

## Quad-Port Fiber Gigabit Ethernet NIC with Bypass PCI-e Server Adapter Card

### Interface Masters

TECHNOLOGIES  
Innovative Network Solutions

#### OVERVIEW

Sierra 42284 is a quad-port Gigabit Ethernet server adapter built on Intel's 82580 Gigabit technology and Interface Masters' sterling design and customer service.

Sierra 42284 is designed with a built-in programmable bypass circuit to provide maximum uptime for the network. The bypass circuit takes the Sierra 42284 ports offline in case of either power or software failure. The bypass circuit works in absence of power.

Sierra 42284 is designed to integrate with PCI Express compatible servers and high-end appliances providing high-speed networking and bypass/failover capabilities for any mission-critical application.

#### COMPONENT SPECIFICATION

##### The Intel 82580 provides support for:

- PCI Express rev2.0 Gen 2
- Transmit and receive IP, TCP and UDP checksum offloading capabilities
- Transmit TCP segmentation
- IPv6 offloading
- Advanced packet filtering
- IEEE 802.1q VLAN support with VLAN tag insertion, stripping and packet filtering for up to 4096 VLAN tags
- IEEE 1588 (Pre-standard) per packet time stamping
- Supports multiple TX and RX queues, Virtual Machine Data queues (VMDq)
- Supports jumbo frame size of 9.5 KB
- IEEE 802.3ab, 802.3u, 802.3x compliant
- Extensive power management

#### PRODUCT FEATURES

- Intel 82580EB quad MAC and PHY controller
- Peak bandwidth 5 Gb/s in each direction per PCI Express lane
- 8 Gigabit per second of traffic when fully utilized
- PCI-E x4 (Gen 2.0) compatible
- Multi-mode Fiber (SX), single-mode Fiber (LX)
- Full-height form factor
- Passive bypass which is essential during power loss or software failure
- Link Fault Detection (LFD) support
- Programmable "Fail-Closed" or "Fail-Open" while in the power-off state
- Programmable independent mode to function as a dual-port gigabit copper card
- Integrated PHY for full and half-duplex 10/100/1000 Base-T support
- TCP/UDP/IP checksum offload and TCP segmentation
- IEEE 802.1q, 802.3ab, 802.3u, 802.3x compliant
- Layer 2, 3 and 4 advanced packet filtering capabilities (IPv4, IPv6)
- Efficient form factor – 6.7 in length and 4.2 in height
- Low-power consumption (13W maximum power)
- Full RoHS compliance
- FCC Class A and CE certification

ENVIRONMENTAL	
Operating Temperature	0° to 55 °C
Operating Humidity	5 to 95%
Maximum Power Consumption	13 Watts

ORDERING INFORMATION	
Part Number	Description
Sierra 42284-SX	Quad-port multi-mode fiber Gigabit NIC with bypass
Sierra 42284-LX	Quad-port multi-mode fiber Gigabit NIC with bypass

DIMENSIONS		
	Inches	Millimeter
Length	6.73	171
Height	4.17	106

## CUSTOMIZATION SERVICES

Hardware, Firmware, Linux O/S and application code development services available.



## ABOUT INTERFACE MASTERS TECHNOLOGIES, INC.

Interface Masters Technologies is a long term Cavium partner and leading provider of high speed networking solutions focused on Gigabit, 10 Gigabit, 40 Gigabit and 100 Gigabit Ethernet networking solutions. For over 20 years, Interface Masters Technologies has been providing innovative networking solutions with customization services to OEMs, large enterprises and sophisticated end users. Interface Masters Technologies provides Ethernet switches, appliances, server adapter cards with high port density, networking offload and bypass functionality. Company headquarters are located in San Jose, CA with satellite offices in Hong Kong and Europe.