

SuperServer 2028TP-DC0FR



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, and 1x "0 slot"
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. 12x 2.5" Hot-swap SAS (8) / SATA (4) HDD Bays
8. LSI 3008 SAS3 controller (8 ports); RAID 0, 1, 10
9. mSATA (full size) support
10. 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-DC0FR	<ul style="list-style-type: none"> ▪ SuperServer 2028TP-DC0FR (Black)
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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)
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Cores / Cache	<ul style="list-style-type: none"> ▪ Up to 18 Cores / Up to 45MB 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 * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized

Chassis

Form Factor	<ul style="list-style-type: none"> ▪ 2U Rackmount
Model	<ul style="list-style-type: none"> ▪ CSE-217HD+-R1K28B

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: 85 lbs (38.6kg) ▪ Net Weight: 66 lbs (29.9 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

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
SAS	<ul style="list-style-type: none"> LSI 3008 SAS3 (12Gbps) controller; RAID 0, 1, 10 support
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)

SAS	<ul style="list-style-type: none"> 8x SAS3 (12Gbps) 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 <u>mSATA</u> (full size) and one SATADOM support on the daughter card 1x <u>SATADOM</u> support on the motherboard

- 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 slot 1x PCI-E 3.0 x8 slot
0 Slot	<ul style="list-style-type: none"> 1x "0 slot" <p>(Both CPUs need to be installed for full access to PCI-E slots and 0 slot.)</p>

Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none"> 12x 2.5" Hot-swap SAS (8) / SATA (4) HDD Bays
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System Cooling

Fans	<ul style="list-style-type: none"> 4x 8cm heavy duty PWM fans with optimal fan speed control
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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"> 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-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.
Backplane	BPN-ADP-S3008H-L8IP-O-P	2	8 SAS3, 4 SATA2
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
Onsite Service Program	QS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	QSNBD3/2/1	-	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)