# **Interface Masters**

## TECHNOLOGIES

## **Innovative Network Solutions**

# Niagara 4NE-76-4SFP

Quad Port Gigabit Ethernet NIC with SFP

& Optional Cavium Nitrox

## Overview

Niagara 4NE-76-4SFP Quad Port Gigabit Ethernet Server Adapter is built on Intel's Gigabit technology, Cavium's Nitrox IPsec and SSL acceleration technology & Interface Masters' sterling design and customer service. Niagara 4NE-76-4SFP supports several members of the Cavium Nitrox family including CN1605, CN1610 & CN1620.

Niagara 4NE-76-4SFP Quad Port Copper Gigabit Ethernet NIC supports SFP pluggable modules for copper, multi mode and single mode fiber applications. Designed to seamlessly integrate with PCI Express compatible servers and highend appliances, Niagara 4NE-76-4SFP provides high speed networking and Security acceleration for any mission-critical application.



#### **Features**

- Intel 82576 Dual MAC & PHY controller
- Choice of Cavium CN1605 / CN1610 / CN1620
- PCI-e x4 (Gen. 2)
- Multi Mode Fiber (SX) and Single Mode Fiber (LX) Support
- Four SFP Transceivers
- 12.3W maximum power (Includes CN1620)
- RoHS Compliant
- EMC, FCC Class A, UL (Safety) Certifications

# **Component Specifications**

The Intel 82576 provides support for:

- PCI Express rev2.0 Gen 1
- Low Power 2.4W
- Protocols: TCP, UDP & SCTP
- Queues per port: (16) Tx & (16) Rx Queues
- Enhanced Virtualization Support

- » VMDq2 & PCI SIG IOV
- Intel® I/OAT Acceleration v3.0
  - » VM Direct Assignment (VT-d)
- Data Center Ethernet
  - » Traffic Classes (802.1q): 2
  - » Flow Interrupt Priority (802.3ar)
  - » Priority Grouping (802.1P)
- End-to-End Congestion Mgmt (802.1 PAR)
- IEEE 1588 Support
  - » Manageability interfaces
    - ⇒ RMII, SMBus, PXE, iSCSI Boot
- Layer 2 & 3 Security: IPSec & LinkSec

## The Cavium Nitrox chip family provides support for:

- SSL, IPSec, TCP/UDP/IP checksum offload and TCP segmentation on chip
- up to 2.5Gbps Full SSL Throughput (RC4+MD5)
- up to 2.5Gbps Full IPsec or CCMP wireless Packet Processing (AES/3DES+SHA1)
- up to 17k RSA 1024-bit Exponent with CRT

#### Table 1 - Environmental

Operating Humidity	0%–90%, non-condensing
Operating Temperature	0°C – 50°C (32°F - 122°F)
Storage Temperature	-20°C – 65°C (-4°F – 149°F)

#### Table 2 - Dimensions

	mm	inches
Length	170.942	6.73
Height	106.0958	4.177

## Table 3 - Ordering Part Number with Cavium CN16xx

Part Number	Description
Niagara 4NE-76-4SFP-SX-SCN1605	Quad 1G NIC with multi mode fiber SFP modules & Cavium CN1605
Niagara 4NE-76-4SFP-SX-SCN1610	Quad 1G NIC with multi mode fiber SFP modules & Cavium CN1610
Niagara 4NE-76-4SFP-SX-SCN1620	Quad 1G NIC with multi mode fiber SFP modules & Cavium CN1620
Niagara 4NE-76-4SFP-LX-SCN1605	Quad 1G NIC with single mode fiber SFP modules & Cavium CN1605
Niagara 4NE-76-4SFP-LX-SCN1610	Quad 1G NIC with single mode fiber SFP modules & Cavium CN1610
Niagara 4NE-76-4SFP-LX-SCN1620	Quad 1G NIC with single mode fiber SFP modules & Cavium CN1620

# **Table 4 - Ordering Part Number without Security**

Part Number	Description
Niagara 4NE-76-4SFP-SX	Quad 1G NIC with multi mode fiber SFP modules
Niagara 4NE-76-4SFP-LX	Quad 1G NIC with single mode fiber SFP modules

#### **Product Line**

- Network Interface Cards with Bypass
- Network Interface Cards without Bypass
- External Bypass Products
- SSL/IPSec Cards
- Embedded Switches
- Embedded Platforms
- Development Tools

#### About Us

Interface Masters Technologies is a leading vendor in the Bypass Networking market, based in the heart of the Silicon Valley. Interface Master's expertise lies in Gigabit and 10 Gigabit networking solutions that integrate with monitoring, inline networking, security, central office and other mission-critical IT appliances. Flagship product lines include specialized internal server adapter cards, embedded switch cards, and external intelligent Network Bypass and failover systems that increase network reliability and inline appliance availability. Offering over 70 products based on Fast Ethernet, Gigabit Ethernet, and 10 Gigabit Ethernet, Interface Master's adds value to the mission-critical IT sector requiring Security, UTM, Storage Area Networks (SAN), Intrusion Detection & Prevention, QoS, Packet Classification and WAN Acceleration appliances. Company Headquarters are located in San Jose, California with satellite offices in Hong Kong, Germany and the UK.







# **Contact Interface Masters**

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