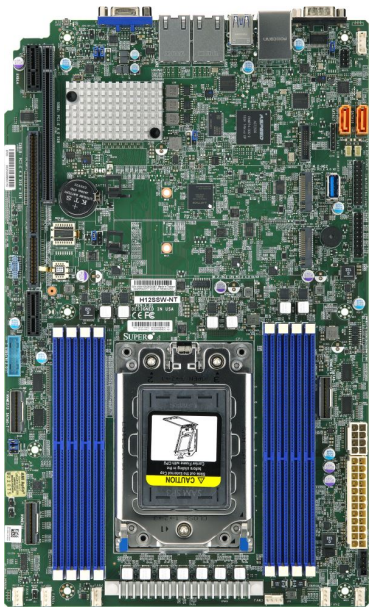


H12SSW-NT (For A+ Server Only)



Key Features

1. Single AMD EPYC™ 7002 Series Processor
2. 2TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs
3. Expansion slots: 1 PCI-E 4.0 x32 Left Riser Slot 1 PCI-E 4.0 x16 Right Riser Slot M.2 Interface: 2 SATA/PCI-E 3.0 x2 M.2 Form Factor: 2280, 22110 M.2 Key: M-key
4. 2 NVMe via SlimSAS, 4 NVMe or 16 SATA3 via SlimSAS, 2 M.2, 2 SATA3
5. 2x 10GBase-T LAN Ports via Broadcom BCM57416
6. ASPEED AST2500 BMC graphics
7. Up to 7 USB 3.0 ports
8. 6x 4-pin PWM Fans & Speed control

Links & Resources

- ▶ [Tested Memory List](#)
- ▶ [Tested HDD List](#)
- ▶ [Tested M.2 List](#)
- ▶ [Tested AOC List](#)
- ▶ [Motherboard Manual](#)
- ▶ [Update Your BIOS](#)
- ▶ [IPMI Firmware](#)
- ▶ [Download the Latest Drivers and Utilities](#)
- ▶ [Download Driver CD](#)
- ▶ [OS Compatibility](#)



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

Specifications

Product SKUs

MBD-H12SSW-NT	H12SSW-NT (for server SKUs only)
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Physical Stats

Form Factor	Proprietary WIO
Dimensions	8.15" x 13.05"

Processor/Chipset

CPU	- Single AMD EPYC™ 7002 Series Processor - Socket SP3
Cores	Up to 64 Cores
Chipset	System on Chip

System Memory

Memory Capacity	8 DIMM slots - Supports up to 2TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs 8-channel memory bus
Memory Type	DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs
DIMM Sizes	8GB, 16GB, 32GB, 64GB, 128GB, 256GB
Memory Voltage	1.2V
Error Detection	- Corrects single-bit errors - Detects double-bit errors (using ECC memory)

On-Board Devices

SATA	SATA3 (6 Gbps)
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	2x 10GbE LAN Ports via Broadcom BCM57416 1 Realtek RTL8211E PHY (dedicated IPMI)
VGA	ASPEED AST2500 BMC

Input / Output

SATA	2 SATA3 (6 Gbps) ports
SATA/NVMe Hybrid	16 SATA3 / 4 NVMe (PCI-E Gen3)
NVMe	2 NVMe (PCI-E Gen4)
LAN	2 RJ45 10GBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	7 USB 3.0 ports (4 rear, 2 via header, 1 Type A)
VGA	1 VGA port
Others	1 COM port 2 SuperDOM power connectors 1 TPM 1.2/2.0 header

Expansion Slots

PCI-Express	1 PCI-E 4.0 x32 Left Riser Slot 1 PCI-E 4.0 x16 Right Riser Slot
M.2	- Interface: 2 SATA/PCI-E 3.0 x2 - Form Factor: 2280, 22110 - Key: M-key

Chassis (Optimized for H12SSW-NT)

1U	- SC116TS-R504WBP2 - SC815TS-R504WBP4
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Server(s) (with H12SSW-NT)

Model(s)	<u>AS -1014S-WTRT</u> <u>AS -1114S-WTRT</u>
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System BIOS

BIOS Type	AMI 256Mb SPI Flash EEPROM
BIOS Features	- Plug and Play (PhP) - DMI 2.3 - PCI 2.2 - ACPI 5.1 - USB Keyboard Support - SMBIOS 3.1.1

Management

Software	<u>Super Doctor 5</u> - Watch Dog - NMI <u>SUM</u> <u>IPMI 2.0</u>, KVM with dedicated LAN
Power Configurations	- ACPI Power Management - Power-on mode control for AC power loss recovery

PC Health Monitoring

CPU	- Monitors CPU Core Voltages, +1.5V, +1.8V, +12V, +5V, +5V standby - CPU switching voltage regulator
FAN	- Up to 6 fan status tachometer monitoring - Up to 6 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 - PC Temperature Sensing Logic
LED	CPU / System Overheat LED
Other Features	- Chassis Intrusion Detection - Chassis Intrusion Header

Operating Environment / Compliance

Environmental Specifications	- 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

Retail Pack List

	Part Number	Qty	Description
H12SSW-NT	MBD-H12SSW-NT -O	1	H12SSW-NT Motherboard

Optional Parts List

	Part Number	Qty	Description
TPM security module	<u>AOM-TPM-9655V</u>	-	TPM 1.2 module with Infineon 9655, RoHS/REACH,PBF;
	<u>AOM-TPM-9655V-S</u>	-	TPM 1.2 module w ith Infineon 9655, RoHS/REACH,PBF; Provisioned for TXT
	<u>AOM-TPM-9665V</u>	-	TPM 2.0 module with Infineon 9665, RoHS/REACH,PBF;
	<u>AOM-TPM-9665V-S</u>	-	TPM 2.0 module w ith Infineon 9665, RoHS/REACH,PBF; Provisioned for TXT