

A+ Server 4023S-TRT



Integrated Board



H11DSi-NT

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

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

Key Features

- ☐ Cloud Computing
- ☐ Data Center
- ☐ General purpose, SMB, Web Hosting

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. Expansion slots:
2 PCI-E x16 slots
3 PCI-E x8 slots
M.2 Interface: 1 SATA/PCI-E 3.0 x2
M.2 Form Factor: 2280, 22110
M.2 Key: M-key
4. Integrated IPMI 2.0 + KVM with dedicated LAN
• **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. Dual 10G LAN ports
6. 8 hot-swap 3.5" SATA3 drive bays;
3 peripheral 5.25" drive bays;
1 M.2 NVMe SSD supported
7. 1280W Redundant Power Supplies
Platinum Level
(Full redundancy based on configuration and application load)



Specifications

Product SKUs

- AS -4023S-TRT** ■ A+ Server 4023S-TRT

Motherboard

H11DSi-NT

Processor/Chipset

- CPU** ■ Dual AMD EPYC™ 7001/7002* series Processors
(* Board revision 2.x required)
■ Socket SP3
■ Supports CPU TDP 225W / cTDP up to 240W*
- Cores** ■ Up to 32 Cores (Board revision 1.x + 7001 Processors)
■ Up to 64 Cores (Board revision 2.x + 7002 Processors)
- Chipset** ■ System on Chip (SoC)

System Memory

- 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
- Memory Type** ■ DDR4 2666 MHz Registered ECC, 240-pin gold-plated DIMMs (7001 Processors)
■ DDR4 3200 MHz Registered ECC, 240-pin gold-plated DIMMs (Board revision 2.x required + 7002 Processors)
- DIMM Sizes** ■ 4GB, 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

- SATA** ■ SATA3 (6 Gbps)
- IPMI** ■ Support for Intelligent Platform Management Interface v.2.0
■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
■ ASPEED AST2500 BMC
- Network Controllers** ■ 2 Intel® X550 10GBase-T Ethernet Controllers
■ 1 Realtek RTL8211E PHY (dedicated IPMI)
- VGA** ■ ASPEED AST2500 BMC

Expansion Slots

- PCI-Express** ■ 2 PCI-E x16 slots
■ 3 PCI-E x8 slots
- M.2** ■ Interface: 1 SATA/PCI-E 3.0 x2
■ Form factor: 2280, 22110
■ Key: M-key

Input / Output

Chassis

- Form Factor** ■ Tower / 4U Rackmountable

- Model** ■ CSE-745BTS-R1K28BP2

Dimensions

- Height** ■ 17.8" (452mm)
- Width** ■ 7" (178mm)
- Depth** ■ 25.5" (647mm)

Front Panel

- Buttons** ■ Power On/Off button
■ System Reset button
- LEDs** ■ Power LED
■ Hard drive activity LED
■ 2x Network activity LEDs
■ System Overheat LED / Fan fail LED / UID LED

Drive Bays

- Hot-swap** ■ 8 hot-swap 3.5" Drive Bays:
■ 8 SATA3 by default
■ or 8 SAS3

Peripheral Drives

- 5.25"** ■ 3 peripheral 5.25" drive bays

Backplane

- HDD Backplane** ■ Supports 8 SATA3 or 8 SAS3 HDD

System Cooling

- Fans** ■ 3 internal hot-swap 9400 RPM fans
■ 2 external rear hot-swap 9400 RPM fans

Power Supply

1280W Redundant High-efficiency Digital Power Supplies w / PMBus 1.2

- AC Input** ■ 1000W Output @ 100-140V, 8-12A, 50-60Hz
■ 1280W Output @ 180-240V, 6-8A, 50-60Hz

- DC Output** ■ 1000W: +12V/83A; +5Vsb/4A
■ 1280W: +12V/106.7A, +5Vsb/4A

Certification



Platinum Certified
[[Test Report](#)]

PC Health Monitoring

- CPU** ■ Monitors CPU Core Voltages, +12V, +3.3V, +5V, +5V standby, 3.3V standby, VBAT
■ CPU switching voltage regulator
- FAN** ■ Up to 8-fan status tachometer monitoring
■ Up to eight 4-pin fan headers
■ Status monitor for speed control
■ Pulse Width Modulated (PWM) fan connectors

