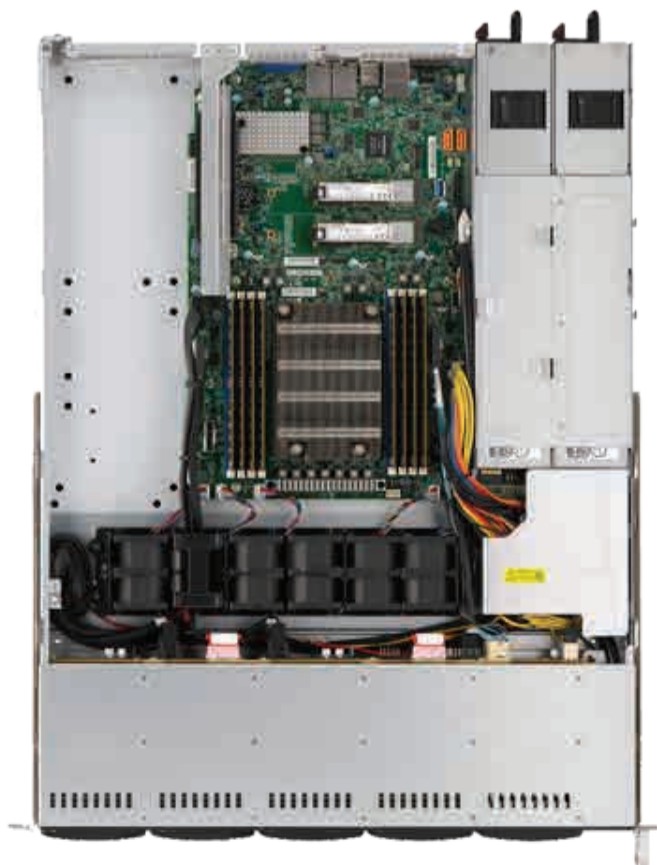


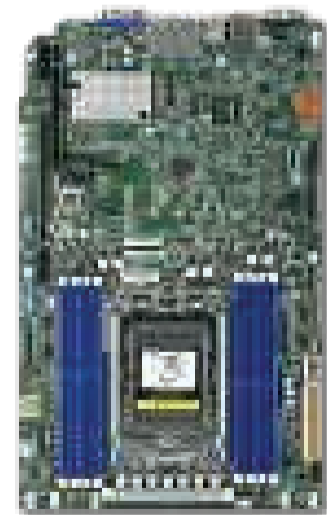
## Key Features

- DB Processing & Storage
- Data Center Applications
- Firewall Applications

1. Single AMD EPYC™ 7002 Series Processor
2. 8 DIMMs; up to 2TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
3. 2 PCI-E 4.0 x16 (FHFL) slots, 1 PCI-E 4.0 x16 (LP) slot
4. Integrated IPMI 2.0 + KVM with dedicated LAN
  - **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. 10 Hot-swap 2.5" SATA3 drive bays, Optional 2 U.2 NVMe (PCI-E 3.0) drive support via additional kit for NVMe devices
6. 2x 10GBase-T LAN ports via Broadcom BCM57416 Controller
7. 1 VGA, 7 USB 3.0 (4 rear, 2 front, 1 Type A)
8. 2 SuperDOM (Disk on Module) ports
9. 500W Redundant Power Supplies Platinum Level High-efficiency (*Full redundancy based on configuration and application load*)



## Integrated Board



## Super-H12SSW-NT

# Specifications

## Product SKUs

- AS -1114S-WTRT
  - A+ Server 1114S-WTRT (Black)

## Motherboard

- Super H12SSW-NT

## Processor/Cache

- CPU
  - Single AMD EPYC™ 7002 Series Processor
  - Socket SP3
  - Support CPU TDP up to 280W

- Cores
  - Up to 64 Cores

## System Memory

- Memory Capacity
  - 8 DIMM slots
  - Up to 2TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM

- Memory Type
  - DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs

## On-Board Devices

- Chipset
  - System on Chip

- SATA
  - SATA3 (6Gbps)

- Network Controllers
  - Dual 10GBase-T LAN with via Broadcom BCM57416

- IPMI
  - Support for Intelligent Platform Management Interface v.2.0
  - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

