

SuperServer 1028R-WTR

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Integrated Board



Super X10DRW-i



Key Features

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
2. Up to 2TB[†] ECC 3DS LRDIMM , up to DDR4- 2400[†]MHz ; 16x DIMM slots
3. 2 PCI-E 3.0 x16 (FHHL), 1 PCI-E 3.0 x8 Mezzanine for HBA cards
4. 10 Hot-swap 2.5" SAS/SATA HDD bays (default 10 SATA3)
5. Intel® i350 Dual port GbE LAN
6. I/O ports: 2 SuperDOM, 1 VGA, 1 COM, 6 USB 3.0 (4 rear, 2 front)
7. 2 SuperDOM (Disk on Module) ports
8. 700W Redundant Power Supplies **Platinum Level** High-efficiency

Views: | [Angled View](#) | [Top View](#) | [Front View](#) | [Rear View](#) |

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#)

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

Specifications

Product SKUs

SYS-1028R-WTR ■ SuperServer 1028R-WTR (Black)

Motherboard

Super X10DRW-i

Processor/Cache

CPU ■ Intel® Xeon® processor E5-2600 v4[†]/ v3 family (up to 145W 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 ■ 16x 288-pin DDR4 DIMM slots
■ Up to 2TB[†] ECC 3DS LRDIMM, 512GB ECC RDIMM

Memory Type ■ 2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit

DIMM Sizes ■ RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB
■ LRDIMM: 64GB, 32GB
■ 3DS LRDIMM: 128GB

Memory Voltage ■ 1.2 V

Error Detection ■ Corrects single-bit errors

On-Board Devices

Chipset ■ Intel® C612 chipset

SATA ■ SATA3 (6Gbps); RAID 0, 1, 5, 10

■ Support for Intelligent Platform Management Interface v.2.0
IPMI ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
■ ASPEED AST2400 BMC

Chassis

Form Factor ■ 1U Rackmount

Model ■ CSE-116TQ-R706WB

Dimensions and Weight

Width ■ 17.2" (437mm)

Height ■ 1.7" (43mm)

Depth ■ 23.5" (597mm)

Weight ■ Net Weight: 25.5 lbs (11.6 kg)
■ Gross Weight: 39 lbs (17.7 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

Expansion Slots

PCI-Express ■ 2x PCI-E 3.0 x16 full-height, Half-length slots

Drive Bays

Hot-swap ■ 10x Hot-swap 2.5" SAS / SATA HDD trays (default 10 SATA connected to onboard storage controller)

Backplane

SAS/SATA HDD Backplane

System Cooling

Fans ■ 5x 4cm heavy-duty counter-rotating fans w/ air shroud and optimal fan speed control


AC/DC240V Input Redundant Power Supply

700W/750W Redundant Power Supplies with PMBus

Total Output Power ■ 700W/750W

Dimension (W x H x L) ■ 54.5 x 40 x 320 mm

Network Controllers	<ul style="list-style-type: none">■ Intel® i350 Dual Port Gigabit Ethernet Controller■ Virtual Machine Device Queues reduce I/O overhead■ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output■ 1x Realtek RTL8211E PHY (dedicated IPMI)
Video	<ul style="list-style-type: none">■ ASPEED AST2400 BMC
Input / Output	
Serial ATA	<ul style="list-style-type: none">■ 10x SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none">■ 2x RJ45 Gigabit Ethernet LAN ports■ 1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none">■ 6x USB 3.0 ports (4 rear + 2 via header)
Video	<ul style="list-style-type: none">■ 1x VGA port
Serial Port / Header	<ul style="list-style-type: none">■ 1x Fast UART 16550 header
DOM	<ul style="list-style-type: none">■ 2x SuperDOM (Disk on Module) ports
PC Health Monitoring	
Voltage	<ul style="list-style-type: none">■ Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory Voltages.■ 5+1 Phase-switching voltage regulator
FAN	<ul style="list-style-type: none">■ 6x 4-pin fan headers (up to 6 fans)■ 6x fans with tachometer monitoring■ Status monitor for speed control■ Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none">■ Monitoring for CPU and chassis environment■ CPU thermal trip support■ Thermal Control for 8x Fan Connectors■ Thermal Monitor 2 (TM2) support■ PECI
LED	<ul style="list-style-type: none">■ CPU / System Overheat LED■ Suspend static indicator LED■ UID/Remote UID
Other Features	<ul style="list-style-type: none">■ Chassis intrusion detection■ Chassis intrusion header■ SDDC Support■ RoHS

Input	<ul style="list-style-type: none">■ 100 - 140Vac / 8 - 6A / 50-60Hz■ 200 - 240Vac / 4.5 - 3.8A / 50-60Hz■ 200 - 240Vdc / 4.5 - 3.8A (CCC Only)
+12V	<ul style="list-style-type: none">■ Max: 58A / Min: 0.5A (100 - 140Vac)■ Max: 62A / Min: 0.5A (200 - 240Vac)■ Max: 62A / Min: 0.5A (200 - 240Vdc) (CB/CCC Only)
+5V sb	<ul style="list-style-type: none">■ Max: 3A / Min: 0A
Output Type	<ul style="list-style-type: none">■ Gold Finger Connector Mating with Molex 45984-4343
Certification	<div> Platinum Certified [Test Report]</div>
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 2.3■ ACPI 1.0 / 2.0 / 3.0 / 4.0■ USB Keyboard support■ SMBIOS 2.7.1■ UEFI 2.3.1
Management	
Software	<ul style="list-style-type: none">■ SuperDoctor® 5■ Watch Dog■ NMI■ IPMI 2.0■ Intel Node Manager
Power Configurations	<ul style="list-style-type: none">■ ACPI / APM Power Management■ Power-on mode for AC power recovery
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

[See Parts List](#)