

# A+ Server 2123BT-HNR(Complete System Only)



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



## Key Features

- Compute Intensive Application
- 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™ 7001/7002\* Series Processors (\*AMD EPYC 7002 series drop-in support requires board revision 2.x)
2. 2TB Registered ECC DDR4 2666MHz SDRAM in 16 DIMMs (7001 Processors)  
4TB Registered ECC DDR4 3200MHz SDRAM in 16 DIMMs (Board revision 2.x required + 7002 Processors)
3. 2 PCI-E 3.0 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" NVMe 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. 2600W Redundant Power Supplies  
**Titanium Level (96%)**  
(Full redundancy based on configuration and application load)

**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/NVMe 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](#)

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



## Specifications

**Product SKUs - Discontinued SKU (EOL). Please contact sales-rep for alternative options.**

**AS -2123BT-HNR** A+ Server 2123BT-HNR (Black)

**Motherboard (per Node)**

**Super H11DST-B**

**Processor/Chipset (per Node)**

<b>CPU</b>	Dual AMD EPYC™ 7001/7002* series Processors (* <b>Board revision 2.x required</b> ) Socket SP3 Supports CPU TDP 200W / cTDP up to 200W**
<b>Cores</b>	Up to 32 Cores ( <b>Board revision 1.x + 7001 Processors</b> ) Up to 64 Cores ( <b>Board revision 2.x + 7002 Processors</b> )
<b>Note</b>	** 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)**

<b>Memory Capacity</b>	16 DIMM slots Supports up to 2TB Registered ECC DDR4 2666MHz SDRAM ( <b>7001 Processors</b> ) Supports up to 4TB Registered ECC DDR4 3200MHz SDRAM ( <b>Board revision 2.x required + 7002 Processors</b> ) 8-channel memory bus For Dual CPUs: Recommended that memory be populated equally in adjacent memory banks
<b>Memory Type</b>	DDR4 2666 MHz Registered ECC, 288-pin gold-plated DIMMs ( <b>7001 Processors</b> ) DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs ( <b>Board revision 2.x required + 7002 Processors</b> )
<b>Memory Sizes</b>	8GB, 16GB, 32GB, 64GB, 128GB, 256GB* (* <b>Board revision 2.x required + 7002 processors</b> )
<b>Memory Voltage</b>	1.2V
<b>Error Detection</b>	Corrects single-bit errors Detects double-bit errors (using ECC memory)

**On-Board Devices (per Node)**

<b>Chipset</b>	System on Chip
<b>Network</b>	Must bundle with at least one <a href="#">SIOM</a> network card
<b>IPMI</b>	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
<b>Video</b>	ASPEED AST2500 BMC

**Input / Output (per Node)**

<b>LAN</b>	Provided via SIOM (optional) 1 RJ45 Dedicated IPMI LAN port
<b>USB</b>	2 USB 3.0 ports (rear)
<b>Video</b>	1 VGA port
<b>DOM</b>	1 SuperDOM (Disk on Module) port
<b>Others</b>	1 COM port (header) 1 TPM 2.0 header

**System BIOS (per Node)**

<b>BIOS Type</b>	AMI 128Mb SPI Flash ROM
------------------	-------------------------

**Management (per Node)**

<b>Software</b>	<a href="#">IPMI 2.0</a> KVM with dedicated LAN <a href="#">SSM</a> , <a href="#">SUM</a> <a href="#">SuperDoctor® 5</a> Watch Dog
<b>Power Configurations</b>	ACPI / APM Power Management

**Chassis**

<b>Form Factor</b>	2U Rackmount
<b>Model</b>	<b>CSE-217BHQ+-R2K60BP</b>

**Dimensions and Weight**

<b>Width</b>	17.68" (449mm)
<b>Height</b>	3.47" (88mm)
<b>Depth</b>	28.75" (730mm)
<b>Package</b>	24.33" (618mm) H x 9.57" (243mm) W x 45.08" (1145mm) D
<b>Weight</b>	Gross Weight: 85 lbs (38.6 kg) Net Weight: 54.5 lbs (24.7 kg)
<b>Available Colors</b>	Black

