A+ Server 2113S-WTRT

Integrated Board

H11SSW-NT

Views: | Angled View | Top View |
| Front View | Rear View |

Drivers & Utilities | BIOS | IPMI | Tested Memory | Tested M.2 List | NVMe Options | Tested AOC | Manuals | OS Certification Matrix | Quick-References Guide | Drive Options

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

Key Features

- **Backup Storage**
- **Web or Database Servers**
- **Compact Network Appliance**

1. Single AMD EPYC™ 7001/7002* Series Processor (*AMD EPYC 7002 series drop-in support requires board revision 2.x)
2. 2TB Registered ECC DDR4 2666MHz SDRAM in 16 DIMMs
   4TB Registered ECC DDR4 3200MHz SDRAM in 16 DIMMs (Board revision 2.x required)
3. Expansion slots:
   1 PCI-E 3.0 x16 (FH/HL) slot,
   2 PCI-E 3.0 x8 (FH/HL) slots,
   2 PCI-E 3.0 x8 (LP) slots
   M.2 Interface: PCI-E 3.0 x4 (NVMe based)
   M.2 Form Factor: 2280, 22110
   M.2 Key: Onboard M-key
   Number of M.2: Dual
4. Integrated IPMI 2.0 + KVM with dedicated LAN
   - **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. 2x 10GBase-T LAN ports via Broadcom BCM57416
6. 16 hot-swap 2.5" SATA3 drive bays,
   or 10 hot-swap 2.5" SATA3 drive bays + optional 6 U.2 NVMe drive support with additional cables
7. 1200W Redundant Power Supplies
   Titanium Level (96%)
   (Full redundancy based on configuration and application load)

Specifications

Product SKUs

AS -2113S-WTRT	▪ A+ Server 2113S-WTRT

Motherboard

H11SSW-NT

Processor/Chipset

CPU	▪ Single AMD EPYC™ 7001/7002* series Processor (*Board revision 2.x required) ▪ Socket SP3 ▪ Supports CPU TDP 225W / cTDP up to 240W*
Cores	▪ Up to 32 Cores (Board revision 1.x + 7001 Processors) ▪ Up to 64 Cores (Board revision 2.x + 7002 Processors)
Chipset	▪ System on Chip (SoC)

System Memory

Memory Capacity	▪ 16 DIMM slots ▪ Supports up to 2TB Registered ECC DDR4 2666MHz SDRAM (7001 Processors) ▪ Supports up to 4TB Registered ECC DDR4 3200MHz SDRAM (Board revision 2.x required + 7002 Processors) ▪ 8-channel memory bus
Memory Type	▪ DDR4 2666 MHz Registered ECC, 240-pin gold-plated DIMMs (7001 Processors) ▪ DDR4 3200 MHz Registered ECC, 240-pin gold-plated DIMMs (Board revision 2.x required + 7002 Processors)
DIMM Sizes	▪ 4GB, 8GB, 16GB, 32GB, 64GB, 128GB, 256GB* (* Board revision 2.x required + 7002 Processors)
Memory Voltage	▪ 1.2V
Error Detection	▪ Corrects single-bit errors ▪ Detects double-bit errors (using ECC memory)

On-Board Devices

IPMI	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ▪ ASPEED AST2500 BMC
Network Controllers	▪ Broadcom BCM57416 Controller
VGA	▪ ASPEED AST2500 BMC

Expansion Slots

PCI Express	▪ 1 PCI-E 3.0 x16 (FH/HL) slot ▪ 2 PCI-E 3.0 x8 (FH/HL) slots ▪ 2 PCI-E 3.0 x8 (LP) slots
M.2	▪ Interface: PCI-E 3.0 x4 (NVMe based) ▪ Form Factor: 2280, 22110 ▪ Key: Onboard M-key ▪ Number of M.2: Dual

Input / Output

NVMe	▪ Up to 6 U.2 NVMe support via additional cables

Chassis

Form Factor	▪ 2U
Model	▪ **CSE-213AC8-R1K23WB**

Dimensions

Height	▪ 3.5" (89mm)
Width	▪ 17.2" (437mm)
Depth	▪ 24.8" (630mm)
Weight	▪ Net Weight: 34 lbs (15.42 kg) ▪ Gross Weight: 59 lbs (26.76 kg)

Front Panel

Buttons	▪ Power On/Off button ▪ System Reset button
LEDs	▪ Power LED ▪ Hard drive activity LED ▪ 2x Network activity LEDs ▪ System Overheat LED / Fan fail LED / UID LED

Drive Bays

Hot-swap	▪ 16 hot-swap 2.5" SATA3 drive bays ▪ Optional 6 U.2 NVMe drive support with additional cables

Peripheral Drives

Optional	▪ Optional slim DVD-ROM drive

Backplane

Hybrid Backplane	▪ Supports up to 8x 2.5" SAS3/SATA3 HDD/SSD and 6x SAS3/SATA3/NVMe Storage Devices

System Cooling

Fans	▪ 3 heavy-duty PWM fans with optimal fan speed control
Air Shroud	▪ 1 Air Shroud

