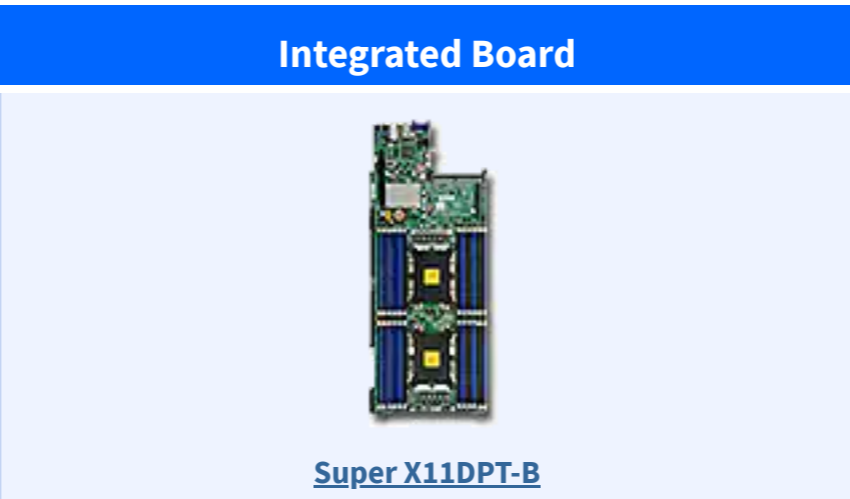


SuperServer 2029BT-DNC0R (Complete System Only)



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



Key Applications / Features

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

Two 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)[†]
2. 24 DIMMs; up to 6TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM^{††}
3. 2 PCI-E 3.0 x8 slot, 1 PCI-E 3.0 x16, 1 [SIOm](#) card support (flexible networking)
Note: must bundle with Network card
4. 4 NVMe/SAS3 + 8 SAS3 Hot-swap 2.5" drive bays; 2 internal M.2 NVMe/SATA slots
5. SAS3 support via Broadcom 3216; IT mode
6. IPMI 2.0 + KVM with dedicated LAN
7. Video via Aspeed AST2500 BMC
8. 4 Heavy duty 8cm PWM fans with air shroud
9. 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](#) | [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-DNC0R SuperServer 2029BT-DNC0R (Black)
Motherboard	Super X11DPT-B
Processor (per Node)	<p>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</p> <p>Cores Up to 28 Cores</p> <p>Note [†] BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)</p>
System Memory (per Node)	<p>Memory Capacity 24 DIMM slots Up to 6TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM Supports Intel® Optane™ DCPMM^{††}</p> <p>Memory Type 2933[†]/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM</p> <p>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.</p>
On-Board Devices	<p>Chipset Intel® C621 chipset</p> <p>SAS SAS3 (12Gbps) via Broadcom 3216; IT mode</p> <p>Network Must bundle with at least one SIOm network card</p> <p>IPMI Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</p> <p>Video ASPEED AST2500 BMC</p>
Input / Output (per Node)	<p>LAN 1 RJ45 Dedicated IPMI LAN port</p> <p>USB 2 USB 3.0 ports (rear)</p> <p>Video 1 VGA port</p> <p>DOM 1 SuperDOM (Disk on Module) port</p> <p>Others M.2 and SATA DOM for boot drive only</p>
System BIOS	BIOS Type AMI 32Mb SPI Flash ROM
Management	<p>Software Intel® Node Manager IPMI 2.0 KVM with dedicated LAN SSM, SPM, SUM SuperDoctor® 5 Watch Dog</p> <p>Power Configurations ACPI / APM Power Management</p>
PC Health Monitoring	<p>CPU Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator</p> <p>FAN Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors</p> <p>Temperature Monitoring for CPU and chassis environment Thermal Control for fan connectors</p>
Chassis	<p>Form Factor 2U Rackmount</p> <p>Model CSE-217BHD+-R2K22BP</p>
Dimensions and Weight	<p>Width 17.6" (447mm)</p> <p>Height 3.47" (88mm)</p> <p>Depth 28.75" (730mm)</p> <p>Package 24.65" (H) x 9.76" (W) x 45.28" (D)</p> <p>Weight Gross Weight: 85 lbs (38.6kg) Net Weight: 54.5 lbs (24.7 kg)</p> <p>Available Colors Black</p>
Front Panel	<p>Buttons Power On/Off button UID button</p> <p>LEDs Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED</p>
Expansion Slots (per Node)	<p>PCI-Express 2 PCI-E 3.0 x8 slots 1 PCI-E 3.0 x16 slot 1 SIOm card support (must bundle with network card)</p>
Drive Bays / Storage (per Node)	<p>Hot-swap 4 Hot-swap 2.5" NVMe/SAS3 + 8 Hot-swap 2.5" SAS3 drive bays</p> <p>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.</p> <p>M.2 2 M.2 NVMe/SATA slots</p>
System Cooling	Fans 4 Heavy duty 8cm PWM fans with air shroud
Power Supply	<p>2200W Redundant Power Supplies with PMBus</p> <p>Total Output Power 1200W/1800W/1980W/2090/2200W</p> <p>Dimension (W x H x L) 45 x 40 x 480 mm</p> <p>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)</p> <p>+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)</p> <p>12Vsb Max: 2.1A / Min: 0A</p> <p>Output Type Gold Finger</p> <p>Certification Titanium Level [Test Report]</p>
Operating Environment	<p>RoHS RoHS Compliant</p> <p>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)</p>

Parts List ^

Part Number	Qty	Description
Motherboard / Chassis MBD-X11DPT-B	2	Super X11DPT-B Motherboard
CSE-217BHD+-R2K22BP	1	2U Chassis
Backplane BPN-ADP-12S3216N4-2UB	2	NVMe backplane adapter for 2U2N hybrid big twin systems
Backplane 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
Cable 1 CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
Drive Tray(s) MCP-220-00141-0B-BULK	16	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Drive Tray(s) MCP-220-00144-0B-BULK	8	Black Gen3 hot-swap 2.5 inch HDD tray with lock, orange tab
Parts MCP-240-21730-0N	1	217B BigTwin type I (Impact) BPN retention bkt w/ foam assy
Air Shroud MCP-310-21725-0B	2	Bigtwin 2U2N plastic air shroud for Cascade lake MB
Manual MNL-2011-QRG	1	2029BT-D(N/NC0)R Quick Reference Guide
Riser Card RSC-P2-88	2	2U LHS TwinPro Riser card with two standard PCI-E x8 slots,H
Heatsink / Retention SNK-P0068PS	2	2U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Heatsink / Retention SNK-P0069PS	2	1.5U Proprietary 50-mm Tall Front Passive CPU Heat Sink for X11 Purley Platform 2U Node Twin Series Servers
Fan FAN-0162L4	4	80x80x38 mm, 13.5K RPM, HCP, LMV, and LPC Cooling Fan
Power Supply PWS-2K22A-1R	2	1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48

Part Number	Qty	Description
Fan FAN-0191L4	-	80x80x38 mm, 14.9K RPM, Non-hot-swappable Middle Cooling Fan (Optimal for computational performance)
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-VROCSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
AOC-VROCPREMOD	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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