

# SuperServer 5038ML-H8TRF



## Key Features (per node)

1. Single socket H3 (LGA 1150) supports Intel® Xeon® E3-1200 v3/v4, 4th/5th gen. Core™ i3, Pentium, Celeron processors; Socket H3 (LGA 1150)
2. 2x 3.5" SAS/SATA HDDs
3. Up to 32GB DDR3 ECC UDIMM 1600/1333MHz support in 4 sockets
4. 2x GbE LAN (Intel i350), 1x Dedicated LAN for IPMI Remote Management
5. 1x PCI-E 3.0 x8 and 1x Micro-LP
6. 1x VGA, 1x COM ports, 2x USB 2.0 (with KVM dongle)
7. 4x 8cm heavy duty hot-swap fans with optimal cooling zone (per system)
8. 1620W Redundant power supplies  
**Platinum Level Certified** (per system)



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

## Specifications

Product SKUs	
<b>SuperServer</b>	▪ SYS-5038ML-H8TRF ( <b>Black</b> )
Motherboard	
<b>Motherboard</b>	▪ <u>MBD-X10SLD-F</u>
Alternative SKU	
<b>System</b>	▪ SYS-5038ML-H8TRF-OEM
<b>MB + Chassis</b>	▪ MBD-X10SLD-HF + CSE-938BH-R1620B
<b>Features</b>	▪ Support Intel VHD feature (With C226 PCH chipset)
Processor/Cache	
<b>CPU</b>	<ul style="list-style-type: none"> <li>▪ Intel® Xeon® processor E3-1200 v3/v4 family, Intel® 4th/5th Gen Core™ i3, Pentium, Celeron processors</li> <li>▪ Up to 84W</li> <li>▪ Socket H3 (LGA 1150)</li> </ul>
System Memory (per node)	
<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>▪ 4x 240-pin DDR3 DIMM slots</li> <li>▪ Supports up to 32 GB DDR3 ECC Un-Buffered memory (UDIMM)</li> </ul>
<b>Memory Type</b>	▪ 1333/1600MHz*** ECC DDR3 SDRAM 72-

Chassis	
<b>Form Factor</b>	▪ 3U
<b>Model</b>	▪ <b>CSE-938BH-R1620B</b>
Dimensions and Weight	
<b>Height</b>	▪ 5.21" (132.5 mm)
<b>Width</b>	▪ 17.26" (438.4 mm)
<b>Depth</b>	▪ 23.2" (589 mm)
<b>Package</b>	▪ 11.65" (H) x 26.26" (W) x 34" (D)
<b>Weight</b>	<ul style="list-style-type: none"> <li>▪ Net Weight: 62.2 lbs (28.21 kg)</li> <li>▪ Gross Weight: 88 lbs (39.92 kg)</li> </ul>
<b>Color</b>	▪ Black
Front Panel	
<b>Buttons</b>	▪ Power On/Off button
<b>LEDs</b>	<ul style="list-style-type: none"> <li>▪ Power LED</li> <li>▪ Node status LED</li> </ul>
Drive Bays (per node)	
<b>Internal</b>	<ul style="list-style-type: none"> <li>▪ 2x 3.5" hot-swap SATA3 (6Gbps) HDDs per node; up to 16 HDDs total</li> <li>▪ Enterprise SATA HDD only recommended</li> </ul>
System Cooling	

<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>8GB, 4GB, 2GB, 1GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.5 V, 1.35 V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> <li>Detects double-bit errors (using ECC memory)</li> </ul>
<b>Expansion Slots (per node)</b>	
<b>PCI-Express</b>	<ul style="list-style-type: none"> <li>1x PCI-E 3.0 x8 Low-profile slot</li> <li>1x Micro-LP for Dual GbE (pre-installed); 10GbE or IB AOC optional</li> </ul>
<b>Network Devices (per node)</b>	
<b>Micro-LP NIC</b>	<ul style="list-style-type: none"> <li>Intel® i350 GbE controller</li> <li>Dual RJ-45 connectors</li> <li>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>Intel® I/O Acceleration Technology (I/O AT)</li> <li><a href="#">MicroLP Adapter Matrix</a> (Networking options)</li> </ul>
<b>On-Board Devices (per node)</b>	
<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C224 PCH chipset</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>1x SATA DOM</li> <li>2x SATA3 (6Gbps) w/ RAID 0 and 1</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM over LAN support</li> <li>ASPEED AST2400 BMC</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>ASPEED AST2400 Graphics (BMC with Graphic controller)</li> </ul>
<b>Input / Output (per node)</b>	
<b>SATA</b>	<ul style="list-style-type: none"> <li>2x SATA3 (6Gbps) ports</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>2x RJ45 Gigabit Ethernet LAN ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>SATA DOM (Disk on Module) power connector support</li> </ul>
<b>KVM</b>	<ul style="list-style-type: none"> <li>1x VGA, 1x COM and 2x USB 2.0 (with KVM dongle)</li> </ul>
<b>System BIOS</b>	
<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>
<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>DMI 2.3</li> <li>ACPI 1.0 / 2.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.3</li> </ul>
<b>Rear Window (each node)</b>	
<b>Switch</b>	<ul style="list-style-type: none"> <li>Power / UID</li> </ul>

