

# Quad-Port SFP Gigabit Ethernet Network Adapter

Big Bandwidth. Small Space.

HotLava Systems' four port Gigabit Ethernet NIC delivers high bandwidth and low latency network connectivity in a low-profile, space saving design. Maximize throughput on a single PCI-e Gen 2 x4 footprint to minimize I/O bottlenecks and deliver the speed today's networks demand,



Sumatra 8G4

## Benefits

- Standard Intel drivers for easy installation without disruption of existing applications
- Wire speed bidirectional GbE performance
- Achieves greater productivity from virtualized servers
- Requires only one half-length PCIe slot
- Available with full and low profile mounting brackets
- Quad-Port design provides bandwidth for:
  - Network intensive data transfers
  - High availability (HA)
  - Back-up and redundancy
- Load balances across multiple CPU cores

## Highlights

- Four SFP GbE ports in one low-profile, half length adapter
- 8 Gbps of bandwidth
- PCIe Gen 2 (5GT/s), x4
- Optimized for virtualization

## Features

- Intel 82580 Gigabit Ethernet Controller and drivers
- Virtual Machine Device queues (VMDq)
- 8 TX and 8 RX queues
- Support of up to 8 VMs per port
- Intel I/O Acceleration Technology
  - Direct Memory Access Engine (DMA)
  - Direct Cache Access (DCA)
  - Low Latency Interrupts
  - MSI-X support
  - Receive Side Scaling (for Windows)
  - Scalable I/O (for Linux)
- Preboot eXecution Environment (PXE)
- iSCSI remote boot
- IPsec offload
- LinkSec support
- VLAN Support with VLAN tag insertion, stripping and packet filtering for up to 4096 VLAN Tags
- Intel PROSet Utility Support
- Advanced Packet Filtering
  - 24 exact matched packets (unicast or multicast)
  - 4096 -bit hash filter for unicast and multicast frames
  - Promiscuous (unicast and multicast) transfer support mode
  - Optional filtering of invalid frames

# Product Specifications

Product Name	<b>Sumatra 8G4S</b>
Slot Type	PCI Express Gen 2 (5GT/s), x4
Media Connector	(4) SFP ports
Connector Type	LC connector
Network Topology	1000Base-T, 1000Base-SX, 1000Base-LX
Form Factor	4.58 in x 2.73 in



## Operating Systems Support

Windows Server 2003, 2008	NetBSD
Windows XP, Vista, 7	VMWare ESX
NetWare	XenServer
Linux	Microsoft Hyper-V
FreeBSD	Vyatta 6.3+
OpenBSD	MikroTik RouterOS

## Features

Three Intel 82576EB Ethernet Controllers

Dual On-chip Buffers - 160KB transmit / port - 512KB receive / port	Optimized queues - 128 transmit / port - 128 receive / port
Switch Fault Tolerance	802.1Q VLAN Tagging
Adaptive Load Balancing	802.3x Flow Control
Interrupt Moderation	802.1p Class of Services
Adapter Fault Tolerance	802.3ad Link Aggregation
Receive Side Scaling (for Windows)	TCP and UDP Checksum Offload
Scaleable I/O (for Linux)	TCP Segmentation Offload
LinkSec Support	Virtual Machine Device queues (VMDq)
IPv6 offloading	Virtual Machine Device Connect (VMDc)
Direct Cache Access (DCA)	VLAN support with VLAN tag insertion, stripping and packet filtering for up to 4096 VLAN tags
I/O Acceleration Technology	9.5 KByte Jumbo Frames
IPsec Offload	
PCI-SIG SR-IOV	

## Environmental

Operating Temp	0 to 55 °C with 100 LFM airflow
Storage Temp	-40 to 70 °C
Operating Humidity	5 to 85% non-condensing
Storage Humidity	0 to 85% non-condensing
Power Consumption	7W Max
RoHS 6 Complaint	Yes
Hardware certifications	FCC A, CE, VCCI, EN300-386

## Ordering Information

Product Name	Product Number
Sumatra 8G4S	4S12440A2

## Applications

### Network Security Appliances

Unified Threat Management  
Multi-purpose Gateway / Router  
Firewall / VPN  
Redundancy  
High Availability

### Servers

Link Aggregation  
High Availability  
Redundancy  
Backup Networks  
Storage / Web / DNS

### Virtualization

Increased Network Bandwidth  
Multiple Dedicated VM Ports

### Video over IP

Surveillance  
IPTV

### SAN

iSCSI initiator

### Traffic Generator

Increased Bandwidth  
Maximum Connectivity