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A+ Server 2123BT-HTR(Complete System Only)



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/NVMe 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

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

Integrated Board

Super H11DST-B

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

Key Features

- 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 <u>SIOM</u> 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)*



Specifications ^

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AS -2123BT-HTR A+ Server 2123BT-HTR (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	

Storage	SATA3 (6Gbps) via AMD EPYC
Network	1 PCI-E 3.0 x16 SIOM LAN Networking Slot for flexible networking, see <u>SIOM</u> 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

Form Factor Model	2U Rackmount CSE-217BHQ+-R2K22BP2
Dimensions and Weight	
Width Height Depth Package Weight Available Colors	17.68" (449mm) 3.47" (88mm) 28.75" (730mm) 24.33" (618mm) H x 9.57" (243mm) W x 45.08" (1145mm) D Gross Weight: 85 lbs (38.6 kg) Net Weight: 54.5 lbs (24.7 kg) Black
Front Panel (per Node)	
Buttons LEDs	Power On/Off button UID button Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED
Expansion Slots (per Node)	
PCI-Express M.2	2 PCI-E 3.0 (x16) Low-profile slots 1 <u>SIOM</u> card support (must bundle with network card) 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	alias with PMRus
2200W Redundant Power Supp Total Output Power	1200W/1800W/1980W/2090/2200W
-	45 x 40 x 480 mm

1200W: 100-127Vac / 50-60Hz

1800W: 200-220Vac / 50-60Hz

1980W: 220-230Vac / 50-60Hz 2090W: 230-240Vac / 50-60Hz

Video Input / Output (per Node)	ASPEED AST2500 BMC		2090W: 180-220Vac (for UL/cUL only) 2200W: 220-240Vac (for UL/cUL only) 2090W: 230-240Vdc (for CCC only)
LAN USB Video DOM Others	Provided via SIOM (optional) 1 RJ45 Dedicated IPMI LAN port 2 USB 3.0 ports (rear) 1 VGA port 1 Super_DOM (Disk on Module) port 1 COM port (header) 1 TPM 2.0 header	+12V 12Vsb Output Type Certification	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) Max: 2.1A / Min: 0A Gold Finger
System BIOS (per Node)			[BOS [Test Report]
BIOS Type	AMI 128Mb SPI Flash ROM	On eveting Environment	
Management (per Node)		Operating Environment	
Software	IPMI 2.0 KVM with dedicated LAN SSM, SUM SuperDoctor® 5	RoHS Environmental Spec.	RoHS Compliant Operating Temperature: 10°C ~ 30°C (50°F ~ 86°F) * Support for operating above 30°C is available in certain
Power Configurations	Watch Dog ACPI / APM Power Management		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)

(W x H x L)

Input

Parts List ^

Parts List - (Items Included)

