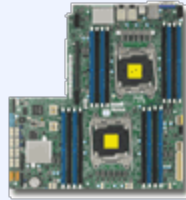


SuperServer 1028R-WTNR



Integrated Board



[Super X10DRW-N](#)

Available Colors:

Black



Key Features

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3 family; QPI up to 9.6GT/s
2. Up to 1TB Reg. ECC DDR4 2133MHz; 16x DIMM slots
3. 2x PCI-E 3.0 x16 (FHHL) slots
4. 10x Hot-swap 2.5" SAS/SATA HDD bays; 2x NVMe support
5. Intel® i350-AM2 Dual port GbE LAN
6. I/O ports: 2x SuperDOM, 1x VGA, 1x COM, 2x USB 3.0 (front), 4x USB 2.0 (rear)
7. 2x SuperDOM (Disk on Module) ports
8. 700W Redundant Power Supplies **Platinum Level** High-efficiency

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-WTNR** ■ SuperServer 1028R-WTNR (**Black**)

Motherboard

[Super X10DRW-N](#)

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

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 1TB ECC LRDIMM, 512GB ECC RDIMM

- Memory Type** ■ 133/1866/1600MHz ECC DDR4 SDRAM 72-bit

Chassis

- Form Factor** ■ 1U Rackmount

- Model** ■ [CSE-116AC2-R706WB](#)

Dimensions and Weight

- Width** ■ 17.2" (437mm)

- Height** ■ 1.7" (43mm)

- Depth** ■ 23.5" (597mm)

- Gross Weight** ■ 46 lbs (20.9kg)

- 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

| | |
|------------------------|---|
| DIMM Sizes | <ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 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 |
| SATA | <ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1, 5, 10 |
| IPMI | <ul style="list-style-type: none"> 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 | <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"> 8 SATA3 (6 Gbps) ports and 2 NVMe/SATA3 hybrid 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"> 2x USB 3.0 ports (front via header) 4x USB 2.0 ports (rear) |
| 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 |

Drive Bays

| | |
|-----------------|---|
| Hot-swap | <ul style="list-style-type: none"> 8x SATA3 (6Gbps) ports and 2x NVMe/STAT3 hybrid ports (connected to onboard storage controller) |
|-----------------|---|

Backplane

SAS/SATA HDD Backplane

System Cooling

| | |
|-------------|---|
| Fans | <ul style="list-style-type: none"> 5x 4cm heavy-duty counter-rotating fans w/ air shroud and optimal fan speed control |
|-------------|---|

Power Supply

700W/750W Redundant AC-DC high-efficiency power supply with PMBus and I2C

| | |
|------------------------------|---|
| AC Voltage | <ul style="list-style-type: none"> 700W: 100 - 140 V, 50-60 Hz 750W: 200 - 240V, 50-60 Hz |
| DC Output +5V standby | <ul style="list-style-type: none"> 3 Amp |
| DC Output +12V | <ul style="list-style-type: none"> 700W: 58 Amp @ 100-140V 750W: 62 Amp @ 200-240V |

Certification



Platinum Certified
[[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 1.2 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 - (Items Included)

| | Part Number | Qty | Description |
|------------------------------|-------------------|-------|--|
| Motherboard / Chassis | MBD-X10DRW-N | 1 | Super X10DRW-N Motherboard |
| | CSE-116AC2-R706WB | 1 | 1U Chassis |
| Backplane | BPN-SAS3-116A-N2 | 1 | 10-Port 1U Backplane for 8x2.5" SAS3/SATA3 HDD/SSD and 2xSAS2/SATA3 HDD/SSD or NVMe SSD |
| Cable 1 | CBL-SAST-0631 | 2 | cross-over mini SAS HD to 4 SATA w/SB, S. 55cm. 30AWG,RoHS/REACH |
| Cable 2 | CBL-CDAT-0662 | 1 | 8 pin to 8 pin round SGPIO cable, 61.5cm, 28AWG, pinout 1-1,RoHS/REACH |
| Cable 3 | CBL-0484L | 2 | 55cm 30AWG SATA S-S cable |
| Cable 4 | CBL-SAST-0590 | 2 | Internal Mini-SAS HD to Mini-SAS HD for PCIe SSD, Internal Mini-SAS HD cable for PCIe SSD NVMe, 12Gb/s, 70cm,30AWG |
| Riser Card | RSC-R1UW-2E16-O-P | 1 | RSC-R1UW-2E16-O-P |
| Heatsink / Retention | SNK-P0047PSC | 1 | 1U Passive Front CPU Heat Sink w/ a Side Air Channel for X9, X10 Systems Equipped with a Narrow ILM MB |
| Heatsink / Retention | SNK-P0057PS | 1 | 1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB |
| Power Supply | PWS-706P-1R | 2 | 1U 750W redundant power width 54.5mm(Platinum),HF,RoHS/REACH,PBF |
| Rail Set | MCP-290-00063-0N | 1 set | Rail set, quick/quick, default for 1U 17.2"W for SC113/SC116,RoHS/REACH |

