AOC-M25G-m4S

Advanced 4-port 25GbE Ethernet Controller

The Supermicro® AOC-M25G-m4S is one of the most feature rich 25GbE controllers in the market. With 4-ports of 25GbE SFP28 connectivity in small form factor SIOM, it provides unparalleled density, performance, and functionality. Based on the Mellanox® ConnectX-4 Lx EN with features such as VXLAN, NVGRE and RoCE; it provides flexible connectivity for different networking requirements. It is also compatible with 10GbE networks and is the most cost effective upgrade from 10GbE to 25GbE in Data Center and Cloud deployments.

Key Features:

- Supermicro Super I/O Module (SIOM) Form Factor
- Mellanox® ConnectX-4 Lx EN 25GbE controller, Quad SFP28 connectors
- Hardware offloads for NVGRE, VXLAN and GENEVE encapsulated traffic
- SR-IOV for virtualization
- Low latency RDMA over Converged Ethernet (RoCE)
- Jumbo Frames support
- NC-Si for Remote Management
- Asset Management Features with thermal sensor
- RoHS Compliant 6/6

Specifications

- **General:**
  - Super I/O Module (SIOM) Form Factor
  - Mellanox® ConnectX-4 Lx EN 25GbE controller
  - Quad SFP28 connectors with speed up to 25Gbps per port

- **Ethernet:**
  - 25GbE / 10GbE
  - IEEE 802.3ad, 802.1AX Link Aggregation
  - IEEE 802.1Q, 802.1P VLAN tags and priority
  - IEEE 1588v2
  - Jumbo frame support

- **Enhanced Features:**
  - Hardware-based reliable transport
  - Collective operations offloads
  - Vector collective operations offloads
  - 64/66 encoding
  - Dynamically Connected transport (DCT)
  - Enhanced Atomic operations
  - Support for MSI/MSI-X mechanisms

- **Storage Offloads:**
  - Stateless offloads for overlay networks and tunneling protocols
  - Hardware offload of encapsulation of NVGRE and VXLAN overlay networks

- **Hardware-based I/O Virtualization:**
  - Single Root IOV
  - Multi-function per port
  - Multiple queues per virtual machine
  - VMware NetQueue support

- **Virtualization:**
  - SR-IOV: Up to 256 Virtual Functions
  - SR-IOV: Up to 16 Physical Functions per port

- **CPU Offloads:**
  - RDMA over Converged Ethernet (RoCE)
  - TCP/UDP/IP stateless offload
  - LSO, LRO, checksum offload
  - RSS (can be done on encapsulated packet), TSS, HDS, VLAN insertion/striping, Receive flow steering
  - Intelligent interrupt coalescence

- **Management Features:**
  - Remote boot over iSCSI
  - PXE and UEFI
  - NC-SI for remote management

- **OS Support:**
  - RHEL/CentOS (7.2, 7.1, 7.0, 6.8, 6.7, 6.6, 6.5, 6.2)
  - Windows (2012 R2, 2012)
  - FreeBSD (11)
  - VMware (6.5, 5.5)

- **Cables Support:**
  - SFP28 Direct attach copper cables
  - SFP28 Fiber-optic cables (with required optional transceivers)

- **Power Consumption:**
  - Maximum 20W

- **Operating Conditions:**
  - Operating temperature: 0°C to 55°C (32°F to 131°F)
  - Storage temperature: -40°C to 70°C (-40°F to 158°F)
  - Storage humidity: 90% non-condensing relative humidity at 35°C

- **Physical Dimensions:**
  - Card PCB dimensions: 92mm (3.62in) x 87.1mm (3.43in) (W x D)

- **Supported Platforms:**
  - Supermicro® motherboards with Super I/O Module slot
  - Supermicro® server systems with Super I/O Module slot (See SIOM Compatibility Matrix online)
  - http://www.supermicro.com/support/resources/AOC/AOC_Compatibility_SIOM.cfm

Please note that this product is sold only as part of an integrated solution with Supermicro server systems.

For the most current product information, visit:

www.supermicro.com

December 2017
### Available SKUs

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<tr>
<th>SKUs</th>
<th>Part Number</th>
<th>Description</th>
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<tr>
<td>AOC-M25G-m4S</td>
<td>AOC-M25G-m4S</td>
<td>4-port 25 Gigabit Ethernet Adapter</td>
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<td>BKT-0124L</td>
<td>Swappable bracket for 2U+ chassis</td>
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<td>4-port 25 Gigabit Ethernet Adapter</td>
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<td>BKT-0120L</td>
<td>Internal bracket</td>
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### Similar Products

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### Optional Parts List

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<td>CBL-NTWK-0944-MS28C10M</td>
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<td>CBL-NTWK-0944-MS28C30M</td>
<td>3m 25GbE SFP28 to SFP28, Passive</td>
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<td>AOM-SFP28-25GbE-SR-1-MLN</td>
<td>SFP28 Transceiver module 25G, 850nm, MMF, LC</td>
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