

H12SSW-iNR

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Key Features

1. Single AMD EPYC™ 7003/7002 Series Processor
(The latest AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer)
2. 4TB Registered ECC DDR4 3200MHz SDRAM in 16 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 PCI-E 4.0 x2
M.2 Form Factor: 2280, 22110
M.2 Key: M-key
4. 12 native NVMe via SlimSAS,
4 NVMe or 16 SATA3 ports via SlimSAS,
2 M.2,
2 SATA3
5. Dual GbE LAN Ports via Broadcom BCM5720
6. ASPEED AST2500 BMC graphics
7. Up to 7 USB 3.0 ports
8. 6x 4-pin PWM Fans & Speed control

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-iNR	■ H12SSW-iNR
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Physical Stats

Form Factor	■ Proprietary
Dimensions	■ 13.4" x 12.29" (34cm x 31.2cm)

Processor/Chipset

CPU	■ Single AMD EPYC™ 7003/7002 Series Processor (The latest AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer) ■ Socket SP3
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Cores	■ Up to 64 Cores
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Chipset	■ System on Chip
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System Memory

Memory Capacity	■ 16 DIMM slots ■ Supports up to 4TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs ■ 8-channel memory bus
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Memory Type	■ DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs
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DIMM Sizes	■ 8GB, 16GB, 32GB, 64GB, 128GB, 256GB
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Memory Voltage	■ 1.2V
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Error Detection	■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)
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On-Board Devices

SATA	■ SATA3 (6 Gbps)
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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
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Network Controllers	■ Dual GbE LAN Ports via Broadcom BCM5720 ■ 1 Realtek RTL8211F PHY (dedicated IPMI)
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VGA	■ ASPEED AST2500 BMC
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Input / Output

SATA	■ 2 SATA3 (6 Gbps) ports
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SATA/NVMe Hybrid	■ 16 SATA3 or 4 NVMe via SlimSAS (PCI-E Gen4)
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NVMe	■ 12 NVMe (PCI-E Gen4)
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LAN	■ 2 RJ45 GbE LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
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USB	■ 7 USB 3.0 ports (4 rear, 2 via header, 1 Type A)
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VGA	■ 1 VGA port
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Chassis (Optimized for H12SSW-iNR)

1U	■ SC116AC10-R706WB3 ■ SCLA15TQC-563W ■ SCLB16AC2-R504W
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2U	■ SC213AC8-R1K23WB ■ SC825TQC-R802WB ■ SC826BAC4-R1K23WB
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System BIOS

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

Software	■ Super Doctor 5 ■ Watch Dog ■ NMI ■ SUM ■ IPMI 2.0 , KVM with dedicated LAN
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Power Configurations	■ ACPI Power Management ■ Power-on mode control for AC power loss recovery
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PC Health Monitoring

CPU	■ Monitors CPU Core Voltages, +1.5V, +1.8V, +12V, +5V, +5V standby ■ CPU switching voltage regulator
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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
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Temperature	■ Monitoring for CPU and chassis environment ■ CPU Thermal Trip Support ■ Thermal control for 6x Fan connectors ■ I ² C Temperature Sensing Logic
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LED	■ CPU / System Overheat LED
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Other Features	■ Chassis Intrusion Detection ■ Chassis Intrusion Header
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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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| Others | <ul style="list-style-type: none">■ 1 COM port■ 2 SuperDOM power connectors■ 1 TPM 1.2/2.0 header |
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Expansion Slots

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| PCI-Express | <ul style="list-style-type: none">■ 1 PCI-E 4.0 x32 Left Riser Slot■ 1 PCI-E 4.0 x16 Right Riser Slot |
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| M.2 | <ul style="list-style-type: none">■ Interface: 2 PCI-E 4.0 x2■ Form Factor: 2280, 22110■ Key: M-key |
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Parts List

Bulk Pack List

	Part Number	Qty	Description
H12SSW-iNR	MBD-H12SSW-iNR-B	1	H12SSW-iNR Motherboard
I/O Cable	CBL-SAST-0813	1	SLIMLINE SAS x8 (LA) to SATA x4,INT, 16/26CM,32AWG

Retail Pack List

	Part Number	Qty	Description
H12SSW-iNR	MBD-H12SSW-iNR-O	1	H12SSW-iNR Motherboard
I/O Cable	CBL-SAST-0813	1	SLIMLINE SAS x8 (LA) to SATA x4,INT, 16/26CM,32AWG

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-9665V</u>	-	TPM 2.0 module with Infineon 9665, RoHS/REACH,PBF;