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/G 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/G 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

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 DiffSignature 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 802.3by, 100 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 tags and priority
- IEEE 802.1Qaz (ETS)
- IEEE 802.1Qbb (PFC)
- IEEE 802.1Qbg
- 25/50 Ethernet Consortium “Low Latency FEC” for 50GE/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

<table>
<thead>
<tr>
<th>SKUs</th>
<th>Bracket Included</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOC-A100G-m2CM</td>
<td>BKT-0170L</td>
<td>2-port 100 Gigabit Ethernet Adapter with a 0.5U height Pull-Tab bracket.</td>
</tr>
<tr>
<td>AOC-A100G-m2CG</td>
<td>BKT-0205L</td>
<td>2-port 100 Gigabit Ethernet Adapter with a 0.5U height Narrow bracket for Grand Twin FIO systems.</td>
</tr>
</tbody>
</table>

For the most current product information, visit: [www.supermicro.com](http://www.supermicro.com)