

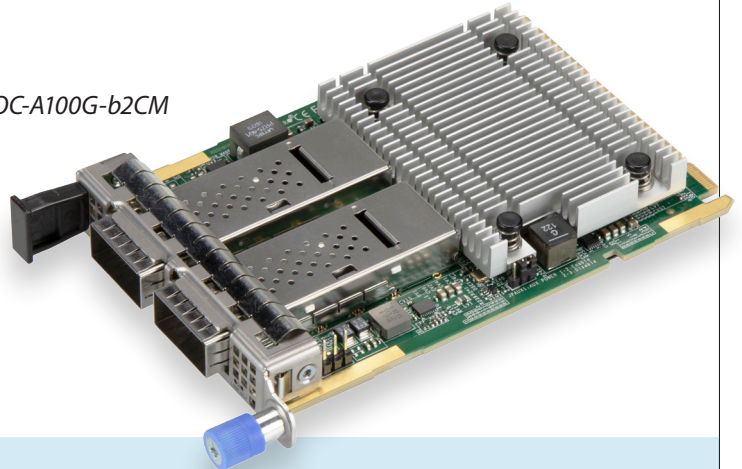
## Advanced 100Gb Ethernet controller in Supermicro Advanced I/O Module (AIOM)

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-b2CM is one of the most feature-rich and low power consumption 100GbE controllers in the market. Based on the Broadcom® BCM57508 with features such as VXLAN, NVGRE, RoCE, and NIC Partitioning, it provides unparalleled density, performance, and functionality. The Supermicro® AOC-A100G-b2CM is the most versatile 100GbE controller in the market and an excellent choice to enhance network connectivity in Data Centers and Enterprise environments.

### Key Features

- **Advanced I/O Module (AIOM) Form Factor**
- **Broadcom® BCM57508 100GbE controller**
- **Support for 100GbE, 50GbE and 40GbE Speed**
- **Dual QSFP28 connectors**
- **RDMA over Converged Ethernet (RoCE)**
- **VXLAN, NVGRE and Geneve**
- **NIC Partitioning (NPAR)**
- **Broadcom® TruFlow™ flow processing engine**
- **Asset Management Features with thermal sensor**
- **NC-SI for Remote Management**
- **RoHS compliant 6/6**

AOC-A100G-b2CM



### Specifications

#### General

- Advanced I/O Module (AIOM) Form Factor
- Broadcom® BCM57508 100GbE controller
- Dual QSFP28 ports

#### Networking Features

- Jumbo frames (up to 9.6 KB)
- IEEE 802.3x flow control
- IEEE 802.3ad Link Aggregation
- Virtual LANs- 802.1q VLAN tagging
- Configurable Flow Acceleration
- UEFI and iSCSI boot

#### Stateless Offload Features:

- TCP, UDP and IP checksum offloads
- IPv4 and IPv6 offloads
- Large Send Offload
- Receive Segment Coalescing
- TCP Segmentation Offload
- Large Receive Offload
- Receive Side Scaling (RSS)
- Transmit Side Scaling (TSS)

#### NIC Partitioning (NPAR):

- 16 Physical Functions
- QoS per partition
- Partitioning control via sideband communication
- Up to 64 MAC/VLAN filter per partition
- Per partition statistics support
- Stateless offloads configuration per partition
- VEB/VEPA support

#### Virtualization Features:

- NetQueue, VMQueue, and Multiqueue
- SR-IOV with up to 128 Virtual Functions (VFs)
- VXLAN, NVGRE, and Geneve
- Edge Virtual Bridging (EVB)

#### RDMA over Converged Ethernet (RoCE):

- RoCEv1 and RoCEv2
- Data Center Bridging with RoCE

#### Flow Processing:

- Exact/Wildcard Match Flow Lookup
- VLAN insertion/deletion
- NAT/NAPT/Mirroring

#### Data Center Bridging:

- Priority-based flow control (PFC; IEEE 802.1Qbb)
- Enhanced transmission selection (ETS; IEEE 802.1Qau)
- Quantized Congestion Notification (QCN; IEEE 802.1Qau)
- Data Center Bridging Capability eXchange (DCBX; IEEE 802.1Qaz)
- 8 traffic classes per port; fully DCB compliant per 802.1Qbb

#### Power Savings:

- ACPI compliant power management
- PCI Express Active State Power Management (ASPM)
- Ultra-low-power mode
- Pass-through Energy Efficient Ethernet (IEEE 802.3az-2010)

#### Power Consumption:

- Maximum 20W

#### Storage 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-A100G-b2CM	BKT-0170L	2-port 100 Gigabit Ethernet Adapter with a 0.5U height bracket