

A+ Server 1023US-TR4 (Integrated System Only)



Integrated Board



H11DSU-iN

Views: | [Angled View](#) | [Top 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, 4 DIMMs, 1 HDD/NVMe). Recommended configuration for best performance is at least 1 DIMM per channel per CPU (16 DIMM Total).

► [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

- ❑ Virtualization
- ❑ Cloud Computing
- ❑ High End Enterprise Server
- ❑ Flexible Networking Options

1. Dual AMD EPYC™ 7001/7002* Series Processors (*AMD EPYC 7002 series drop-in support requires board revision 2.x)
2. 4TB Registered ECC DDR4 2666MHz SDRAM in 32 DIMMs (7001 Processors)
8TB Registered ECC DDR4 3200MHz SDRAM in 32 DIMMs (Board revision 2.x required + 7002 Processors)
3. Expansion slots:
2 PCI-E x16 (FH/9.5"L) slots
2 PCI-E x8 slots (1LP, 1 internal LP)
4. Integrated IPMI 2.0 + KVM with dedicated LAN
• **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. Quad Gigabit LAN ports via Intel i350AM4
6. Drive Bays:
4 hot-swap 3.5" SATA3 by default
or 4 NVMe (optional supported)
or 4 SAS3 ports
(SAS Add-on card is optional)
7. 1000W Redundant Power Supplies
Titanium Level (96%+)
(Full redundancy based on configuration and application load)



Specifications

Product SKUs

- AS -1023US-TR4** ■ A+ Server 1023US-TR4

Motherboard

H11DSU-iN

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**
 - 32 DIMM slots
 - Supports up to 4TB Registered ECC DDR4 2666MHz SDRAM (7001 Processors)
 - Supports up to 8TB 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

- VGA** ■ ASPEED AST2500 BMC

Expansion Slots

- 1U**
 - 2 PCIe x16 (FH/HL 9.5") slots
 - 2 PCIe x8 (LP) slot (1 LP, 1 internal LP)

(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and [AOC Support](#) for details.)

Input / Output

- SATA** ■ 4 SATA3 (6 Gbps) ports
- LAN**
 - Quad Gigabit LAN ports
 - 1 RJ45 Dedicated IPMI LAN port
- USB** ■ 3 USB 3.0 ports (2 rear + 1 Type A)
- VGA** ■ 1 VGA port
- SAS** ■ 4 SAS3 ports support via optional Add-on Card

Chassis

- Form Factor** ■ 1U
- Model** ■ CSE-819UTS-R1K02P-T

Dimensions

- Height** ■ 1.7" (43mm)
- Width** ■ 17.2" (437mm)
- Depth** ■ 29" (737mm)
- Weight**
 - Net Weight: 26 lbs (11.8 kg)
 - Gross Weight: 41 lbs (18.6 kg)

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** ■ Four 3.5" Hot-swap SATA drive bays

Backplane

- HDD Backplane** ■ Supports 4 SATA3 or 4 NVMe or 4 SAS3 HDD

System Cooling

- Fans** ■ 8 heavy-duty PWM fans with optimal fan speed control
- Air Shroud** ■ 2 Air Shroud

Power Supply

1000W Redundant Power Supplies with PMBus

- Total Output Power** ■ 800W/1000W
- Dimension (W x H x L)** ■ 73.5 x 40 x 203 mm
- Input**
 - 100-127Vac / 9.8 - 7A / 50-60Hz
 - 200-240Vac / 7 - 5A / 50-60Hz
 - 200-240Vdc / 7 - 5A (for CCC only)
- +12V**
 - Max: 66.7A / Min: 0A (100-127Vac)
 - Max: 83A / Min: 0A (200-240Vac)
 - Max: 83A / Min: 0A (200-240Vdc)
- 12Vsb** ■ Max: 2.1A / Min: 0A
- Output Type** ■ 25 Pairs Gold Finger Connector
- Certification**
 -   **Titanium Level [Test Report]**

PC Health Monitoring

- CPU**
 - Monitors CPU Core Voltages, +12V, +3.3V, +5V, +5V standby, 3.3V standby, VBAT
 - CPU switching voltage regulator

NVMe	■ 4 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

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
Temperature	■ Monitoring for CPU and chassis environment ■ CPU Thermal Trip Support ■ Thermal control for 8x Fan connectors ■ μC 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-H11DSU-iN	1	Super H11DSU-iN Motherboard
Chassis	CSE-819UTS-R1K02P-T	1	1U Chassis
Add-on Card / Module	AOC-UR-I4G	1	1U Ultra Riser based on Intel i350AM4 controller w ith 4 GbE RJ45 ports and 1 internal PCI-E x8 3.0 slot
Backplane	BPN-SAS3-815TQ-N4	1	4-port 1U SAS3 12Gbps Hybrid backplane, support up to 4x 3.5-inch SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-PWEX-0673	1	8 pin female to 2x big 4 pin female power, 65/70CM, 18AWG,RoHS/REACH
Cable 2	CBL-SAST-0880	1	MINI SAS(RA-RS EXIT)-4 SATA,INT,55/55/55/55CM,55CM SB,30AWG
FAN 1	FAN-0101L4	4	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Manual	MNL-1959-QRG	1	AS-1023US-TR4 Quick Reference Guide
Riser Card	RSC-R1UW-2E16	1	1U LHS WIO Riser card w ith two PCI-E x16 slots
Riser Card	RSC-R1UW-E8R	1	1U RHS WIO Riser card w ith one PCI-E x8 slot
Heatsink / Retention	SNK-P0062P	2	1U Passive CPU Heat Sink for AMD Socket SP3 Processors
* Power Supply	PWS-1K02A-1R	2	1U 1000W Redundant Power Supply 73.5mm width Titanium Level,RoHS/REACH

Notes:

1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List

	Part Number	Qty	Description
Storage Control Card and Cable(s)	AOC-S3008L-L8e	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 122HDD, HBA
	1x CBL-SAST-0948		Internal mini SAS HD to 4 SATA 60CM, S, w / 60cm SB
	AOC-S3008L-L8i	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E
	1x CBL-SAST-0948		Internal mini SAS HD to 4 SATA 60CM, S, w / 60cm SB
	AOC-S3108L-H8iR/16DD	-	Std LP, 8 WIO L ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60
	1x CBL-SAST-0948		Internal mini SAS HD to 4 SATA 60CM, S, w / 60cm SB
CacheVault(s)	BTR-TFM8G-LSICVM02	-	CacheVault for Broadcom 3108
	BKT-BBU-BRACKET-05		Supercap mounting bracket for PCI-E location
	BTR-TFM8G-LSICVM02	-	CacheVault for Broadcom 3108
	MCP-240-00127-0N		Supercap mounting bracket for 2.5" HDD location
	MCP-220-00043-0N		STD Black hot-sw ap screw type 3.5"-to-2.5" converter drive tray
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	STD Black hot-sw ap screw type 3.5"-to-2.5" converter drive tray
	MCP-220-00118-0B	-	STD Black hot-sw ap tool-less 3.5"-to-2.5" converter drive tray
Optional Kit for NVMe Solution	MCP-220-00116-0B	-	Black gen-5 3.5-to-2.5 NVMe drive tray, Orange tab (for hotsw ap NVMe drive)
	CBL-SAST-0819		OCuLink v.91,INT,PCIe NVMe SSD, 65CM,34AWG
	MCP-220-00138-0B	-	NVMe 3.5-to-2.5 drive tray, Orange tab
	CBL-SAST-0819		OCuLink v.91,INT,PCIe NVMe SSD, 65CM,34AWG
DVD-ROM / DVD-RW	DVM-PNSC-DVD-SBT3	-	Black Panasonic Slim DVD-ROM SATA Drive
	MCP-220-81502-0N		Slim SATA DVD mounting kit
	CBL-0099		25CM FDD 4 PIN TO SLIM 4 PIN power cable,24AWG

Optional Parts List	DVM-TEAC-DVD-SBT3	-	Black TEAC Slim DVD-ROM SATA Drive
	MCP-220-81502-0N	Qty	Slim SATA DVD mounting kit
	Part Number CBL-0099		Description 25CM FDD 4 PIN TO SLIM 4 PIN power cable,24AWG
	DVM-PLDS-DVDRW-SBT4	-	Philips Slim Black DVD-RW SATA Drive, HF
	MCP-220-81502-0N		Slim SATA DVD mounting kit
	CBL-0099		25CM FDD 4 PIN TO SLIM 4 PIN power cable,24AWG
USB Port Tray (FDD Slot)	MCP-220-00129-0B	-	Black 2x USB 3.0 port tray in slim FDD bay
Hot-Swap Drive Bays 2.5" HDD Tray (FDD Slot)	MCP-220-81504-0N	-	12G 2.5-in Hot-sw ap Slim Floppy Size Drive Kit w /Status LED
	CBL-0210L (PWR)		
Hot-Swap Drive Bays 2.5" HDD Tray (DVD Slot)	MCP-220-81506-0N	-	12G 2.5-in Hot-sw ap Slim DVD Size Drive Kit with Status LED
	CBL-0099 (PWR)		
Hot-Swap Drive Bays 2.5" HDD Tray (DVD Slot) + Hot-Swap Drive Bays 2.5" HDD Tray (FDD Slot)	MCP-220-81504-0N	-	12G 2.5-in Hot-sw ap Slim DVD Size Drive Kit with Status LED + Slim DVD Size Drive Kit w /Status LED
	MCP-220-81506-0N		
	CBL-SAST-0654 (data) x2		
	CBL-0210L (PWR)		
	CBL-0099 (PWR)		
	CBL-0161L (Y-cable)		
	CBL-PWEX-0702 (PWD)		
Ultra 1U Front Bezel	CSE-PTFB-813L	-	SC813 Front Bezel, PB Free
	CSE-PTFB-813LB	-	Black SC813 Front Bezel, PB Free
	MCP-210-11601-0B	-	Black Front Bezel for SC113, SC113M, SC116, SC119, SC119U, SC514 (No LED indicator support)
1U Cable Management Arm	MCP-290-00152-0N	1	1U Supermicro Cable Management Arm 2nd Gen
	MCP-290-00110-0N	2	Inner rail, extension (quick) for 1U 17.2
1 Internal M.2 slot (NVMe)	RSC-UMR-8	1	1U Ultra RHS Riser Card with 1 PCIe (up to 22110)
	MCP-120-81908-0N		
1 Internal M.2 slot (SATA)	RSC-UMR-8	1	1U Ultra RHS Riser Card with 1 SATA M.2 (up to 22110)
	CBL-SAST-0639		
	MCP-120-81908-0N		
2 Internal M.2 slots (NVMe 2260 + SATA 2260)	RSC-UMR-8	1	1U Ultra RHS Riser Card with 1 PCI-E/SATA Hybrid M.2 & 1 PCI-E x8 (up to 2260 for each device)
	MCP-120-81908-0N		
	CBL-SAST-0639		
M.2 by AOC	AOC-SLG3-2M2	1	LP, PCIe3 x8, Dual port NVMe M.2 carrier
TPM	AOM-TPM-9655V	-	Vertical TPM with Infineon 9655 TCG 1.2
	AOM-TPM-9655V-S	-	Based on AOM-TPM-9655V with 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)