The Supermicro® Super I/O Module (SIOM) delivers up to 50% of I/O cost savings and freedom to select networking options from 1Gb/s to 100Gb/s through a Supermicro optimized form factor that is easy to scale, service and manage across a broad range of Supermicro server and storage systems. The SIOM also enables a higher degree of system integration and increased capacity by saving PCI-E slots that are traditionally reserved for add on cards.

Key Features
- Mezzanine card design: frees a regular PCI-E slot on the motherboard for additional Add-on Cards (AOCs).
- GbE, 10GbE (SFP+ or RJ45), 25GbE, 50GbE, 100GbE, InfiniBand, Omni-Path and more.
- Better flexibility and cost effectiveness for upgrading networking capabilities without replacing the entire system or motherboard.
- Optimized mechanical and thermal design.
- Better cost compared to standard PCI-E networking adapters.
- NC-SI for IPMI support
- Asset Management features

SIOM Benefits
Flexible on-motherboard I/O controllers significantly reduces I/O CapEx and increases the flexibility of I/O configuration.

For applications that require maximum I/O capacity or for I/O intensive applications, SIOM frees up PCI-E slots for additional I/O expansions.

Furthermore, since systems and motherboards are not tied to a fixed on-board I/O controller at the time of purchase, users are open to a broad array of upgrade options even after the deployment.

With SIOM, data centers may enjoy longer refresh cycles and receive better ROI. As newer I/O technologies become available, it is easier and more cost effective to upgrade the I/O controller independently without triggering an entire data center refresh.

Only Supermicro offers a consistent SIOM design across a broad spectrum of the product lines, versus limiting this feature to only the most premium and proprietary models.

Future Proof I/O
Until now, customers have had to tradeoff I/O cost savings versus I/O flexibility (SIOM cards are up to 50% lower cost than traditional AOCs).

The flexibility challenge of making purchase decisions on systems shipping with embedded on-board networking I/O has been the lack of future proofing versus AOCs, which can be uniquely customized and potentially upgraded for specific applications in a constantly evolving data center.

With SIOM, customers can achieve optimal cost with future proof flexibility.

Large Scale Deployment and Serviceability
For large scale cloud data centers, SIOM provides improved mechanical and thermal designs (improved airflow) and increased serviceability allowing the SIOM modules to be serviced and/or replaced without opening the chassis (on selected systems only).

Asset Management
Asset Management allows users to monitor SIOM cards in selected Supermicro server and storage systems. With Supermicro Server Management Utilities, users will be able to monitor the following:
- Model name
- PCB revision
- Serial Number
- MAC addresses
- Temperature
- (on selected SIOM cards only)

Built-in Management Interface
The Network Controller Sideband Interface (NC-SI) enables the connectivity of a baseboard Management controller (BMC) to one or multiple Network Interface Controllers (NIC) in server systems for the purpose of enabling out-of-band remote manageability. This feature simplifies data center wiring or can provide additional redundancy of IPMI/BMC connectivity.
## SIOM Card SKUs

<table>
<thead>
<tr>
<th>SKU#</th>
<th>Availability</th>
<th>Protocols</th>
<th>Chipsets</th>
<th>Ports</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOC-MGP-i2</td>
<td>Released</td>
<td>Ethernet</td>
<td>Intel® i350-AM2</td>
<td>2 RJ45 (1Gb/port)</td>
<td>3.7W</td>
</tr>
<tr>
<td>AOC-MGP-i4</td>
<td>Released</td>
<td>Ethernet</td>
<td>Intel® i350-AM4</td>
<td>4 RJ45 (1Gb/port)</td>
<td>4.4W</td>
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<tr>
<td>AOC-MTGN-i2S</td>
<td>Released</td>
<td>Ethernet</td>
<td>Intel® 82599ES</td>
<td>2 SFP+ (10Gb/port)</td>
<td>7.2W</td>
</tr>
<tr>
<td>AOC-MTG-i4S</td>
<td>Released</td>
<td>Ethernet</td>
<td>Intel® XL710-BM1</td>
<td>4 SFP+ (10Gb/port)</td>
<td>7W</td>
</tr>
<tr>
<td>AOC-MTG-i2T</td>
<td>Q3’16</td>
<td>Ethernet</td>
<td>Intel® X550-AT2</td>
<td>2 RJ45 (10GBase-T)</td>
<td>13W</td>
</tr>
<tr>
<td>AOC-MTG-i4T</td>
<td>Q3’16</td>
<td>Ethernet</td>
<td>2x Intel® X550-AT2</td>
<td>4 RJ45 (10GBase-T)</td>
<td>26W</td>
</tr>
<tr>
<td>AOC-MH25G-b2S2G</td>
<td>Q3’16</td>
<td>Ethernet</td>
<td>Broadcom® BCM57414 Intel® i350</td>
<td>2 SFP28 (25Gb/port) 2 RJ45 (1Gb/port)</td>
<td>9W</td>
</tr>
<tr>
<td>AOC-MH25G-m2S2T</td>
<td>Q3’16</td>
<td>Ethernet</td>
<td>Mellanox® CX-4 Lx EN Intel® X550</td>
<td>2 SFP28 (25Gb/port) 2 RJ45 (10GBase-T)</td>
<td>25W</td>
</tr>
<tr>
<td>AOC-MHIBF-m1Q2G</td>
<td>Q3’16</td>
<td>InfiniBand</td>
<td>Mellanox® CX-3 Pro Intel® i350</td>
<td>1 QSFP (56Gb/port) 2 RJ45 (1Gb/port)</td>
<td>9W</td>
</tr>
<tr>
<td>AOC-MHIBF-m2Q2G</td>
<td>Q3’16</td>
<td>InfiniBand</td>
<td>Mellanox® CX-3 Pro Intel® i350</td>
<td>2 QSFP (56Gb/port) 2 RJ45 (1Gb/port)</td>
<td>11W</td>
</tr>
<tr>
<td>AOC-MHFI-I1C</td>
<td>Q3’16</td>
<td>Omni-Path</td>
<td>Intel® OP HFI ASIC (Wolf River WFR-B)</td>
<td>1 QSFP28 (100Gb/port)</td>
<td>15W</td>
</tr>
</tbody>
</table>

Visit Supermicro.com/Products/Accessories/ for the latest list of options.
Supported Server and Storage Systems

2U TwinPro™ Server Systems
- SYS-2028TP-HTR-SIOM
- SYS-2028TP-HC0R-SIOM
- SYS-2028TP-HC1R-SIOM
- SYS-6028TP-HTR-SIOM
- SYS-6028TP-HC0R-SIOM
- SYS-6028TP-HC1R-SIOM

2U SuperStorage Simply Double 24-Bay Server
- SSG-6028R-E1CR24N
- SSG-6028R-E1CR24L

2U SuperStorage Simply Double 48-Bay Server
- SSG-2028R-NR48N
- SSG-2028R-E1CR48N
- SSG-2028R-E1CR48L

4U SuperStorage HyperScale 60-Bay Server
- SSG-6048R-E1CR60N
- SSG-6048R-E1CR60L

4U SuperStorage HyperScale 90-Bay Server
- SSG-6048R-E1CR90L

Visit Supermicro.com/Products for the latest list of supported systems.
Supported Motherboards

Visit Supermicro.com/Products for the latest list of supported motherboards.

Installation Diagrams

Installation on SuperStorage 24/48/60-Bay Servers.

Installation on SuperStorage 90-Bay Servers.

Installation on TwinPro™ Servers.