

A+ Server 2124BT-HNTR (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](#) ▶
[NVMe Options](#) ▶ [Tested AOC](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#)

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

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" drive bays (4 NVMe [Gen3] + 2 SATA3, or 6 SATA3)
M.2 Interface: 1 SATA/PCI-E 3.0 x4 and 1 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)



Specifications

Product SKUs

AS -2124BT-HNTR	■ A+ Server 2124BT-HNTR (Black)
------------------------	---------------------------------

Motherboard (per Node)

Super H12DST-B

Processor/Chipset (per Node)

CPU	<ul style="list-style-type: none"> ■ 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 225W*
------------	---

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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)
------------------------	--

On-Board Devices (per Node)

Chipset	■ System on Chip
----------------	------------------

Storage	<ul style="list-style-type: none"> ■ NVMe ■ 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ Provided via SIOM (optional) ■ 1 RJ45 Dedicated IPMI LAN port
------------	--

USB	■ 2 USB 3.0 ports (rear)
------------	--------------------------

Video	■ 1 VGA port
--------------	--------------

DOM	■ 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	■ AMI 32Mb SPI Flash ROM
------------------	--------------------------

Management (per Node)

Chassis

Form Factor	■ 2U Rackmount
--------------------	----------------

Model	■ CSE-217BHQ+-R2K22BP
--------------	-----------------------

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	<ul style="list-style-type: none"> ■ Gross Weight: 85 lbs (38.6 kg) ■ Net Weight: 54.5 lbs (24.7 kg)
---------------	--

Available Colors	■ Black
-------------------------	---------

Front Panel (per Node)

Buttons	<ul style="list-style-type: none"> ■ Power On/Off button ■ UID button
----------------	---

LEDs	<ul style="list-style-type: none"> ■ Power status LED ■ HDD activity LED ■ Network activity LEDs ■ Universal Information (UID) LED
-------------	--

Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none"> ■ 2 PCI-E 4.0 (x16) Low-profile slots ■ 1 SIOM card support (must bundle with network card)
--------------------	--

M.2	<ul style="list-style-type: none"> ■ Interface: 1 SATA/PCI-E 3.0 x4 and 1 PCI-E 3.0 x4 ■ Form Factor: 2280, 22110 ■ Key: M-key
------------	---

Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none"> ■ 4 Hot-swap 2.5" NVMe (Gen3)/SATA3 + 2 Hot-swap 2.5" SATA3 drive bays <p>Note: NVMe Gen4 drives may only operate at Gen3 speed</p>
-----------------	---

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	<ul style="list-style-type: none"> ■ 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)
--------------	--

+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	■ Max: 2.1A / Min: 0A
--------------	-----------------------

Output Type	■ Gold Finger
--------------------	---------------

Certification



Titanium Level
[Test Report]

Software

- [IPMI 2.0](#)
- KVM with dedicated LAN
- [SSM, SUM](#)
- [SuperDoctor@ 5](#)
- Watch Dog

Power Configurations

- ACPI / APM Power Management

Operating Environment**RoHS**

- RoHS Compliant

Environmental Spec.

- 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-6SATA3H4-1UB	4	Hybrid BPN to support 4 SATA and/or NVMe in addition to 2 SATA ports,HF,RoHS
Backplane	BPN-SAS3-217BHQ-N4	1	2U 4-Node 24-Port Backplane Supports 2x 2.5" SATA3/SAS3 SSD/HDD and 4x 2.5" SATA3/SAS3/NVMe Storage Media per Node
Drive Tray(s)	MCP-220-00144-0B-BULK	16	Black Gen3 hot-swap 2.5 inch HDD tray with lock, orange tab
Drive Tray(s)	MCP-220-00141-0B-BULK	8	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Parts	MCP-240-21730-0N	1	217B BigTwin type I (Impact) BPN retention bkt w/ foam 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-P0062P	4	1U Passive CPU Heat Sink for AMD Socket SP3 Processors
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
Air Shroud	MCP-310-21728-0B	4	SC217B H12 mylar air shroud
Cable	CBL-PWCD-0578-1	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG,RoHS

Optional Parts List

	Part Number	Qty	Description
Power Supply	PWS-3K04A-1R	-	1U 1400W/2880W/3000W AC/DC PSU with C21 inlet, Titanium, For Bigtwin
Power Supply	PWS-2K60A-1R	-	1U 2600W Redundant Titanium PWS, 45(W) X 40(H) X 480(L)
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]