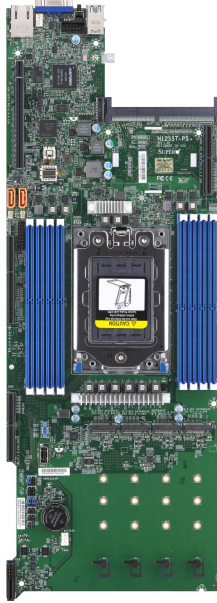


# H12SST-PS (For A+ Server Only)



## 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:  
 1 PCI-E 4.0 x16 Left Riser Slot  
 1 PCI-E 4.0 x16 Right Riser Slot  
 1 PCI-E 4.0 x16 SIOM LAN Networking Slot  
**M.2 Interface:** 4 SATA/PCI-E 4.0 x4  
**M.2 Form Factor:** 22110, 2280, 2260, 2242  
**M.2 Key:** M-key
4. 6 SATA3, 4 M.2, 2 SuperDOM
5. Onboard LAN Provided by Realtek RTL8211F PHY
6. ASPEED AST2500 BMC graphics
7. Up to 2 USB 3.0 ports (Rear)  
1 USB 2.0 port (Type A)
8. 2x 4-pin PWM Fans & Speed control

## 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](#)



Note: Image above may show a varied configuration of optional parts.  
Please refer to parts list for standard parts included.

# Specifications

## Product SKUs

- MBD-H12SST-PS** ■ H12SST-PS (for server SKUs only)

## Physical Stats

- Form Factor** ■ Proprietary TwinPro™  
**Dimensions** ■ 6.8" x 18.86"

## 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 in 8 DIMMs  
 ■ 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** ■ 1 PCI-E 4.0 x16 SIOM LAN Networking Slot  
 ■ 1 Realtek RTL8211F PHY (dedicated IPMI)  
**VGA** ■ ASPEED AST2500 BMC

## Input / Output

- SATA** ■ 6 SATA3 (6 Gbps) ports  
**LAN** ■ Provided via SIOM  
 ■ 1 RJ45 Dedicated IPMI LAN port  
**USB** ■ 2 USB 3.0 ports (2 rear)  
 ■ 1 USB 2.0 port (Type A)  
**VGA** ■ 1 VGA port  
**Others** ■ 2 COM ports  
 ■ 2 SuperDOM power connectors  
 ■ 1 TPM 1.2/2.0 header

## Chassis ( Optimized for H12SST-PS)

- 2U** ■ SC827HQ+-R2K04BP2

## Server(s) (with H12SST-PS)

- Model(s)** ■ [AS\\_-2014TP-HTR](#)

## 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, +1.5V, +1.8V, +12V, +5V, +5V standby  
 ■ CPU switching voltage regulator  
**FAN** ■ Up to 2 fan status tachometer monitoring  
 ■ Up to 2 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  
 ■ I<sup>2</sup>C Temperature Sensing Logic  
**LED** ■ CPU / System Overheat LED  
**Other Features** ■ Chassis Intrusion Detection  
 ■ Chassis Intrusion Header

## 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)

**Expansion Slots****PCI-Express**

- 1 PCI-E 4.0 x16 Left Riser Slot
  - 1 PCI-E 4.0 x16 Right Riser Slot
  - 1 PCI-E 4.0 x16 SIOM LAN Networking Slot
- 

**M.2**

- Interface: 4 SATA/PCI-E 4.0 x4
  - Form Factor: 22110, 2280, 2260, 2242
  - Key: M-key
-

## Parts List

### Retail Pack List

	Part Number	Qty	Description
<b>H12SST-PS</b>	MBD-H12SST-PS -O	1	H12SST-PS Motherboard

### Optional Parts List

	Part Number	Qty	Description
<b>TPM security module</b>	<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;