<b>Fans</b>	<ul style="list-style-type: none"> <li>4x 8cm Heavy duty fans with optimal cooling zone</li> </ul>
<b>Power Supply</b>	
1620W high-efficiency redundant power supply w/ PMBus	
<b>AC Input</b>	<ul style="list-style-type: none"> <li>1000W Output @ 100-120V, 12-10A, 50-60Hz</li> <li>1200W Output @ 120-140V, 12-10A, 50-60Hz</li> <li>1620W Output @ 180-240V, 10.5-8A, 50-60Hz</li> </ul>
<b>DC Output</b>	<ul style="list-style-type: none"> <li>1000W: +12V/84A; +5Vsb/4A</li> <li>1200W: +12V/100A; +5Vsb/4A</li> <li>1620W: +12V/150A; +5Vsb/4A</li> </ul>
<b>Certification</b>	  <b>Platinum Certified [ Test Report ]</b>
<b>PC Health Monitoring</b>	
<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages.</li> <li>3-Phase-switching voltage regulator with auto-sense from 0.5V-2.3V</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Cooling zone</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> </ul>
<b>Operating Environment / Compliance</b>	
<b>RoHS</b>	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C to 35°C (50°F to 95°F)</li> <li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10SLD-F	8	Super X10SLD-F Motherboard
	CSE-938BH-R1620B	1	3U Chassis
<b>Add-on Card / Module</b>	AOC-CGP-I2-P	8	AOC-CGP-I2-O-P
<b>Air Shroud</b>	MCP-310-93804-0B	8	938 mylar airshroud for X10SLD-F (X9 compatible),RoHS/REACH,PBF
<b>Backplane</b>	BPN-SAS-938H	1	Backplane for SC938, 16x 3.5" SAS/SATA
<b>Cable 1</b>	CBL-0218L	1	11.5CM KVM/SUVI 36 PIN TO 9 PIN/15 PIN 2USB, 30/28AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1535-QRG	1	5038ML-H8TRF Quick Reference Guide,PBF
<b>Riser Card</b>	RSC-RR1U-E8	8	RSC-RR1U-E8 (Rev 4.00)
<b>Heatsink / Retention</b>	SNK-P0047PS+	8	Customized Passive CPU Heat Sink for Micro Cloud Series Servers
<b>Power Supply</b>	PWS-1K62P-1R	2	1620W REDUNDANT POWER MODULE
<b>Mounting Rail</b>	MCP-290-00057-0N	-	Rail set, quick/quick, default for 4U 17.2"W

### Optional Parts List

	Part Number	Qty	Description
<b>Cable</b>	CBL-SAST-0664 CBL-0118L-03 CBL-0476L	-	For AOC-S3008L-L8i/AOC-S3108L-H8iR For AOC-S2308L-L8i For AOC-SAS2LP-H8iR
<b>Storage Control Card and Cable(s)</b>	AOC-S3008L-L8i AOC-S3108L-H8iR AOC-S2308L-L8i AOC-SAS2LP-H8iR	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, RAID 0/1/10 (requires heatsink SNK-P0047PSM) Std LP, 8 internal ports, 12Gb/s per port- Gen3, RAID 0/1/5/6/10/50/60 (requires heatsink SNK-P0047PSM) Std LP, 8 internal ports, 6Gb/s per port- Gen3, RAID 0/1/10 Std LP, 8 internal ports, 6Gb/s per port- Gen3, RAID 0/1/5/6/10/50/60 NOTE: SYS-5038ML-H8TRF is designed to support max 6GB/s
<b>Network Card(s)</b>	AOC-CGP-i2 AOC-CTGS-i2T AOC-CTG-i1S AOC-CTG-i2S AOC-CIBF-m1 AOC-CIBQ-m1 AOC-S40G-i2Q AOC-SGP-i2 AOC-SGP-i4 AOC-STG-i2 AOC-STG-i2T AOC-STGN-i1S AOC-STGN-i2S AOC-STG-b4S AOC-STG-i4S	-	MicroLP, 2x 1GbE, PCI-E 2.0 x4, Intel® i350 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 QSFP PCI-E 3.0 x8, Mellanox® ConnectX-3 FDR MicroLP, 1x QSFP PCI-E 3.0 x8, Mellanox® ConnectX-3 QDR 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, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S Standard LP, 4x 10GbE SFP+, PCI-E x8, Intel XL710-AM1
<b>Drive Tray(s)</b>	MCP-220-93801-0B	-	Black gen 3rd hot-swap 2.5" HDD tray
<b>Global Services &amp; Support</b>	<a href="#">QS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	SFT-OOB-LIC	1	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	1	DataCenter Management Package (per node license)