

SuperServer 2028TP-DTFR



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. Single port IB (FDR, 56Gbps), w/ QSFP connector
5. Intel® i350-AM2 Dual port GbE LAN
6. Integrated IPMI 2.0 with KVM and Dedicated LAN
7. 8x 2.5" Hot-swap SATA HDD Bays
8. mSATA (full size) support
9. 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-DTFR	■ SuperServer 2028TP-DTFR (Black)
-----------------	-----------------------------------

Motherboard

Super X10DRT-PIBF

Processor/Cache (per Node)

CPU	<ul style="list-style-type: none"> ■ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) * ■ Dual Socket R3 (LGA 2011)
-----	--

Cores / Cache	■ Up to 18 Cores / Up to 45MB Cache
---------------	-------------------------------------

System Bus	■ QPI up to 9.6 GT/s
------------	----------------------

Note * Please contact Supermicro Technical Support for additional information about

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	<ul style="list-style-type: none"> ■ Gross Weight: 85 lbs (38.6kg) ■ Net Weight: 66 lbs (29.9 kg)
Available Colors	■ Black

Front Panel

Buttons	<ul style="list-style-type: none"> ■ Power On/Off button ■ UID button
	■ Power status LED

frequency optimized CPUs and specialized system optimization.

System Memory (per Node)

Memory Capacity	<ul style="list-style-type: none"> 16x 288-pin DDR4 DIMM slots Up to 1TB ECC LRDIMM, 512GB ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB
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 Express chipset
Infiniband	<ul style="list-style-type: none"> Mellanox ConnectX-3 FDR Infiniband 56Gbps Controller
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); 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 Controllers	<ul style="list-style-type: none"> Intel® i350-AM2 Dual Port Gigabit Ethernet Virtual Machine Device Queues reduce I/O overhead Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Graphics	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output (per Node)

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

LEDs

- HDD activity LED
- 2x Network activity LEDs
- Universal Information (UID) LED

Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none"> 1x PCI-E 3.0 x16 Low-profile slot 1x PCI-E 3.0 x8 slot 1x PCI-E 3.0 x16 for GPU/Xeon Phi support (w/ GPU kit)
-------------	---

(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"> 8x 2.5" Hot-swap SATA HDD trays
----------	---

System Cooling

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

Power Supply

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

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

Certification	  Platinum Certified [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-PIBF	2	Super X10DRT-PIBF 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 ,RoHS/REACH,PBF 2U Twin Backplane, support 24 SAS3/SATA3

Backplane	BPN-SAS3-217HD	1	HDD (2.5") with Hot Swapping. Per node for 12 HDDs. PWM fan control, HDD spin up and failure LED supported.
Heatsink / Retention	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
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	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	OSNBD3/2/1	-	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)