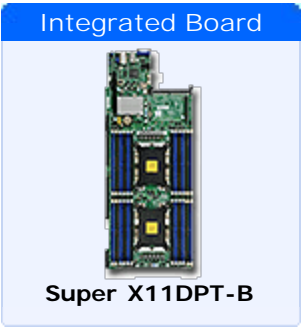


# SuperServer 2029BT-HTR (Complete System Only)



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](#)
[▶ 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 Hot-swap 2.5" SATA3 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-HTR	▪ SuperServer 2029BT-HTR (Black)
Motherboard	
<u>Super X11DPT-B</u>	
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>
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

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 Colors	▪ Black
Front Panel	
Buttons	<ul style="list-style-type: none"> <li>▪ Power On/Off button</li> <li>▪ UID button</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Power status LED</li> <li>▪ HDD activity LED</li> </ul>

### System Memory (per Node)

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>

### On-Board Devices

Chipset	<ul style="list-style-type: none"><li>Intel® C621 chipset</li></ul>
Storage	<ul style="list-style-type: none"><li>SATA3 (6Gbps) via Intel C620 controller; RAID 0, 1, 5, 10 per node</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>

### Input / Output (per Node)

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>

### System BIOS

BIOS Type	<ul style="list-style-type: none"><li>AMI 32Mb SPI Flash ROM</li></ul>
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### Management

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>

### PC Health Monitoring

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>Network activity LEDs</li><li>Universal Information (UID) LED</li></ul>
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### Expansion Slots (per Node)

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>
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### Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none"><li>6 Hot-swap 2.5" SATA3 drive bays</li></ul>
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### System Cooling

Fans	<ul style="list-style-type: none"><li>4 Heavy duty 8cm PWM fans with air shroud</li></ul>
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### Power Supply

#### 2200W Redundant Power Supplies with PMBus

Total Output Power	<ul style="list-style-type: none"><li>1200W/1800W/1980W/2090/2200W</li></ul>
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Dimension (W x H x L)	<ul style="list-style-type: none"><li>45 x 40 x 480 mm</li></ul>
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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>
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+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>
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12Vsb	<ul style="list-style-type: none"><li>Max: 2.1A / Min: 0A</li></ul>
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Output Type	<ul style="list-style-type: none"><li>Gold Finger</li></ul>
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Certification	  UL/cUL/CB/BSMI/CE/CCC Titanium Level [ Cert. in progress ]
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### Operating Environment

RoHS	<ul style="list-style-type: none"><li>RoHS Compliant</li></ul>
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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>
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## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X11DPT-B	4	Super X11DPT-B Motherboard
	CSE-217BHQ+-	1	2U Chassis
	R2K22BP2		
<b>Backplane</b>	BPN-ADP-6SATA3-1UB	4	Support 6 SATA HDD adaptor card for Big Twin
<b>Backplane</b>	BPN-SAS3-217BHQ	1	2U 4-Node 24-Port Backplane Supports 6x2.5" SATA3/SAS3 SSD/HDD per Node
<b>Drive Tray(s)</b>	MCP-220-00141-0B-BULK	24	Black hot-swap 2.5 inch HDD tray with keylock and improved EMI
<b>Parts</b>	MCP-240-21722-0N	1	217B/827B BigTwin type II (Edge card) BPN retention bkt assy
<b>Air Shroud</b>	MCP-310-21708-0B	4	SC217B/827B BigTwin air shroud for X11DRT-B+
<b>Air Shroud</b>	MCP-310-21712-0B	4	SC217B/827B BigTwin air box for X11DRT-B+
<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>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>Global Services &amp; Support</b>	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	SFT-OOB-LIC	1	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	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