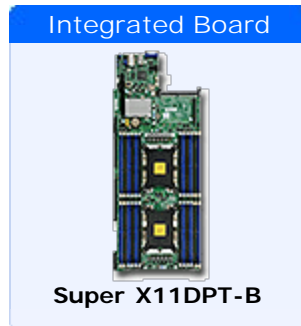


SuperServer 2029BT-HNC0R (Complete System Only)



Due to the complexity of integration, this product is sold as completely assembled systems only (with minimum 2 CPU, 2 DIMM, 1 HDD/NVMe and 1 SIOM card per node). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#)
[▶ BIOS](#)
[▶ IPMI](#)
[▶ Tested Memory](#)
[▶ NVMe Options](#)
[▶ Manuals](#)
[▶ OS Certification Matrix](#)
[▶ Drive Options](#)
[▶ Tested SIOM](#)

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:

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s
2. Up to 3TB ECC 3DS LRDIMM, up to DDR4-2666MHz; 24 DIMM slots
3. 2 PCI-E 3.0 x16 (LP) slot; 1 [SIOM](#) card support (flexible networking)
Note: must bundle with Network card
4. IPMI 2.0 + KVM with dedicated LAN
5. 6 SAS3 or 4 NVMe + 2 SAS3 Hot-swap 2.5" drive bays
6. SAS3 support via Broadcom 3008; IT mode
7. Video via Aspeed AST2500 BMC
8. 4 Heavy duty 8cm PWM fans with air shroud
9. 2200W Redundant Power Supplies Titanium Level (96%)

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

Specifications

Product SKUs	
SYS-2029BT-HNC0R	<ul style="list-style-type: none"> ▪ SuperServer 2029BT-HNC0R (Black)
Motherboard	
Super X11DPT-B	
Processor/Cache (per Node)	
CPU	<ul style="list-style-type: none"> ▪ Dual Socket P (LGA 3647) ▪ Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s ▪ Support CPU TDP 70-205W* with IVR
Cores	<ul style="list-style-type: none"> ▪ Up to 28 Cores with Intel® HT Technology
Note	<p>* 200W/205W CPUs are supported under certain configurations. Please contact Supermicro Technical Support for additional</p>

Chassis	
Form Factor	<ul style="list-style-type: none"> ▪ 2U Rackmount
Model	<ul style="list-style-type: none"> ▪ CSE-217BHQ+ -R2K22BP2
Dimensions and Weight	
Width	<ul style="list-style-type: none"> ▪ 17.6" (447mm)
Height	<ul style="list-style-type: none"> ▪ 3.47" (88mm)
Depth	<ul style="list-style-type: none"> ▪ 28.75" (730mm)
Package	<ul style="list-style-type: none"> ▪ 24.65" (H) x 9.76" (W) x 45.28" (D)
Weight	<ul style="list-style-type: none"> ▪ Gross Weight: 85 lbs (38.6kg) ▪ Net Weight: 54.5 lbs (24.7 kg)
Available Colors	<ul style="list-style-type: none"> ▪ Black
Front Panel	
	<ul style="list-style-type: none"> ▪ Power On/Off button

System Memory (per Node)

- Memory Capacity
- 24 DIMM slots
 - Up to 3TB ECC 3DS LRDIMM, 3TB ECC RDIMM, DDR4 up to 2666MHz

- Memory Type
- 2666/2400/2133MHz ECC DDR4 SDRAM

On-Board Devices

- Chipset
- Intel® C621 chipset

- SAS
- SAS3 (12Gbps) via Broadcom 3008; IT mode

- 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

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

- Buttons
- 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)

- 6 Hot-swap 2.5" SAS3 drive bays or 4 NVMe + 2 SAS3 Hot-swap 2.5"

- Hot-swap
- 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.

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



UL/cUL/CB/BSMI/CE/CCC Titanium Level [Cert. in progress]

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-6S3008N4-1UB	4	Big Twin 1U hybrid ADP supporting 6x SAS3 and 4x NVMe
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
Drive Tray(s)	MCP-220-00141-0B-BULK	8	Black hot-swap 2.5 inch HDD tray with keylock and improved EMI
Drive Tray(s)	MCP-220-00144-0B-BULK	16	Black hot-swap 2.5 inch HDD tray keylock, orange tab BULK
Parts	MCP-240-21730-0N	1	217B BigTwin type I (Impact) BPN retention bkt w/ foam assy
Air Shroud	MCP-310-21712-0B	4	SC217B/827B BigTwin air box for X11DRT-B+
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
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
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-OOB-LIC	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
Carrier Card	BPN-ADP-2M2-1UB	-	Carrier card for NVMe/SATA M.2 SSDs support, connect up to 2 M.2 SSD