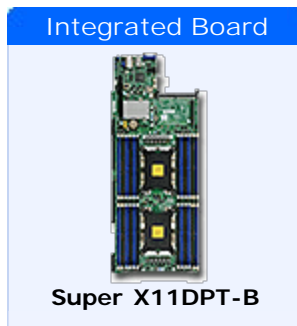


# SuperServer 2029BT-HNR (Complete System Only)



Integrated Board

Super X11DPT-B

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](#)
[▶ 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 Hot-swap 2.5" NVMe drive bays
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-HNR	▪ SuperServer 2029BT-HNR (Black)
Motherboard	
Super X11DPT-B	
Processor/Cache (per Node)	
CPU	<ul style="list-style-type: none"> <li>▪ Dual Socket P (LGA 3647)</li> <li>▪ Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s</li> <li>▪ Support CPU TDP 70-205W* with IVR</li> </ul>

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	<ul style="list-style-type: none"> <li>▪ Gross Weight: 85 lbs (38.6kg)</li> <li>▪ Net Weight: 54.5 lbs (24.7 kg)</li> </ul>
Available	▪ Black

Cores	Up to 28 Cores with Intel® HT Technology
Note	* 200W/205W CPUs are supported under certain configurations. Please contact Supermicro Technical Support for additional information about specialized system optimization
<b>System Memory (per Node)</b>	
Memory Capacity	<ul style="list-style-type: none"> <li>24 DIMM slots</li> <li>Up to 3TB ECC 3DS LRDIMM, 3TB ECC RDIMM, DDR4 up to 2666MHz</li> </ul>
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><a href="#">IPMI 2.0</a></li> <li>KVM with dedicated LAN</li> <li><a href="#">SSM</a>, <a href="#">SPM</a>, <a href="#">SUM</a></li> <li><a href="#">SuperDoctor® 5</a></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>

<b>Colors</b>	
<b>Front Panel</b>	
Buttons	<ul style="list-style-type: none"> <li>Power On/Off button</li> <li>UID button</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 (x16) Low-profile slots</li> <li>1 <a href="#">SIOM</a> card support (must bundle with network card)</li> </ul>
<b>Drive Bays (per Node)</b>	
Hot-swap	<ul style="list-style-type: none"> <li>6 Hot-swap 2.5" NVMe drive bays</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>	4	Super X11DPT-B Motherboard
	<u>CSE-217BHQ+-R2K22BP2</u>	1	2U Chassis
Backplane	BPN-ADP-6NVME3-1UB	4	6x NVMe ports and 50A power sourcing daughter card for Big Twin
Backplane	BPN-NVME3-217BHQ	1	2U 24-Port 4-Node NVMe Backplane Support 6x2.5" NVMe SSD per Node
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-310-21708-0B	4	SC217B/827B BigTwin air shroud for X11DRT-B+
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	<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
Carrier Card	BPN-ADP-2M2-1UB	-	Carrier card for NVMe/SATA M.2 SSDs support, connect up to 2 M.2 SSD