

A+ Server 2124BT-HTR (Complete System Only)



Integrated Board



Super H12DST-B

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

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs, 8 DIMMs, 1 HDD and 1 SIOM card per node).

► [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. Dual AMD EPYC™ 7003/7002 Series Processors (7003 Series Processor drop-in support requires BIOS version 2.0 or newer)
2. Up to 4TB ECC 3DS LRDIMM, up to DDR4-3200MHz; 16 DIMM slots
3. 2 PCI-E 4.0 x16 (LP) slot;
1 SIOM card support (flexible networking)
Note: must bundle with Network card
4. Integrated IPMI 2.0 + KVM with dedicated LAN
 - **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. 6 Hot-swap 2.5" SATA3 drive bays
M.2 Interface: 1 SATA/PCI-E 3.0 x4
M.2 Form Factor: 2280, 22110
M.2 Key: M-key
6. Video via Aspeed AST2500 BMC
7. 2200W 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 -2124BT-HTR ■ A+ Server 2124BT-HTR (**Black**)

Motherboard (per Node)

Super H12DST-B

Processor/Chipset (per Node)

CPU ■ Dual AMD EPYC™ 7003/7002 Series Processors (7003 Series Processor drop-in support requires BIOS version 2.0 or newer)
■ Socket SP3
■ Support CPU TDP/cTDP up to 200W*

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 ■ 16 DIMM slots
■ Supports up to 4TB Registered ECC DDR4 3200MHz SDRAM in 16 DIMMs
■ 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

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 ■ 1 PCI-E 4.0 x16 SIOM LAN Networking Slot for flexible networking, see [SIOM](#) LAN options support matrix (Must bundle with at least one SIOM network card)

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)

Video ■ 1 VGA port

Chassis

Form Factor ■ 2U Rackmount

Model ■ **CSE-217BHQ+-R2K22BP2**

Dimensions and Weight

Width ■ 17.68" (449mm)

Height ■ 3.47" (88mm)

Depth ■ 28.75" (730mm)

Package ■ 24.33" (618mm) H x 9.57" (243mm) W x 45.08" (1145mm) 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 bundle with network card)

M.2 ■ Interface: 1 SATA/PCI-E 3.0 x4
■ Form Factor: 2280, 22110
■ Key: M-key

Drive Bays (per Node)

Hot-swap ■ 6 Hot-swap 2.5" SATA3 drive bays

System Cooling

Fans ■ 4 Heavy duty 8cm PWM fans

Power Supply



2200W Redundant Power Supplies with PMBus

Total Output Power ■ 1200W/1800W/1980W/2090/2200W

Dimension (W x H x L) ■ 45 x 40 x 480 mm

Input ■ 1200W: 100-127Vac / 50-60Hz
■ 1800W: 200-220Vac / 50-60Hz
■ 1980W: 220-230Vac / 50-60Hz
■ 2090W: 230-240Vac / 50-60Hz
■ 2090W: 180-220Vac (for UL/cUL only)
■ 2200W: 220-240Vac (for UL/cUL only)
■ 2090W: 230-240Vdc (for CCC only)

DOM	<ul style="list-style-type: none"> 1 SuperDOM (Disk on Module) port
Others	<ul style="list-style-type: none"> 1 COM port (header) 1 TPM 2.0 header
System BIOS (per Node)	
BIOS Type	<ul style="list-style-type: none"> AMI 32Mb SPI Flash ROM
Management (per Node)	
Software	<ul style="list-style-type: none"> IPMI 2.0 KVM with dedicated LAN SSM, SUM SuperDoctor® 5 Watch Dog
Power Configurations	<ul style="list-style-type: none"> ACPI / APM Power Management

+12V	<ul style="list-style-type: none"> Max: 100A / Min: 0A (100-127Vac) Max: 150A / Min: 0A (200-220Vac) Max: 165A / Min: 0A (220-230Vac) Max: 174.17A / Min: 0A (230-240Vac) Max: 174.17A / Min: 0A (180-220Vac, UL/cUL only) Max: 183.33A / Min: 0A (220-240Vac, UL/cUL only) Max: 174.17A / Min: 0A (230-240Vdc, CCC only)
12Vsb	<ul style="list-style-type: none"> Max: 2.1A / Min: 0A
Output Type	<ul style="list-style-type: none"> Gold Finger
Certification	  Titanium Level [Test Report]

Operating Environment	
RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C ~ 30°C (50°F ~ 86°F) * Support for operating above 30°C is available in certain system configurations. Contact your Supermicro sales rep or Technical Support for more details. Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-H12DST-B	4	Super H12DST-B Motherboard
	CSE-217BHQ+-R2K22BP2	1	2U Chassis
Backplane	BPN-ADP-6SATA3-1UB	4	Support 6 SATA HDD adaptor card for Big Twin
Backplane	BPN-SAS3-217BHQ	1	2U 4-Node 24-Port Backplane Supports 6x 2.5" SATA3/SAS3 SSD/HDD per Node
Drive Tray(s)	MCP-220-00141-0B-BULK	24	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Parts	MCP-240-21722-0N	1	217B/827B BigTwin type II (Edge card) BPN retention bkt assy
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-P0062PM	4	1U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Twin Series Servers
Heatsink / Retention	SNK-P0062PW	4	1U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series Servers
Power Supply	PWS-2K22A-1R	2	1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48
FAN	FAN-0183L4	4	80x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X11 Big Twin Series Servers
Cable	CBL-PWCD-0578-1	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG,RoHS

Optional Parts List

	Part Number	Qty	Description
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)
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;
SATADOM	SSD-DM128-SMCMVN1	-	SMC SATADOM, 128GB, SATA 6Gb/s, MLC, uSSD, 15nm,HF,RoHS/REACH
	SSD-DM480-SMCMVN1	-	SMC SATADOM,480GB,SATA 6Gb/s,3D TLC,uSSD,HF,RoHS
	SSD-DM064-SMCMVN1	-	SMC SATADOM,64GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	SSD-DM032-SMCMVN1	-	SMC SATADOM,32GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	MEM-IDSAVS4-032G	-	SATA3DOM SL 3SE4 32GB SLC LP Pin8 VCC NH (L17725)
	MEM-IDSAVM8A-128G	-	SATA3DOM SL 3ME3 V2 128GB MLC LP Pin8 VCC NH (S17411)
	MEM-IDSAVM8A-256G	-	SATA3DOM ML 3ME3 V2 256GB MLC LP Pin8 VCC NH (S17411)
	MEM-IDSAVE1-064G	-	SATA3DOM SL 3IE3 V2 64GB iSLC LP Pin8 VCC NH (S17411i)
	MEM-IDSAVS3-032G	-	SATA3DOM SL 3SE 32GB SLC LP No Pin8 Vcc Support (S130710)
	MEM-IDSAVT1-256G	-	IND SATA3DOM SL 3TE7 256GB 3D TLC Pin8VCC Vertical LP
SIOM	-	-	Supermicro SIOM solutions [Details]