

SuperStorage 2029P-DN2R48L (Complete System Only)



Due to the complexity of integration, this product is sold as a completely assembled system only (with minimum 4 CPUs, 4 DIMMs and 24 dual port NVMe). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#) [▶ BIOS](#) [▶ IPMI](#) [▶ Tested Memory](#) [▶ NVMe Options](#)

Coming Soon

Key Features

Two **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 2TB ECC 3DS LRDIMM, up to DDR4-2666MHz; 12 DIMM slots
3. 48 U.2 Hot-swap dual-port NVMe drive bays
4. 2 PCI-E 3.0 x16 HHHL slots, 1 PCI-E 3.0 x16 SIOM
5. Dedicated node to node connectivity featuring high performance PLX NTB PCI-E 3.0 x8 and IPMI for robust node fail-over support
6. Dual port 10GBase-T (Intel® X557-AT2), Dual 10G private ethernet between controller nodes
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 5x 8cm high-performance PWM fans
9. 2000W 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

SSG-2029P-DN2R48L ■ SuperServer 2029P-DN2R48L (Black)

Motherboard (Two per System)

Super X11DSN-TS

Processor/Cache (per Node)

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

System Memory (per Node)

Memory ■ 12 DIMM slots
 ■ Up to 2TB ECC 3DS LRDIMM, 512GB

Chassis

Form Factor ■ 2U Rackmount
 Model ■ CSE-227STS-R2K05P3



Dimensions

Width ■ 17.2" (437mm)
 Height ■ 3.5" (89mm)
 Depth ■ 33.3" (846mm)
 Weight ■ Gross Weight: 67 lbs (30.4 kg)
 Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
 ■ Power status LED
 ■ Hard drive activity LED
 LEDs ■ Network activity LEDs

Capacity	ECC RDIMM, DDR4 up to 2666MHz
Memory Type	<ul style="list-style-type: none"> 2666/2400/2133MHz ECC DDR4 SDRAM
On-Board Devices (per Node)	
Chipset	<ul style="list-style-type: none"> Intel® C624 series chipset
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1
Network Controllers	<ul style="list-style-type: none"> Intel® X557-AT2 Dual Port 10GBase-T Dual 10G private Ethernet between controller nodes
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"> 2 RJ45 10GBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2 USB 3.0 ports (rear) 1 Type A
Video	<ul style="list-style-type: none"> 1 VGA D-Sub Connector port
Serial Port / Header	<ul style="list-style-type: none"> 2 COM Ports (1 rear, 1 header)
System BIOS	
BIOS Type	<ul style="list-style-type: none"> AMI UEFI
Management	
Software	<ul style="list-style-type: none"> Intel® Node Manager IPMI 2.0 KVM with dedicated LAN NMI SSM, SPM, SUM SuperDoctor® 5 Watchdog
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

	<ul style="list-style-type: none"> System Overheat LED Power fail LED
Expansion Slots (per Node)	
PCI-Express	<ul style="list-style-type: none"> 2 PCI-E 3.0 x16 HHL slots 1 PCI-E 3.0 x16 SIOM
M.2	<ul style="list-style-type: none"> M.2 Interface: 1 PCI-E 3.0 x4 Form Factor: 2242/2260/2280
Drive Bays	
Hot-swap	<ul style="list-style-type: none"> 48 U.2 Hot-swap dual-port NVMe drive bays
Backplane	
2x 2U 24-Port SBB Backplane for 24x 2.5" Dual-Port NVMe SSD	
System Cooling	
Fans	<ul style="list-style-type: none"> 5x 8cm high-performance PWM fans
Power Supply	
2000W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> 1000W/1800W/1980W/2000W
Dimension (W x H x L)	<ul style="list-style-type: none"> 73.5 x 40 x 265 mm
Input	<ul style="list-style-type: none"> 100-120Vac / 12.5-9.5A / 50-60Hz 200-220Vac / 10-9.5A / 50-60Hz 220-230Vac / 10-9.8A / 50-60Hz 230-240Vac / 10-9.8A / 50-60Hz 200-240Vac / 11.8-9.8A / 50-60Hz (UL/cUL only)
+12V	<ul style="list-style-type: none"> Max: 83.3A / Min: 0A (100-120Vac) Max: 150A / Min: 0A (200-220Vac) Max: 165A / Min: 0A (220-230Vac) Max: 166.7A / Min: 0A (230-240Vac) Max: 166.7A / Min: 0A (200-240Vac) (UL/cUL only)
12Vsb	<ul style="list-style-type: none"> Max: 2.1A / Min: 0A
Output Type	<ul style="list-style-type: none"> 25 Pairs Gold Finger Connector
Certification	  <ul style="list-style-type: none"> UL/cUL/CB/BSMI/CE/CCC Titanium Level [Test Report]
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: 5% to 95% (non-condensing)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DSN-TS	2	Super X11DSN-TS Motherboard
	CSE-227STS-R2K05P3	1	2U Chassis
Backplane	BPN-NVME3-227NB	2	2U 24-Port SBB Backplane for 24x2.5
Backplane	BPN-NVME3-227NL	4	2U Gen3 PCIe Switch Daughter Board for Dual Port NVMe SSD (Note: This daughter board is integrated to BPN-NVMe3-227NB)
Backplane	BPN-NVMe3-227SSB-2	1	227S and 227 SBB Series NVMe Platform Mid-plane for power distribution, PCIe pass-through and NTB link with PLX
Cable 1	CBL-SAST-0818	8	OCuLink v. 1.0,INT,PCIe NVMe SSD, 55CM,34AWG
Cable 2	CBL-SAST-0819	4	OCuLink v 1.0,INT,PCIe NVMe SSD, 65CM,34AWG,RoHS/REACH
Cable 3	CBL-SAST-0820	4	OCuLink v. 1.0,INT,PCIe NVMe SSD, 85CM,34AWG,RoHS/REACH
Parts	MCP-110-00015-0N	16	Pan head screw, #6-32 x 6L
Riser Card	RSC-X-66-C	2	1U LHS Passive Storage RSC w/ 2 PCI-E x16 slots,HF RoHS
Heatsink / Retention	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Power Supply	PWS-2K05A-1R	2	1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm,RoHS/REACH

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)