



Key Features

- 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)
- 2TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs
- 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
- 2 M.2,
 - 2 SlimSAS x8 (**each:** 8 SATA3 or 2 NVMe)
- Dual 10GBase-T LAN via Broadcom BCM57416
- ASPEED AST2500 BMC graphics
- Up to 6 USB 3.0 ports (4 rear + 2 via header)
- 7 PWM 4-pin Fans with tachometer status monitoring

- ▶ [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.

Product SKUs

MBD-H12SSL-NT
H12SSL-NT
MBD-H12SSL-NT-O
H12SSL-NT (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)
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/NVMe Hybrid
2 SlimSAS x8 (**each:** 8 SATA3 or 2 NVMe)
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)
1 TPM 2.0 header

Expansion Slots

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

Specifications

Chassis (Optimized for H12SSL-NT)

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
I²C 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)