

SuperServer 2028U-E1CNR4T+ (Complete System Only)



Integrated Board



[./products/motherboard/Xeon/C600/X10DRU-](#)

[i_.cfm\).](#)

[Super X10DRU-i+ \(./products/motherboard/Xeon/C600/X10DRU-i_.cfm\).](#)

Views: | [Angled View \(./a_images/products/views/2028U-E1CNR4T_angle.jpg\).](#) | [Top View \(./a_images/products/views/2028U-E1CNR4T_top.jpg\).](#) | [Front View \(./a_images/products/views/2028U-E1CNR4T_front.jpg\).](#) | [Rear View \(./a_images/products/views/2028U-E1CNR4T_rear.jpg\).](#) |

Key Features

- **Flexible Connectivity Options**
 1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
 2. Up to **3TB[†]** ECC 3DS LRDIMM , up to DDR4- **2400[†]**MHz ; 24 DIMM slots
 3. 6 PCI-E 3.0 x8 slots (4 FH, 10.5" L, 1 LP, 1 Internal LP)
 4. 4x 10GBase-T ports
 5. 24 Hot-swap 2.5" Drive Bays: Default 4 NVMe ports; 24 SAS3 ports via Expander and AOC: AOC-S3108L-H8iR, AOC-S3008L-L8e, AOC-S3008L-L8i; Optional 2 hot-swap 2.5" rear drive bays for SSDs
 6. 4 heavy duty fans w/ optimal fan speed control; 1 air shroud
 7. 1000W High efficiency (96%) Redundant PSU; **Titanium Level**

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs and 4 DIMMs).

[Drivers & Utilities](#) | [BIOS](#) | [IPMI](#) | [Tested Memory](#) | [NVMe Options](#)

[Manuals](#)

[OS Certification Matrix \(./en/support/resources/certification/SYS-2028U-E1CNR4T+\).](#)

[Compatible GPU List \(./en/support/resources/gpu\).](#)

[Quick-References Guide](#) | [Drive Options](#)

[Network Card \(AOC\) Matrix \(./en/support/resources/aoc/standard?show=SELECT&type=Ultra\).](#)

Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.

Specifications

Product SKUs

SYS-2028U-E1CNR4T+

SuperServer 2028U-E1CNR4T+ (Black)

Motherboard

Super X10DRU-i+

(/products/motherboard/Xeon/C600/X10DRU-i_.cfm).

Processor/Cache

CPU

Intel® Xeon® processor E5-2600 v4†/ v3 family (up to 160W TDP) *
Dual Socket R3 (LGA 2011)

Cores / Cache

Up to **22 Cores**† / Up to **55MB**† Cache

System Bus

QPI up to 9.6 GT/s

Note

† BIOS version 2.0 or above is required

Note

* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory

Memory Capacity

24x 288-pin DDR4 DIMM slots

Up to 3TB† ECC 3DS LRDIMM, 1.5TB ECC RDIMM/LRDIMM

Memory Type

2400†/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit

2666/2400 ECC DDR4 NVDIMM

DIMM Sizes

RDIMM: 32GB, 16GB, 8GB, 4GB

LRDIMM: 64GB, 32GB

3DS LRDIMM: 128GB

NVDIMM: 16GB

Memory Voltage

1.2 V

Error Detection

Corrects single-bit errors

On-Board Devices

Chipset

Intel® C612 chipset

SATA

SATA3 (6Gbps) with RAID 0, 1, 5, 10

IPMI

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 Connectivity

4x 10GBase-T ports via [AOC-2URN4-i4XT](#)

(/support/resources/aoc/aoc_compatibility_ultra.cfm).

Intel® X540 10GBase-T

1 Realtek RTL8211E PHY (dedicated IPMI)

Graphics

ASPEED AST2400 BMC

Input / Output

Chassis

Form Factor

2U Rackmount

Model

CSE-219UE1C4-R1K02-T

Dimensions and Weight

Width

17.2" (437mm)

Height

3.5" (89mm)

Depth

27.76" (705.3mm)

Weight

Net Weight: 36 lbs (16.4 kg)

Gross Weight: 72 lbs (32.7 kg)

Available Colors

Black

Front Panel

Buttons

Power On/Off button

System Reset button

LEDs

Power status LED

HDD activity LED

2 Network activity LEDs

System information (overheat/UID) LED

Expansion Slots

PCI-Express

Up to 6 PCI-E 3.0 x8 slots

(4 FH, 10.5" L, 1 LP, 1 Internal LP)

(Both CPUs need to be installed for full access to PCI-E onboard controllers. See manual block diagram and [A Support \(/products/nfo/UIO.cfm?show=AOCsupport\)](#), † details.)

