Node
<b>Cable 1</b>	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
<b>Drive Tray(s)</b>	MCP-220-00141-0B-BULK	8	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
<b>Drive Tray(s)</b>	MCP-220-00144-0B-BULK	16	Black Gen3 hot-swap 2.5 inch HDD tray with lock, orange tab
<b>Parts</b>	MCP-240-21730-0N	1	217B BigTwin type I (Impact) BPN retention bkt w/ foam assy
<b>Air Shroud</b>	MCP-310-21718-0B	4	Bigtwin air box for X11DPT-B(4pcs/set)
<b>Air Shroud</b>	MCP-310-21724-0B	4	Bigtwin 2U4N plastic air shroud (2pcs) for Cascade lake MB
<b>Manual</b>	MNL-1948-QRG	1	2029BT-H(N/T/NC0)R Quick Reference Guide
<b>Riser Card</b>	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
<b>Riser Card</b>	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
<b>Heatsink / Retention</b>	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>Heatsink / Retention</b>	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
<b>Fan</b>	FAN-0183L4	4	80x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan
<b>Power Supply</b>	PWS-2K22A-1R	2	1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48

Optional Parts List			
	Part Number	Qty	Description
<b>TPM security module</b>	<a href="#">AOM-TPM-9670H-S</a>	1	SPI Capable TPM 2.0 Provisioned for Server, Horizontal Form Factor
<b>TPM security module</b>	<a href="#">AOM-TPM-9671H-S</a>	1	SPI Capable TPM 1.2 Provisioned for Server, Horizontal Form Factor
<b>Intel VROC RAID Key</b>	<a href="#">AOC-VROCIINTMOD</a>	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	<a href="#">AOC-VROCSTNMOD</a>	1	Intel VROC Standard, RAID 0, 1, 10
	<a href="#">AOC-VROCPREMOD</a>	1	Intel VROC Premium, RAID 0, 1, 5, 10
<b>Global Services &amp; Support</b>	<a href="#">QS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> + eStore	1	OOB Management Package (per node license)
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)
<b>SuperDOM</b>	-	-	Supermicro SATA DOM Solutions [ <a href="#">Details</a> ]
<b>Network Card(s)</b>	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
<b>Carrier Card(s)</b>	<a href="#">AOC-SMG3-2H8M2-B</a>	-	2x Hybrid NVMe/SATA M.2 carrier for BigTwin,HF,RoHS
	<a href="#">AOC-SMG2-2TM2</a>	-	2x SATA M.2 RAID 1 adapter for BigTwin,HF,RoHS

#### About Us

[Company Profile](#)  
[Green Computing](#)  
[Investor Relations](#)  
[Careers](#)  
[Site Map](#)

#### News

[Press Releases](#)  
[Supermicro in the News](#)  
[Product Reviews](#)  
[Events](#)  
[Webinars](#)

#### Resources

[Product Briefs](#)  
[Solution Briefs](#)  
[Success Stories](#)  
[Videos](#)  
[White Papers](#)  
[MySupermicro](#)

#### Connect & Follow

[Locations](#)  
[Contact Us](#)  
[Newsletter Sign-up](#)