Optional Parts List

| | Part Number | Qty | Description |
|---|-------------------------------|----------------------------|--|
| Cable for Storage Controller Card Connection | CBL-0343L-01 | 1 | IPASS to 4 SATA Cable, 30AWG 76/66/54/45CM, W/ 66CM |
| Rail Set | MCP-290-00063-0N | 1 set | Rail set, quick/quick, for 1U 17.2"W SC113 (Note: this is additional set to the default set included w/ Chassis) |
| CacheVault(s) | BTR-CV3108-1U1 | - | LSI 3108 CacheVault 1U dummy fan kit |
| CacheVault Installation Kits | MCP-240-00127-0N | - | SuperCap installation kit for thick 2.5" HDD location |
| | BKT-BBU-BRACKET-05 | - | SuperCap installation kit for PCI-E location |
| BBU for 2208 | BTR-0022L-LSI00279 | - | LSI00279 IBBU09 BATTERY BACKUP FOR SAS2208 |
| Cable | CBL-SAST-0556 | - | Internal mini SAS HD to 4 SATA, 90/90/75/75cm for 3108 or 3008 SAS3 cards |
| Cable | CBL-0388L-01 | - | IPASS TO 4 SATA 75/75/90/90CM W/ 75cm SB. RA. 30AWG for 2208, 2108, 2008, SAS2 cards |
| Network Card(s) | AOC-SGP-i2 | - | Standard LP, 2x GbE RJ45, PCI-E x4, Intel@i350AM2 |
| | AOC-SGP-i4 | - | Standard LP, 4x GbE RJ45, PCI-E x4, Intel@i350 |
| | AOC-SG-i2 | - | Standard LP, 2x GbE RJ45, PCI-E x4, Intel@82575EB |
| | AOC-SG-i4 | - | Standard LP, 4x GbE RJ45, PCI-E x4, Intel@82576EB |
| | AOC-STG-b4S | - | Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom@BCM57840S |
| | AOC-STGN-i2S | - | Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel@82599ES |
| | AOC-STG-i2T | - | Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel@X540 |
| | AOC-STG-i2 | - | Standard LP, 2x 10GbE CX4, PCI-E x8, Intel@82598EB |
| Storage Controller Card(s) | AOC-S3008L-L8e | - | Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD, HBA |
| | AOC-S3008L-L8i | - | Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD, RAID 0,1,1E |
| | AOC-S3108L-H8iR | - | Standard LP, 8 internal ports (12Gb/s) Gen-3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60 |
| | AOC-S2308L-L8e | - | Standard LP, 8 internal ports (6Gb/s) Gen-3, 122HDD, HBA |
| | AOC-S2308L-L8i | - | Standard LP, 8 internal ports (6Gb/s) Gen-3, 63HDD, RAID 0,1,1E |
| | AOC-S2208L-H8iR | - | Standard LP, 8 internal ports (6Gb/s) Gen-3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60 |
| | AOC-SAS2LP-MV8 | - | Standard LP, 8 internal ports (6Gb/s) Gen-2, HBA |
| | AOC-SAS2LP-H4iR | - | Standard LP, 4 internal & 4 external ports (6Gb/s) Gen-2, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60 |
| | AOC-SAS2LP-H8iR | - | Standard LP, 8 internal ports (6Gb/s) Gen-2, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60 |
| | Onsite Service Program | QS4HR3/2/1 | - |
| Onsite Service Program | OSNBD3/2/1 | - | 3/2/1-year onsite NBD service |
| Software | SFT-OOB-LIC | 1 | OOB Management Package (per node license) |
| Software | SFT-DCMS-Single | 1 | DataCenter Management Package (per node license) |