- Video
  - ASPEED AST2500 BMC

## Input / Output

- SATA
  - 2 SATA3 (6 Gbps) ports

- LAN
  - 2 RJ45 10GBase-T ports
  - 1 RJ45 Dedicated IPMI LAN port

- USB
  - 7 USB 3.0 ports (4 rear, 2 front, 1 Type A)

- Video
  - 1 VGA port

- DOM
  - 2 SuperDOM (Disk on Module) ports

## System BIOS

- BIOS Type
  - AMI 32Mb SPI Flash ROM

## Management

- Software
  - Super Doctor 5
  - Watch Dog
  - NMI
  - SUM
  - IPMI 2.0, KVM with dedicated LAN

- Power Configurations
  - ACPI / APM Power Management

## PC Health Monitoring

- CPU
  - Monitors for CPU Cores, Chipset Voltages, Memory.
  - 4+1 Phase-switching voltage regulator

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

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

## Chassis

- Form Factor
  - 1U Rackmount

- Model
  - CSE-116TS-R504WBP

## 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
  - Network activity LEDs
  - Universal Information (UID) LED

## Expansion Slots

- PCI-Express
  - 2 PCI-E 4.0 x16 (FHHL) slots
  - 1 PCI-E 4.0 x16 (LP) slot
  - 2 PCI-E / SATA 3.0 x2 NVMe M.2 slots

## Drive Bays

- Hot-swap
  - 10 Hot-swap 2.5" SATA3 drive bays
  - Optional 2 U.2 NVMe (PCI-E 3.0) drive support via additional kit for NVMe devices

## Backplane

- SAS/SATA HDD Backplane

## System Cooling

- Fans
  - 4 Counter-rotating 4cm PWM fans, 2 fans for cooling AOC

## Power Supply

- 500W Redundant Power Supplies with PMBus

- Total Output Power
  - 500W

- Dimension (W x H x L)
  - 54.5 x 40.25 x 320 mm

- Input
  - 100-240Vac, 50-60Hz, 6.1-2.6A

- +12V
  - Max: 42A / Min: 0.5A

- +5Vsb
  - Max: 4A / Min: 0A

- Output Type
  - Gold Finger Connector Mating with Molex 45984-4343

- With Power Distributor
  - +5V: 25A
  - +3.3V: 12A
  - 12V: 0.6A

- Certification
  -  Platinum Certified [ Test Report ]

## Operating Environment

- RoHS
  - RoHS Compliant

- Environmental Spec.
  - Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)
  - Non-operating Temperature: -40°C to 60°C (-40°F to 140°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
<b>Motherboard / Chassis</b>	MBD-H12SSW-NT	1	Super H12SSW-NT Motherboard
	CSE-116TS-R504WBP	1	1U Chassis
<b>Cable</b>	CBL-SAST-0803	1	[NR] SLIMLINE SAS x8 (LE) to 2x MINI SAS HD x4,INT, 37/30CM,
<b>Cable</b>	CBL-SAST-0813	1	SLIMLINE SAS x8 (LA) to SATA x4,INT, 16/26CM,32AWG,RoHS
<b>Backplane</b>	BPN-SAS3-116A-N2	1	10-Port 1U Backplane for 8x2.5" SAS3/SATA3 HDD/SSD and 2xSAS2/SATA3 HDD/SSD or NVMe SSD
<b>Riser Card</b>	RSC-W-66G4	1	1U LHS WIO Riser card with two PCI-E 4.0 x16 slots,HF,RoHS
<b>Riser Card</b>	RSC-WR-6	1	1U RHS WIO Riser card with one PCI-E 4.0 x16 slot,HF,RoHS
<b>Heatsink / Retention</b>	SNK-P0062P	2	1U Passive CPU Heat Sink for AMD Socket SP3 Processors
<b>Power Supply</b>	PWS-504P-1R	2	500W 1U Redundant PWS W/ 54.5MM Wide
<b>Power Distributor</b>	PDB-PT112-S2424	1	WIO X11 Support,PDB-PT112-S2424 is based on PDB-PT112-2424
<b>FAN</b>	FAN-0141L4	4	40x40x56 mm 20.5K RPM / 17.6K RPM Counter-rotating Fan
<b>Parts</b>	MCP-240-00099-0N	1	1U WIO riser card bracket for SC113, SC815, SC119, SC819
<b>Drive Tray(s)</b>	MCP-220-00047-0B	10	Black gen 3rd hot-swap 2.5inch HDD tray
<b>Rear Window</b>	MCP-240-00098-0N	1	WIO rear window for SC113,SC116, SC815 Redundant PWS
<b>Rail Set</b>	MCP-290-00063-0N	1set	Rail set, quick/quick, default for 1U 17.2"W for SC113/SC116,RoHS/REACH
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	1	OOB Management Package (per node license)

