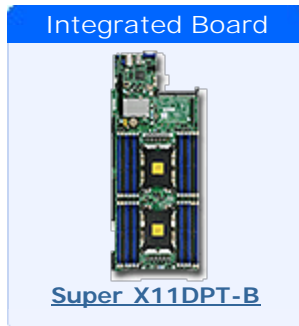


# SuperServer 6029BT-HNC0R (Complete System Only)



Due to the complexity of integration, this product is sold as a completely assembled system only (with minimum 2 CPUs, 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](#)
- ▶ [Tested M.2 List](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [Drive Options](#) ▶
- [Tested SIOM](#) ▶ [Tested Network Card \(AOC\)](#)

## 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. 3 Hot-swap 3.5" NVMe/SAS3 drive bays; 2 M.2 SATA3 or NVMe support
5. SAS3 support via Broadcom 3008; 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%)

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

## Specifications

### Product SKUs

SYS-6029BT-HNC0R	▪ SuperServer 6029BT-HNC0R (Black)
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### Motherboard

[Super X11DPT-B](#)

### Processor/Cache

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*</li> </ul>
Cores	▪ Up to 28 Cores with Intel® HT Technology

\* Certain CPUs with high TDP may be supported only under specific conditions. Please contact Supermicro Technical

Note

### Chassis

Form Factor	▪ 2U Rackmount
Model	▪ CSE-827BHQ+ -R2K22BP

### Dimensions and Weight

Width	▪ 17.6" (447mm)
Height	▪ 3.47" (88mm)
Depth	▪ 30.11" (765mm)
Package	▪ 9.76" (H) x 24.65" (W) x 45.28" (D)
Weight	<ul style="list-style-type: none"> <li>▪ Gross Weight: 86.5 lbs (39.24 kg)</li> <li>▪ Net Weight: 56 lbs (25.4 kg)</li> </ul>
Available Colors	▪ Black

### Front Panel

- Power On/Off button

Support for additional information about specialized system optimization.

## System Memory

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>
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Memory Type	<ul style="list-style-type: none"><li>2666/2400/2133MHz ECC DDR4 SDRAM</li></ul>
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## On-Board Devices

Chipset	<ul style="list-style-type: none"><li>Intel® C621 chipset</li></ul>
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SAS	<ul style="list-style-type: none"><li>SAS3 (12Gbps) via Broadcom 3008; IT mode</li></ul>
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Network	<ul style="list-style-type: none"><li>Must bundle with at least one <a href="#">SIOM</a> network card</li></ul>
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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>
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Video	<ul style="list-style-type: none"><li>ASPEED AST2500 BMC</li></ul>
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## Input / Output (per Node)

LAN	<ul style="list-style-type: none"><li>1 RJ45 Dedicated IPMI LAN port</li></ul>
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USB	<ul style="list-style-type: none"><li>2 USB 3.0 ports (rear)</li></ul>
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Video	<ul style="list-style-type: none"><li>1 VGA port</li></ul>
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DOM	<ul style="list-style-type: none"><li>1 SuperDOM (Disk on Module) port</li></ul>
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## 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><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>
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Power Configurations	<ul style="list-style-type: none"><li>ACPI / APM Power Management</li></ul>
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## 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>
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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>
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Temperature	<ul style="list-style-type: none"><li>Monitoring for CPU and chassis environment</li><li>Thermal Control for fan connectors</li></ul>
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Buttons	<ul style="list-style-type: none"><li>UID button</li></ul>
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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>
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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 / Storage (per Node)

	<ul style="list-style-type: none"><li>3 Hot-swap 3.5" NVMe/SAS3 drive bays</li></ul>
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Hot-swap	<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>
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M.2	<ul style="list-style-type: none"><li>2 M.2 NVMe or SATA (2240/2260/2280) via optional AOC-SMG3-2H8M2-B</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
Motherboard / Chassis	MBD-X11DPT-B	4	Super X11DPT-B Motherboard
	CSE-827BHQ+-R2K22BP	1	2U Chassis
Backplane	BPN-ADP-6S3008N4-1UB	4	Big Twin 1U hybrid ADP supporting 6x SAS3 and 4x NVMe
Backplane	BPN-SAS3-827BHQ-N3	1	2U 12-Port 4-Node Hybrid Backplane Supports 3x3.5
Drive Tray(s)	MCP-220-00133-0B-BULK	12	Black gen 8 hot-swap 3.5
Parts	MCP-240-82718-0N	1	SC827B BigTwin type I (Impact) BPN retention bkt assy
Air Shroud	MCP-310-21712-0B	4	SC217B/827B BigTwin air box for X11DRT-B+
Air Shroud	MCP-310-21718-0B	4	Bigtwin air box for X11DPT-B(4pcs/set)
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
FAN 1	FAN-0162L4	4	80x80x38 mm, 13.5K RPM, HCP, LMV, and LPC Cooling Fan,RoHS/REACH
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
3.5" to 2.5" Converter Tray	MCP-220-00140-0B	-	Black gen 8 hot-swap 3.5-to-2.5 Tool-less HDD tray, orange tab
Global Services & Support	<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
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)	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	AOC-SMG3-2H8M2-B	-	2 Hybrid NVMe/SATA M.2 carrier for Big Twin,HF,RoHS