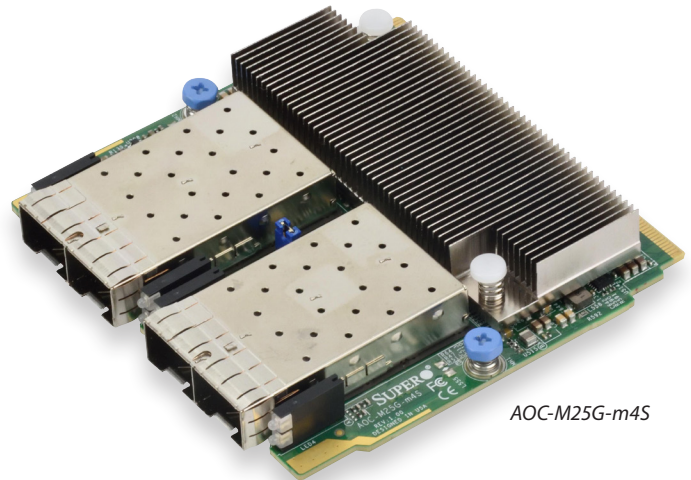


## Advanced 4-port 25GbE Ethernet Controller

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/stripping, 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](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

## Available SKUs

SKUs	Part Number	Description
AOC-M25G-m4S	AOC-M25G-m4S	4-port 25 Gigabit Ethernet Adapter
	BKT-0124L	Swappable bracket for 2U+ chassis
AOC-M25G-m4SM	AOC-M25G-m4SM	4-port 25 Gigabit Ethernet Adapter
	BKT-0120L	Internal bracket

## Similar Products

Product Part Number	Form Factor	Speed	Connector Type	Total Ports	Chipset
AOC-MGP-i2	SIOM	1GbE	RJ45	2	Intel® i350
AOC-MGP-i4	SIOM	1GbE	RJ45	4	Intel® i350
AOC-MTGN-i2S	SIOM	10GbE	SFP+	2	Intel® 82599
AOC-MTG-i4S	SIOM	10GbE	SFP+	4	Intel® XL710
AOC-MTG-i2T	SIOM	10GbE	RJ45	2	Intel® X550
AOC-MTG-i4T	SIOM	10GbE	RJ45	4	Intel® X550
AOC-MH25G-m2S2T	SIOM	25GbE 10GbE	SFP28	2	Mellanox® ConnectX-4 Lx EN Intel® X550
			RJ45	2	
AOC-MH25G-b2S2G	SIOM	25GbE 1GbE	SFP28	2	Broadcom® BCM57414 Intel® i350
			RJ45	2	
AOC-MHIBF-m2Q2G	SIOM	InfiniBand FDR GbE	QSFP+	2	Mellanox® ConnectX-3 Pro Intel® i350
			RJ45	2	
AOC-MHIBF-m1Q2G	SIOM	InfiniBand FDR GbE	QSFP+	1	Mellanox® ConnectX-3 Pro Intel® i350
			RJ45	2	
AOC-MHFI-i1C	SIOM	Omni-Path	QSFP28	1	Intel® OP HFI ASIC

## Optional Parts List

	Part Number	Description
SFP28 Copper Cable	CBL-NTWK-0944-MS28C05M	0.5m 25GbE SFP28 to SFP28, Passive
SFP28 Copper Cable	CBL-NTWK-0944-MS28C10M	1m 25GbE SFP28 to SFP28, Passive
SFP28 Copper Cable	CBL-NTWK-0944-MS28C15M	1.5m 25GbE SFP28 to SFP28, Passive
SFP28 Copper Cable	CBL-NTWK-0944-MS28C20M	2m 25GbE SFP28 to SFP28, Passive
SFP28 Copper Cable	CBL-NTWK-0944-MS28C25M	2.5m 25GbE SFP28 to SFP28, Passive
SFP28 Copper Cable	CBL-NTWK-0944-MS28C30M	3m 25GbE SFP28 to SFP28, Passive
SFP28 Transceiver Module	AOM-SFP28-25GbE-SR-1-MLN	SFP28 Transceiver module 25G, 850nm, MMF, LC