Drive Bays

Hot-swap

24 Hot-swap 2.5" drive bays

Default 4 NVMe ports

24 SAS3 ports support via Expander and AOC

Note: Storage Add-on card is required

System Cooling

Fans

4 heavy duty 8cm PWM fans

Shroud

1 Air Shroud

Power Supply

1000W Redundant Power Supplies with PMBus

Total Output Power

800W: 100 – 127Vac

1000W: 200 – 240Vac

1000W: 200 – 240Vdc (for CCC only)

SAS

24 SAS3 ports support via expander and storage Add-on Cards

One of the following storage Add-on cards required:

AOC-S3108-H8iR (12Gbps SAS3/RAID 0, 1, 5, 6, 10, 50, 60, 2GB DDR3 cache, PCI-E Gen3)

AOC-S3008L-L8i (12Gbps SAS3/RAID 0,1 and 10, PCI-E Gen3)

AOC-S3008L-L8e (12Gbps SAS3/HBA, PCI-E Gen3)

NVMe

4 NVMe ports

LAN

4 RJ45 10GBase-T LAN ports

1 RJ45 Dedicated IPMI LAN port

USB

5 USB 3.0 ports

(2 rear, 2 onboard header, 1 Type A)

Video

1 VGA Connector

Serial Port / Header

1 Serial header

DOM

2 SuperDOM ([/SATADOM/](#)), (Disk on Module) ports

System BIOS

BIOS Type

128Mb SPI Flash EEPROM with AMI BIOS

BIOS Features

Plug and Play (PnP)

APM 1.2

PCI 2.3

ACPI 1.0 / 2.0 / 3.0 / 4.0

USB Keyboard support

SMBIOS 2.7.1

UEFI 2.3.1

Management

Software

[SuperDoctor® 5 \(/products/nfo/SMS_SD5.cfm\)](#)

Intel® Node Manager 3.0

Watch Dog

NMI

[SUM \(/products/nfo/SMS_SUM.cfm\)](#), and [SSM](#)

[\(/products/nfo/SMS_SSM.cfm\)](#)

Optional IPMI 1.5 / 2.0

Power Configurations

ACPI Power Management

Power-on mode for AC power recovery

Dimension

(W x H x L)

73.5 x 40 x 203 mm

Input

100-127Vac / 9.8 - 7A / 50-60Hz

200-240Vac / 7 - 5A / 50-60Hz

200-240Vdc / 7 - 5A (for CCC only)

+12V

Max: 66.7A / Min: 0A (100-127Vac)

Max: 83A / Min: 0A (200-240Vac)

Max: 83A / Min: 0A (200-240Vdc)

12Vsb

Max: 2.1A / Min: 0A

Output Type

25 Pairs Gold Finger Connector

Certification

(<http://www.plugloadsolutions.com/80PlusPowerSupply>

[id=69&type=2](http://www.plugloadsolutions.com/80PlusPowerSupply)), Titanium Level

[[Test Report](#)

([/products/powersupply/80PLUS/80PLUS](#)

[1R.pdf](#))]

PC Health Monitoring

Voltage

Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby Memory Voltages.

5+1 Phase-switching voltage regulator

FAN

8x 4-pin fan headers

Status monitor for speed control

Pulse Width Modulated (PWM) fan connectors

Temperature

Support to monitor Supermicro AOC temperatures from IPMI or SD 5

Monitoring for CPU and chassis environment

CPU thermal trip support

Thermal Control for 8x Fan Connectors

Thermal Monitor 2 (TM2) support

PECI

LED

Memory DIMM ECC error LEDs

CPU / System Overheat LED

Suspend static indicator LED

UID/Remote UID

Other Features

4x 8-pin GPU power connectors

Chassis intrusion detection

Chassis intrusion header

SDDC Support

RoHS

Operating Environment / Compliance

RoHS

RoHS Compliant

Environmental Spec.

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:

Parts List

Certain products may not be available in your region

Global SKU (/en/products/SMC_global_skus)