Power Supply (76mm Width)

1200W Redundant Power Supplies with PMBus

Total Output Power	▪ 1000W/1200W
Dimension (W x H x L)	▪ 76 x 40 x 336 mm
Input	▪ 100-127Vac / 15-12A / 50-60Hz ▪ 200-240Vac / 8.5-7A / 50-60Hz ▪ 200-240Vdc / 8.5-7A (for CCC only)
+12V	▪ Max: 83A / Min: 0A (100-127Vac) ▪ Max: 100A / Min: 0A (200-240Vac) ▪ Max: 100A / Min: 0A (200-240Vdc)
+5Vsb	▪ Max: 4A / Min: 0A
Output Type	▪ 19 Pairs Gold Finger Connector
Certification	**Titanium Level** **[Test Report]**

PC Health Monitoring

SATA	▪ 16 SATA3 (6 Gbps) ports
LAN	▪ 2x 10GbBase-T LAN ports ▪ 1 RJ45 Dedicated IPMI LAN port
USB	▪ 5 USB 3.0 ports (4 rear + 1 Type A)
VGA	▪ 1 VGA port
Others	▪ 1 COM port ▪ 2 SATA DOM power connectors ▪ TPM 1.2 header

System BIOS

BIOS Type	▪ AMI 128Mb SPI Flash EEPROM
BIOS Features	▪ Plug and Play (PnP) ▪ DMI 2.3 ▪ PCI 2.2 ▪ ACPI 5.1 ▪ USB Keyboard Support ▪ SMBIOS 3.1.1

CPU	▪ Monitors CPU Core Voltages, +1.8V, +3.3V, +5V, +5V standby, 3.3V standby, VBAT ▪ CPU switching voltage regulator
FAN	▪ Up to 6-fan status tachometer monitoring ▪ Up to six 4-pin fan headers ▪ Status monitor for speed control ▪ Pulse Width Modulated (PWM) fan connectors
Temperature	▪ Monitoring for CPU and chassis environment ▪ CPU Thermal Trip Support ▪ Thermal control for 6x Fan connectors ▪ I²C Temperature Sensing Logic
LED	▪ CPU / System Overheat LED
Other Features	▪ Chassis Intrusion Detection ▪ Chassis Intrusion Header

Operating Environment / Compliance

RoHS	▪ RoHS Compliant
Environmental Spec.	▪ 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

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard	MBD-H11SSW-NT	1	Super H11SSW-NT Motherboard
Chassis	CSE-213AC8-R1K23WB	1	2U Chassis
HD Backplane	BPN-SAS3-213A-N8	1	16-port 2U SAS3 12Gbps hybrid backplane, support up to 8x 2.5-inch SAS3/SATA3 HDD/SSD and 8x SAS3/SATA3/NVMe Storage Devices
Cable(s)	CBL-SAST-0832	2	SLIMLINE SAS x8 (LA) to 2x MINI SAS HD x4,INT, 70CM,32AWG
Riser Card	RSC-R2UW-2E8E16+	1	RSC-R2UW-2E8E16+-O-P
Riser Card	RSC-R2UW-2E8R	1	2U RHS WIO Riser card with two PCI-E x8 slots
Heatsink / Retention	SNK-P0063P	1	2U Passive CPU Heat Sink for AMD Socket SP3 Processors
Mounting Rail(s)	MCP-290-00053-0N	1	Rail set, quick/quick, default for 2,3U 17.2";W
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management

Optional Parts List

	Part Number	Qty	Description
Peripheral Drive	DVM-PNSC-824B	-	Black slim IDE DVD (8x DVD, 24x CDR), Panasonic
Optional Kit for 6 U.2 NVMe drive solution	MCP-220-00127-0B	6	Black gen-3 2.5" NVMe drive tray, Orange tab with lock (for hotswap NVMe drive)
	CBL-SAST-0816	1	SLIMLINE SAS x8 (LA) to 2x Oculink x4,INT, 28CM,34AWG
	CBL-SAST-0817	3	SLIMLINE SAS x8 (LA) to 2x Oculink x4,INT, 36CM,34AWG
Storage Controller card & cable	AOC-S3008L-L8e & 2x CBL-SAST-0535	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 122HDD, HBA MINI SAS HD,12G,INT,70CM,30AWG
	AOC-S3008L-L8i & 2x CBL-SAST-0535	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E MINI SAS HD,12G,INT,70CM,30AWG
	AOC-S3108L-H8iR & 2x CBL-SAST-0535	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60 MINI SAS HD,12G,INT,70CM,30AWG
CacheVault	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108, Supercap mounting bracket for PCI-E location
	BTR-TFM8G-LSICVM02 & MCP-240-00127-0N	-	CacheVault for Broadcom 3108, Supercap mounting bracket for 2.5" HDD location
TPM	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 supporing TPM2.0,RoHS/REACH
	AOM-TPM-9665V-S	-	Vertical TPM TCG 2.0 Provisioned for a server,RoHS/REACH
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service