



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. 2TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs
3. Expansion slots:
5 PCI-E 4.0 x16
2 PCI-E 4.0 x8
M.2 Interface: 2 PCI-E 4.0 x4
M.2 Form Factor: 2280, 22110
M.2 Key: M-key
4. 8 SATA3, Broadcom 3008 SAS3 (12 Gbps) controller for 8 SAS3 ports, 2 M.2
5. Dual 10GBase-T LAN via Broadcom BCM57416
6. ASPEED AST2500 BMC graphics
7. Up to 6 USB 3.0 ports
(4 rear + 2 via header)
8. 7 PWM4-pin Fans with tachometer status monitoring

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](#)



Product SKUs

MBD-H12SSL-CT	■ H12SSL-CT
MBD-H12SSL-CT-O	■ H12SSL-CT (Retail Pack)

Physical Stats

Form Factor	■ ATX
Dimensions	■ 12" x 9.6" (30.5cm x 24.4cm)

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
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 ■ 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)
SAS	■ Broadcom 3008 SAS3 (12 Gbps) controller ■ RAID 0, 1, 10
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	■ Dual 10GBase-T LAN via Broadcom BCM57416 ■ 1 Realtek RTL8211F PHY (dedicated IPMI)
VGA	■ ASPEED AST2500 BMC

Input / Output

SATA	■ 8 SATA3 (6 Gbps) ports
SAS	■ 8 SAS3 (12 Gbps) ports
LAN	■ Dual 10GBase-T LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 6 USB 3.0 ports (4 rear + 2 via header)
VGA	■ 1 VGA port
Others	■ 1 COM port (rear) ■ 2 SATA DOM power connectors ■ 1 TPM 2.0 header

Expansion Slots

PCI-Express	■ 5 PCIe 4.0 x16 ■ 2 PCIe 4.0 x8
M.2	■ Interface: 2 PCIe 4.0 x4 ■ Form factor: 2280, 22110 ■ Key: M-key

Chassis (Optimized for H12SSL-CT)

1U	■ SC813MFTQC-350CB2 ■ SC813MFTQC-R407CB
2U	■ SC213BAC8-R1K23LPB ■ SC216BE1C4-R1K23LPB ■ SC825MBTQC-R802LPB ■ SC825TQC-R802LPB ■ SC826BE1C4-R1K23LPB ■ SCLA26AC12-R920LP1
3U	■ SC835TQC-R802B ■ SC836BE1C-R1K23B
Mid-Tower	■ SC732i-903B
Tower/4U	■ SC745BAC-R1K23B ■ SC846BE1C-R1K23B

System BIOS

BIOS Type	■ AMI 256Mb SPI Flash EEPROM
BIOS Features	■ Plug and Play (PnP) ■ DMI 2.3 ■ PCI 2.2 ■ ACPI 5.1 ■ 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, +3.3V, +5V, +5V standby, +3.3V standby ■ CPU switching voltage regulator ■ Supports system management utility ■ VBAT
FAN	■ Up to 7-fan status tachometer monitoring ■ Up to 7 4-pin fan headers ■ Dual Cooling Zone ■ 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 7x Fan connectors ■ PC Temperature Sensing Logic
LED	■ CPU / System Overheat LED
Other Features	■ Chassis Intrusion Detection ■ Chassis Intrusion Header ■ UID

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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Bulk Pack List

	Part Number	Qty	Description
H12SSL-CT	MBD-H12SSL-CT-B	1	H12SSL-CT Motherboard
I/O Cable	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N	1	STD I/O SHIELD FOR X9 SOCKET R SERVER MB

Retail Pack List

	Part Number	Qty	Description
H12SSL-CT	MBD-H12SSL-CT-O	1	H12SSL-CT Motherboard
I/O Cable	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Cable	CBL-SAST-0658	2	INT Mini-SAS HD CBL for PCIe SSD NVMe 12Gb/s 60cm 30AWG
I/O Shield	MCP-260-00042-0N	1	STD I/O SHIELD FOR X9 SOCKET R SERVER MB

Optional Parts List

	Part Number	Qty	Description
I/O Cable	CBL-SAST-0699	-	MINI SAS HD-4 SATA, 12G,INT,75/75/90/90CM,75CM SB,28/30AWG,Ro
TPM security module	<u>AOM-TPM-9655V</u>	-	TPM 1.2 module w ith Infineon 9655, RoHS/REACH,PBF;
	<u>AOM-TPM-9665V</u>	-	TPM 2.0 module w ith Infineon 9665, RoHS/REACH,PBF;