

SuperServer 6028R-TDWNR



Integrated Board



Super X10DDW-iN

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

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

Key Features

Data Center Optimized Support 4x 2.5" NVMe Drive Bays

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. 1x PCI-E 3.0 x16 (FHHL)
2x PCI-E 3.0 x8 (FHHL)
1x PCI-E 3.0 x8 (LP)
4. 8x 3.5" Hot-swap SATA3 +
4x 2.5" NVMe Drive Bays
5. Intel® i350 Dual-Port 1GbE LAN
6. I/O ports: 1x VGA, 2x USB 3.0,
2x USB 2.0
7. 920W Redundant Power Supplies
Platinum Level Certified
8. 2x SuperDOM (Disk on Module) ports
9. IPMI 2.0 + KVM with Dedicated LAN

Specifications

Product SKUs

SYS-6028R-TDWNR	■ SuperServer 6028R-TDWNR (Black)
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Motherboard

Super X10DDW-iN

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, 1TB 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
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 ■ 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

SATA	■ 8x SATA3 (6Gbps) ports ■ I-SATA 4 & I-SATA 5 support SATA DOM
NVMe	■ 4x Internal NVMe ports

Chassis

Form Factor	■ 2U Rackmount
Model	■ CSE-826BAC4-R920WB

Dimensions and Weight

Width	■ 17.2" (437mm)
Height	■ 3.5" (89mm)
Depth	■ 25.5" (648mm)
Package	■ 26.7" (W) x 11.4" (H) x 34.5" (L)
Weight	■ 64 lbs (29.0 kg)
Available Colors	■ Black

Front Panel

Buttons	■ Power On/Off button ■ System Reset button
LEDs	■ Power status LED ■ HDD activity LED ■ 2x Network activity LEDs ■ Universal Information (UID) LED ■ Power fail LED

Expansion Slots

PCI-Express	■ 1 PCI-E 3.0 x16 (FHHL) slot ■ 2 PCI-E 3.0 x8 (FHHL) slots ■ 1 PCI-E 3.0 x8 (LP) slot ■ (Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and AOC Support for details.)
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Drive Bays

Hot-swap	■ 8x 3.5" Hot-swap SATA3 Drive Bays ■ 4x 2.5" NVMe Drive Bays
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Backplane

- SAS3/SATA3 Backplane
- 4x 2.5" NVMe drives

System Cooling

Fans	■ 3x 8cm fans with optimal fan speed control
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Power Supply

920W Redundant High-Efficiency Power Supplies w/ Power Distributor, PMBus 1.2, I²C, and PFC

AC Input	■ 100-240 V, 50-60 Hz, 11-4.5 Amp
DC Output	■ +5V standby: 4A ■ +12V: 75A
With Power Distributor	■ +5V: 45A ■ +3.3V: 24A ■ -12V: 0.6A

Certification



Platinum Certified
[[Test Report](#)]

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"> 3x USB 3.0 ports (2 rear, 1 Type A) 4x USB 2.0 ports (2 rear, 2 headers)
Video	<ul style="list-style-type: none"> 1x VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1x COM port (header)
DOM	<ul style="list-style-type: none"> 2x SuperDOM (Disk on Module) ports

Management

Software	<ul style="list-style-type: none"> IPMI 2.0 Intel® Node Manager SuperDoctor® 5 SSM SPM SUM Watch Dog
Power Configurations	<ul style="list-style-type: none"> ACPI Power Management Power-on mode for AC power recovery

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 2.2 ACPI 1.0 / 2.0 / 3.0 / 4.0 BIOS resume hot keys USB Keyboard support SMBIOS 2.3 UEFI

Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 5°C to 40°C (41°F to 104°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

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10DDW-iN	1	Super X10DDW-iN Motherboard
	CSE-826BAC4-R920WB	1	2U Chassis
Air Shroud	MCP-310-29017-0B	1	SC826B/216B mylar shroud for X10DDW,HF,RoHS/REACH
Backplane	BPN-SAS3-826A-N4	1	12-port 2U SAS3 12Gbps hybrid backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD/SSD and 4x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-SAST-0507-01	2	MINI SAS HD-MINI SAS,6G,INT,80CM,SB,28AWG
Cable 2	CBL-SAST-0623	2	MINI SAS HD,INT,PCIe NVMe SSD, 45CM,30AWG
Cable 3	CBL-SAST-0590	2	MINI SAS HD,INT,PCIe NVMe SSD, 70CM,30AWG
Parts	MCP-240-00146-0N	1	2U WIO Half Length riser card bkt for SC825, 826, 213, 216,RoHS/REACH
Drive Tray(s)	MCP-220-00116-0B	4	Black gen-5 3.5-to-2.5 NVMe drive tray, Orange tab (for hotswap NVMe drive),RoHS/REACH
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1698-QRG	1	SYS-6028R-TDWNR, QRG,HF,RoHS/REACH
Riser Card	RSC-R2UW-E8R-UP	1	2U RHS WIO Riser Card with a PCI-E x8 for UP MBs
Riser Card	RSC-R2UW-2E8E16+	1	RSC-R2UW-2E8E16+-O-P
Heatsink / Retention	SNK-P0048PS	2	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
Power Supply	PWS-920P-SQ	2	920W 1U Redundant PWS W/ Quiet Mode
Rail Set	MCP-290-00053-0N	1 set	Rail set, quick/quick, default for 2,3U 17.2"W

Optional Parts List

	Part Number	Qty	Description
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-STGN-i1S	-	Standard LP, 1x 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
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)