

A+ Server 2123BT-HNC0R(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:

- Dual AMD EPYC™ 7001/7002* Series Processors (*AMD EPYC 7002 series drop-in support requires board revision 2.x)
- 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)
- 2 PCI-E 3.0 x16 (LP) slot; 1 [SIOM](#) card support (flexible networking). Note: must bundle with Network card
- Integrated IPMI 2.0 + KVM with dedicated LAN
 - Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management
- 6 SAS3, or 4 NVMe + 2 SAS3 Hot-swap 2.5" drive bays
M.2 Interface: 1 SATA/PCI-E 3.0 x4
M.2 Form Factor: 2280, 22110
M.2 Key: M-key
- SAS3 support via Broadcom 3008; IT mode
- Video via Aspeed AST2500 BMC
- 2200W 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](#)
[Drive Options](#)

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 (COL). Please contact sales-rep for alternative options.

AS -2123BT-HNC0R A+ Server 2123BT-HNC0R (Black)
Motherboard (per Node)

Super H11DST-B
Processor/Chipset (per Node)

- CPU** Dual AMD EPYC™ 7001/7002* series Processors (* Board revision 2.x required)
Socket SP3
Supports CPU TDP 200W / cTDP up to 200W**
- Cores** Up to 32 Cores (Board revision 1.x + 7001 Processors)
Up to 64 Cores (Board revision 2.x + 7002 Processors)
- 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 2TB Registered ECC DDR4 2666MHz SDRAM (7001 Processors)
Supports up to 4TB Registered ECC DDR4 3200MHz SDRAM (Board revision 2.x required + 7002 Processors)
8-channel memory bus
For Dual CPUs: Recommended that memory be populated equally in adjacent memory banks
- Memory Type** DDR4 2666 MHz Registered ECC, 288-pin gold-plated DIMMs (7001 Processors)
DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs (Board revision 2.x required + 7002 Processors)
- Memory Sizes** 8GB, 16GB, 32GB, 64GB, 128GB, 256GB* (* Board revision 2.x required + 7002 processors)
- 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
- SAS** SAS3 (12Gbps) via Broadcom 3008; IT mode
- Network** 1 PCI-E 3.0 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
- DOM** 1 SuperDOM (Disk on Module) port
- Others** 1 COM port (header)
1 TPM 2.0 header

System BIOS (per Node)

- BIOS Type** AMI 128Mb SPI Flash ROM

Management (per Node)

- Software** [IPMI 2.0](#)
KVM with dedicated LAN
[SSM](#), [SUM](#)
[SuperDoctor® 5](#)
Watch Dog
- Power Configurations** ACPI / APM Power Management

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 3.0 (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" SAS3 drive bays or
4 NVMe + 2 SAS3 Hot-swap 2.5"
Note: NVMe Gen4 drives may only operate at Gen3 speed

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)
- +12V** 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**

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-H11DST-B	4	Super H11DST-B Motherboard
	CSE-217BHQ+-R2K22BP2	1	2U Chassis
Backplane	BPN-ADP-6S3008N4-1UB	4	Big Twin 1U hybrid ADP supporting 6x SAS3 and 4x NVMe
Backplane	BPN-SAS3-217BHQ-N4	1	2U 4-Node 24-Port Backplane Supports 2x2.5" SATA3/SAS3 SSD/HDD and 4x2.5" SATA3/SAS3/NVMe Storage Media per Node
Drive Tray(s)	MCP-220-00141-0B-BULK	8	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Drive Tray(s)	MCP-220-00144-0B-BULK	16	Black Gen3 hot-swap 2.5 inch HDD tray with lock, orange tab
Parts	MCP-240-21730-0N	1	217B BigTwin type I (Impact) BPN retention bkt w/ foam assy
Riser Card	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
Riser Card	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
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

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;
SIOM	-	-	Supermicro SIOM solutions [Details]

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