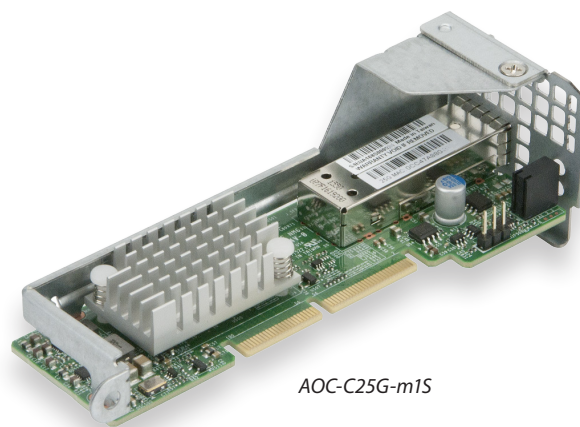


The Most Compact 25GbE Adapters in the Market

The Supermicro AOC-C25G-m1S, based on Mellanox® ConnectX-4 Lx EN controller, is the most advanced and compact 25GbE solution for our high density MicroCloud and Twin series servers. With MicroLP form factor and lower power consumption, it can fit in compact space-efficient server areas yet still provide the highest networking bandwidth for data centers. It is backward compatible with 10GbE networks and represents the most cost effective upgrade from 10GbE to 25GbE. The AOC-C25G-m1S, designed to provide the best performance and optimized Cloud efficiency, is an excellent choice for customers who need to expand their networks with the highest bandwidth connectivity.

Key Features

- **Single SFP28 Connector**
- **MicroLP Form Factor**
- **PCI Express 3.0 x8 (8GT/s)**
- **Hardware offloads for NVGRE, VXLAN and GENEVE encapsulated traffic**
- **SR-IOV for virtualization**
- **Low latency RDMA over Converged Ethernet (RoCE)**
- **Jumbo Frames support**
- **NC-SI for remote management**
- **Support Direct Attach Copper and Fiber Cables**
- **RoHS Compliant 6/6**



Specifications

- **General:**
 - Mellanox® ConnectX-4 Lx EN controller
 - MicroLP form factor
 - PCI-E 3.0 x8 (8GT/s) interface
 - Single SFP28 connector with speed up to 25Gbps per port
- **Ethernet:**
 - 25GbE / 10GbE / 1GbE
 - IEEE 802.3ad, 802.1AX Link Aggregation
 - IEEE 802.1Q, 802.1P VLAN tags and priority
 - IEEE 1588v2
 - Jumbo frame support (9.6KB)
- **Enhanced Features:**
 - Hardware-based reliable transport
 - Collective operations offloads
 - Vector collective operations offloads
 - 64/66 encoding
 - Dynamically Connected transport (DCT)
 - Enhanced Atomic operations
 - Support for MSI/MSI-X mechanisms
- **Storage Offloads:**
 - RAID offload - erasure coding (Reed-Solomon) offload
- **Overlay Networks:**
 - Stateless offloads for overlay networks and tunneling protocols
 - Hardware offload of encapsulation of NVGRE and VXLAN overlay networks
- **Hardware-based I/O Virtualization:**
 - Single Root IOV
 - Multi-function per port
 - Multiple queues per virtual machine
 - VMware NetQueue support
- **Virtualization:**
 - SR-IOV: Up to 256 Virtual Functions
 - SR-IOV: Up to 16 Physical Functions per port
- **CPU Offloads:**
 - RDMA over Converged Ethernet (RoCE)
 - TCP/UDP/IP stateless offload
 - LSO, LRO, checksum offload
 - RSS (can be done on encapsulated packet), TSS, HDS, VLAN insertion/stripping, Receive flow steering
 - Intelligent interrupt coalescence
- **Management Features:**
 - Remote boot over iSCSI
 - PXE and UEFI
 - NC-SI for remote management
- **OS Support:**
 - RHEL/CentOS (7.2, 7.1, 7.0, 6.8, 6.7, 6.6, 6.5, 6.2)
 - Windows (2012 R2, 2012)
 - FreeBSD (11)
 - VMware (6.5, 5.5)
- **Cable Support:**
 - Direct attach twinaxial copper cables
 - Fiber-optic cables (with required optional transceivers)
- **Power Consumption:**
 - AOC-C25G-m1S: Maximum 8.5W
- **Operating Conditions:**
 - Operating temperature: 0°C to 55°C (32°F to 131°F)
 - 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: 11.3cm (4.45in) x 3.9cm (1.54in) (L x H)
- **Supported Platforms:**
 - Supermicro FatTwin™ and MicroCloud Systems with MicroLP expansion slot (See MicroLP Compatibility Matrix online)
 - http://www.supermicro.com/support/resources/aoc/microLP_compatibility.cfm

For the most current product information, visit:

www.supermicro.com

Available SKUs

Product Part Number	Part Number	Description
AOC-C25G-m1S	AOC-C25G-m1S	1-port 25 Gigabit Ethernet Adapter
	BKT-0051L	MicroLP PCB bracket (pre-installed)
	BKT-0115L	IO bracket for 1U system (pre-installed)

Related Supermicro Products

Product Part Number	Form Factor	Speed	Interface	Connector Type	Total Ports	Controller
AOC-CGP-i2	MicroLP	GbE	PCI-E 2.1 x4	RJ45	2	Intel® i350-AM2
AOM-CGP-i2M	MicroLP	GbE	PCIe 2.1 x4	RJ45	2	Intel® i350-AM2
AOC-CTG-i1S	MicroLP	10GbE	PCI-E 2.0 x8	SFP+	1	Intel® 82599EN
AOM-CTG-i1SM	MicroLP	10GbE	PCI-E 2.0 x8	SFP+	1	Intel® 82599EN
AOC-CTG-i2S	MicroLP	10GbE	PCI-E 2.0 x8	SFP+	2	Intel® 82599ES
AOC-CTG-i2T	MicroLP	10GbE	PCI-E 2.1 x8	RJ45	2	Intel® X540
AOC-CTGS-i2T	MicroLP	10GbE	PCI-E 3.0 x4	RJ45	2	Intel® X550-AT2
AOM-CTGS-i2TM	MicroLP	10GbE	PCI-E 3.0 x4	RJ45	2	Intel® X550-AT2

Note: AOM products come pre-assembled with a riser card and bracket, and are designed in a small microLP form factor to fit Supermicro 12 node MicroCloud server systems.