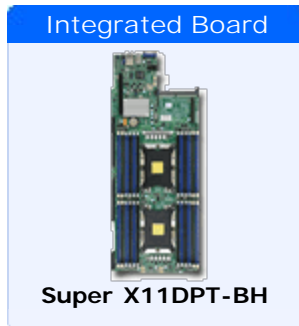


SuperServer 2029BZ-HNR (Complete System Only)



Due to the complexity of integration, this product is sold as a completely assembled system only (including but not limited to CPU, memory, and HDDs). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#)
[▶ BIOS](#)
[▶ IPMI](#)
[▶ Tested Memory](#)
[▶ Tested M.2 List](#)

Coming Soon

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, 3 UPI up to 10.4GT/s
2. Up to 3TB ECC 3DS L/RDIMM, 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; 2 M.2 SATA3 or NVMe support
6. Video via Aspeed AST2500 BMC
7. 16 Heavy duty 40x56mm fans with optimal fan speed control (4 fans per node)
8. 2600W 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-2029BZ-HNR ■ SuperServer 2029BZ-HNR (Black)

Motherboard

Super X11DPT-BH

Processor/Cache

CPU ■ Dual Socket P (LGA 3647)
 ■ Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s
 ■ Support CPU TDP 70-205W*

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

Chassis

Form Factor ■ 2U Rackmount
 Model ■ CSE-217BHQ+ -R2K60FP

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

information about specialized system optimization

System Memory

- Memory Capacity
- 24 DIMM slots
 - Up to 3TB ECC 3DS LRDIMM, 3TB ECC RDIMM, DDR4 up to 2666MHz

- Memory Type
- 2666/2400/2133MHz ECC DDR4 SDRAM

On-Board Devices

- Chipset
- Intel® C621 chipset

- Network
- Must bundle with at least one [SIOM](#) network card

- IPMI
- Support for Intelligent Platform Management Interface v.2.0
 - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

- Video
- ASPEED AST2500 BMC

Input / Output (per Node)

- LAN
- 1 RJ45 Dedicated IPMI LAN port

- USB
- 2 USB 3.0 ports (rear)

- Video
- 1 VGA port

- DOM
- 1 SuperDOM (Disk on Module) port

System BIOS

- BIOS Type
- AMI 32Mb SPI Flash ROM

Management

- Software
- Intel® Node Manager
 - [IPMI 2.0](#)
 - KVM with dedicated LAN
 - [SSM](#), [SPM](#), [SUM](#)
 - [SuperDoctor® 5](#)
 - Watch Dog

- Power Configurations
- ACPI / APM Power Management

PC Health Monitoring

- CPU
- Monitors for CPU Cores, Chipset Voltages, Memory.
 - 4+1 Phase-switching voltage regulator

- FAN
- Fans with tachometer monitoring
 - Status monitor for speed control
 - Pulse Width Modulated (PWM) fan connectors

- Temperature
- Monitoring for CPU and chassis environment
 - Thermal Control for fan connectors

- Buttons
- Power On/Off button
 - UID button

- LEDs
- Power status LED
 - HDD activity LED
 - Network activity LEDs
 - Universal Information (UID) LED

Expansion Slots (per Node)

- PCI-Express
- 2 PCI-E 3.0 (x16) Low-profile slots
 - 1 [SIOM](#) card support (must bundle with network card)

Drive Bays / Storage (per Node)

- Hot-swap
- 6 Hot-swap 2.5" NVMe drive bays
- M.2
- 2 M.2 NVMe or SATA (2240/2260/2280) via optional AOC-SMG3-2H8M2-B

System Cooling

- Fans
- 16 Heavy duty 40x56mm PWM fans with air shroud (4 fans per node)

Power Supply

2600W Redundant Power Supplies with PMBus

- Total Output Power
- 2600W

- Dimension (W x H x L)
- 45 x 40 x 480 mm

- Input
- 208-240Vac/15-12.5A
 - 220-240Vdc/13.5-12.5A (For CQC only)

- +12V
- Max: 216.6A / Min: 0A

- 12Vsb
- Max: 4.5A / Min: 0A

- Output Type
- Connector

Certification



UL/cUL/CB/BSMI/CE/CQC Titanium Level [Cert. in progress]

Operating Environment

- RoHS
- RoHS Compliant

- Environmental Spec.
- 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: 5% to 95% (non-condensing)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPT-BH	4	Super X11DPT-BH Motherboard
	CSE-217BHQ+-R2K60FP	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
Drive Tray(s)	MCP-220-00127-0B-BULK	24	Black gen3 Hotswap 2.5 NVMe drive tray, Orange tab/Lock/Bulk
Air Shroud	MCP-310-21719-0B	4	Bigtwin mylar air shroud for X11DPT-BH (4CM fan chassis)
Air Shroud	MCP-310-21720-0B	4	Bigtwin plastic air shroud for X11DPT-BH (4CM fan chassis)
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-P0067PSMB	4	1U Passive High Performance Front CPU Heat Sink w/ an 18-mm Wide Middle Air Channel for X11 Purley Platform Equipped w/ a Narrow Retention Mechanism/Bolster
Heatsink / Retention	SNK-P0071VS	4	1U Proprietary Passive CPU Heat Sink (124 mm Long) for SYS-2029BZ-HNR Series Servers (X11 2U4N 3UPI Big Twin)
Power Supply	PWS-2K60A-1R	2	1U 1400W/2600W Redundant Titanium PWS, 45(W) X 40(H) X 480(L)

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