

H12DSU-iNR (For A+ Server Only)

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Key Features

1. Dual AMD EPYC™ 7003/7002 Series Processors
(The latest AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer)
2. 8TB Registered ECC DDR4 3200MHz SDRAM in 32 DIMMs
3. Expansion slots:
WIO:
1 PCI-E 4.0 x32 Left Riser Slot
1 PCI-E 4.0 x16 Right Riser Slot
Ultra:
1 PCI-E 4.0 x40 Far Right Riser Slot
4. 16 SATA3, 2 SuperDOM, 4 NVMe
5. Integrated IPMI 2.0 + KVM with dedicated LAN
6. ASPEED AST2500 BMC graphics
7. Up to 5 USB 3.0 ports
(2 rear + 2 via header + 1 Type A)
8. 8x 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-H12DSU-iNR	<ul style="list-style-type: none"> H12DSU-iNR (for server SKUs only)
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Physical Stats

Form Factor	<ul style="list-style-type: none"> Proprietary Ultra/WIO
Dimensions	<ul style="list-style-type: none"> 17" x 17" (43.2cm x 43.2cm)

Processor/Chipset

CPU	<ul style="list-style-type: none"> Dual AMD EPYC™ 7003/7002 Series Processors (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	<ul style="list-style-type: none"> Up to 64 Cores
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Chipset	<ul style="list-style-type: none"> System on Chip
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System Memory

Memory Capacity	<ul style="list-style-type: none"> 32 DIMM slots Supports up to 8TB Registered ECC DDR4 3200MHz SDRAM 8-channel memory bus For Dual CPUs: Recommended that memory be populated equally in adjacent memory banks
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Memory Type	<ul style="list-style-type: none"> DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs
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DIMM Sizes	<ul style="list-style-type: none"> 8GB, 16GB, 32GB, 64GB, 128GB, 256GB
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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

SATA	<ul style="list-style-type: none"> SATA3 (6 Gbps)
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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"> Provided via Ultra Riser Card 1 Realtek RTL8211F PHY (dedicated IPMI)
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VGA	<ul style="list-style-type: none"> ASPEED AST2500 BMC
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Input / Output

SATA	<ul style="list-style-type: none"> 16 SATA3 (6 Gbps) ports
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LAN	<ul style="list-style-type: none"> 1 RJ45 Dedicated IPMI LAN port
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USB	<ul style="list-style-type: none"> 5 USB 3.0 ports (2 rear + 2 via header + 1 Type A)
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VGA	<ul style="list-style-type: none"> 1 VGA port
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System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 256Mb SPI Flash EEPROM
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BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) DMI 2.3 PCI 2.2 ACPI 6.2 USB Keyboard Support SMBIOS 3.1.1
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Management

Software	<ul style="list-style-type: none"> <u>Super Doctor 5</u> Watch Dog NMI <u>SUM</u> <u>IPMI 2.0</u>, KVM with dedicated LAN
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Power Configurations	<ul style="list-style-type: none"> ACPI Power Management Power-on mode control for AC power loss recovery
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PC Health Monitoring

CPU	<ul style="list-style-type: none"> Monitors CPU Core Voltages, +1.5V, +1.8V, +12V, +5V, +5V standby CPU switching voltage regulator VBAT
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FAN	<ul style="list-style-type: none"> Up to 8 fan status tachometer monitoring Up to 8x 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 8x 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"> RoT Chassis Intrusion Detection Chassis Intrusion Header
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Operating Environment / Compliance

Environmental Specifications	<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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- Others**
- 1 COM port (rear)
 - 2 SATA DOM power connector
 - 4 NVMe
 - TPM 2.0 header
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Expansion Slots

- PCI-Express**
- WIO:
 - 1 PCI-E 4.0 x32 Left Riser Slot
 - 1 PCI-E 4.0 x16 Right Riser Slot
 - Ultra:
 - 1 PCI-E 4.0 x40 Far Right Riser Slot
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Parts List

Retail Pack List

	Part Number	Qty	Description
H12DSU-iNR	MBD-H12DSU-iNR-O	1	H12DSU-iNR 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-9665V</u>	-	TPM 2.0 module with Infineon 9665, RoHS/REACH,PBF;