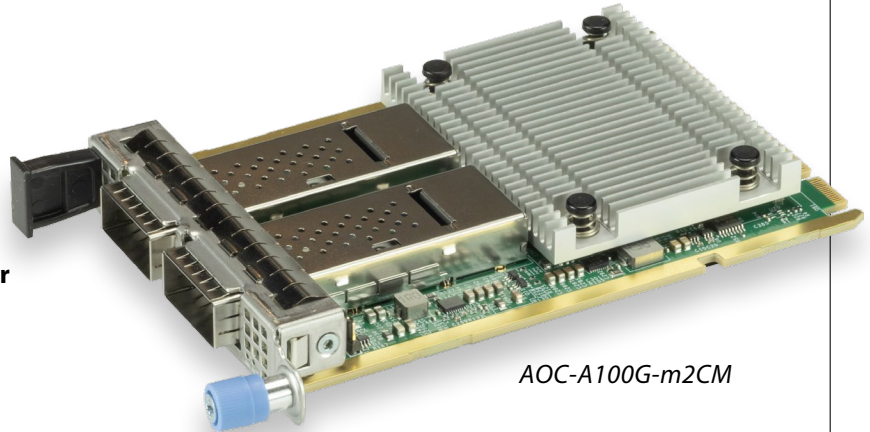# AOC-A100G-m2CM

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-A100G-m2CM is one of the most feature rich and low power consumption 100GbE controllers in the market. Based on the Mellanox ConnectX-6 Dx controller with features such as VXLAN, NVGRE, RDMA, and others, it provides unparalleled density, performance, and functionality. The Supermicro® AOC-A100G-m2CM is the industry's most secure and advanced cloud network interface card to accelerate mission-critical datacenter applications, such as security, virtualization, SDN/NFV, big data, machine learning, and storage.

Key Features:

- **Advanced I/O Module (AIOM) Form Factor**
- **Mellanox ConnectX-6 Dx 100GbE controller**
- **Dual QSFP28 connectors**
- **PCIe Gen 4.0**
- **RDMA over Converged Ethernet**
- **VXLAN, NVGRE and Geneve**
- **Asset Management Features with thermal sensor**
- **Network Controller Sideband Interface (NC-SI) for Remote Management**

AOC-A100G-m2CM

Specifications

General:
- Advanced I/O Module (AIOM) Form Factor
- Mellanox ConnectX-6 Dx 100GbE controller
- Dual QSFP28 ports

Storage Accelerations
- NVMe over Fabric offloads for target
- Storage protocols: iSER, NFSoRDMA, SMB Direct, NVMe-oF, and more
- T-10 Dif/Signature Handover

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

Management and Control
- NC-SI, MCTP over SMBus and MCTP over PCIe - Baseboard Management Controller interface
- PLDM for Monitor and Control DSP0248
- PLDM for Firmware Update DSP026
- I2C interface for device control and configuration

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

Standards:
- IEEE 802.3bs, 200 Gigabit Ethernet
- IEEE 802.3cd, 50, 100 and 200 Gigabit Ethernet
- IEEE 802.3bj, 802.3bm 100 Gigabit Ethernet
- IEEE 802.3by, 25, 50 Gigabit Ethernet supporting all FEC modes
- IEEE 802.3ba 40 Gigabit Ethernet
- IEEE 802.3ae 10 Gigabit Ethernet
- IEEE 802.3az Energy Efficient Ethernet (supports only "FastWake" mode)
- IEEE 802.3ap based autonegotiation and KR startup
- IEEE 802.3ad, 802.1AX Link Aggregation
- IEEE 802.1Q, 802.1P VLAN tagsand priority
- IEEE 802.1Qaz (ETS)
- IEEE 802.1Qbb (PFC)
- IEEE 802.1Qbg
- 25/50 Ethernet Consortium "Low Latency FEC" for50GE/100GE/200GE PAM4 links
- PCI Express Gen 3.0 and 4.0

Power Consumption:
- Maximum: 23.7W

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

SKUs	Bracket Included	Description
AOC-A100G-m2CM	BKT-0170L	2-port 100 Gigabit Ethernet Adapter with a 0.5U height bracket.

May 2021

For the most current product information, visit: