

SuperServer 2048U-RTR4 (Complete System Only)

Products ▶ Systems ▶ Ultra ▶ [2048U-RTR4]



Integrated Board



Super X10QRH+

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

Due to the complexity of integration, this product is sold as completely assembled systems only (including but not limited to CPUs, memory, and HDDs). Please contact your Supermicro sales rep for special requirements.

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [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-2048U-RTR4 ■ SuperServer 2048U-RTR4 (Black)

Motherboard

Super X10QRH+

Processor/Cache

CPU ■ Intel® Xeon® processor E5-4600 v4/v3 family (up to 135W TDP) *
■ Quad Socket R3 (LGA 2011)

Cores / Cache ■ Up to 22 Cores / Up to 55MB Cache

System Bus ■ QPI up to 9.6 GT/s

System Memory

Memory Capacity ■ 48x 288-pin DDR4 DIMM slots
■ Up to 6TB ECC 3DS LRDIMM
■ Up to 3TB ECC LRDIMM
■ Up to 1.5TB ECC RDIMM

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

DIMM Sizes ■ RDIMM: 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) with RAID 0, 1, 5, 10

Network Connectivity ■ 4x Gigabit Ethernet ports via AOC-2UR66-i4G; Other options

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

Graphics ■ ASPEED AST2400 BMC

Input / Output

SATA ■ 10 SATA3 (6Gbps) ports

Chassis

Form Factor ■ 2U Rackmount

Model ■ CSE-218U-R1K02P

Dimensions and Weight

Width ■ 17.2" (437mm)

Height ■ 3.5" (89mm)

Depth ■ 30.7" (780mm)

Weight ■ Net Weight: 43 lbs (19.4 kg)
■ Gross Weight: 69 lbs (31.2 kg)

Gross Weight ■ 36 lbs (16.4kg)

Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
■ System Reset button

LEDs ■ Power status LED
■ HDD activity LED
■ Network activity LEDs
■ System information (overheat/UID) LED

Expansion Slots

■ 9 PCI-E 3.0 x8 slots (include 4 PCI-E 3.0 x8 internal slots)
■ 2 PCI-E 3.0 x16 slots

PCI-Express

(4 CPUs need to be installed for full access to PCI-E slots and onboard controllers. See [AOC Support](#) for details.)


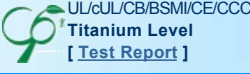
Drive Bays

■ 24x 2.5" Hot-swap drive bays
■ Default 10 SATA3 ports (2 SATA3 ports for SATA DOM or internal HDD)
■ Optional 24 SAS3 ports via AOC
■ Optional 20 SAS3 ports via AOC + 4 NVMe ports via AOC

Hot-swap

Note: optional storage card is required to support more than 8 drives through backplane.

SAS	<ul style="list-style-type: none"> 24 SAS3 ports support via optional Add-on Cards
NVMe	<ul style="list-style-type: none"> 4 Hybrid ports with NVMe support via AOC
LAN	<ul style="list-style-type: none"> 4 RJ45 GbE LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> B 3.0 ports (2 rear, 2 via header, 1 Type A) B 2.0 ports (2 via header)
Video	<ul style="list-style-type: none"> 1 VGA Connector
Serial Port / Header	<ul style="list-style-type: none"> 1 Serial header
DOM	<ul style="list-style-type: none"> 2 SuperDOM (Disk on Module) ports
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 Intel® Node Manager 3.0 Watch Dog NMI SLIM and SSM Optional IPMI 1.5 / 2.0
Power Configurations	<ul style="list-style-type: none"> ACPI Power Management Power-on mode for AC power recovery

System Cooling	
Fans	<ul style="list-style-type: none"> 4x 8cm heavy duty PWM fans
Power Supply	
1000W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> 800W/1000W
Dimension (W x H x L)	<ul style="list-style-type: none"> 73.5 x 40 x 203 mm
Input	<ul style="list-style-type: none"> 100-127Vac / 9.8 - 7A / 50-60Hz 200-240Vac / 7 - 5A / 50-60Hz
+12V	<ul style="list-style-type: none"> Max: 66.7A / Min: 0A (100-127Vac) Max: 83A / Min: 0A (200-240Vac)
12Vsb	<ul style="list-style-type: none"> Max: 2.1A / Min: 0A
Output Type	<ul style="list-style-type: none"> 25 Pairs Gold Finger Connector
Certification	<div>   </div>
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"> 8x 4-pin fan headers Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Memory DIMM ECC error LEDs CPU / System Overheat LED Suspend static indicator LED UID/Remote UID
Other Features	<ul style="list-style-type: none"> 4x 8-pin GPU power connectors Chassis intrusion detection Chassis intrusion header SDDC Support RoHS
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](#)