

Specifications

Product SKUs

- SYS-510P-WTR** ■ SuperServer SYS-510P-WTR (**Black**)

Motherboard

- Super X12SPW-TF**

Processor

- CPU**
 - Single Socket P+ (LGA-4189)
 - 3rd Gen Intel® Xeon® Scalable processors
 - Support CPU TDP 270W
- Cores** ■ Up to 36C/72T; Up to 60MB Cache

System Memory

- Memory**
 - Memory Capacity: 8 DIMM slots
 - UP to 2TB: 8x 256 GB DRAM
 - UP to 3TB: 4x 256 GB DRAM and 4x 512 GB PMem
 - Memory Type: 3200/2933/2666MHz ECC DDR4 RDIMM;LRDIMM
 - Intel® Optane™ persistent memory 200 series
- Memory Voltage** ■ 1.25 V
- Error Detection** ■ Yes

On-Board Devices

- SATA** ■ SATA3 (6Gbps); RAID 0/1/5/10 support
- NVMe** ■ NVMe; RAID 0/1/5/10 support
- Chipset** ■ Intel® C621A
- Network Connectivity** ■ 2x 10GbE BaseT with Intel® X550
- IPMI**
 - Support for Intelligent Platform Management Interface v.2.0
 - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

Input / Output

- SATA** ■ 10 SATA (6Gbps) port(s)
- LAN**
 - 1 RJ45 Dedicated IPMI LAN port
 - 2 RJ45 10GBase-T LAN ports
- USB**
 - 3 USB port(s) (2 headers; 1 Type A)
 - 4 USB 3.2 Gen 1 port(s) (2 headers; 2 rear)
 - 2 USB 2.0 port(s) (2 rear)
- Video** ■ 1 VGA 2 port(s)
- Serial Port** ■ 2 COM Port(s) (1 header; 1 rear)
- DOM** ■ 2 SuperDOM (Disk on Module) port with built-in power

System BIOS

Chassis

- Form Factor** ■ 1U Rackmount
- Model** ■ **CSE-815TS-R504WBP6**

Dimensions and Weight

- Height** ■ 1.7" (43mm)
- Width** ■ 17.2" (437mm)
- Depth** ■ 25.6" (650mm)
- Package** ■ 8.5" (H) x 23.5" (W) x 33.7" (D)
- Weight**
 - Net Weight: 24 lbs (10.89 kg)
 - Gross Weight: 48 lbs (21.77 kg)
- Available Color** ■ Black

Front Panel

- Buttons**
 - Power On/Off
 - System Reset
 - UID button
- LEDs**
 - Device Activity
 - LAN 1 Activity
 - LAN 2 Activity
 - Power status
 - System information

Expansion Slots

- PCI-Express (PCI-E)**
 - Slot 1: PCI-E 4.0 x16 FHFL
 - Slot 2: PCI-E 4.0 x16 FHFL
 - Slot 3: PCI-E 4.0 x16 LP

Drive Bays / Storage

- Drive Bays** ■ 4x 3.5" NVMe/SATA drive bays (4x 3.5" NVMe hybrid)
- M.2**
 - 1x PCI-E 3.0 x 4 and SATA
 - M-key, 2280, 22110
- Peripheral Bays** ■ 2x 2.5" drive bays

System Cooling

- Fans**
 - 1 AOC cooling Fan(s) (optional)
 - 5 counter-rotation PWM 40x40x56mm Fan(s)

Power Supply

- AC-DC/DC-DC 500W, Platinum efficiency, AC inlet: C14,RoHS
- Total Output Power** ■ 500W
- Dimension (W x H x L)** ■ 54.5 x 40.25 x 320 mm
- +12V** ■ Max: 42A / Min: 0.5A
- 5V SB** ■ Max: 3A / Min: 0A
- Output Type** ■ Gold Finger Connector

