

## A+ Server 2014TP-HTR



Integrated Board



**Super H12SST-PS**

Views: [Angled View](#) | [Node View](#) |  
| [Front View](#) | [Rear View](#) |

[▶ Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Tested M.2 List](#) ▶ [Tested AOC](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#)

### Key Features

- Compute Intensive Applications
- HPC, Data Center, Enterprise Server
- Hyperscale / Hyperconverged

Four hot-pluggable systems (nodes) in a 2U form factor. Each node supports the following:

1. Single AMD EPYC™ 7003/7002 Series Processor (7003 Series Processor drop-in support requires BIOS version 2.0 or newer)
2. Up to 2TB ECC 3DS LRDIMM, up to DDR4-3200MHz; 8 DIMM slots
3. 2 PCI-E 4.0 x16 (LP) slots
4. Flexible Networking support via SIOM; Dedicated IPMI 2.0 LAN
  - **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. 3 Hot-swap 3.5" SATA3 drive bays  
**M.2 Interface:** 4 SATA/PCI-E 4.0 x4  
**M.2 Form Factor:** 2280, 22110, 2260, 2242  
**M.2 Key:** M-key
6. 2000W Redundant Power Supplies  
**Titanium Level (96%)**  
*(Full redundancy based on configuration and application load)*



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

# Specifications

## Product SKUs

**AS -2014TP-HTR** ■ A+ Server 2014TP-HTR

## Motherboard (per Node)

### Super H12SST-PS

## Processor/Chipset (per Node)

**CPU** ■ Single AMD EPYC™ 7003/7002 Series Processor (7003 Series Processor drop-in support requires BIOS version 2.0 or newer)  
■ Socket SP3  
■ Supports CPU TDP/cTDP up to 280W\*

**Cores** ■ Up to 64 Cores

**Note** \* Certain CPUs with high TDP may be supported only under specific conditions. Please contact Supermicro Technical Support for additional information about specialized system optimization

## System Memory (per Node)

**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

**Memory 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 (per Node)

**Chipset** ■ System on Chip

**Storage** ■ SATA3 (6Gbps) via AMD EPYC

**Network Controllers** ■ Barebones and Complete System must have at least one SIOM installed per node

**IPMI** ■ Support for Intelligent Platform Management Interface v.2.0  
■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

**Video** ■ ASPEED AST2500 BMC

## Input / Output (per Node)

**LAN** ■ Provided via SIOM (optional)  
■ 1 RJ45 Dedicated IPMI LAN port

**USB** ■ 2 USB 3.0 ports (rear)  
■ 1 USB 2.0 port (Type A)

**Video** ■ 1 VGA port

**DOM** ■ 1 SuperDOM (Disk on Module) port

## Chassis

**Form Factor** ■ 2U Rackmount

**Model** ■ **CSE-827HQ+-R2K04BP2**

## Dimensions and Weight

**Width** ■ 17.25" (438mm)

**Height** ■ 3.47" (88mm)

**Depth** ■ 30.5" (774mm)

**Package** ■ 26.4" (W) x 11.2" (H) x 39.8" (D)

**Weight** ■ Gross Weight: 85 lbs (38.6 kg)  
■ Net Weight: 54.5 lbs (24.7 kg)

**Available Colors** ■ Black

## Front Panel (per Node)

**Buttons** ■ Power On/Off button  
■ UID button

**LEDs** ■ Power status LED  
■ HDD activity LED  
■ Network activity LEDs  
■ Universal Information (UID) LED

## Expansion Slots (per Node)

**PCI-Express** ■ 2 PCI-E 4.0 (x16) Low-profile slots  
■ 1 SIOM card support (must be assembled/integrated with SIOM)

**M.2** ■ Interface: 4 SATA/PCI-E 4.0 x4  
■ Form Factor: 2280, 22110, 2260, 2242  
■ Key: M-key

## Drive Bays (per Node)

**Hot-swap** ■ 3 Hot-swap 3.5" SATA3 drive bays

## System Cooling

**Fans** ■ 4 Heavy duty 8cm PWM fans

## Power Supply (76mm Width)



2000W Redundant Power Supplies with PMBus

**Total Output Power** ■ 1000W/1800W/1980W/2000W

**Dimension (W x H x L)** ■ 76 x 40 x 336 mm

**Input** ■ 1000W: 100-127 Vac / 12-9.5 A / 50-60 Hz  
■ 1800W: 200-220 Vac / 10-9.5 A / 50-60 Hz  
■ 1980W: 220-230 Vac / 10-9.8 A / 50-60 Hz  
■ 2000W: 230-240 Vac / 10-9.8 A / 50-60 Hz  
■ 2000W: 200-240 Vac / 11.8-9.8 A / 50-60 Hz (UL/cUL only)

