H12DSU-iN (For A+ Server Only)
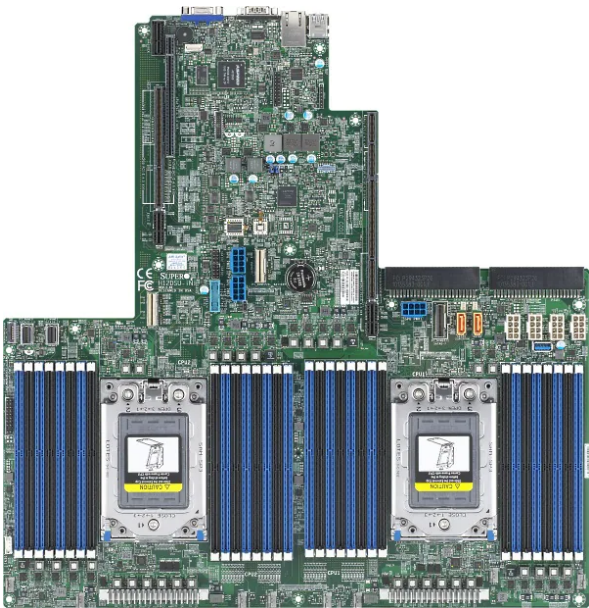

Key Features

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.

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

Specifications

Product SKUs

MBD-H12DSU-iN	H12DSU-iN (for server SKUs only)

Physical Stats

Form Factor	Proprietary Ultra/WIO
Dimensions	17" x 17" (43.2cm x 43.2cm)

Processor/Chipset

CPU	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
Cores	Up to 64 Cores
Chipset	System on Chip

System Memory

Memory Capacity	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
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	Provided via Ultra Riser Card 1 Realtek RTL8211F PHY (dedicated IPMI)
VGA	ASPEED AST2500 BMC

Input / Output

SATA	16 SATA3 (6 Gbps) ports
LAN	1 RJ45 Dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear + 2 via header + 1 Type A)
VGA	1 VGA port
Others	1 COM port (rear) 2 SATA DOM power connector 4 NVMe TPM 2.0 header

Chassis (Optimized for **H12DSU-iN**)

1U	SC119UHTS-R1K22HP-T SC819UTS-R1K02P-A
2U	SC219U2TS-R1K62P-TN24 SC829U2TS-R1K62P3-T

Server(s) (with **H12DSU-iN**)

Model(s)	AS -1024US-TRT AS -1124US-TNRP AS -2024US-TRT AS -2124US-TNRP

System BIOS

BIOS Type	AMI 256Mb SPI Flash EEPROM
BIOS Features	Plug and Play (PnP) DMI 2.3 PCI 2.2 ACPI 6.2 USB Keyboard Support SMBIOS 3.1.1

Management

Software	Super ● Doctor 5 Watch Dog NMI SUM IPMI 2.0, 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 VBAT
FAN	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
Temperature	Monitoring for CPU and chassis environment CPU Thermal Trip Support Thermal control for 8x Fan connectors I²C Temperature Sensing Logic
LED	CPU / System Overheat LED
Other Features	Chassis Intrusion Detection Chassis Intrusion Header

Operating Environment / Compliance

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

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)

Parts List

Retail Pack List

	Part Number	Qty	Description
H12DSU-iN	MBD-H12DSU-iN -O	1	H12DSU-iN Motherboard

Optional Parts List

	Part Number	Qty	Description
TPM security module	AOM-TPM-9655V	-	TPM 1.2 module with Infineon 9655, RoHS/REACH,PBF;
	AOM-TPM-9665V	-	TPM 2.0 module with Infineon 9665, RoHS/REACH,PBF;