

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 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



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°C to 70°C (-40°F to 158°F)
 - Storage humidity: 90% non-condensing relative humidity at 35°C
 - **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.