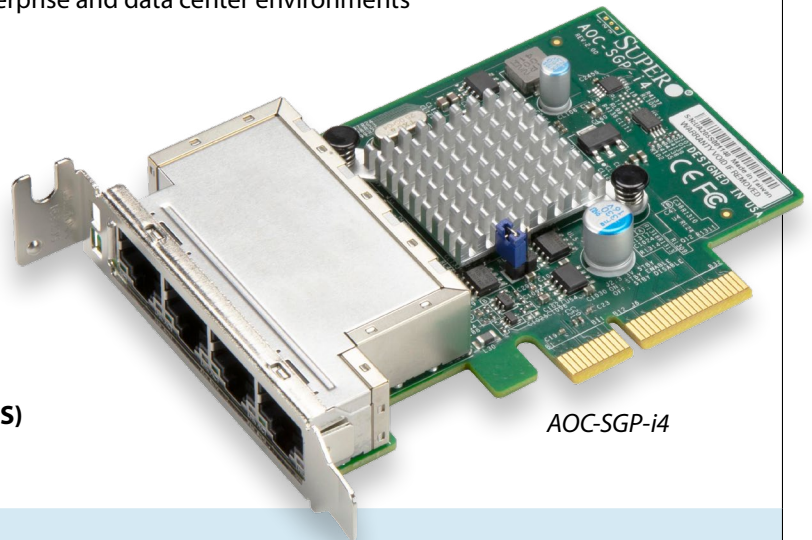


The Compact and Feature-Rich 4-port Ethernet Controller

With the AOC-SGP-i4, Supermicro has extended the boundaries of Ethernet technology to create the most compact and feature-packed 4-port Ethernet controller in the market, and allow it to fit in the smallest space in the ever-densifying server system. With ultra-small footprint and rich of power management technology feature set, the AOC-SGP-i4 represents the next step in the Gigabit Ethernet networking evolution for enterprise and data center environments

Key Features

- **3.9-inch Length, Low-Profile Standard Form Factor**
- **PCI Express 2.1 (2.5GT/s or 5GT/s)**
- **4 RJ-45 ports**
- **Intel® I/O Acceleration Technology (I/O AT)**
- **VMDq, Next-Generation VMDq, and PC-SIG SR-IOV for Virtualized Environments**
- **Jumbo Frame Support up to 9.5KB**
- **IEEE 802.3az – Energy Efficient Ethernet (EEE)**
- **Low Power Consumption (5W Typical)**
- **iSCSI Remote Boot Support**
- **Flexible I/O Virtualization and Quality of Service (QoS)**
- **PXE Boot Support**
- **RoHS compliant 6/6**



Specifications

General

- Intel® i350 GbE controller
- Compact size low-profile standard form factor
- PCI-E 2.1 x4 (2.5GT/s or 5GT/s) interface
- Quad RJ-45 connectors
- Intel® PROSet Utility for Windows® Device Manager
- Intel® I/O Acceleration Technology (I/O AT)
- Power consumption: about 5W

Ethernet Features

- IEEE 802.3 auto-negotiation for speed, duplex, and flow control
- IEEE 802.3x and 802.3z compliant flow control support
- Automatic cross-over detection function (MDI/MDI-X)
- 1Gb/s Ethernet IEEE 802.3, 802.3u, 802.3ab PHY specifications Compliant
- IEEE 1588 protocol and 802.1AS implementation

Power Management and Efficiency

- IEEE 802.3az – Energy Efficient Ethernet (EEE) which reduces power consumption of the PHY by about 50%
- DMA Coalescing reduces platform power consumption
- Active State Power Management (ASPM) support
- LAN disable function
- MAC Power Management controls
- Low Power Link Up – Link Speed Control

Virtualization Features

- VM to VM Packet forwarding (Packet Loopback)
- Eight TX and RX queue pairs per port to support VMWare NetQueue and Microsoft VMQ
- Flexible Port Partitioning: 32 Virtual Functions
- PC-SIG SR-IOV implementation
- IEEE 802.1q VLAN support
- IEEE 802.1q advanced packet filtering

Performance Features

- TCP/UDP, IPv4 and IPv6 checksum offloads to improve CPU usage
- Low Latency Interrupts
- Tx TCP segmentation offload (IPv4, IPv6) increases throughput and lowers processor usage
- Receive Side Scaling (RSS) for Windows environment, Scalable I/O for Linux environments
- Jumbo Frames support up to 9.5K Bytes
- Intelligent interrupt generation

Remote Boot Options

- Preboot eXecution Environment (PXE) support
- iSCSI remote boot for Windows, Linux, and VMware

OS Support

- Windows® XP SP3, Vista SP2, 7 SP1 2003 SP2, 2008 SP2, 2008 R2S
- RedHat EL 5.5, 6.0; SuSe SLES 10 SP3, 11 SP1
- FreeBSD 8.0
- VMware ESX 4.0, 4.1, 5.0
- Xen

Cables Support

- RJ-45 Category-5/5e up to 100m

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: 9.91cm (3.90in) x 6.35cm (2.50in) (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

- Motherboards with minimum PCI-E x4 slot
- Server Systems with low-profile or full-height PCI-E x8 expansion slot

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