

SuperServer 2028TP-DNCR



Integrated Board



Super X10DRT-P



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 slots
4. Intel® i350 Dual port GbE LAN
5. Integrated IPMI 2.0 with KVM and Dedicated LAN
6. 4x NVMe and 8x 2.5" Hot-swap SAS drives
7. LSI 3008 SAS3 controller (8 ports); RAID 0, 1, 10
8. 1600W Redundant Power Supplies Titanium Level (96%)

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-DNCR	▪ SuperServer 2028TP-DNCR (Black)
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Motherboard

Super X10DRT-P

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+-R1K68B

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">16x 288-pin DDR4 DIMM slotsUp 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, 4GBLRDIMM: 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 chipset
SAS	<ul style="list-style-type: none">LSI 3008 SAS3 (12Gbps) controller; RAID 0, 1, 10 supportNote: In order to support NVMe drives, both CPU socket must be populated
IPMI	<ul style="list-style-type: none">Support for Intelligent Platform Management Interface v.2.0IPMI 2.0 with virtual media over LAN and KVM-over-LAN supportASPEED AST2400 BMC
Network Controllers	<ul style="list-style-type: none">Intel® i350 Dual Port Gigabit EthernetVirtual Machine Device Queues reduce I/O overheadSupports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output1x 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 ports1x RJ45 Dedicated IPMI LAN port
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 card1x <u>SATADOM</u> support on the motherboard

Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none">1x PCI-E 3.0 x16 slot1x PCI-E 3.0 x8 slot
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Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none">8x 2.5" Hot-swap SAS HDD Bays4x 2.5" Hot-swap Bays support NVMe
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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

1600W Titanium Level (96%) High-efficiency Redundant Single Output Power Supplies	
AC Input	<ul style="list-style-type: none">800W Output @ 100-140V, 7-10A, 50-60Hz1600W Output @ 180-240V, 8-11A, 50-60Hz
DC Output	<ul style="list-style-type: none">800W: +12V/67A, +5Vsb/1A1600W: +12V/133A, +5Vsb/1A
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 1.2PCI 2.2ACPI 1.0 / 2.0USB Keyboard supportSMBIOS 2.3UEFI

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-P	2	Super X10DRT-P Motherboards
	CSE-217HD+-R1K68B	1	2U Chassis
Backplane	BPN-SAS3-217HD-N4	1	2U Twin Backplane, support 16xSAS3/SATA3 HDD/SSD (2.5") and 8xNVMe SSD Per node for 8xSAS3/SATA3 HDD/SSD and 4xNVMe SSD. PWM fan control, HDD spin up and failure LED supported. HF,RoHS/REACH
Backplane	BPN-ADP-8S3008N4-2UP-O-P	2	2U adapter card for 2U TwinPro system; LSI3008 on board to provide 8x SAS3 ports, 4x NVMe ports, 1x mSATA port and 1x SATADOM port,HF,RoHS/REACH
Heatsink / Retention	SNK-P0048PS	4	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
Power Supply	PWS-1K68A-1R	2	1U 1600W Redundant Titanium Power Supply 76mm width 27Pair,PBF

Optional Parts List

	Part Number	Qty	Description
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)