SATA	■ 10 SATA3 (6 Gbps) ports
LAN	■ Dual 10G LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 3.0 ports (rear) ■ 2 USB 2.0 ports (rear)
VGA	■ 1 VGA port
SAS	■ 8 SAS3 ports support via optional Add-on Card
NVMe	■ 2 NVMe support with optional cables
Others	■ 1 COM port (rear) ■ 2 SATA DOM power connector ■ TPM 1.2 header

System BIOS

BIOS Type	■ AMI 128Mb SPI Flash EEPROM
BIOS Features	■ Plug and Play (PnP) ■ DMI 2.3 ■ PCI 2.2 ■ ACPI 5.1 ■ USB Keyboard Support ■ SMBIOS 3.1.1

Temperature	■ Monitoring for CPU and chassis environment ■ CPU Thermal Trip Support ■ Thermal control for 8x Fan connectors ■ I²C Temperature Sensing Logic
LED	■ CPU / System Overheat LED
Other Features	■ Chassis Intrusion Detection ■ Chassis Intrusion Header

Operating Environment / Compliance

RoHS	■ RoHS Compliant
Environmental Spec.	■ Operating Temperature: 10°C to 35°C (50°F to 95°F) ■ Non-operating Temperature: -40°C to 70°C (-40°F to 158°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	MBD-H11DSi-NT	1	Super H11DSi-NT Motherboard
Chassis	CSE-745BAC-R1K28BP2	1	4U Chassis
Backplane	BPN-SAS3-743A-N4	1	8-port 4U/Tow er (SC743/745) 3.5-inch SAS3/SAS2/SATA3 12Gbps backplane, 4 of 8 ports support NVMe devices
Cable	CBL-SAST-0508-01	2	Internal Mini-SAS to Mini-SAS HD 50cm w / SB, 30AWG,HF,RoHS/REACH,PBF
Heat Sink	SNK-P0063P	2	2U Passive CPU Heat Sink for AMD Socket SP3 Processors
IO Shield	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
Power Supply	PWS-1K28P-SQ	2	1U 1280W, redundant single output pow er supply
Software	<u>SFT-OOB-LIC</u>	1	OOB Management Package (per node license)

Optional Parts List

	Part Number	Qty	Description
NVMe support kit	MCP-220-00080-0B	-	3.5" to 2.5" HDD tray - ADD QTY 1 per drive (Hot sw ap not supported)
	CBL-SAST-0818		OCuLink v.91,INT,PCIe NVMe SSD, 55CM - ADD QTY 1 per drive
DVD Drive Kit	DVM-LITE-DVDRW24-HBT	-	BLACK LITE-ON 5.25" HH 24X DVD-RW SATA DRIVE PBF
	1x CBL-SAST-0624		SATA,INT,ROUND,ST-ST,70CM,30AWG
	1x CBL-0082L		Y split, big 4 pin to tw o RA SATA pow er extension 15cm, 18AWG
Mounting Rails	CSE-PT26L-B	-	4U Chassis Rail Kits SC743,745 (w / 2pcs Black Chassis Ears)
Tray	MCP-220-00044-0N	-	Dual 2.5" fixed HDD bracket for SC502, 503, 510, 512, 515U
3.5" to 2.5" HDD tray Converter	MCP-220-00080-0B	-	Black hot-sw ap gen 2 3.5" to 2.5" HDD tray – ADD QTY 1 per drive
Storage Control Card and Cable(s)	AOC-S3008L-L8e	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 122HDD, HBA
	2x CBL-SAST-0593		Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
	AOC-S3008L-L8i	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E
	2x CBL-SAST-0593		Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
	AOC-S3108L-H8iR	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60
	2x CBL-SAST-0593		Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
TPM	AOM-TPM-9655V	-	Vertical TPM w ith Infineon 9655 TCG 1.2
	AOM-TPM-9655V-S	-	Based on AOM-TPM-9655V w ith Server TXT package
	AOM-TPM-9665V	-	AOM-TPM-9665V using SLB9665 Chipset supporting TPM2.0,RoHS/REACH
	AOM-TPM-9665V-S	-	Vertical TPM TCG 2.0 Provisioned for a server,RoHS/REACH
Global Services & Support	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)