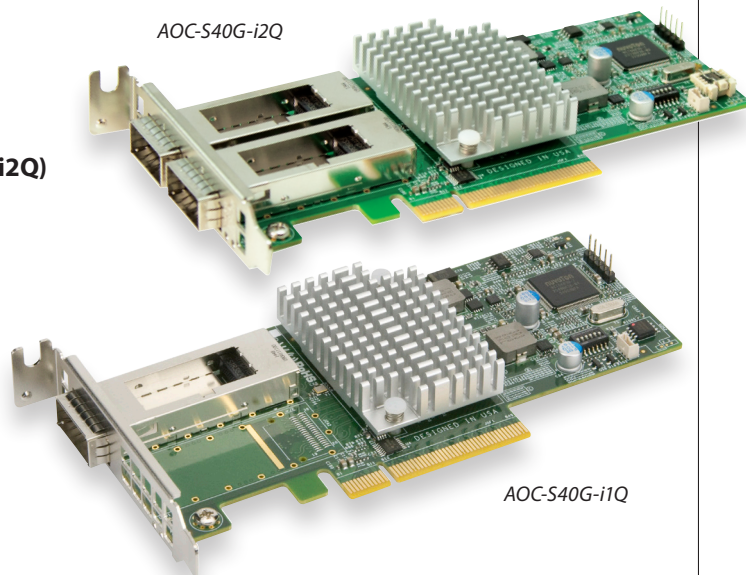


The 40G Ethernet Controller for Virtualization

The S40G-i2Q/i1Q is an advanced, market-leading 40Gb Ethernet controller. It extends virtualization beyond the server level to the network level. This, combined with hardware optimizations and off-loads, allows these controllers to enable rapid network provisioning in an agile data center. For customers who require faster and more reliable networking equipment, the AOC-S40G-i2Q/i1Q are the best choices.

Key Features

- **Low-Profile Standard Short-length Form Factor**
- **PCI Express 3.0 (8GT/s)**
- **1 QSFP+ Port (AOC-S40G-i1Q) or 2 QSFP+ Ports (AOC-S40G-i2Q)**
- **Network Virtualization Offloads**
- **Ethernet Flow Director**
- **Data Plane Developer Kit for Efficient Packet Processing**
- **Small Packet Performance**
- **Intelligent Offloads**
- **Unified Networking Support for NAS and SAN**
- **Asset Management Features**
- **RoHS compliant 6/6**
- **Supports Both Direct Attach Copper and Fiber Cables**



Specifications

General

- Intel® XL710 40GbE controller
- Half-length low-profile standard form factor
- PCI-E 3.0 x8 (8GT/s) interface
- Double/Single QSFP+ connectors
- 40Gb/s per port
- Load balancing on multiple CPUs
- Intel® PROSet Utility for Windows Device Manager

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

Virtualization Features

- Next-Generation VMDq with up to 256 VMDq VMs supported
- 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
- iSCSI Acceleration
- 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

- QSFP+ direct attach twinax copper cables up to 7m
- Fiber-optic cables (with required optional transceivers)

Power Consumption

- AOC-S40G-i2Q: Typical: 4.9W
Maximum: 7.0W
- AOC-S40G-i1Q: Typical: 4.4W
Maximum: 6.5W

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: 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)

Compliance/Environmental

- RoHS Compliant 6/6, Pb Free

Supported Platforms

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

Please note that these products are sold only as part of integrated solutions with Supermicro server systems.

For the most current product information, visit:

www.supermicro.com