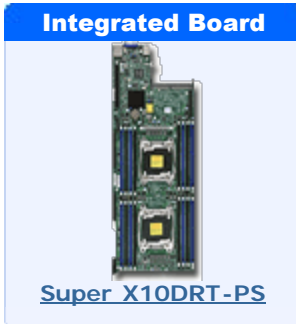


SuperServer 2028TP-HC1R-SIOM



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Key Features

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

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
2. Up to **2TB[†]** ECC 3DS LRDIMM , up to DDR4- **2400[†]**MHz ; 16x DIMM slots
3. 1 PCI-E 3.0 x16 (LP), 1 PCI-E 3.0 x8 (LP), 1 **SIOM** card support
4. 1 Dedicated IPMI LAN port
5. 6 Hot-swap 2.5" SAS/SATA HDD Bays
6. LSI 3108 SAS3 controller (6 ports); RAID 0, 1, 5, 6, 10, 50, 60
7. 2000W Redundant Power Supplies **Titanium Level (96%)**
8. 1 SATA DOM

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

Specifications

Product SKUs

SYS-2028TP-HC1R-SIOM	<ul style="list-style-type: none"> ▪ SuperServer 2028TP-HC1R-SIOM (Black)
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Motherboard

Super X10DRT-PS

Processor/Cache (per Node)

CPU	<ul style="list-style-type: none"> ▪ Intel® Xeon® processor E5-2600 v4[†]/ v3 family (up to 145W TDP) * ▪ Dual Socket R3 (LGA 2011)
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Cores / Cache	<ul style="list-style-type: none"> ▪ Up to 22 Cores[†] / Up to 55MB[†] Cache
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System Bus	<ul style="list-style-type: none"> ▪ QPI up to 9.6 GT/s
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Note † BIOS version 2.0 or above is required

Note * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory (per Node)

- 16x 288-pin DDR4 DIMM slots

Chassis

Form Factor	<ul style="list-style-type: none"> ▪ 2U Rackmount
Model	<ul style="list-style-type: none"> ▪ CSE-217HQ+-R2K04B2

Dimensions and Weight

Width	<ul style="list-style-type: none"> ▪ 17.25" (438mm)
Height	<ul style="list-style-type: none"> ▪ 3.47" (88mm)
Depth	<ul style="list-style-type: none"> ▪ 28.75" (730mm)
Weight	<ul style="list-style-type: none"> ▪ Gross Weight: 90 lbs (40.9kg) ▪ Net Weight: 72 lbs (32.7 kg)
Available Colors	<ul style="list-style-type: none"> ▪ Black

Front Panel

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 PCI-E 3.0 (x8) Low-profile slot
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Memory Capacity	<ul style="list-style-type: none"> Up to 2TB[†] ECC 3DS LRDIMM, 512 ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB 3DS LRDIMM: 128GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors

On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C612 chipset
SAS	<ul style="list-style-type: none"> LSI 3108 SAS3 (12Gbps) controller; RAID 0, 1, 5, 6, 10, 50, 60 support Optional SuperCap
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 ASPEED AST2400 BMC
Network	<ul style="list-style-type: none"> Must bundle with at least one SIOM network card
Graphics	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output (per Node)

SAS	<ul style="list-style-type: none"> 6 SAS3 (12Gbps) ports
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 total (2x rear)
VGA	<ul style="list-style-type: none"> 1 VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1 Fast UART 16550 port / 1 Header (internal)
Others	<ul style="list-style-type: none"> 1 SATADOM support on the motherboard

- 1 SIOM card support

Note: Must bundle with Network Card

Drive Bays (per Node)

- Hot-swap**
 - 6 Hot-swap 2.5" SAS/SATA HDD trays

System Cooling

- Fans**
 - 4x 8cm heavy duty PWM fans with optimal fan speed control

Power Supply (76mm Width)

2000W Redundant Power Supplies with PMBus

- Total Output Power**
 - 1000W/2000W

- Dimension (W x H x L)**
 - 76 x 40.4 x 336 mm

- Input**
 - 100-127 Vac / 12-9.5 A / 50-60 Hz
 - 200-220 Vac / 10-9.5 A / 50-60 Hz
 - 220-230 Vac / 10-9.8 A / 50-60 Hz
 - 230-240 Vac / 10-9.8 A / 50-60 Hz
 - 200-240 Vac / 11.8-10 A / 50-60 Hz (UL/cUL only)

- +12V**
 - Max: 83.3A & Min: 0A (100-127 Vac)
 - Max: 150A & Min: 0A (200-220 Vac)
 - Max: 165A & Min: 0A (220-230 Vac)
 - Max: 166.7A & Min: 0A (230-240 Vac)
 - Max: 166.7A & Min: 0A (200-240 Vac)(UL/cUL only)

- +5Vsb**
 - Max: 1A / Min: 0A

- Output Type**
 - 27 Pairs Gold Finger Connector

Certification




UL/cUL/CB/BSMI/CE/CCC
Titanium Level
[Test Report]

System BIOS

- BIOS Type**
 - 128Mb SPI Flash EEPROM with AMI BIOS

- BIOS Features**
 - Plug and Play (PnP)
 - APM 1.2
 - PCI 2.2
 - ACPI 1.0 / 2.0
 - USB Keyboard support
 - SMBIOS 2.3
 - UEFI

Operating Environment / Compliance

- RoHS**
 - RoHS Compliant

- Environmental Spec.**
 - Operating Temperature: 10°C to 35°C (50°F to 95°F)
 - Non-operating Temperature: -40°C to 70°C (-40°F to 158°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-X10DRT-PS	4	Super X10DRT-PS Motherboards
	CSE-217HQ+-R2K04B2	1	2U Chassis
Air Shroud	MCP-310-21703-0B	4	TwinPo 217HQ+/827HQ+ X10 plastic air shroud,RoHS/REACH
Backplane	BPN-ADP-S3108L-H6IRP	4	LSI 3108, SAS 12Gbps (x6 internal)
Backplane	BPN-SAS3-217HQ	1	24-port 2U TwinPro^2 SAS3 CSE-217HQ (6 drives per node) backplane, support up to 24x 2.5-inch SAS3/SATA3 HDD/SSD
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Riser Card	RSC-P-6	4	[NR]RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
Riser Card	RSC-R1UTP-E16R	4	,RoHS/REACH,PBF
Heatsink / Retention	SNK-P0057PS	4	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
Heatsink / Retention	SNK-P0047PSM	4	1U Passive Front CPU Heat Sink w/ a Middle Air Channel for X9, X10 2U Twin^2+ and Twin Pro^2 Series Servers
Power Supply	PWS-2K04A-1R	2	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm,HF,RoHS/REACH
Air Shroud	MCP-310-21703-0B or MCP-310-21702-0B	4	TwinPro 217HQ+/827HQ+ X10 plastic air shroud or TwinPro 217HQ+/827HQ+ X10 mylay air shroud
Power Supply	PWS-2K04A-1R or PWS-2K02P-1R	2	2000W Redundant Titanium Level Power Supplies or 2000W Redundant Platinum Level Power Supplies

Optional Parts List			
	Part Number	Qty	Description
SuperCap Kit	BTR-CV3108-TP2	-	LSI 3108 CacheVault kit for TwinPro
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	4	OOB Management Package (per node license)
Software	SFT-DCMS-Single	4	DataCenter Management Package (per node license)