

## Broadcom NetXtreme E-Series 10G Base-T Ethernet Adapter

Supermicro AOC-MTG-b2T features latest Broadcom NetXtreme BCM57416 Ethernet controller that is designed for today's rapid growing datacenter and cloud-scale applications. In small form factor SIOM, it features VXLAN, NVGRE and Geneve along with Broadcom TruFlow technology that enable users to reduce CPU loads and increase VM densities. In addition, NPAR (NIC Partitioning) technology provide flexible connectivity for different networking requirements. The Supermicro AOC-MTG-b2T is a truly exceptional 10GbE Ethernet Adapter for your continuously growing cloud applications and datacenters.

### Key Features:

- Super I/O Module (SIOM) Form Factor
- Broadcom® BCM57416 10GbE controller
- Dual RJ45 Connectors
- TruFlow
- NPAR (NIC Partitioning)
- VXLAN and NVGRE
- Low latency RDMA over Converged Ethernet (RoCE)
- Asset Management Features with thermal sensor
- RoHS compliant 6/6



AOC-MTG-b2T/b2TM

### Specifications

- **General**
    - Super I/O Module (SIOM) Form Factor
    - Broadcom BCM57416 dual-port 10Gbps controller
    - Dual RJ45 connectors
    - TruFlow Technology
  - **Host Interface**
    - PCI-E 3.0 (8GT/s)
    - MCTP over SMBus
    - Function level Rest (FLR) support
    - Message Signal Interrupt (MSI-X)
  - **Networking Features**
    - Jumbo Frames (up to 9600-byte)
    - 802.3x flow control
    - Link Aggregation (802.3ad)
    - Virtual LANs 802.1q VLAN tagging
    - Configurable Flow Acceleration
    - IEEE 1588 and Time Sync
    - RDMA over Converged Ethernet (RoCE)
  - **Stateless Offload Features**
    - TCP, UDP, IPv4, IPv6 checksum offload
    - 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 64MAC/VLAN filters per partition
    - Stateless offload configuration per partition
    - VEB/VEPA support
  - **Virtualization Features**
    - NetQueue, VMQueue, and Multiqueue
    - Support for 128 Virtual Functions
    - VXLAN
    - NVGRE
    - Geneve
    - Edge Virtual Bridging (EVB)
  - **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; IEEE802.1Qau)
    - Quantized congestion Notification (QCN; IEEE802.1Qaz)
    - Data Center Bridging Capability eXchange (DCBX; IEEE802.1Qaz)
    - 8 traffic classes per port; fully DCB compliant per 802.1Qbb
  - **Manageability**
    - Network Controller Sideband Interface (NC-SI)
    - PXE and iSCSI boot
    - Asset Management with Thermal Sensors
  - **Power Savings**
    - ACPI compliant power management
    - PCI Express Active State Power Management (ASPM)
    - Ultra low-power mode
    - Pass-through Energy Efficient Ethernet (IEEE802.3az-2010)
  - **Power Consumption**
    - Maximum power consumption: 11W
  - **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: 92mm (3.62in) x 87.1mm (3.43in) (W x D)
  - **Supported Platforms**
    - Supermicro® server systems with Super I/O Module slot
    - AOC-MTG-b2T for Storage Systems. AOC-MTG-b2TM for Twin Systems.
    - Please check SIOM Compatibility Matrix online
    - [http://www.supermicro.com/support/resources/AOC/AOC\\_Compatibility\\_SIOM.cfm](http://www.supermicro.com/support/resources/AOC/AOC_Compatibility_SIOM.cfm)
- Please note that this product is sold only as part of an integrated solution with Supermicro server systems

## Available SKUs

SKUs	Part Number	Description
AOC-MTG-b2T	AOC-MTG-b2T	2-port 10 Gigabit Ethernet Adapter
	BKT-0086L	Swappable bracket for 2U+ chassis
AOC-MTG-b2TM	AOC-MTG-b2TM	2-port 10 Gigabit Ethernet Adapter
	BKT-0085L	Internal bracket

## Similar Products

Product Part Number	Form Factor	Protocols	Connector Type	Total Ports	Controllers
AOC-MGP-i2	SIOM	1GbE	RJ45	2	Intel® i350
AOC-MGP-i4	SIOM	1GbE	RJ45	4	Intel® i350
AOC-MTGN-i2S	SIOM	10GbE	SFP+	2	Intel® 82599
AOC-MTG-i4S	SIOM	10GbE	SFP+	4	Intel® XL710
AOC-MTG-i2T	SIOM	10GbE	RJ45	2	Intel® X550
AOC-MTG-i4T	SIOM	10GbE	RJ45	4	Intel® X550
AOC-MH25G-m2S2T	SIOM	25GbE 10GbE	SFP28 RJ45	2 2	Mellanox® ConnectX-4 Lx EN Intel® X550
AOC-MH25G-b2S2G	SIOM	25GbE 1GbE	SFP28 RJ45	2 2	Broadcom® BCM57414 Intel® i350
AOC-MHIBF-m2Q2G	SIOM	InfiniBand FDR GbE	QSFP RJ45	2 2	Mellanox® ConnectX-3 Pro Intel® i350
AOC-MHIBF-m1Q2G	SIOM	InfiniBand FDR GbE	QSFP RJ45	1 2	Mellanox® ConnectX-3 Pro Intel® i350
AOC-MHIBE-m1CG	SIOM	InfiniBand EDR GbE	QSFP28 RJ45	1 1	Mellanox® ConnectX-4 VPI Intel® i210
AOC-MHFI-i1C	SIOM	Omni-Path	QSFP28	1	Intel® OP HFI ASIC