<b>Others</b>	<ul style="list-style-type: none"> <li>■ 2 COM ports (header)</li> <li>■ 1 TPM 2.0 header</li> </ul>
<b>System BIOS (per Node)</b>	
<b>BIOS Type</b>	■ AMI 128Mb SPI Flash ROM
<b>Management (per Node)</b>	
<b>Software</b>	<ul style="list-style-type: none"> <li>■ <a href="#">IPMI 2.0</a></li> <li>■ KVM with dedicated LAN</li> <li>■ <a href="#">SSM</a>, <a href="#">SUM</a></li> <li>■ <a href="#">SuperDoctor® 5</a></li> <li>■ Watch Dog</li> </ul>
<b>Power Configurations</b>	■ ACPI / APM Power Management

<b>+12V</b>	<ul style="list-style-type: none"> <li>■ Max: 83.3A / Min: 0A (100-127 Vac)</li> <li>■ Max: 150A / Min: 0A (200-220 Vac)</li> <li>■ Max: 165A / Min: 0A (220-230 Vac)</li> <li>■ Max: 166.7A / Min: 0A (230-240 Vac)</li> <li>■ Max: 166.7A / Min: 0A (200-240 Vac) (UL/cUL only)</li> </ul>
<b>+5Vsb</b>	■ Max: 1A / Min: 0A
<b>Output Type</b>	■ 27 Pairs Gold Finger Connector
<b>Certification</b>	  <b>Titanium Level</b> <b>[ <a href="#">Test Report</a> ]</b>
<b>Operating Environment</b>	
<b>RoHS</b>	■ RoHS Compliant
<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>■ Operating Temperature: 10°C ~ 30°C (50°F ~ 85°F)</li> <li>■ All CPU SKUs supported 10°C ~ 35°C (50°F ~ 95°F)</li> <li>■ See Note *</li> <li>■ Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)</li> <li>■ Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>■ Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-H12SST-PS	4	Super H12SST-PS Motherboard
	CSE-827HQ+-R2K04BP2	1	2U Chassis
Backplane	BPN-ADP-6SATA3P	4	Backplane adapter card; 6SATA ports,RoHS/REACH,PBF
Backplane	BPN-SAS3-827HQ2	1	2U 12-Port 4-Node Backplane Supports 3x3.5" SAS3/SATA3 HDD per Node
Drive Tray(s)	MCP-220-00075-0B	12	Black gen 5.5 hot-swap 3.5" HDD tray
Parts	MCP-240-82715-0N	1	TwinPro SC827HQ+ BPN retention bracket assembly
Riser Card	RSC-P-6-X2	4	1U LHS TwinPro riser card with one PCI-E 4.0 x16 slot,HF,RoH
Riser Card	RSC-PR-6-X2	4	1U RHS TwinPro Riser card with one PCI-E 4.0 x16 slot,HF,RoH
Software	SFT-OOB-LIC	4	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0062P	4	1U Passive CPU Heat Sink for AMD Socket SP3 Processors
Air Shroud	MCP-310-82723-0B	4	SC827HQ+ mylar air shroud for MBD-H12SST-PS-P
Power Supply	PWS-2K04A-1R	2	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm,HF,RoHS/REACH
FAN	FAN-0162L4	4	80x80x38 mm, 13.5K RPM, HCP, LMV, and LPC Cooling Fan,RoHS/REACH
Cable	CBL-PWCD-0578-1	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG,RoHS
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management

### Optional Parts List

	Part Number	Qty	Description
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	Black Hot-swap gen 4 3.5" to 2.5" HDD tray
Global Services & Support	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
Software	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)
TPM security module	<a href="#">AOM-TPM-9655V</a>	-	TPM 1.2 module with Infineon 9655, RoHS/REACH,PBF;
	<a href="#">AOM-TPM-9665V</a>	-	TPM 2.0 module with Infineon 9665, RoHS/REACH,PBF;
SIOM	-	-	Supermicro SIOM solutions <a href="#">[Details]</a>