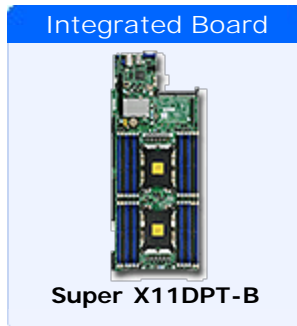


# SuperServer 2029BT-DNR (Complete System Only)



Due to the complexity of integration, this product is sold as a completely assembled system only (with minimum 2 CPU, 2 DIMMs, 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](#)
[▶ Tested Network Card \(AOC\)](#)

## Coming Soon

### Key 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) supports Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s
2. Up to 3TB ECC 3DS RDIMM/LRDIMM, up to DDR4-2666MHz; 24 DIMM slots
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. IPMI 2.0 + KVM with dedicated LAN
5. 12 Hot-swap 2.5" NVMe drive bays; 2 internal M.2 NVMe/SATA slots
6. Video via Aspeed AST2500 BMC
7. 4 Heavy duty 8cm PWM fans with air shroud
8. 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-DNR ■ SuperServer 2029BT-DNR (Black)

### Motherboard

[Super X11DPT-B](#)

### Processor/Cache (per Node)

CPU ■ Dual Socket P (LGA 3647)  
 ■ Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s  
 ■ Support CPU TDP 70-205W

Cores ■ Up to 28 Cores with Intel® HT Technology

### System Memory (per Node)

Memory ■ 24 DIMM slots  
 ■ Up to 3TB ECC 3DS LRDIMM, 3TB ECC

### Chassis

Form Factor ■ 2U Rackmount

Model ■ CSE-217BHD+-R2K22BP

### 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

Capacity	RDIMM, DDR4 up to 2666MHz
Memory Type	<ul style="list-style-type: none"> <li>2666/2400/2133MHz ECC DDR4 SDRAM</li> </ul>
<b>On-Board Devices</b>	
Chipset	<ul style="list-style-type: none"> <li>Intel® C621 chipset</li> </ul>
Network	<ul style="list-style-type: none"> <li>Must bundle with at least one <a href="#">SIOM</a> network card</li> </ul>
IPMI	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> </ul>
Video	<ul style="list-style-type: none"> <li>ASPEED AST2500 BMC</li> </ul>
<b>Input / Output (per Node)</b>	
LAN	<ul style="list-style-type: none"> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>2 USB 3.0 ports (rear)</li> </ul>
Video	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
DOM	<ul style="list-style-type: none"> <li>1 SuperDOM (Disk on Module) port</li> </ul>
<b>System BIOS</b>	
BIOS Type	<ul style="list-style-type: none"> <li>AMI 32Mb SPI Flash ROM</li> </ul>
<b>Management</b>	
Software	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li>IPMI 2.0</li> <li>KVM with dedicated LAN</li> <li>SSM, SPM, SUM</li> <li>SuperDoctor® 5</li> <li>Watch Dog</li> </ul>
Power Configurations	<ul style="list-style-type: none"> <li>ACPI / APM Power Management</li> </ul>
<b>PC Health Monitoring</b>	
CPU	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
FAN	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
Temperature	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>

LEDs	<ul style="list-style-type: none"> <li>Power status LED</li> <li>HDD activity LED</li> <li>Network activity LEDs</li> <li>Universal Information (UID) LED</li> </ul>
<b>Expansion Slots (per Node)</b>	
PCI-Express	<ul style="list-style-type: none"> <li>2 PCI-E 3.0 x8 slots</li> <li>1 PCI-E 3.0 x16 slot</li> <li>1 <a href="#">SIOM</a> card support (must bundle with network card)</li> </ul>
<b>Drive Bays / Storage (per Node)</b>	
Hot-swap	<ul style="list-style-type: none"> <li>12 Hot-swap 2.5" NVMe drive bays</li> </ul>
M.2	<ul style="list-style-type: none"> <li>2 M.2 NVMe/SATA slots</li> </ul>
<b>System Cooling</b>	
Fans	<ul style="list-style-type: none"> <li>4 Heavy duty 8cm PWM fans with air shroud</li> </ul>
<b>Power Supply</b>	
2200W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> <li>1200W/1800W/1980W/2090/2200W</li> </ul>
Dimension (W x H x L)	<ul style="list-style-type: none"> <li>45 x 40 x 480 mm</li> </ul>
Input	<ul style="list-style-type: none"> <li>1200W: 100-127Vac / 50-60Hz</li> <li>1800W: 200-220Vac / 50-60Hz</li> <li>1980W: 220-230Vac / 50-60Hz</li> <li>2090W: 230-240Vac / 50-60Hz</li> <li>2090W: 180-220Vac (for UL/cUL only)</li> <li>2200W: 220-240Vac (for UL/cUL only)</li> <li>2090W: 230-240Vdc (for CCC only)</li> </ul>
+12V	<ul style="list-style-type: none"> <li>Max: 100A / Min: 0A (100-127Vac)</li> <li>Max: 150A / Min: 0A (200-220Vac)</li> <li>Max: 165A / Min: 0A (220-230Vac)</li> <li>Max: 174.17A / Min: 0A (230-240Vac)</li> <li>Max: 174.17A / Min: 0A (180-220Vac, UL/cUL only)</li> <li>Max: 183.33A / Min: 0A (220-240Vac, UL/cUL only)</li> <li>Max: 174.17A / Min: 0A (230-240Vdc, CCC only)</li> </ul>
12Vsb	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
Output Type	<ul style="list-style-type: none"> <li>Gold Finger</li> </ul>
Certification	  <ul style="list-style-type: none"> <li>UL/cUL/CB/BSMI/CE/CCC Titanium Level [ Cert. in progress ]</li> </ul>
<b>Operating Environment</b>	
RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Environmental Spec.	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

### Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	<u>MBD-X11DPT-B</u>	2	Super X11DPT-B Motherboard
	<u>CSE-217BHD+-R2K22BP</u>	1	2U Chassis
Backplane	BPN-ADP-12NVME-2UB	2	Backplane adapter for 2U2N Big Twin Systems (12 NVMe and 2 M.2)
Backplane	BPN-NVME3-217BHQ	1	2U 24-Port 4-Node NVMe Backplane Support 6x2.5
Drive Tray(s)	MCP-220-00127-0B-BULK	24	Black gen3 Hotswap 2.5 NVMe drive tray, Orange tab/Lock/Bulk
Parts	MCP-240-21721-0N	1	217B BigTwin type I (Impact) BPN retention bkt assy
Air Shroud	MCP-310-21713-0B	2	SC217B/827B 2U2N BigTwin air shroud for X11DPT-B
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
Power Supply	PWS-2K22A-1R	2	1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48
FAN 1	FAN-0183L4	4	80x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X11 Big Twin Series Servers

### Optional Parts List

	Part Number	Qty	Description
Global Services & Support	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	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 [ <a href="#">Details</a> ]
Network Card(s)	<u>AOC-S40G-i2Q</u>	-	Standard LP 2-port 40GbE controller, based on Intel Fortville XL710
	<u>AOC-SGP-i2</u>	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350AM2
	<u>AOC-SGP-i4</u>	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	<u>AOC-STG-b4S</u>	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	<u>AOC-STGN-i2S</u>	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	<u>AOC-STGN-i1S</u>	-	Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN
	<u>AOC-STG-i2T</u>	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
	<u>AOC-STG-i2</u>	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB