

SuperServer 5039MD8-H8TNR



Integrated Board



X11SDD-8C-F

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

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Key Features (per node)

- ❑ Cloud Computing
 - ❑ Web Cache
 - ❑ Web Hosting, VM
 - ❑ Social Networking, CDN
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1. Intel® Xeon® Processor D-2141I, 8-Cores, 16 Threads
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2. 2x 3.5" SATA3 by default; 2x 2.5" hybrid SATA3/NVMe w/ Optional kits
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3. Up to 512GB ECC LRDIMM, Up to 256GB ECC RDIMM, up to DDR4-2133MHz; in 4 DIMM slots
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4. 2 GbE LAN ports via Intel i350
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5. 1 PCI-E 3.0 x16 (low-profile), 1 Micro-LP, and 2 M.2
-
6. 2 USB 2.0, 1 VGA, 1 COM port, (with KVM dongle)
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7. 4 heavy duty hot-swap 8cm fans with optimal cooling zone (per system)
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8. 1600W Redundant power supplies
Titanium Level Certified (per system)
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Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.

Specifications

Product SKUs

SuperServer	■ SYS-5039MD8-H8TNR (Black)
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Motherboard

Super X11SDD-8C-F

Processor/Cache (per Node)

CPU	■ Socket FCBGA1667 ■ Intel® Xeon® Processor D-2141I ■ CPU TDP support 65W
Cores / Cache	■ 8-Cores, 16 Threads

System Memory (per node)

Memory Capacity	■ 4x 288-pin DDR4 DIMM slots ■ Up to 512 GB ECC LRDIMM ■ Up to 256 GB ECC RDIMM
Memory Type	■ 2133MHz ECC DDR4 LRDIMM and RDIMM
DIMM Sizes	■ 32GB, 16GB, 8GB
Memory Voltage	■ 1.2 V
Error Detection	■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)

Network Devices (per node)

Micro-LP NIC	■ Intel® i350 GbE LAN controller ■ Dual RJ-45 connectors ■ <u>MicroLP Adapter Matrix</u> (Networking options)
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On-Board Devices (per node)

Chipset	■ System on Chip (SoC)
SATA	■ SATA3 (6Gbps) via SoC
IPMI	■ Support for Intelligent Platform Management Interface v2.0 ■ IPMI 2.0 with virtual media over LAN and KVM over LAN support ■ ASPEED AST2500 BMC
Graphics	■ ASPEED AST2500 Graphics (BMC with Graphic controller)

Input / Output (per node)

SATA	■ 2 SATA3 (6Gbps) ports
LAN	■ 2 RJ45 Gigabit Ethernet LAN ports
KVM	■ 1 VGA, 1 COM and 2 USB 2.0 (with KVM dongle)

System BIOS

BIOS Type	■ 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	■ DMI 2.3 ■ ACPI 1.0 / 2.0 ■ USB Keyboard support ■ SMBIOS 2.3

Management

Software	■ Intel® Node Manager ■ <u>IPMI 2.0</u> ■ KVM with dedicated LAN ■ <u>SSM</u> , <u>SPM</u> , <u>SUM</u> ■ <u>SuperDoctor® 5</u> ■ Watchdog
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Rear Window (each node)

Switch	■ Power / UID
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Chassis

Form Factor	■ 3U
Model	■ CSE-938NH-R1K68BP

Dimensions and Weight

Height	■ 5.2" (132 mm)
Width	■ 15.26" (387 mm)
Depth	■ 23" (585 mm)
Package	■ 11.65" (H) x 26.26" (W) x 34" (D)
Weight	■ Net Weight: 62.2 lbs (28.21 kg) ■ Gross Weight: 88 lbs (39.92 kg)
Color	■ Black

Front Panel

Buttons	■ Power On/Off button
LEDs	■ Power LED ■ Node status LED

Expansion Slots (per node)

PCI-Express	■ 1 PCI-E 3.0 x16 (Low-profile) slot ■ 1 Micro-LP PCI-E 3.0 x8 slot
M.2	■ M.2 Interface: 2 PCI-E 3.0 x4 ■ M.2 Form Factor: 2280/22110 ■ M.2 Key: M-Key

Drive Bays (per node)

Internal	■ 2x 3.5" SATA3 (6Gbps) HDDs per node (or 2x 2.5" Hybrid SATA3/NVMe with optional kits); up to 16 HDDs total ■ Enterprise SATA HDD only recommended
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System Cooling

Fans	■ 4 Hot-swappable 8cm cooling fans fan speed control
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Power Supply (76mm Width)

1600W 1U Redundant Power Supplies with PMBus	
Total Output Power	■ 800W: 100 – 140Vac ■ 1600W: 180 – 240Vac
Dimension (W x H x L)	■ 76 x 40.4 x 336 mm
Input	■ 100-140Vac / 10-7A / 50-60Hz ■ 180-240Vac / 11-8A / 50-60Hz
+12V	■ Max: 67A / Min: 0A (100-140Vac) ■ Max: 133A / Min: 0A (180-240Vac)
+5Vsb	■ Max: 1A / Min: 0A
Output Type	■ 27 Pairs Gold Finger Connector
Certification	  Titanium Level [Test Report]

