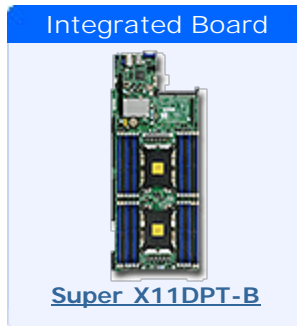


SuperServer 2029BT-HNC1R (Complete System Only)



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. 1 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; 2 M.2 SATA3 or NVMe support
6. SAS3 support via Broadcom 3108; RAID 0, 1, 5, 6, 10, 50, 60
7. Video via Aspeed AST2500 BMC
8. 4 Heavy duty 8cm PWM fans with air shroud
9. 2200W Redundant Power Supplies Titanium Level (96%)

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

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-HNC1R
- SuperServer 2029BT-HNC1R (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

* 200W/205W CPUs are supported under certain configurations. Please contact

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
- Gross Weight: 85 lbs (38.6kg)
 - Net Weight: 54.5 lbs (24.7 kg)
- Available Colors
- Black

Front Panel

Note	Supermicro Technical Support for additional information about specialized system optimization
System Memory (per Node)	
Memory Capacity	<ul style="list-style-type: none"> 24 DIMM slots Up to 3TB ECC 3DS LRDIMM, 3TB ECC RDIMM, DDR4 up to 2666MHz
Memory Type	<ul style="list-style-type: none"> 2666/2400/2133MHz ECC DDR4 SDRAM
On-Board Devices	
Chipset	<ul style="list-style-type: none"> Intel® C621 chipset
SAS	<ul style="list-style-type: none"> SAS3 (12Gbps) via Broadcom 3108; RAID 0, 1, 5, 6, 10, 50, 60
Network	<ul style="list-style-type: none"> Must bundle with at least one SIOM network card
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Video	<ul style="list-style-type: none"> ASPEED AST2500 BMC
Input / Output (per Node)	
LAN	<ul style="list-style-type: none"> 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2 USB 3.0 ports (rear)
Video	<ul style="list-style-type: none"> 1 VGA port
DOM	<ul style="list-style-type: none"> 1 SuperDOM (Disk on Module) port
System BIOS	
BIOS Type	<ul style="list-style-type: none"> AMI 32Mb SPI Flash ROM
Management	
Software	<ul style="list-style-type: none"> Intel® Node Manager IPMI 2.0 KVM with dedicated LAN SSM, SPM, SUM SuperDoctor® 5 Watch Dog
Power Configurations	<ul style="list-style-type: none"> ACPI / APM Power Management
PC Health Monitoring	
CPU	<ul style="list-style-type: none"> Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator
FAN	<ul style="list-style-type: none"> Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment Thermal Control for fan connectors

Buttons	<ul style="list-style-type: none"> Power On/Off button UID button
LEDs	<ul style="list-style-type: none"> Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED
Expansion Slots (per Node)	
PCI-Express	<ul style="list-style-type: none"> 1 PCI-E 3.0 (x16) Low-profile slot 1 SIOM card support (must bundle with network card)
Drive Bays / Storage (per Node)	
Hot-swap	<ul style="list-style-type: none"> 6 Hot-swap 2.5" SAS3 drive bays or 4 NVMe + 2 SAS3 Hot-swap 2.5" <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>
M.2	<ul style="list-style-type: none"> 2 M.2 NVMe or SATA (2240/2260/2280) via optional AOC-SMG3-2H8M2-B
System Cooling	
Fans	<ul style="list-style-type: none"> 4 Heavy duty 8cm PWM fans with air shroud
Power Supply	
2200W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> 1200W/1800W/1980W/2090/2200W
Dimension (W x H x L)	<ul style="list-style-type: none"> 45 x 40 x 480 mm
Input	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Max: 2.1A / Min: 0A
Output Type	<ul style="list-style-type: none"> Gold Finger
Certification	  <ul style="list-style-type: none"> UL/cUL/CB/BSMI/CE/CCC Titanium Level [Cert. in progress]

Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> 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:

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
Add-on Card / Module	AOC-S3108L-H8iR-16DD-P	4	AOC-S3108L-H8iR-16DD
Backplane	BPN-ADP-4TNS6-1UB	4	for Big Twin only
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
Cable 1	CBL-SAST-0846-1	4	SLIMLINE SAS to MiniSAS HD 2X,INT,48CM, SB
Drive Tray(s)	MCP-220-00141-0B-BULK	8	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Drive Tray(s)	MCP-220-00144-0B-BULK	16	Black Gen3 hot-swap 2.5 inch HDD tray with lock, orange tab
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+
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
FAN 2	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	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	AOC-SMG3-2H8M2-B	-	2 Hybrid NVMe/SATA M.2 carrier for Big Twin,HF,RoHS
Cache Protection for RAID Card	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108; Supercap mounting bracket for PCI-E location