Series Servers Heatsink / Retention SNK-P0062PW 4 1U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series Ser Power Supply PWS-2K22A-1R 2 1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48				
CSE-217BHQ+-R2K22BP212U ChassisBackplaneBPN-ADP-6SATA3-1UB4Support 6 SATA HDD adaptor card for Big TwinBackplaneBPN-SAS3-217BHQ12U4-Node 24-Port Backplane Supports 6x2.5\" SATA3/SAS3 SSD/HDD per NodeDrive Tay(s)MCP-20-00141-0B-BULK24Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMIMCP-240-21722-0N1217B/827B BigTwin type II (Edge card) BPN retention bkt assyRiser CardRSC-P-64RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHSRiser CardRSC-R1UTP-E16R4URHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-00B-LIC4License key for enabling 00B BIOS managementHeatsink / RetentionSNK-P0062PM41U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twi Series ServersPower SuppiPWS-2K22A-1R21U 200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X		Part Number	Qty	Description
BackplamBPN-ADP-6SATA3-1UB4Support 6 SATA HDD adaptor card for Big TwinBackplamBPN-SAS3-217BHQ12U 4-Node 24-Port Backplane Supports 6x2.5\" SATA3/SAS3 SSD/HDD per NodeDrive Tray(s)MCP-220-00141-0B-BULK24Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMIMCP-240-21722-0N1217B/827B BigTwin type II (Edge card) BPN retention bkt assyMCP-240-21722-0N4RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHSRiser CardRSC-R1UTP-E16R4U RHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-00B-LIC4License key for enabling 00B BIOS managementHeatsink / RetentionSNK-P062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Twi Series ServersPower SupplyPWS-2K22A-1R21U 200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Motherboard / Chassis		4	•
BackplaneBPN-SAS3-217BHQ12U4-Node 24-Port Backplane Supports 6x2.5\" SATA3/SAS3 SSD/HDD per NodeDrive Tray(s)MCP-220-00141-0B-BULK24Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMIPartsMCP-240-21722-0N1217B/827B BigTwin type II (Edge card) BPN retention bkt assyRiser CardRSC-P-64RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHSRiser CardRSC-R1UTP-E16R41U RHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-OOB-LIC4License key for enabling OOB BIOS managementHeatsink / RetentionSNK-P0062PM41U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twi Series ServersPower SupplyPWS-2K22A-1R21U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X		CSE-217BHQ+-R2K22BP2	1	20 Chassis
Drive Tray(s)MCP-220-00141-0B-BULK24Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMIPartsMCP-240-21722-0N1217B/827B BigTwin type II (Edge card) BPN retention bkt assyRiser CardRSC-P-64RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHSRiser CardRSC-R1UTP-E16R41U RHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-OOB-LIC4License key for enabling OOB BIOS managementHeatsink / RetentionSNK-P0062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Twi Series ServersPower SupplyPWS-2K22A-1R21U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Backplane	BPN-ADP-6SATA3-1UB	4	Support 6 SATA HDD adaptor card for Big Twin
PartsMCP-240-21722-0N1217B/827B BigTwin type II (Edge card) BPN retention bkt assyRiser CardRSC-P-64RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),ROHSRiser CardRSC-R1UTP-E16R41U RHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-OOB-LIC4License key for enabling OOB BIOS managementHeatsink / RetentionSNK-P0062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Tw Series ServersPower SupplyPWS-2K22A-1R21U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Backplane	BPN-SAS3-217BHQ	1	2U 4-Node 24-Port Backplane Supports 6x2.5\" SATA3/SAS3 SSD/HDD per Node
Riser CardRSC-P-64RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHSRiser CardRSC-R1UTP-E16R41U RHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-OOB-LIC4License key for enabling OOB BIOS managementHeatsink / RetentionSNK-P0062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Twi Series ServersHeatsink / RetentionSNK-P0062PW41U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series Ser U 1U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Drive Tray(s)	MCP-220-00141-0B-BULK	24	Black Gen3 hot-swap 2.5 inch HDD tray with lock improved EMI
Riser CardRSC-R1UTP-E16R41U RHS TwinPro Riser card with one PCI-E x16 slotSoftwareSFT-OOB-LIC4License key for enabling OOB BIOS managementHeatsink / RetentionSNK-P0062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Tw Series ServersHeatsink / RetentionSNK-P0062PW41U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series SerPower SupplyPWS-2K22A-1R21U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Parts	MCP-240-21722-0N	1	217B/827B BigTwin type II (Edge card) BPN retention bkt assy
SoftwareSFT-OOB-LIC4License key for enabling OOB BIOS managementHeatsink / RetentionSNK-P0062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Tw Series ServersHeatsink / RetentionSNK-P0062PW41U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series ServersPower SupplyPWS-2K22A-1R21U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Riser Card	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
Heatsink / RetentionSNK-P0062PM41U Passive Front CPU Heat Sink w/ a 30-mm Wide Middle Air Channel for AMD H11 2U4N Big Tw Series ServersHeatsink / RetentionSNK-P0062PW41U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series ServersPower SupplyPWS-2K22A-1R21U 2200W Redundant Power Supply Titanium, 45(W) X 40(H) X 48FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Riser Card	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
Series Servers Heatsink / Retention SNK-P0062PW 4 1U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series Ser 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 X	Software	SFT-OOB-LIC	4	License key for enabling OOB BIOS management
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 X	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
FANFAN-0183L4480x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X	Heatsink / Retention	SNK-P0062PW	4	1U Proprietary 93-mm Wide Passive Rear CPU Heat Sink for AMD H11 2U4N Big Twin Series Server
	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 OSNBD3/2/1	-	3/2/1-year onsite 24x7x4 service 3/2/1-year onsite NBD service
Software SFT-DCMS-Single	1	DataCenter Management Package (per node license)
TPM security module <u>AOM-TPM-9655V</u>	-	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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