PC Health Monitoring

CPU	■ Monitors for CPU Cores, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages. ■ 5 Phase-switching voltage regulator with auto-sense from 0.8375V-1.60V
FAN	■ Cooling zone
Temperature	■ Monitoring for CPU and chassis environment

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 / Chassis	MBD-X11SDD-8C-F	8	Super X11SDD-8C-F Motherboard
	CSE-938NH-R1K68BP	1	3U Chassis
Add-on Card / Module	AOC-CGP-I2-P	8	AOC-CGP-I2-O-P
Add-on Card / Module	AOM-BPN-938NH-P	1	AOM-BPN-938NH, Backplane module for 8-node Microcloud system, 16xU.2, 2 per node, Dual PSU, Management LAN sw itch, chassis node ID.,HF,RoHS
Add-on Card / Module	AOM-LAN-MC8-P	1	AOM-LAN-MC8, LAN front panel module for 8-node Microcloud system,HF,RoHS
Add-on Card / Module	AOM-PDB-PT938-LSG-P	1	AOM-PDB-PT938-LSG, PDB module for 8-node Microcloud system,HF,RoHS
Add-on Card / Module	AOM-PDB-PT938-RSG-P	1	AOM-PDB-PT938-RSG, PDB module for 8-node Microcloud system,HF,RoHS
Cable 1	CBL-0218L	1	USB/KVM/SUVI,36 PIN TO 9 PIN/15 PIN/2 USB CH,11.5CM,30/28AWG
Cable 2	CBL-0355L	2	ETHERNET,CAT5E,RJ45 W/BOOT,GREEN,UTP,2FT (60CM),24AWG
Cable 3	CBL-0458L	1	20 cm 30 pin to 30 pin Front control cable w ith tube. 28AWG
Cable 4	CBL-CDAT-0662	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,61.5CM,28AWG
Cable 5	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
FAN 1	FAN-0194L4	4	80x80x38 mm, 13.5K RPM Cooling Fan for 3U8N Microcloud Serie
Drive Tray(s)	MCP-220-00094-0B	16	Black gen 6.5 hot-sw ap 3.5 inch HDD Tray
Air Shroud	MCP-310-93805-0B	16	Mylar air shroud for 2-DIMMs (quick install on DIMM latch)
Power Supply	PWS-1K68A-1R	2	1U 1600W Redundant Titanium Pow er Supply 76mm width 27Pair,PBF
Riser Card	RSC-RR1U-E16	8	RSC-RR1U-E16 w ith PIC-E x16 output

Optional Parts List

	Part Number	Qty	Description
Intel VROC RAID Key	AOC-VROCINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREMOD	1	Intel VROC Premium, RAID 0, 1, 5, 10
Cable	CBL-SAST-0610	-	For AOC-S3008L-L8i/AOC-S3108L-H8IR
Storage Controller Card(s)	AOC-S3008L-L8i AOC-S3108L-H8IR AOC-S3108L-H8IR-16DD	-	Std LP, 8 ports, 12Gb/s Gen3, RAID 0/1/10 Std LP, 8 ports, 12Gb/s Gen3, RAID 0/1/5/6/10/50/60 Std LP, 8 ports, 12Gb/s Gen3, RAID 0/1/5/6/10/50/60
Network Card(s)	AOC-CTGS-i2T AOC-CTG-i1S AOC-CTG-i2S AOC-C25G-m1S AOC-S40G-i2Q AOC-SGP-i2 AOC-SGP-i4 AOC-STG-i2 AOC-STG-i2T AOC-STGN-i1S AOC-STGN-i2S AOC-S100G-m2C AOC-SHF-i1C	-	MicroLP, 2x 10GbE Base-T, PCI-E 3.0 x4, Intel® X550 MicroLP, 1 x 10GbE SFP+, PCI-E 2.0 x8, Intel® 82599EN MicroLP, 2 x 10GbE SFP+, PCI-E 2.0 x8, Intel® 82599EN MicroLP, 1x 25GbE SFP28 port, Mellanox® ConnectX-4 Lx EN Standard LP 2-port 40GbE controller, Intel Fortville XL710 Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350AM2 Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350 Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540 Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES Standard LP 2-port 100GbE w ith 2 QSFP28, Mellanox CX-4 EN Standard LP 1-port Omni Path controller, Intel 100HFA016LS
Drive Tray(s)	MCP-220-93801-0B	-	Black gen 6 hot-sw ap 3.5-to-2.5 HDD tray
Drive Tray(s)	MCP-220-00158-0B	-	Black gen 6.5 hot-sw ap 3.5-to-2.5 Tool-less drive tray
TPM security module	AOM-TPM-9670V	1	SPI capable TPM 2.0 w ith Infineon 9670 controller, Vertical form factor
TPM security module	AOM-TPM-9671V	1	SPI capable TPM 1.2 w ith Infineon 9670 controller, Vertical form factor
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-OOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)