

SuperServer 1028R-WTNR



Integrated Board



Super X10DRW-N

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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) slots
4. 10 Hot-swap 2.5" SAS/SATA HDD bays (default 8 SATA3, 2 NVMe or SATA2)
5. Intel® i350-AM2 Dual port GbE LAN
6. I/O ports: 2 SuperDOM, 1 VGA, 1 COM, 2 USB 3.0 (front), 4 USB 2.0 (rear)
7. 2 SuperDOM (Disk on Module) ports
8. 700W Redundant Power Supplies **Platinum Level** High-efficiency

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

Specifications

Product SKUs

SYS-1028R-WTNR	■ SuperServer 1028R-WTNR (Black)
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Motherboard

Super X10DRW-N

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: 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
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 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	■ ASPEED AST2400 BMC

Input / Output

Serial ATA	■ 8 SATA3 (6 Gbps) ports and 2 NVMe/SATA3 hybrid ports
LAN	■ 2x RJ45 Gigabit Ethernet LAN ports ■ 1x RJ45 Dedicated IPMI LAN port
USB	■ 2x USB 3.0 ports (front via header) ■ 4x USB 2.0 ports (rear)

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
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Drive Bays

Hot-swap	■ 8x SATA3 (6Gbps) ports and 2x NVMe/SATA3 hybrid ports (connected to onboard storage controller)
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Backplane

SAS/SATA HDD Backplane

System Cooling

Fans	■ 5x 4cm heavy-duty counter-rotating fans w/ air shroud and optimal fan speed control
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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 40.25 x 320 mm
Input	■ 100 - 140Vac / 8 - 6A / 50-60Hz ■ 200 - 240Vac / 4.5 - 3.8A / 50-60Hz ■ 200 - 240Vdc / 4.5 - 3.8A (CCC Only)
+12V	■ 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	■ Max: 3A / Min: 0A
Output Type	■ Gold Finger Connector Mating with Molex 45984-4343

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"> System Information 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

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)

Список деталей

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 SAS3 12Gbps Hybrid backplane, support up to 8x 2.5-inch SAS3/SATA3 HDD/SSD and 2x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-0484L	2	SATA,INT,ROUND,ST-ST,55CM,30AWG
Cable 2	CBL-SAST-0590	2	MINI SAS HD,INT,PCIe NVMe SSD, 70CM,30AWG
Cable 3	CBL-SAST-0631	2	MINI SAS HD-4 SATA,6G,INT,RF,Cross Over,55CM,55CM SB,30AWG
Cable 4	CBL-CDAT-0662	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,61.5CM,28AWG
Drive Tray(s)	MCP-220-00127-0B	2	Black gen-3 2.5 NVMe drive tray, Orange tab with lock (for hotswap NVMe drive),HF,RoHS/REACH
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1724-QRG	1	QRG for 1028R-WTNR(T),HF
Riser Card	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
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
Fan	FAN-0101L4	5	40x56, 4 Pin PWM
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
NVMe Drive Tray with Lock	MCP-220-00127-0B	-	Black gen-3 2.5" NVMe drive tray (Orange tab. PUSH button with key lock)
CacheVault(s)	BTR-CV3108-1U1	1	CacheVault for Broadcom 3108 with SuperCap mounting in 1U
	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	40x56 fan tray
	BTR-TFM8G-LSICVM02 & MCP-240-00127-0N	-	CacheVault for Broadcom 3108; SuperCap mounting bracket for PCI-E location
		-	CacheVault for Broadcom 3108; SuperCap mounting bracket for 2.5" HDD location
SuperCap for AOC-S2208L-H8IR	BTR-0024LH-LSI00297 & BKT-BBU-BRACKET-05	-	SuperCap TFM to be used w/ Supermicro AOC-S2208L-H8IR; SuperCap mounting bracket for PCI-E location
	BTR-0024LH-LSI00297 & MCP-240-00127-0N	-	SuperCap TFM to be used w/ Supermicro AOC-S2208L-H8IR; SuperCap mounting bracket for 2.5" HDD location
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Storage Controller Card(s) & Cables(s)	AOC-S3108L-H8IR-16DD & 2x CBL-SAST-0531	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD;
		-	RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3008L-L8i & 2x CBL-SAST-0531	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD;
		-	RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0531	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD;
		-	HBA
	AOC-S2308L-L8e & 2x CBL-SAST-0507-01	-	Standard LP, 8 internal ports (6Gb/s) Gen-3, 122HDD;
		-	HBA
AOC-S2308L-L8i & 2x CBL-SAST-0507-01	-	Standard LP, 8 internal ports (6Gb/s) Gen-3, 63HDD;	
	-	RAID 0, 1, 10	
AOC-S2208L-H8iR & 2x CBL-SAST-0507-01	-	Standard LP, 8 internal ports (6Gb/s) Gen-3, 240HDD;	
	-	RAID 0, 1, 5, 6, 10, 50, 60	

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 x8, 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
Front Bezel	MCP-210-11601-0B	1	Black Front Bezel for SC113, SC113M, SC116, SC119, SC119U, SC514 (No LED indicator support)
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)