

SuperServer 2028TP-HTR-SIOM



[▶ Drivers & Utilities](#)
[▶ BIOS](#)
[▶ IPMI](#)
[▶ Tested Memory](#)
[▶ Manuals](#)
[▶ OS Certification Matrix](#)
[▶ Drive Options](#)

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

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" SATA3 drive bays
6. 2000W Redundant Power Supplies Platinum Level
7. 1 SATA DOM

Specifications

Product SKUs

SYS-2028TP-HTR-SIOM ■ SuperServer 2028TP-HTR-SIOM (Black)

Motherboard

Super X10DRT-PS

Processor/Cache (per Node)

CPU ■ Intel® Xeon® processor E5-2600 v4[†]/ v3 family (up to 145W TDP) *
 ■ Dual Socket R3 (LGA 2011)

Cores / Cache ■ Up to 22 Cores[†] / Up to 55MB[†] Cache

System Bus ■ QPI up to 9.6 GT/s

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)

Memory Capacity ■ 16x 288-pin DDR4 DIMM slots
 ■ Up to 2TB[†] ECC 3DS LRDIMM, 512 ECC RDIMM

Chassis

Form Factor ■ 2U Rackmount
 Model ■ CSE-217HQ+-R2K04B2

Dimensions and Weight

Width ■ 17.25" (438mm)
 Height ■ 3.47" (88mm)
 Depth ■ 28.5" (724mm)
 Package ■ 26.4" (H) x 11.2" (W) x 39.8" (D)
 Weight ■ Gross Weight: 90 lbs (40.8kg)
 ■ Net Weight: 72 lbs (32.7 kg)
 Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
 ■ System Reset button
 ■ UID button
 LEDs ■ Power status LED
 ■ HDD activity LED
 ■ Network activity LEDs
 ■ Universal Information (UID) LED

Expansion Slots (per Node)

■ 1 PCI-E 3.0 (x16) Low-profile slot

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
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) with RAID 0, 1, 5, 10
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
Video	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output (per Node)

SATA	<ul style="list-style-type: none"> 6 SATA3 (6Gbps) 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 (rear)
Video	<ul style="list-style-type: none"> 1 VGA port
Others	<ul style="list-style-type: none"> 1 SATADOM support on the motherboard

PCI-Express	<ul style="list-style-type: none"> 1 PCI-E 3.0 (x8) Low-profile slot 1 SIOM card support
<p>Note: Must bundle with Network Card</p>	



Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none"> 6 Hot-swap 2.5" SATA3 drive bays
----------	--

System Cooling

Fans	<ul style="list-style-type: none"> 4x 8cm heavy duty fans with PWM fan speed control
------	---

Power Supply with Digital Switching Control

2000W Titanium Level (96%) High-efficiency Redundant Power Supplies	
Total Output Power	<ul style="list-style-type: none"> 1000W/1800W/1980W/2000W
AC Input	<ul style="list-style-type: none"> 100-127 V, 50-60 Hz 200-220 V, 50-60 Hz 220-230 V, 50-60 Hz 230-240 V, 50-60 Hz
+12V	<ul style="list-style-type: none"> Max: 83.3A & Min: 0A (100Vac-127Vac) Max: 150A & Min: 0A (200Vac-220Vac) Max: 165A & Min: 0A (220Vac-230Vac) Max: 166.7A & Min: 0A (230Vac-240Vac)
5V SB	<ul style="list-style-type: none"> Max: 1A / Min: 0A
Certification	  Titanium Level [Test Report]

System BIOS

BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> 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 Motherboard
	CSE-217HQ+-R2K04B2	1	2U Chassis
Air Shroud	MCP-310-21703-0B	4	TwinPo 217HQ+/827HQ+ X10 plastic air shroud,RoHS/REACH
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
Backplane	BPN-ADP-6SATA3P	4	Backplan adapter card; 6SATA ports,RoHS/REACH,PBF
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

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	4	OOB Management Package (per node license)
Software	SFT-DCMS-Single	4	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, 2x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STG-i2T	-	Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STG-i2	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
BBU (Battery Backup Unit)	BTR-0018L-0000-LSI	-	Battery Backup for SAS 2108 (can be direct attached to card or connect by extension cable use BTR-0018L-Kit)