The Ultimate InfiniBand FDR Adapters, in Supermicro Super I/O Module (SIOM) Form Factor

The AOC-MHIBF-m2Q2G and AOC-MHIBF-m1Q2G are the most powerful InfiniBand controllers in the IT market. In small form factor SIOM, available as part of an integrated solution with Supermicro servers, they provide both InfiniBand FDR 56Gbps and 40Gbps Ethernet as well as remote server management through a dedicated Gigabit LAN controller. Based on Mellanox® ConnectX-3 Pro and Intel® i350 controllers, they provide the highest performing and most flexible interconnect solutions for Supermicro servers in Enterprise Data Centers and High-Performance Computing deployments.

Key Features:
- Super I/O Module (SIOM) Form Factor
- Mellanox® ConnectX-3 Pro InfiniBand FDR controller
- Dual and Single QSFP connector models
- Up to 56Gbps InfiniBand or 40Gbps Ethernet
- Virtual Protocol Interconnect (VPI)
- VXLAN and NVGRE
- Intel® i350 GbE controller
- Dual RJ45 Connectors
- NC-SI for Remote Management
- Asset Management Features with thermal sensor
- RoHS compliant 6/6

Specifications

General:
- Super I/O Module (SIOM) Form Factor
- Mellanox® ConnectX-3 Pro FDR controller
- Intel® i350 GbE controller
- Dual QSFP ports and Dual RJ45 port (AOC-MHIBF-m2Q2G)
- Single QSFP port and Dual RJ45 port (AOC-MHIBF-m1Q2G)

Cables Support:
- InfiniBand FDR: QSFP 56Gbps Copper cables
- GbE: RJ45 Category 5/5e up to 100m

Power Consumption:
- AOC-MHIBF-m2Q2G: Maximum 11W
- AOC-MHIBF-m1Q2G: Maximum 9W

Overlay Networks:
- VXLAN and NVGRE

Additional CPU Offloads:
- RDMA over Converged Ethernet
- TCP/UDP/IP stateless offload
- Intelligent interrupt coalescence

FlexBoot™ Technology:
- Remote boot over InfiniBand
- Remote boot over Ethernet
- Remote boot over iSCSI

Protocol Support:
- Open MPI, OSU MVAPICH, Intel MPI, MS MPI, Platform MPI
- TCP/UDP, EoIB, IPOIB, RDS
- SRP, iSER, NFS RDMA
- uDAPL

Operating System Support:
- Citrix XenServer 6.1
- RHEL/CentOS 5.x and 6.x, Novell SLES10 SP4; SLES11 SP1, SLES 11 SP2, OEL, Fedora 14, 15, 17, Ubuntu 12.04
- Windows Server 2008/2012/2012 R2
- FreeBSD
- OpenFabrics Enterprise Distribution (OFED)
- OpenFabrics Windows Distribution (WinOF)
- VMware ESXi 4.x and 5.x

For the most current product information, visit: www.supermicro.com
**GbE RJ45 Specifications**

**Ethernet and Virtualization Features:**
- PC-SIG SR-IOV support
- Jumbo Frames support

**Performance and Efficiency Features:**
- Energy Efficient Ethernet (EEE)
- TCP/UDP, IPv4 and IPv6 checksum offloads to improve CPU usage
- Low Latency Interrupts

**Management Features:**
- Asset Management support on Supermicro® platforms
- Preboot eXecution Environment (PXE) support
- iSCSI Remote Boot Support
- NC-SI for Remote Management via Intel® i350 GbE RJ45 connector

**Operating System Support:**
- Windows 8.1, 8, 7 (x64 Edition)
- RedHat Linux
- SUSE Linux
- FreeBSD
- UEFI
- VMWare

## Available SKUs

<table>
<thead>
<tr>
<th>SKUs</th>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>AOC-MHIBF-m2Q2G</td>
<td>AOC-MHIBF-m2Q2G</td>
<td>2-port InfiniBand FDR Adapter</td>
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<tr>
<td></td>
<td>BKT-0122L</td>
<td>Swappable bracket for 2U+ chassis</td>
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<tr>
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<td>AOC-MHIBF-m1Q2G</td>
<td>AOC-MHIBF-m1Q2G</td>
<td>1-port InfiniBand FDR Adapter</td>
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<td>BKT-0123L</td>
<td>Swappable bracket for 2U+ chassis</td>
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## Optional Accessories

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<tbody>
<tr>
<td>QSFP Copper Cable</td>
<td>CBL-0490L</td>
<td>1M QSFP to QSFP InfiniBand FDR 56Gbs Passive Copper, PBF, 30AWG</td>
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<td>QSFP Copper Cable</td>
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<td>3M QSFP to QSFP InfiniBand FDR 56Gbs Passive Copper, PBF, 28AWG</td>
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<td>QSFP Active Optical Cable</td>
<td>CBL-QSFP+56-AOC-3M</td>
<td>3M 56Gb/s QSFP to QSFP FDR Fiber Active Optical Cable</td>
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<td>CBL-QSFP+56-AOC-5M</td>
<td>5M 56Gb/s QSFP to QSFP FDR Fiber Active Optical Cable</td>
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<td>CBL-QSFP+56-AOC-10M</td>
<td>10M 56Gb/s QSFP to QSFP FDR Fiber Active Optical Cable</td>
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<td>CBL-QSFP+56-AOC-15M</td>
<td>15M 56Gb/s QSFP to QSFP FDR Fiber Active Optical Cable</td>
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## Similar Products

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<th>Product Part Number</th>
<th>Form Factor</th>
<th>Speed</th>
<th>Connector Type</th>
<th>Total Ports</th>
<th>Chipset</th>
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<td>AOC-MGP-i2</td>
<td>SIOM</td>
<td>1GbE</td>
<td>RJ45</td>
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<td>RJ45</td>
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<td>10GbE</td>
<td>SFP+</td>
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<td>Intel® X550</td>
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<td>Mellanox® ConnectX-4 Lx EN Intel® X550</td>
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<td>AOC-MHIF-i1C</td>
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<td>Omni-Path</td>
<td>QSFP28</td>
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<td>Intel® OP HFI ASIC</td>
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For the most current product information, visit: [www.supermicro.com](http://www.supermicro.com)