

## AOC-STG-b4S

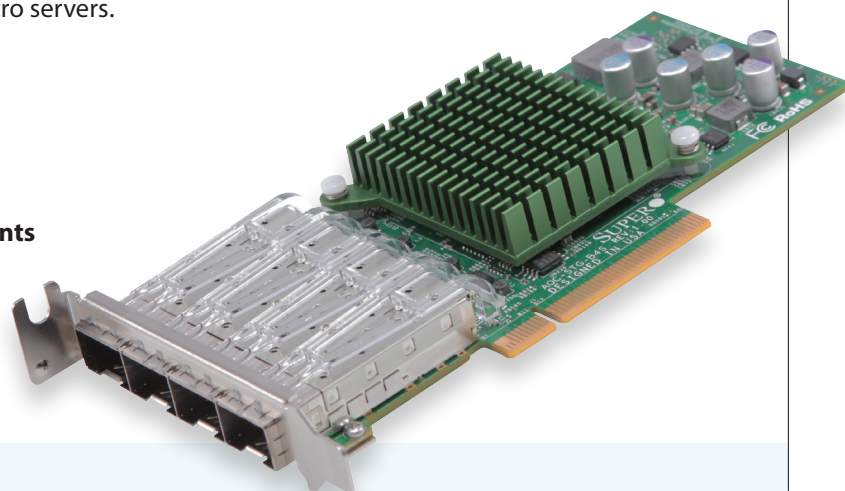
SUPERMICRO®

### The Lowest Power and Highest Performance 4-port 10GbE Controller in The Market

Proving once again that “We Keep IT Green”, Supermicro introduces a new 4-port 10GbE controller featuring the lowest power consumption in the industry. The AOC-STG-b4S uses the Broadcom BCM57840S controller to offer a broad selection of popular networking features including TCP Offload, support for PXE boot and Virtualized Environments (VMDq and PC-SIG SR-IOV), and Energy Efficient Ethernet (IEEE 802.3az). For the lowest power and highest performance, the AOC-STG-b4S is the best choice for high speed Ethernet connectivity for Supermicro servers.

#### Key Features

- **Low-Profile Standard Form Factor**
- **PCI Express 3.0 (8GT/s)**
- **4 SFP+ Ports**
- **TCP Offload Engine (TOE)**
- **VMDq and PC-SIG SR-IOV for Virtualized Environments**
- **Jumbo Frame Support**
- **IEEE 802.3az Energy Efficient Ethernet (EEE)**
- **Low Power Consumption (About 14W)**
- **iSCSI Remote Boot Support**
- **PXE Boot Support**
- **RoHS compliant 6/6**



#### Specifications

- **General:**
  - Broadcom BCM57840S controller
  - Compact size low-profile standard form factor
  - PCI-E 3.0 x8 (8GT/s) interface
  - Quad SFP+ connectors
- **Ethernet Features**
  - Energy Efficient Ethernet IEEE 802.3az supported
  - Traffic Steering for MAC address and VLAN Tag
  - Up to 32 queues/port supported for RSS (Receive Side Scaling)
  - Congestion Notification 802.1au
  - Large Send Offload (LSO) and Large Receive Offload (LRO)
  - Link Aggregation 802.3ad
- **Network Features**
  - Jumbo Frames up to 9000KB
  - Clause 73 Auto-negotiation
  - IEEE 801.2q VLAN
  - External PHY support
  - TCP Offload Engine (TOE) reduces host CPU utilization while preserving the rich and flexible nature of soft OS stack implementation
  - iSCSI Acceleration
  - IPv6 Acceleration
  - Support port aggregation, failover, load balancing
- **Remote Boot Options**
  - Preboot eXecution Environment (PXE) support
  - iSCSI remote boot
- **Virtualization Features**
  - Up to 128 per port for VMDq
  - SR-IOV with up to 64 Virtual Functions (VFs) for Guest Operating Systems (GOS) per port
  - Supports NetQueue and VMQueue
  - Supports Data Center Bridging which provides lossless data delivery, lower latency, and standards-based bandwidth sharing of data center physical links
  - Supports up to 68 Rx/Tx Descriptor Queues for Virtualization per port
  - Supports up to 136 MAC Addresses per port
  - Supports IEEE 802.1Qau Congestion Notification
- **OS Support**
  - Windows® 2008 Server R2 (with HyperV), Server 2012 (with HyperV)
  - RedHat EL 5, 6, and 7
  - SuSE SLES 10, 11, and 12
  - VMware ESX 5.0 (vSphere 5.0), 5.1 (vSphere 5.1), and 6.0 (vSphere 6.0)
  - Solaris 11, Free BSD
- **Cable Support**
  - SFP+ direct attached twin axial cables, up to 5 meters
  - LC-LC fiber-optic cables (with required optional transceivers)
- **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)
- **Physical Dimensions**
  - Card PCB dimensions: 13.72cm (5.4in) x 6.90cm (2.73in) (L x H)
  - Height of end brackets: standard 12cm (4.725in), low-profile 7.94cm (3.13in)
- **Optional Accessories**
  - AOC-E10GSFSPSR: SFP+ transceiver module for short range fiber cables (up to 300m)
  - AOC-E10GSFPLR: SFP+ transceiver module for long range fiber cables (up to 3000m)
  - AOC-TSR-FS: SFP+ transceiver module for short range fiber cables (up to 300m)
  - AOC-GBIC-FSR2: SFP+ transceiver module for short range fiber cables (up to 300m), single speed (10Gb)
  - CBL-0347L: 39.37” (100cm) 10GbE SFP+ to SFP+, Twinax copper cable
  - CBL-0456L: 78.74” (200cm) 10GbE SFP+ to SFP+, Twinax copper cable
  - CBL-0348L: 118.11” (300cm) 10GbE SFP+ to SFP+, Twinax copper cable
  - CBL-0349L: 196.85” (500cm) 10GbE SFP+ to SFP+, Twinax copper cable
- **Supported Platforms**
  - Supermicro motherboards with minimum PCI-E x8 slot with enough clearance
  - Supermicro server systems with low-profile or full-height PCI-E x8 expansion slot with enough clearance

#### Compliance/Environmental

- RoHS Compliant 6/6, Pb Free



Please note that this product is only available as an integrated solution with Supermicro server systems

For the most current product information, visit:

[www.supermicro.com](http://www.supermicro.com)