

A+ Server 2113S-WN24RT (Complete System Only)



Integrated Board



H11SSW-NT

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

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with 1 CPU, minimum 8 DIMMs, 1 NVMe). Recommended configuration for best performance is at least 24 or 32 Cores per CPU.

▶ [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

Virtualization
Hyperconverged Storage
Cloud Computing
All Flash Storage

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
M.2 Interface: PCI-E 3.0 x2 (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. 24 hot-swap 2.5" U.2 NVMe drive bays
7. 1200W Redundant Power Supplies
Titanium Level (96%)
(Full redundancy based on configuration and application load)



Specifications

Product SKUs

AS -2113S-WN24RT	<ul style="list-style-type: none"> A+ Server 2113S-WN24RT
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Motherboard

H11SSW-NT

Processor/Chipset

CPU	<ul style="list-style-type: none"> Single AMD EPYC™ 7001/7002* series Processor (*Board revision 2.x required) Socket SP3 Supports CPU TDP 225W / cTDP up to 240W*
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Cores	<ul style="list-style-type: none"> Up to 32 Cores (Board revision 1.x + 7001 Processors) Up to 64 Cores (Board revision 2.x + 7002 Processors)
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Chipset	<ul style="list-style-type: none"> System on Chip (SoC)
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System Memory

Memory Capacity	<ul style="list-style-type: none"> 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
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Memory Type	<ul style="list-style-type: none"> DDR4 2666 MHz Registered ECC, 288-pin gold-plated DIMMs (7001 Processors) DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs (Board revision 2.x required + 7002 Processors)
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DIMM Sizes	<ul style="list-style-type: none"> 4GB, 8GB, 16GB, 32GB, 64GB, 128GB, 256GB* (* Board revision 2.x required + 7002 Processors)
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Memory Voltage	<ul style="list-style-type: none"> 1.2V
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Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors Detects double-bit errors (using ECC memory)
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On-Board Devices

IPMI	<ul style="list-style-type: none"> 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
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Network Controllers	<ul style="list-style-type: none"> Broadcom BCM57416 Controller
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VGA	<ul style="list-style-type: none"> ASPEED AST2500 BMC
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Expansion Slots

PCI Express	<ul style="list-style-type: none"> 1 PCI-E 3.0 x16 (FH/HL) slot
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M.2	<ul style="list-style-type: none"> Interface: PCI-E 3.0 x2 (NVMe based) Form Factor: 2280, 22110 Key: Onboard M-key Number of M.2: Dual
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Chassis

Form Factor	<ul style="list-style-type: none"> 2U
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Model	<ul style="list-style-type: none"> CSE-216BTS-R1K23WBP
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Dimensions and Weight

Height	<ul style="list-style-type: none"> 3.5" (89mm)
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Width	<ul style="list-style-type: none"> 17.2" (437mm)
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Depth	<ul style="list-style-type: none"> 24.8" (630mm)
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Package	<ul style="list-style-type: none"> 10.1" (H) 25.8" (W) 37.8" (D)
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Weight	<ul style="list-style-type: none"> Net Weight: 34 lbs (15.42 kg) Gross Weight: 59 lbs (26.76 kg)
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Front Panel

Buttons	<ul style="list-style-type: none"> Power On/Off button System Reset button
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LEDs	<ul style="list-style-type: none"> Power LED Hard drive activity LED 2x Network activity LEDs System Overheat LED / Fan fail LED / UID LED
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Drive Bays

Hot-swap	<ul style="list-style-type: none"> 24 hot-swap 2.5" U.2 NVMe drive bays
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System Cooling

Fans	<ul style="list-style-type: none"> 3 heavy-duty PWM fans with optimal fan speed control
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Air Shroud	<ul style="list-style-type: none"> 1 Air Shroud
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Power Supply (76mm Width)

1200W Redundant Power Supplies with PMBus

Total Output Power	<ul style="list-style-type: none"> 1000W/1200W
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Dimension (W x H x L)	<ul style="list-style-type: none"> 76 x 40 x 336 mm
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Input	<ul style="list-style-type: none"> 100-127Vac / 15-12A / 50-60Hz 200-240Vac / 8.5-7A / 50-60Hz 200-240Vdc / 8.5-7A (for CCC only)
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+12V	<ul style="list-style-type: none"> Max: 83A / Min: 0A (100-127Vac) Max: 100A / Min: 0A (200-240Vac) Max: 100A / Min: 0A (200-240Vdc)
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+5Vsb	<ul style="list-style-type: none"> Max: 4A / Min: 0A
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Output Type	<ul style="list-style-type: none"> 19 Pairs Gold Finger Connector
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Certification



