AOC-A25G-i2SM & AOC-A25G-i2SG



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-i2SM/G is one of the most feature rich and low power consumption 25GbE controllers in the market. Based on the Intel E810-XXVAM2 Ethernet controller with features such as VXLAN, NVGRE, RDMA, and others, it provides unparalleled density, performance, and functionality. The Supermicro® AOC-A25G-i2SM/G 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
- Intel E810-XXVAM2 25GbE controller
- Support for 25GbE and 10GbE Speed
- Dual SFP28 connectors
- PCIe Gen 4.0 x 8 (backward compatible to PCI-E 3.0)
- Low Latency RDMA over Converged Ethernet (iWARP and RoCE v2)
- Intel® Ethernet Adaptive Virtual Function (Intel® Ethernet AVF)
- Intel® Ethernet Flow Director Application Device Queues (ADQ)
- Data Plan Development Kit
- **Dynamic Device Personalization (DDP)**
- Hardware Root of Trust with Firmware Recovery
- 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
- Intel E810-XXVAM2 25GbE controller
- Dual SFP28 portAdvance Device Queues (ADQ)
- Dynamic Device Personalization (DDP)

Converged Storage Network

- iSCSISMB Direct

- NVMe over RDMA (iWARP and RoCEv2)
 Storage Performance Development Kit (SPDK)
- NVMe over TCP

RDMA

- RoCEv2
- Data Center Bridging

• Management and Control

- Network Controller Sideband Interface (NC-SI)
- PLDM and PLDM based firmware update

Remote Boot

- Signed UEFI option ROM compatible with HTTPS boot
- Remote boot over iSCSI
- PXE boot/ UEFI PXE Boot

Virtualization Features

- VXLAN
- NVGRE - Geneve
- SR-IOV
- 768 Virtual Station Interface (VSI)
- 8 Physical Functions (PF)
- Microsoft VM Queue
- VMWare NetQueue
- **DPDK Support**
- QoS: Priority-based Flow Control (802.1Qbb)
- Enahanced Transmission Selection (802.1Qaz)

• Precision Clocks Synchronization IEEE 802.3ae 10 Gigabit **Ethernet**

IEEE 1588 (also knows as the Precision Time Protocol (PTP))

• Power Consumption:

- ACPI Compliant power management
- Pass through Energy Efficient Ethernet (IEEE802.3az-2010)
 Maximum: 12.5W

• Operating Conditions:

Storage Temperature: -40 °C to 115 °C

• Physical Dimensions:

Card PCB dimensions: 76mm x 115mm (W x D)

Specifications

SKUs	Bracket Included	Description
AOC-A25G-i2SM	BKT-0166L	2-port 25 Gigabit Ethernet Adapter with a 0.5U height bracket.
AOC-A25G-i2SG	BKT-0209L	2-port 25 Gigabit Ethernet Adapter with a 0.5U height narrow bracket for Grand Twin Front IO systems.

MKT-0023-04/2024-3