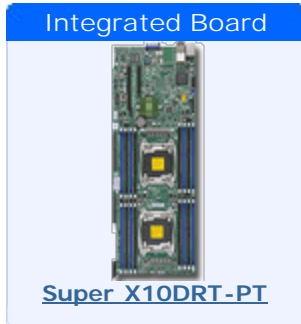


# SuperServer 2028TP-DTTR



## Key Features

Two **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 v3 family; QPI up to 9.6GT/s
2. Up to 1TB ECC LRDIMM, 512GB ECC RDIMM, up to 2133MHz; 16x DIMM sockets
3. 1x PCI-E 3.0 x16, 1x PCI-E 3.0 x8 slot, and 1x PCI-E 3.0 x16 for GPU/Xeon Phi support (w/ GPU kit)
4. Intel® X540 Dual port 10GBase-T LAN
5. Integrated IPMI 2.0 with KVM and Dedicated LAN
6. 8x 2.5" Hot-swap SATA HDD Bays
7. mSATA (full size) support
8. 1280W Redundant Power Supplies Platinum Level Digital (94%)

Available Colors:

Black



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-DTTR	▪ SuperServer 2028TP-DTTR (Black)
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### Motherboard

Super X10DRT-PT

### Processor/Cache (per Node)

CPU	▪ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) * ▪ Dual Socket R3 (LGA 2011)
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Cores / Cache	▪ Up to 18 Cores / Up to 45MB Cache
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System Bus	▪ QPI up to 9.6 GT/s
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Note  
\* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

### Chassis

Form Factor	▪ 2U Rackmount
Model	▪ CSE-217HD+-R1K28B

### Dimensions and Weight

Width	▪ 17.25" (438mm)
Height	▪ 3.47" (88mm)
Depth	▪ 28.5" (724mm)
Weight	▪ Gross Weight: 85 lbs (38.6kg) ▪ Net Weight: 66 lbs (29.9 kg)
Available Colors	▪ Black

### Front Panel

Buttons	▪ Power On/Off button ▪ UID button
LEDs	▪ Power status LED ▪ HDD activity LED ▪ 2x Network activity LEDs ▪ Universal Information (UID) LED

System Memory (per Node)	
Memory Capacity	<ul style="list-style-type: none"> <li>16x 288-pin DDR4 DIMM slots</li> <li>Up to 1TB ECC LRDIMM, 512GB ECC RDIMM</li> </ul>
Memory Type	<ul style="list-style-type: none"> <li>2133/1866/1600MHz ECC DDR4 SDRAM 72-bit</li> </ul>
DIMM Sizes	<ul style="list-style-type: none"> <li>RDIMM: 32GB, 16GB, 8GB, 4GB</li> <li>LRDIMM: 64GB, 32GB</li> </ul>
Memory Voltage	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
Error Detection	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>

#### On-Board Devices

Chipset	<ul style="list-style-type: none"> <li>Intel® C612 Express chipset</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5, 10</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> <li>ASPEED AST2400 BMC</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>Intel® X540 Dual port 10GBase-T</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>1x Realtek RTL8201N PHY (dedicated IPMI)</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>ASPEED AST2400 BMC</li> </ul>

#### Input / Output (per Node)

SATA	<ul style="list-style-type: none"> <li>8x SATA3 (6Gbps) ports</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2x RJ45 10GBase-T ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>2x USB 3.0 ports total (2x rear)</li> </ul>
VGA	<ul style="list-style-type: none"> <li>1x VGA port</li> </ul>
Serial Port / Header	<ul style="list-style-type: none"> <li>1x Fast UART 16550 port / 1 Header (internal)</li> </ul>
Others	<ul style="list-style-type: none"> <li>1x mSATA (full size) and one SATADOM support on the daughter card</li> <li>1x SATADOM support on the motherboard</li> </ul>

#### Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none"> <li>1x PCI-E 3.0 x16 Low-profile slot</li> <li>1x PCI-E 3.0 x8 slot</li> <li>1x PCI-E 3.0 x16 for GPU/Xeon Phi support (w/ GPU kit)</li> </ul>
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(Both CPUs need to be installed for full access to PCI-E slots)

#### Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none"> <li>8x 2.5" Hot-swap SATA HDD trays</li> </ul>
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#### System Cooling

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

1280W Redundant High-efficiency Digital Power Supplies w/ PMBus 1.2

AC Input	<ul style="list-style-type: none"> <li>1000W Output @ 100-140V, 8-12A, 50-60Hz</li> <li>1280W Output @ 180-240V, 6-8A, 50-60Hz</li> </ul>
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DC Output	<ul style="list-style-type: none"> <li>1000W: +12V/83A; +5Vsb/4A</li> <li>1280W: +12V/106.7A, +5Vsb/4A</li> </ul>
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Certification



Platinum Certified  
[ [Test Report](#) ]

#### System BIOS

BIOS Type	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>
BIOS Features	<ul style="list-style-type: none"> <li>Plug and Play (PnP)</li> <li>APM 1.2</li> <li>PCI 2.2</li> <li>ACPI 1.0 / 2.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.3</li> <li>UEFI</li> </ul>

#### Operating Environment / Compliance

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 to 35°C (50°F to 95°F)</li> <li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°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
Motherboard / Chassis	MBD-X10DRT-PT	2	Super X10DRT-PT Motherboards
	CSE-217HD+-R1K28B	1	2U Chassis
Backplane	BPN-ADP-8SATA3P-O-P	2	8 SATA 3 ports daughter card for TwinPro,RoHS/REACH,PBF
Backplane	BPN-SAS3-217HD	1	,RoHS/REACH,PBF 2U Twin Backplane, support 24 SAS3/SATA3 HDD (2.5") with Hot Swapping. Per node for 12 HDDs. PWM fan control, HDD spin up and failure LED supported.
			2U Passive CPU Heat Sink for X9, X10 Generation Systems

Heatsink / Retention	SNK-P0048PS	4	Equipped w/ a Narrow ILM MB
Power Supply	PWS-1K28P-SQ	2	1U 1280W, redundant single output power supply

#### Optional Parts List

	Part Number	Qty	Description
GPU Kit	MCP-420-21715-ASM	-	Support passive GPU and Xeon Phi (passive)
	MCP-420-21715-ASM-OEM	-	Support Geforce GTX GPU (active)
Onsite Service Program	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC	2	OOB Management Package (per node license)
Software	SFT-DCMS-Single	2	DataCenter Management Package (per node license)