BIOS Type ■ AMI 32MB SPI Flash EEPROM

Management

- Software**
- IPMI2.0
 - Redfish API
 - SSM
 - SPM
 - KVM with dedicated LAN
 - SUM
 - NMI

- Power Configurations**
- ACPI/APM Power Management

PC Health Monitoring

- CPU**
- 7+1 Phase-switching voltage regulator
 - Monitors for CPU Cores, Chipset Voltages, Memory

- FAN**
- Fans with tachometer monitoring
 - Pulse Width Modulated (PWM) fan connectors
 - Status monitor for speed control

- Temperature**
- Monitoring for CPU and chassis environment
 - Thermal Control for fan connectors

Certification



Platinum Level

[[Test Report](#)]

Operating Environment

- Environmental Spec.**
- Operating Temperature: 10°C ~ 35°C (50°F ~ 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

Parts List - (Items Included)			
	Part Number	Qty	Description
Motherboard / Chassis	MBD-X12SPW-TF	1	Super X12SPW-TF Motherboard
	CSE-815TS-R504WBP6	1	1U Chassis
Backplane	BPN-SAS3-815TQ-N4	1	4-port 1U SAS3 12Gbps Hybrid backplane, support up to 4x 3.5-inch SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-SAST-0699	1	MINI SAS HD-4 SATA, 12G,INT,75/75/90/90CM,75CM SB,28/30AWG,Ro
FAN 1	FAN-0141L4	1	40x40x56 mm 20.5K RPM / 17.6K RPM Counter-rotating Fan
Manual	MNL-2266-QRG	1	510P-WT/WTR Quick Reference Guide
Riser Card	RSC-W-66G4	1	1U LHS WIO Riser card with two PCI-E 4.0 x16 slots,HF,RoHS
Riser Card	RSC-WR-6	1	1U RHS WIO Riser card with one PCI-E 4.0 x16 slot,HF,RoHS
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0077P	1	1U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
*Power Supply	PWS-504P-1R	2	500W 1U Redundant PWS W/ 54.5MM Wide
*Power Supply	PWS-504P-1R2	2	1U Redundant 500W/600W, Platinum efficiency, AC inlet: C14,RoHS
*Power Distributor	PDB-PT112-S2424	1	WIO X11 Support,PDB-PT112-S2424 is based on PDB-PT112-2424
*Cable 2	CBL-0335L	1	FRONT CTL CABLE 20 PIN TO 20 PIN W/TUBE,70CM,PBF
*Cable 3	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
*Fan Holder	CSE-PT0135	1	FAN HOLDER FOR SIX 40X56MM COUNTER ROTATING FANS
*Peripheral Drive1	CSE-PT93L-B	1	Black DVD dummy cover for SC813, 813M, 815, PBF-RoHS
*FAN 2	FAN-0141L4	4	40x40x56 mm 20.5K RPM / 17.6K RPM Counter-rotating Fan
*FAN 3	FAN-0163L4	4	40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan
*Front Panel	FPB-FP815U	1	815 UIO front control board (U)
*Parts	MCP-120-00030-0N	1	Blank LP L-bracket (1 raw of capsule hole)
*Parts	MCP-120-00053-0N	2	Blank FH L bracket w/o SCSI cutout for SC825,836,846,743
*Drive Tray(s)	MCP-220-00075-0B	4	Black gen 5.5 hot-swap 3.5" HDD tray
*Rear Window	MCP-240-00098-0N	1	WIO rear window for SC113,SC116, SC815 Redundant PWS
*Power Supply	MCP-250-81502-0N	1	SC815 Redundant Power Distributor Cover
*Rail Set	MCP-290-00054-0N	1set	Rail set, quick/quick, optional for 1U 17.2
*Air Shroud	MCP-310-19002-0N	1	SC815/113/116 Intel DP X9, X8 PC air shroud, 12x13MB
*Fan Holder	MCP-340-00035-0B	2	Dummy fan 40x56mm for 40x56 counter-rotating fan (cost-effective)

