

Supermicro SDR-1028GR-TR 1U Rackmount Server

- Computing application optimized • Supports Intel Xeon Phi or NVIDIA Tesla GPUs
- Energy efficient power supply • Large memory capacity

Designed for enterprise and medium businesses, the Supermicro SDR-1028GR-TR 1U rackmount server is optimized for high performance computing applications. This 1U server solution is packed full of features like 4x 2.5" HDDs, 16 DDR4 DIMM sockets, PCIe expansion slots, 94% efficient power supply, and a motherboard that supports dual Intel® Xeon® E5-2600 v3 processors. Optimized for HPC, Medical Imaging, Oil and Gas Simulation, Computational Finance, Science and Engineering, and Media/Entertainment, this SuperServer is perfect for applications that require high performance and scalability.



Key Features

Computing Application Optimized

Supporting high performance computing applications, the SDR-1028GR-TR 1U rackmount server delivers maximum processing acceleration for the most compute-intensive workloads.

Intel Xeon Phi™ or NVIDIA® Tesla® GPU Support

Coupled with three Intel Xeon Phi or NVIDIA Tesla GPUs enable dramatic performance gains for a broader range of scientific computing applications.

Redundant Power Supply

The platinum-certified power supply features 94% efficiency, making this a cost-effective solution for the server itself as well as overall datacenter cooling costs.

Large Memory Capacity

By supporting 16x DIMM slots of up to 1TB of DDR4 memory, this 1U server features the scalability to support the most demanding applications.

SPECIFICATION HIGHLIGHTS

Form Factor

1U Rackmount

Processor

2x Intel® Xeon® E5-2600 v3 family (supports up to 18 cores and 45MB of cache per CPU)

Memory

16x DDR4 ECC REG
2133MHz DIMM sockets
supporting up to 1TB

Chipset

Intel® C612 Chipset

Storage

4x 2.5" hot swap SATA3 HDD bays

Power Supply

1600W redundant power supplies

Networking

Intel i350-AM2 dual port GbE LAN

Contact Information

Servers Direct • www.ServersDirect.com • 800-576-7931

**SDR-1028GR-TR
SPECIFICATIONS**

Motherboard

Super X10DRG-H

Processor / Cache

CPU: Intel® Xeon® Processor E5-2600 v3 family [up to 145W TDP] | Dual Socket R3 [LGA 2011]

Cores/Cache: Up to 18 cores / up to 45MB cache

System Bus: QPI up to 9.6 GT/s

GPU/Xeon Phi Support: K1/K2/K10/K40M/K80/Xeon Phi

System Memory

Memory Capacity: 16x 288-pin DDR4 DIMM slots | Up to 1TB ECC LRDIMM, 512GB ECC RDIMM

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

DIMM Sizes: RDIMM: 32GB, 16GB, 8GB, 4GB | LRDIMM: 64GB, 32GB

Memory Voltage: 1.2V

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 Controllers: 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

Graphics: Aspeed AST2400 BMC

Input/Output

SATA: 10x SATA3 [6Gbps] ports

LAN: 2x RJ45 Gigabit Ethernet ports | 1x RJ45 Dedicated IPMI LAN port

USB: 4x USB 3.0 ports [2 rear, 2 via header] | 2x USB 2.0 ports [2 via headers]

Video: 1x VGA connector

Serial Port: 1x serial header

System BIOS

BIOS Type: 128Mb SPI Flash EEPROM with AMI® BIOS

BIOS Features: Plug and Play [PnP] | APM 1.2 | DMI 2.3 | PCI 2.3 | ACPI 1.0 / 2.0 / 3.0 | USB keyboard support | SMBIOS 2.7.1 | UEFI

Chassis

Form Factor: 1U rackmount

Model: CSE-118GH-R1K66B

Dimensions and Weight

Height: 1.7" [43 mm]

Width: 17.2" [437 mm]

Depth: 30.6" [777 mm]

Weight: Net Weight: 35 lbs. [15.9 kg] | Gross Weight: 48 lbs. [21.8 kg]

Available Color: Black

**SDR-1028GR-TR
SPECIFICATIONS**

Front Panel

Buttons: Power On/Off button | System Reset button

LEDs: Power LED | Hard drive activity LED | 2x Network activity LEDs | System Overheat LED / Fan fail LED / UID LED

Expansion Slots

PCI-Express: 4x PCI-E 3.0 x16 slots (3x GPU/Xeon Phi cards optional) | 1x PCI-E 3.0 x8 (in x 16) low-profile slot

Drive Bays

Hot swap: 4x 2.5" hot-swap drive bays

System Cooling

Fans: 10x counter-rotating fans with optimal fan speed control

Power Supply with Power Distributor

1000W/1600W 1U redundant power supply

AC Input: 1000W @ 100-127V, 12.9A Max., 50-60Hz | 1600W @ 200-240V, 9.5A Max., 50-60Hz

DC Output: 1000W: +12V/82A: +12Vsb/2A | 1600W: 12V/132A: +12Vsb/2A

PC Health Monitoring

CPU: Monitors for CPU cores, +1.5V, +3.3V, +5V, +12V, +5 Stdby, +3.3 Stdby, VBAT, Memory Voltages | 5 phase-switching voltage regulator

Fan: Total of ten 4-pin PWM fans | 10x fans with tachometer monitoring | Status monitor for speed control | Status monitor for on/off control | Low noise fan speed control

Temperature: Monitoring for CPU and chassis environment | CPU thermal trip support | Thermal Control for 10x fan connectors | PSU I²C temperature sensing logic | Thermal Monitor 2 (TM2) support | PECI

LED: Power Fail / Overheat LED | Suspend-slate indicator LED | UID LED

Other Features: SDDC Support

Operating Environment / Compliance

RoHS: RoHS Compliant

Environmental Specifications: 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)
