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

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, NFSorRDMA, 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.