

SuperServer 5039MD18-H8TNR



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



Key Features (per node)

- Cloud Computing**
 - Web Cache**
 - Web Hosting, VM**
 - Social Networking, CDN**
1. Intel® Xeon® Processor D-21911, 18-Cores, 36 Threads
 2. 2x 3.5" SATA3 by default; 2x 2.5" hybrid SATA3/NVMe w/ Optional kits
 3. Up to 512GB ECC LRDIMM. Up to 256GB ECC RDIMM, up to DDR4-2400MHz; in 4 DIMM slots
 4. 2 GbE LAN ports via Intel i350
 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)
 7. 4 heavy duty hot-swap 8cm fans with optimal cooling zone (per system)
 8. 1600W Redundant power supplies **Titanium Level Certified** (per system)

[Drivers & Utilities](#) | [BIOS](#) | [IPMI](#) | [Tested Memory](#) | [Tested M.2 List](#) | [NVMe Options](#) | [Manuals](#) | [OS Certification Matrix](#) | [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	
SuperServer	SYS-5039MD18-H8TNR (Black)
Motherboard	
Super X11SDD-18C-F	
Processor/Cache (per Node)	
CPU	Socket FCBGA1667 Intel® Xeon® Processor D-21911 CPU TDP support 86W
Cores / Cache	18-Cores, 36 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	2400/2133MHz 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 MicroLP Adapter Matrix (Networking options)
On-Board Devices (per node)	
Chipset	System on Chip (SoC)
SATA	SATA3 (6Gbps) via SoC
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
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 IPMI 2.0 KVM with dedicated LAN SSM , SPM , SUM SuperDoctor® 5 Watchdog
Rear Window (each node)	
Switch	Power / UID

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
System Cooling	
Fans	4 Hot-swap 8cm cooling fans fan speed control
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-18C-F	8	Super X11SDD-18C-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 switch, 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 with 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-swap 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 Power Supply 76mm width 27Pair,PBF
Riser Card	RSC-RR1U-E16	8	RSC-RR1U-E16 with PIC-E x16 output

Optional Parts List				
	Part Number	Qty	Description	
TPM security module	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller, Vertical form factor	
TPM security module	AOM-TPM-9671V	1	SPI capable TPM 1.2 with Infineon 9670 controller, Vertical form factor	
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	-	Std LP, 8 ports, 12Gb/s Gen3, RAID 0/1/10	
	AOC-S3108L-H8IR	-	Std LP, 8 ports, 12Gb/s Gen3, RAID 0/1/5/6/10/50/60	
	AOC-S3108L-H8IR-16DD	-	Std LP, 8 ports, 12Gb/s Gen3, RAID 0/1/5/6/10/50/60	
Network Card(s)	AOC-CTGS-i2T	-	MicroLP, 2x 10GbE Base-T, PCI-E 3.0 x4, Intel® X550	
	AOC-CTG-i1S	-	MicroLP, 1 x 10GbE SFP+, PCI-E 2.0 x8, Intel® 82599EN	
	AOC-CTG-i2S	-	MicroLP, 2 x 10GbE SFP+, PCI-E 2.0 x8, Intel® 82599EN	
	AOC-C25G-m1S	-	MicroLP, 1x 25GbE SFP28 port, Mellanox® ConnectX-4 Lx EN	
	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, Intel Fortville XL710	
	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350AM2	
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350	
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB	
	AOC-STG-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540	
	AOC-STGN-i1S	-	Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN	
	AOC-STGN-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES	
	AOC-S100G-m2C	-	Standard LP 2-port 100GbE with 2 QSFP28, Mellanox CX-4 EN	
	AOC-SHF1-I1C	-	Standard LP 1-port Omni Path controller, Intel 100HFA016LS	
	Drive Tray(s)	MCP-220-93801-0B	-	Black gen 6 hot-swap 3.5-to-2.5 HDD tray
	Drive Tray(s)	MCP-220-00158-0B	-	Black gen 6.5 hot-swap 3.5-to-2.5 Tool-less drive tray
	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)	

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