



Integrated Board



Super X11DPT-PS

Views: | [Angled View](#) | [Node View](#) |
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Key Features

- Compute Intensive Application
- HPC, Data Center
- Enterprise Server
- Financial Analysis
- Mission-critical applications

Four hot-pluggable systems (nodes) in a 2U form factor. Each node supports the following:

1. Dual Socket P (LGA 3647) support
2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)‡
2. 16 DIMMs; up to 4TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM††
3. 2 PCI-E 3.0 x16 (LP) slots
4. Flexible Networking support via SIOM; Dedicated IPMI 2.0 LAN
5. 6 Hot-swap 2.5" SATA3 drive bays
6. Up to 2200W Redundant Power Supplies
Titanium Level (96%)

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

Specifications

Product SKUs

SYS-2029TP-HTR	■ SuperServer 2029TP-HTR (Black)
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Motherboard (Four per System)

Super X11DPT-PS	
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Processor/Cache (per Node)

CPU	<ul style="list-style-type: none">Dual Socket P (LGA 3647)2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors[‡], Dual UPI up to 10.4GT/sSupport CPU TDP 70-165W*
Cores	■ Up to 28 Cores
Note	* Please contact Supermicro Technical Support for supporting conditions of high power (TDP 150W and above) or high base frequency (3.0 GHz and above) processors.
Note	[‡] BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)

System Memory (per Node)

Memory Capacity	<ul style="list-style-type: none">16 DIMM slotsUp to 4TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMMSupports Intel® Optane™ DCPMM^{††}
Memory Type	■ 2933 [†] /2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	[†] 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro ^{††} Cascade Lake only. Contact your Supermicro sales rep for more info.

On-Board Devices (per Node)

Chipset	■ Intel® C621 chipset
SATA	■ SATA3 (6Gbps); RAID 0, 1, 5, 10 support
Network Controllers	<ul style="list-style-type: none">Barebones and Complete System must have at least one <u>SIOM</u> or <u>network</u> card installed per node
IPMI	<ul style="list-style-type: none">Support for Intelligent Platform Management Interface v.2.0IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	■ ASPEED AST2500 BMC

Input / Output (per Node)

SATA	■ 6 SATA3 (6Gbps) ports
LAN	■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 3.0 ports (rear)
VGA	■ 1 VGA port
Serial Port / Header	■ 1 Fast UART 16550 port / 1 Header (internal)
Others	<ul style="list-style-type: none">2 <u>SuperDOM</u> support on the motherboard1 NVMe or 2 SATA M.2 (22x80/60/42 mm) support with option part: AOC-SMG3-2H8M2M.2 and SuperDOM are for OS boot and they cannot coexist

System BIOS

BIOS Type	■ AMI 32MB SPI Flash ROM
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Management

Software	<ul style="list-style-type: none">Intel® Node Manager<u>IPMI 2.0</u>KVM with dedicated LANNMI<u>SSM</u>, <u>SPM</u>, <u>SUM</u><u>SuperDoctor® 5</u>Watchdog
Power Configurations	■ ACPI Power Management

PC Health Monitoring

CPU	<ul style="list-style-type: none">Monitors for CPU Cores, Chipset Voltages, Memory.5+1 Phase-switching voltage regulator
FAN	<ul style="list-style-type: none">Fans with tachometer monitoringStatus monitor for speed controlPulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none">Monitoring for CPU and chassis environmentThermal Control for fan connectors
Omni-Path Fabric CPUs	■ Do not support

Chassis

Form Factor	■ 2U Rackmount
Model	■ CSE-217HQ+-R2K20BP3

Dimensions and Weight

Width	■ 17.25" (438mm)
Height	■ 3.47" (88mm)
Depth	■ 28.5" (724mm)
Weight	<ul style="list-style-type: none">Gross Weight: 90 lbs (40.9kg)Net Weight: 72 lbs (32.7 kg)
Available Colors	■ Black

Front Panel

Buttons	<ul style="list-style-type: none">Power On/Off buttonUID button
LEDs	<ul style="list-style-type: none">Power status LEDHDD activity LEDNetwork activity LEDsUniversal Information (UID) LED

Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none">2 PCIe 3.0 x16 Low-profile slots1 SIOM card support <p>Note: Barebones and Complete System must bundle with Network Card</p> <p>(With only one CPU installed, SXB2 M.2 and SXB4 riser card slots not function)</p>
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Drive Bays (per Node)

Hot-swap	■ 6 Hot-swap 2.5" SATA3 drive bays
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System Cooling

Fans	■ 4 Heavy duty 8cm PWM fans with optimal fan speed control
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Power Supply

2200W Redundant Power Supplies with PMBus	
Total Output Power and Input	<ul style="list-style-type: none">1200W with Input 100-127Vac1800W with Input 200-220Vac1980W with Input 220-230Vac2090W with Input 230-240Vac2200W with Input 220-240Vac (for UL/cUL use only)2090W with Input 230-240Vdc (for CCC only)
AC Input Frequency	■ 50-60Hz
Dimension (W x H x L)	■ 76 x 40 x 336 mm
+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: 183.3A / Min: 0A (220-240Vac)
5VSB	■ Max: 1A / Min: 0A
Output Type	■ Backplanes (gold finger)
Certification	<div> Titanium Level [Test Report]</div>

Operating Environment

RoHS	■ 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-X11DPT-PS	4	Super X11DPT-PS Motherboards
	CSE-217HQ+-R2K20BP3	1	2U Chassis
Backplane	BNP-ADP-6SATA3P	4	Backplan adapter card; 6SATA ports,RoHS/REACH,PBF
Backplane	BNP-SAS3-217HQ2	1	2U 24-Port 4-Node Backplane Supports 6x2.5
Cable 1	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
Air Shroud	MCP-310-21716-0B	4	Tw inpro X11 air shroud
Riser Card	RSC-P-6	4	RSC-P-6 (1U LHS Tw inPro RSC with 1 PCI-Ex16),RoHS
Riser Card	RSC-R1UTP-E16R	4	1U RHS Tw inPro 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
Power Supply	PWS-2K20A-1R	2	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm

Optional Parts List

	Part Number	Qty	Description
TPM security module (optional, not included)	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor
TPM security module (optional, not included)	AOM-TPM-9671V	1	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor
Add-on-Card	AOC-SMG3-2H8M2	-	AOC supports 2280 M.2 form factor SSD (1 NVMe or 2 SATA), FST-SCRW-0121L is included in AOC-SMG3-2H8M2
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 • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)