AOC-STG-i4S

SUPERMICRO®
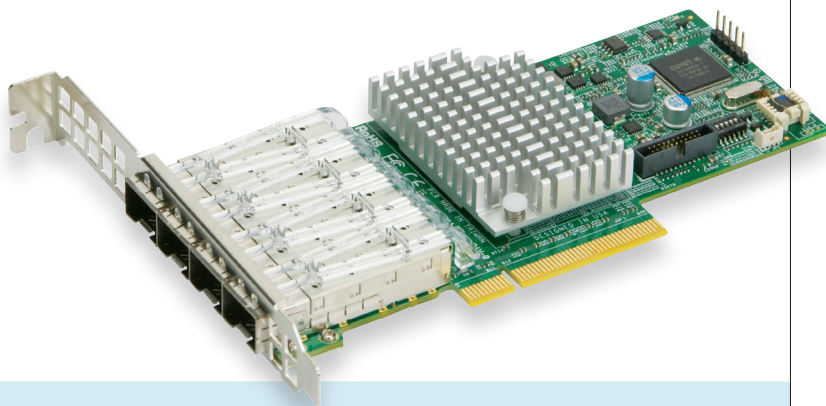
The Most Advanced 4-port 10GbE SFP+ Ethernet Controller in the Market

The STG-i4S is an advanced, market-leading 10GbE SFP+ controller. It expands virtualization beyond the server level to the network level, and combines with hardware optimizations and offloads. It provides unmatched features for virtualization, flexibility for LAN and SAN networks, and reliable performance. This is the best choice for rapid provisioning of networks in an agile data center.

Key Features

- **Quad SFP+ Connectors**
- **Standard Low Profile Form Factor**
- **PCI Express 3.0 (8GT/s)**
- **Network Virtualization Offloads including VXLAN and NVGRE**
- **Small Packet Performance**
- **Data Plane Developer Kit for efficient packet processing**
- **Low Power Consumption**
- **Intel® Flow Director**
- **Intelligent Offloads**
- **Unified networking providing a single with support wire support for LAN and storage**
- **Asset Management Features**
- **RoHS compliant 6/6**
- **Supports Both Direct Attach Copper and Fiber Cables**

Specifications

- **General**
  - Intel® XL710-AM1 controller
  - Low Profile Standard form factor
  - PCI-E 3.0 x8 (8GT/s) interface
  - Quad SFP+ connectors with speed up to 10Gbps per port
  - Load balancing on multiple CPUs
  - Intel® PROSet Utility for Windows Device Manager
  - Time Sync (IEEE 1588)
  - Energy Efficient Ethernet (EEE)
- **I/O Features**
  - Intel® Flow Director
  - MSI-X support
  - Multiple Queues: 1,536 TX and RX queues per port
  - Tx/Rx IP, SCTP, TCP, and UDP checksum offloading (IPv4, IPv6) capabilities
  - Jumbo Frame (9.5KB)
- **Virtualization Features**
  - Next-Generation VMDq with up to 256 VMDq VMs supported
  - PCI-SIG SR-IOV with up to 128 virtual ports
  - Virtual Machine Load Balancing (VMLB)
  - Advanced Packet Filtering
  - VLAN support for up to 4096 VLAN tags
  - VXLAN and NVGRE support
- **Storage Interface Features**
  - Preboot eXecution Environment (PXE) support
  - iSCSI remote boot
  - Simple Network Management Protocol (SNMP) and Remote Network Monitoring (RMON) static counters
- **Management Features**
  - Asset Management support on Supermicro® X10 generation platforms
  - Controller asset tags such as part number, revision, serial number, and MAC addresses
  - Controller thermal sensor

- **Advanced Software Features**
  - Teaming support
  - IEEE 802.3ad (link aggregation control protocol)
  - IEEE 802.1Q VLANs
  - IEEE 802.3 2005 flow control support
  - IEEE 802.1p
  - TCP segmentation/large send offload
  - Interrupt moderation
- **OS Support**
  - Windows® Server 2012 R2, 2012, 2008 R2 X86-64
  - Linux RedHat EL 6.5 and 7.0 IA-32, X86-64, and IA-64
  - Linux SuSE SLES 11 SP3 and 12 IA-32, X86-64, and IA-64
  - FreeBSD 9 and 10 IA-32, X86-64, and IA-64
  - UEFI 2.1 and 2.3 X86-64 and I-64
  - VMware ESXi 5.1 and ESXi 5.5 X86-64
- **Cable Support**
  - SFP+ direct attach twinaxial copper cables up to 7m
  - Fiber-optic cables (with required optional SFP+ transceivers)
- **Power Consumption**
  - Typical power consumption: 4W
  - Maximum power consumption: 8W
- **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: 14.99cm (5.9in) 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-E10GSFPSR: 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)
  - CBL-0347L: 39.37" (100cm) 10GbE SFP+ to SFP+, Twinaxial copper cable
  - CBL-0348L: 118.11" (300cm) 10GbE SFP+ to SFP+, Twinaxial copper cable
  - CBL-0349L: 196.85" (500cm) 10GbE SFP+ to SFP+, Twinaxial copper cable

Compliance/Environmental

- RoHS Compliant 6/6, Pb Free

SUPERMICRO® RoHS compliant

Supported Platforms

- Supermicro® motherboards with minimum one PCI-E x8 slot
- Supermicro® server systems with minimum one low-profile or full-height PCI-E x8 expansion slot