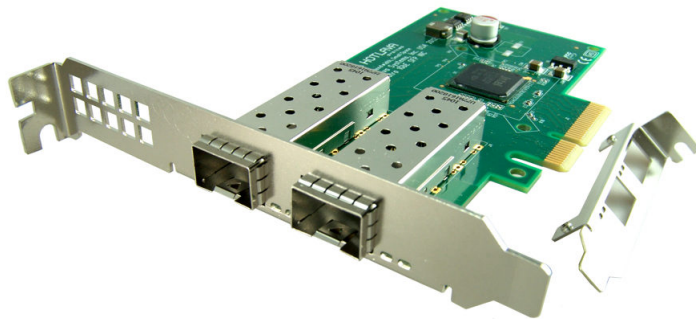


# Dual-Port SFP Gigabit Ethernet Network Adapter

HotLava Systems' dual port SFP Gigabit Ethernet NIC enables servers and workstations to connect to the network with interchangeable optical or copper transceivers.



Sumatra 4G2S

## Benefits

- Connect workstations and servers with multiple media choices:
  - » TwinAx Direct Attach cable up to 10 meters
  - » CAT5e cable up to 100 meters (with RJ45 copper transceiver)
  - » Fiber optic cable up to 120 kilometers
- Standard Intel drivers for easy installation without disruption of existing applications
- Wire speed bidirectional GbE performance
- Requires only one low-profile, half-length PCIe slot
- Available with full-height and low-profile mounting brackets

## Highlights

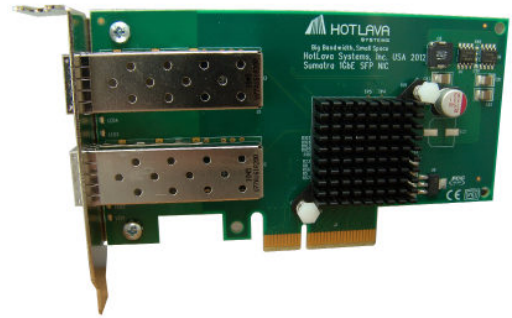
- Dual-port SFP GbE port in one low-profile, sub half-length adapter
- 4 Gbps of full-duplex bandwidth
- PCIe Gen 2 (5GT/s), x4
- Interchangeable with standard MSA compliant optical or copper transceivers

## Features

- Intel 82580 Gigabit Ethernet Controller and drivers
- Virtual Machine Device queues (VMDq)
  - » 8 pools (single queue)
- 8 Tx and 8 Rx queues
- Teaming Support
- IEEE 802.3ad (Link Aggregation Control Protocol)
- Intel I/O Acceleration Technology
  - » Direct Cache Access (DCA)
  - » Low Latency Interrupts
  - » MSI-X support
  - » Receive Side Scaling (for Windows)
- Preboot eXecution Environment (PXE)
- iSCSI remote boot
- 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 4G2S</b>
Slot Type	PCI Express Gen 2 (5GT/s), x4
Media Connector	(2) SFP ports
Connector Type	LC connector
Network Topology	1000Base-T, 1000Base-SX, LX, EX, ZX, EZX, TwinAx DA
Form Factor	4.58 in x 2.73 in



## Operating Systems Support

Windows Server 2003, 2008, 2012	NetBSD
Windows XP, Vista, 7, 8	VMWare ESX 4.x+
Linux 2.6x+	XenServer
FreeBSD 7.2+	Microsoft Hyper-V
OpenBSD	Vyatta 6.3+
Novel ODI	MikroTik RouterOS
	Nexenta

## Features

One Intel 82580DB Ethernet Controller	
Dual On-chip Buffers	
• Default transmit 40KB / port	
• Default receive 72KB / 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
IPv6 offloading	TCP Segmentation Offload
Direct Cache Access (DCA)	Virtual Machine Device queues (VMDq)
I/O Acceleration Technology	VLAN support with VLAN tag insertion, stripping and packet filtering for up to 4096 VLAN tags
	9.5 KByte Jumbo Frames

## Environmental

Operating Temp	0 to 55 °C with 50 LFM airflow
Storage Temp	-40 to 70 °C
Operating Humidity	5 to 85% non-condensing
Storage Humidity	0 to 85% non-condensing
Power Consumption	4.5W Max
RoHS 6 Complaint	Yes
Hardware certifications	FCC A, CE, VCCI, EN300-386

## Ordering Information

Product Name	Product Number
Sumatra 8G4S	2S12440A1

## Applications

### Network Appliances

Unified Threat Management  
SDN Router / Switch  
Application Gateway  
High Availability / Redundancy  
DDOS Protection  
Lightning Strike Isolation

### Servers

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

### Virtualization

Increased Network Bandwidth  
Multiple Dedicated VM Ports

### Video over IP

Surveillance  
IPTV

### SAN

iSCSI initiator  
Increased Throughput

### Traffic Generator

Increased Bandwidth  
Maximum Connectivity