Titanium Level
[[Test Report](#)]

PC Health Monitoring

CPU	<ul style="list-style-type: none"> Monitors CPU Core Voltages, +1.8V, +3.3V, +5V, +5V standby, 3.3V standby, VBAT CPU switching voltage regulator
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Input / Output

NVMe	<ul style="list-style-type: none"> Up to 24 U.2 NVMe support
LAN	<ul style="list-style-type: none"> 2x 10GbBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 5 USB 3.0 ports (4 rear + 1 Type A)
VGA	<ul style="list-style-type: none"> 1 VGA port
Others	<ul style="list-style-type: none"> 1 COM port 2 SATA DOM power connectors TPM 1.2 header

System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 128Mb SPI Flash EEPROM
BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) DMI 2.3 PCI 2.2 ACPI 5.1 USB Keyboard Support SMBIOS 3.1.1

FAN	<ul style="list-style-type: none"> 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
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Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment CPU Thermal Trip Support Thermal control for 6x Fan connectors I²C Temperature Sensing Logic
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LED	<ul style="list-style-type: none"> CPU / System Overheat LED
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Other Features	<ul style="list-style-type: none"> Chassis Intrusion Detection Chassis Intrusion Header
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Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> RoHS Compliant
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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)
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Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard	MBD-H11SSW-NT	1	Super H11SSW-NT Motherboard
Chassis	CSE-216BTS-R1K23WBP	1	2U Chassis
HD Backplane	BPN-NVME3-216N-S4	1	24-port 2U (SC216/219) NVMe direct-attached backplane, support 24x 2.5-inch NVMe devices
Add-on Card	AOC-SLG3-2E4R-P	2	NVMe AOC by 8,HF,RoHS/REACH
Add-on Card	AOC-SLG3-4E4R-P	1	NVMe AOC by 16,HF,RoHS/REACH
Cable(s)	CBL-PWEX-1070	1	PWEX,2X2F/P4.2 TO 1X4M/P5.08 x2,BLK*2,YEL*2,40CM,16AWG
Cable(s)	CBL-PWEX-1071	1	PWEX,2X4F/P4.2 TO 2X2M/P4.2 x2,BLK*4,YEL*4,15/30CM,16AWG
Cable(s)	CBL-SAST-0815	6	SLIMLINE SAS x8 to 2x Oculink x4,INT, 22CM,34AWG
Cable(s)	CBL-SAST-0817	2	SLIMLINE SAS x8 (LA) to 2x Oculink x4,INT, 36CM,34AWG
Cable(s)	CBL-SAST-0841	4	MiniSAS HD source to OcuLink v 1.0,INT,PCIe, 76CM,34AWG,RoHS
Cable(s)	CBL-SAST-0849	4	MiniSAS HD source to OcuLink v 1.0,INT,PCIe, 57CM,34AWG
Riser Card	RSC-R2UW-2E8R	1	2U RHS WIO Riser card with two PCI-E x8 slots
Riser Card	RSC-W2-66	1	RSC-W2-66
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
Fan(s)	FAN-0158L4	3	80x80x38 mm, 10.5K RPM, Optional Middle Cooling Fan for X10 2U Ultra and HFT Series Servers,RoHS/REACH
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management

Optional Parts List

	Part Number	Qty	Description
Parts	MCP-220-82616-0N	1	12G 2.5x2 Drive Kit w/ Status LED(216B/826B/417B/846X/847B)
Cable Management Arm	MCP-290-00073-0N MCP-120-82503-0N	-	Supermicro Cable Management Arm for 2U, 3U and 4U chassis Cable arm adapter for SC825,213,829H,847B (MCP-290-00073-0N required),HF,RoHS/REACH,PBF
TPM	AOM-TPM-9665V AOM-TPM-9665V	- -	Vertical TPM with Infineon 9665 TCG 1.2 AOM-TPM-9665V using SLB9665 Chipset supporting TPM2.0,RoHS/REACH
Global Services & Support	<u>OS4HR3/2/1</u> <u>OSNBD3/2/1</u>	- -	3/2/1-year onsite 24x7x4 service 3/2/1-year onsite NBD service
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)