

# SuperServer 2028TP-DECFR



Available Colors:

Black



## 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 "0 Slot" card
4. Intel® i350 Dual port GbE LAN
5. Single port IB (FDR, 56Gbps), w/ QSFP connector
6. Integrated IPMI 2.0 with KVM and Dedicated LAN
7. 12x 2.5" Hot-swap drive bays (support up to 12x SAS3 in IT mode)
8. SAS3 via LSI 3008 controller and Expander
9. 1280W Redundant Power Supplies Platinum Level Digital (94%)

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

Super X10DRT-PIBF

### 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	▪ 28.75" (730mm)
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 chipset</li></ul>
Infiniband	<ul style="list-style-type: none"><li>Mellanox ConnectX-3 FDR Infiniband 56Gbps Controller</li></ul>
SAS	<ul style="list-style-type: none"><li>LSI 3008 SAS3 (12Gbps) via SAS3 Expander</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® i350-AM2 Dual Port Gigabit Ethernet</li><li>Virtual Machine Device Queues reduce I/O overhead</li><li>Supports 10BASE-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)

SAS	<ul style="list-style-type: none"><li>12x SAS3 (12Gbps) ports</li></ul>
LAN	<ul style="list-style-type: none"><li>2x RJ45 Gigabit Ethernet LAN ports</li><li>1x RJ45 Dedicated IPMI LAN port</li></ul>
Infiniband	<ul style="list-style-type: none"><li>1x external QSFP Infiniband connector</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 <u>mSATA</u> (full size) and one SATADOM support on the daughter card</li><li>1x <u>SATADOM</u> 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 "0 Slot" card</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>12x 2.5" Hot-swap HDD Bays</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>
DC Output	<ul style="list-style-type: none"><li>1000W: +12V/83A; +5Vsb/4A</li><li>1280W: +12V/106.7A, +5Vsb/4A</li></ul>

### 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
<b>Motherboard / Chassis</b>	MBD-X10DRT-Ú00Á	2	Super X10DRT-Ú00Á Motherboards
	CSE-217HD+-R1K28B	1	2U Chassis
<b>Backplane</b>	BPN-ADP-E1C-L-O-P	2	2U adapter card with 3008 and expander for Twin Pro X9/X10DRT-P MB Platform; 12x SAS3 ports; 1x mSATA; 1x SATADOM
<b>Backplane</b>	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.
<b>Heatsink / Retention</b>	SNK-P0048PS	4	2U Passive CPU Heat Sink for X9, X10 Generation Systems 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
<b>Onsite Service Program</b>	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
<b>Onsite Service Program</b>	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	SFT-OOB-LIC	2	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	2	DataCenter Management Package (per node license)