AOC-A25G-m2SM & AOC-A25G-m2SG

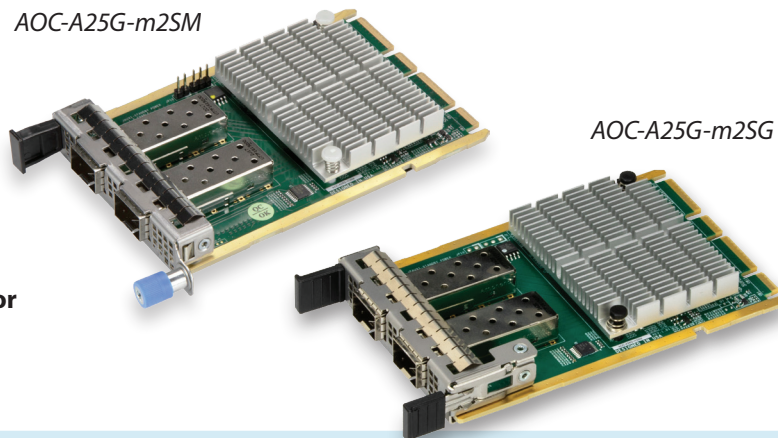## Supermicro Advanced I/O Module (AIOM) 2-port 25Gb Network Adapter

Supermicro® Advanced I/O Modules (AIOM) are the latest form factor designed to provide a wide range of networking options as well as other I/O technologies. The AOC-A25G-m2SM/G is one of the most feature rich and low power consumption 25GbE controllers in the market. Based on the Mellanox ConnectX-6 Lx controller with features such as VXLAN, NVGRE, RDMA, and others, it provides unparalleled density, performance, and functionality. The Supermicro® AOC-A25G-m2SM is the most versatile 25GbE controller in the market with the best total cost of ownership for 25GbE deployments in cloud, telco, and enterprise data centers.

Key Features:
- **Advanced I/O Module (AIOM) Form Factor**
- **Mellanox ConnectX-6 Lx 25GbE controller**
- **Support for 25GbE and 10GbE Speed**
- **Dual SFP28 connectors**
- **RDMA over Converged Ethernet**
- **VXLAN, NVGRE and Geneve**
- **Asset Management Features with thermal sensor**
- **Network Controller Sideband Interface (NC-SI) for Remote Management**

AOC-A25G-m2SM

AOC-A25G-m2SG

Specifications

- **General:**
  - Advanced I/O Module (AIOM) Form Factor
  - Mellanox ConnectX-6 Lx 25GbE controller
  - Dual SFP28 port

- **Storage Accelerations**
  - NVMe over Fabric offloads for target
  - Storage protocols: iSER, NFSoRDMA,
  - SMB Direct, NVMe-oF, and more

- **RDMA over Converged Ethernet**
  - RoCE v1/v2
  - Zero-Touch RoCE: no ECN, no PFC
  - RoCE over overlay networks
  - IPsec over RoCE
  - Selective repeat
  - GPUDirect®
  - Dynamically Connected Transport (DCT)
  - Burst buffer offload

- **Management and Control**
  - SMBus 2.0
  - Network Controller Sideband Interface (NC-SI)
  - NC-SI, MCTP over SMBus and MCTP over PCIe - Baseboard Management Controller interface
  - PLDM for Monitor and Control DSP0248
  - PLDM for Firmware Update DSP026

- **Remote Boot**
  - Remote boot over Ethernet
  - Remote boot over iSCSI
  - UEFI support for x86 and Arm servers
  - PXE boot

- **Standards:**
  - IEEE 802.3ae 10 Gigabit Ethernet
  - IEEE 802.3by 25G supporting all FEC modes
  - IEEE 802.3ad, 802.1AX Link Aggregation
  - IEEE 802.3az Energy Efficient Ethernet (supports only "Fast-Wake" mode)
  - IEEE 802.3ap based auto-negotiation and KR startup
  - IEEE 802.1Q, 802.1P VLAN tags and priority
  - IEEE 802.1Qaz (ETS)
  - IEEE 802.1Qbb (PFC)
  - IEEE 802.1Qbg
  - IEEE 1588v2
  - IEEE 1149.1 and IEEE 1149.6 JTAG
  - PCI-E 3.0 and 4.0

- **Power Consumption:**
  - Maximum: 15W

- **Operating Conditions:**
  - Storage temperature: -40℃ to 70℃ (-40°F to 158°F)
  - Storage humidity: 90% non-condensing relative humidity at 35℃

- **Physical Dimensions:**
  - Card PCB dimensions: 76mm x 115mm (W x D)

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

Available SKUs

Product Part Number	Bracket Included	Description
AOC-A25G-m2SM	BKT-0166L	2-port 25 Gigabit Ethernet Adapter with a 0.5U height bracket.
AOC-A25G-m2SG	BKT-0209L	2-port 25 Gigabit Ethernet Adapter with a 0.5U height bracket. for Grand Twin Front IO systems.

For the most current product information, visit:
www.supermicro.com