**Front Panel (per Node)**

<b>Buttons</b>	Power On/Off button UID button
<b>LEDs</b>	Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED

**Expansion Slots (per Node)**

<b>PCI-Express</b>	2 PCI-E 3.0 (x16) Low-profile slots 1 <a href="#">SIOM</a> card support (must bundle with network card)
<b>M.2</b>	Interface: 1 SATA/PCI-E 3.0 x4 Form Factor: 2280, 22110 Key: M-key

**Drive Bays (per Node)**

<b>Hot-swap</b>	6 Hot-swap 2.5" NVMe drive bays Note: NVMe Gen4 drives may only operate at Gen3 speed
-----------------	--

**System Cooling**

<b>Fans</b>	4 Heavy duty 8cm PWM fans
-------------	---------------------------

**AC/DC240V Input Redundant Power Supply**

2600W Redundant Power Supplies with PMBus

<b>Total Output Power</b>	2600W
<b>Dimension (W x H x L)</b>	45 x 40 x 480 mm
<b>Input</b>	208-240Vac/15-12.5A / 50-60Hz 220-240Vdc/13.5-12.5A (CQC only)
<b>+12V</b>	Max: 216.6A / Min: 0A
<b>12Vsb</b>	Max: 4.5A / Min: 0A
<b>Output Type</b>	Gold Finger (4HP+2LP-20S output connector)
<b>Certification</b>	[ Cert. in progress ]

**Operating Environment**

<b>RoHS</b>	RoHS Compliant
<b>Environmental Spec.</b>	Operating Temperature: 10°C ~ 30°C (50°F ~ 86°F) <b>* Support for operating above 30°C is available in certain system configurations. Contact your Supermicro sales rep or Technical Support for more details.</b> 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
<b>Motherboard / Chassis</b>	MBD-H11DST-B	4	Super H11DST-B Motherboard
	CSE-217BHQ+-R2K60BP	1	2U Chassis
<b>Backplane</b>	BPN-ADP-6NVME3-1UB	4	6x NVMe ports and 50A power sourcing daughter card for Big Twin
<b>Backplane</b>	BPN-NVME3-217BHQ	1	2U 24-Port 4-Node NVMe Backplane Support 6x2.5
<b>Cable 1</b>	CBL-PWCD-0376-IS	2	PWCD,US,IEC60320 C19 TO C20,940mm (3ft),14AWG,15A,250V,Black
<b>Drive Tray(s)</b>	MCP-220-00127-0B-BULK	24	Black gen3 Hotswap 2.5 NVMe drive tray, Orange tab/Lock/Bulk
<b>Parts</b>	MCP-240-21721-0N	1	217B BigTwin type I (Impact) BPN retention bkt Assy
<b>Riser Card</b>	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
<b>Riser Card</b>	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
<b>Software</b>	SFT-OOB-LIC	4	License key for enabling OOB BIOS management
<b>Heatsink / Retention</b>	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
<b>Heatsink / Retention</b>	SNK-P0062PW	4	1U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series Servers
<b>Power Supply</b>	PWS-2K60A-1R	2	1U 1400W/2600W Redundant Titanium PWS, 45(W) X 40(H) X 480(L)
<b>FAN</b>	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

**Optional Parts List**

	Part Number	Qty	Description
<b>Global Services &amp; Support</b>	<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
<b>Software</b>	SFT-DCMS-Single	1	DataCenter Management Package (per node license)
<b>TPM security module</b>	<a href="#">AOM-TPM-9665V</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;
<b>SIOM</b>	-	-	Supermicro SIOM solutions <a href="#">[Details]</a>

Global SKU [English](#)

### About Us

[Company Profile](#)  
[Green Computing](#)  
[Investor Relations](#)  
[Careers](#)  
[Site Map](#)

### News

[Press Releases](#)  
[Supermicro in the News](#)  
[Product Reviews](#)  
[Events](#)  
[Webinars](#)

### Resources

[Product Briefs](#)  
[Solution Briefs](#)  
[Success Stories](#)  
[Videos](#)  
[White Papers](#)  
[MySupermicro](#)

### Connect & Follow

[Locations](#)  
[Contact Us](#)  
[Newsletter Sign-up](#)

