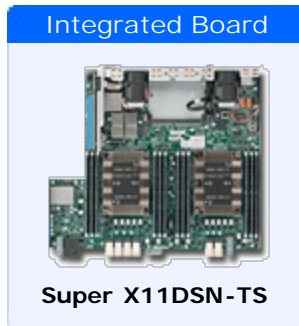


# SuperStorage 2029P-DN2R48L (Complete System Only)



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  
 ■ Network activity LEDs

LEDs

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

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

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X11DSN-TS	2	Super X11DSN-TS Motherboard
	CSE-227STS-R2K05P3	1	2U Chassis
<b>Backplane</b>	BPN-NVME3-227NB	2	2U 24-Port SBB Backplane for 24x2.5
<b>Backplane</b>	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)
<b>Backplane</b>	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
<b>Cable 1</b>	CBL-SAST-0818	8	OCuLink v. 1.0,INT,PCIe NVMe SSD, 55CM,34AWG
<b>Cable 2</b>	CBL-SAST-0819	4	OCuLink v 1.0,INT,PCIe NVMe SSD, 65CM,34AWG,RoHS/REACH
<b>Cable 3</b>	CBL-SAST-0820	4	OCuLink v. 1.0,INT,PCIe NVMe SSD, 85CM,34AWG,RoHS/REACH
<b>Parts</b>	MCP-110-00015-0N	16	Pan head screw, #6-32 x 6L
<b>Riser Card</b>	RSC-X-66-C	2	1U LHS Passive Storage RSC w/ 2 PCI-E x16 slots,HF RoHS
<b>Heatsink / Retention</b>	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>Power Supply</b>	PWS-2K05A-1R	2	1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm,RoHS/REACH

### 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)