Notes:

1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List			
	Part Number	Qty	Description
3.5" to 2.5" Converter Tray(s)	MCP-220-00043-0N • eStore	-	Hot-swap Gen-4 3.5" to 2.5" HDD tray, Black
3.5" to 2.5" NVMe Drive Tray(s)	MCP-220-00138-0B • eStore	-	Tool-less Hot-swap Gen-5.5 NVMe 3.5" to 2.5" drive tray, Orange tab, Black
Add-on Card for additional M.2	AOC-SLG3-2H8M2	-	Standard LP, PCI-E 3.0 x8, supports 2x NVMe/SATA M-Key M.2 Modules; RAID 0,1

CacheVault	BTR-CVPM05 + BKT-BBU-BRACKET-05 (For S3908)	1	CacheVault for Broadcom 3908 with SuperCap mounting bracket for PCI-E location
	BTR-TFM8G-LSICVM02 + BKT-BBU-BRACKET-05 (For S3108)	1	CacheVault for Broadcom 3108 with SuperCap mounting bracket for PCI-E location
	BTR-CV3108-1U1 (For S3108)	1	CacheVault for Broadcom 3108 with SuperCap mounting in 1U 40x56 fan tray
Cooling Fan	FAN-0141L4 • eStore	1	40x40x56 mm, 20.5K RPM / 17.6K RPM, Counter-rotating Fan
DVD-ROM / DVD-RW	DVM-TEAC-DVD-SBT5	1	TEAC slim DVD-ROM SATA drive
	DVM-PLDS-DVDRW-SBT5	1	PHILIPS slim DVD-RW SATA drive
DVD-ROM Accessory	MCP-220-81502-0N • eStore	1	Slim SATA DVD mounting kit
Front Bezel	CSE-PTFB-813-02B	1	Black Front Bezel w/ Round Venting Holes
	CSE-PTFB-813LB	1	Black Front Bezel
Hot-swap 2.5" kit (DVD slot)	MCP-220-81506-0N • eStore	1	Single 2.5" SAS3 (12Gb/s) hot swap in slim DVD form factor
Hot-swap 2.5" kit (FDD slot)	MCP-220-81504-0N • eStore	1	Single 2.5" SAS3 (12Gb/s) hot swap in slim FDD form factor
Inlet Thermal Sensor	MCP-280-00034-0N	1	Universal Thermal sensor kit with 40cm I2C cable
Intel VROC RAID Key for NVMe	AOC-VROCPREMOD	1	Premium Upgrade module (Intel + 3rd party Vendor SSD); RAID 0/1/10/5
	AOC-VROCSTNMOD	1	Standard Upgrade module (Intel + 3rd party Vendor SSD); RAID 0/1/10
	AOC-VROCINTMOD	1	Intel SSD Only Upgrade module; RAID 0/1/10/5
NVMe Cable (Drive Bay 0-1)	CBL-SAST-1149-85	1	SLIMLINE x8 (RE) to 2x Oculink x4,INT, 49CM, 85 OHM
NVMe Cable (Drive Bay 2-3)	CBL-SAST-1154-85	1	SLIMLINE x8 (RE) to 2x Oculink x4,INT, 54CM, 85 OHM,RoH
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)
Storage Control Card and Cable(s)	AOC-S3908L-H8iR-16DD + 1x CBL-SAST-1275A-100	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 4.0 x8, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8iR-16DD	1	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3008L-L8I	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD; RAID 0, 1, 10
Storage Control Card and Cable(s) (HBA)	AOC-S3808L-L8IT + 1x CBL-SAST-1275A-100	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 4.0 x8, 122HDD; HBA
	AOC-S3008L-L8E	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD; HBA
TPM	AOM-TPM-9670V-S	1	TPM 2.0, vertical form factor, provisioned for server
	AOM-TPM-9671V-S	1	TPM 1.2, vertical form factor, provisioned for server