### Optional Parts List

	Part Number	Qty	Description
<b>Optional Kit for 2 U.2 NVMe Drive Support</b>	CBL-SAST-0826	1	SLIMLINE SAS x8 (LE) to 2x MINI SAS HD,INT, 70CM,32AWG
	MCP-220-00167-0B	2	Gen 3 2.5-inch Tool-less NVMe drive tray (clip design),RoHS
<b>Cooling Fan</b>	FAN-0141L4	2	440x40x56mm 14.4K-10.7K RPM Counter-rotating Fan
<b>Storage Controller card &amp; cable</b>	AOC-S3108L-H8iR	1	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
	CBL-SAST-0593	2	MINI SAS HD,12G,INT,60CM,30AWG
	FAN-0141L4	2	440x40x56mm 14.4K-10.7K RPM Counter-rotating Fan
	AOC-S3108L-H8iR-16DD	1	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, 16HDD RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
	CBL-SAST-0593	2	MINI SAS HD,12G,INT,60CM,30AWG
	FAN-0141L4	2	440x40x56mm 14.4K-10.7K RPM Counter-rotating Fan
	AOC-S3008L-L8i	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD, RAID 0, 1, 10
	CBL-SAST-0593	2	MINI SAS HD,12G,INT,60CM,30AWG
	FAN-0141L4	2	440x40x56mm 14.4K-10.7K RPM Counter-rotating Fan
	AOC-S3008L-L8e	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD HBA
CBL-SAST-0593	2	MINI SAS HD,12G,INT,60CM,30AWG	
FAN-0141L4	2	440x40x56mm 14.4K-10.7K RPM Counter-rotating Fan	
<b>CacheVault</b>	BTR-CV3108-1U1	-	CacheVault for Broadcom 3108 with SuperCap mounting in 1Y 40x56 fan tray
	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108 with SuperCap mounting bracket for PCI-E location
<b>Front Bezels</b>	MCP-210-11601-0B	1	Black front bezels
<b>Cable Management Arm</b>	MCP-290-00085-0N	-	Supermicro Cable Management Arm for 1U Chassis
<b>GPU Kit</b>	MCP-310-81504-0B	1	SC815 and SC116 with X11SPW & H12SSW for Tesla T4,RoHS
	FAN-0141L4	2	440x40x56mm 14.4K-10.7K RPM Counter-rotating Fan
<b>TPM security module</b>	AOM-TPM-9655V	-	Vertical TPM with Infineon 9655 TCG 1.2
	AOM-TPM-9655V-S	-	Based on AOM-TPM-9655V with Server TXT package
	AOM-TPM-9665V	-	AOM-TPM-9665V using SLB9665 Chipset supporting TPM2.0,RoHS/REACH
	AOM-TPM-9665V-S	-	Vertical TPM TCG 2.0 Provisioned for a server,RoHS/REACH
<b>SATADOM</b>	SSD-DM128-SMCMVN1	-	SMC SATADOM, 128GB, SATA 6Gb/s, MLC, uSSD, 15nm,HF,RoHS/REACH
	SSD-DM480-SMCMVN1	-	SMC SATADOM,480GB,SATA 6Gb/s,3D TLC,uSSD,HF,RoHS
	SSD-DM064-SMCMVN1	-	SMC SATADOM,64GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	SSD-DM032-SMCMVN1	-	SMC SATADOM,32GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	MEM-IDSAVS4-032G	-	SATA3DOM SL 3SE4 32GB SLC LP Pin8 VCC NH (L17725)
	MEM-IDSAVM8A-128G	-	SATA3DOM SL 3ME3 V2 128GB MLC LP Pin8 VCC NH (S17411)
	MEM-IDSAVM8A-128G	-	SATA3DOM SL 3ME3 V2 128GB MLC LP Pin8 VCC NH (S17411)
	MEM-IDSAVE1-064G	-	SATA3DOM SL 3IE3 V2 64GB iSLC LP Pin8 VCC NH (S17411i)
<b>Global Services &amp; Support</b>	<a href="#">QS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)