## **Interface Masters**

# Niagara 3271x-xx Family

- Dual & Quad Port-Intel 82599 Based SFP+ Fiber NIGs with Hardwar

Innovative Network Solutions

Low Profile PCI-e Server Adapters

#### **Overview**

Niagara 3271x-xx family offers Low Profile Dual and Quad Port SFP+ Fiber NICs based on Intel's 82599 10 Gigabit technology, Cavium Nitrox 16xx series IPsec and SSL acceleration technology and Interface Masters' sterling design and customer service.

Niagara 3271x-xx family supports several members of the Cavium Nitrox family including CN1605, CN1610 & CN1620.

Niagara 3271x-xx is designed to integrate with PCI Express compatible servers and high-end appliances providing high speed networking for any mission-critical application.



#### **Features**

- Intel 82599 Dual MAC & PHY controller
- Two or four SFP+ Fiber Connectors
- Peak bandwidth 8 Gb/s in each direction per PCI Express lane
- 40 or 80 Gigabit per second of Full Duplex traffic when fully utilized
- PCI-E x8 (Gen 3.0) compatible
- Cavium Nitrox 16xx series support for SSL/IPSEC hardware acceleration offload
- Link Fault Detection (LFD) support
- Programmable independent mode to function as a dual port gigabit copper card
- Integrated PHY for full and half-duplex 10G 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)
- Low Profile form factor
- Low power consumption
- Full RoHS compliance
- FCC Class A and CE certification

#### **Component Specifications**

#### The Intel 82599 provides support for:

- PCI Express 2.0 (5 GT/s)
- Low Power 6.2W
- Protocols: TCP, UDP & SCTP
- Support for transmission and reception of packets
- Up to 15.5 KBytes (Jumbo Frames)
- Optimized queues: 128 Transmit (Tx) and Receive (Rx)
- Enhanced Virtualization Support
  - » Intel<sup>®</sup> VT-c, VMDq and VMDc & PCI SIG IOV

- Intel<sup>®</sup> I/OAT Acceleration v3.0
  - » VM Direct Assignment (VT-d)
- Data Center Ethernet
  - » VLAN Tagging, Stripping and Packet Filtering
- (802.1q)
  - » Flow Interrupt Priority (802.3ar)
  - » Priority Grouping (802.1P)
  - » Auto-negotiation support (802.3ap)
  - » Integrated LinkSec security engines (802.1ae)
- End-to-End Congestion Mgmt (802.1 PAR)
- IEEE 1588/802.1as Support
  - » Time Manageability interfaces ⇒ RMII, SMBus, PXE, iSCSI Boot
- Layer 2 & 3 Security: IPSec & LinkSec
- FCoE Transmit Segmentation and offload
- SNMP and RMON statistic counters

#### The Cavium Nitrox 16xx chip family provides support for:

- <u>Cavium Nitrox PX family</u> of hardware acceleration security chipsets
- 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

#### **Drivers**

- Windows
- Linux
- Free BSD
- VMware ESX
- XEN
- Hyper-V

## **Power Consumption & Dimensions**

	Niagara 32711-S		Niagara 32711-2S		Niagara 32714L-S		Niagara 32714L-2S	
Max. Power Consumption	30 Watts		38 Watts		45 Watts		52 Watts	
	mm	Inch	mm	Inch	mm	Inch	mm	Inch
Dimensions	167.64	6.6	167.64	6.6	237.49	9.35	237.49	9.35
	68.58	2.7	68.58	2.7	68.58	2.7	68.58	2.7

## **Ordering Part Numbers**

Ordering Part Number	No. of SFP+ ports	Ethernet Controller	No. of SSL / IP Sec Controller(s)
Niagara 32711-S	2	Intel 82599	1
Niagara 32711-2S	2	Intel 82599	2
Niagara 32714L-S	4	Intel 82599	1
Niagara 32714L-2S	4	Intel 82599	2

Environmental				
Operating Temperature	0 to 40 °C or 32 to 104 °F			
Operating Humidity	5 to 85%			
Airflow	200 lf/m			

#### **Product Line**

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

## About Interface Masters Technologies, Inc.

<u>Interface Masters Technologies</u> is a leading vendor in the network monitoring and high speed networking markets. Based in the heart of the Silicon Valley, Interface Masters' expertise lies in Gigabit, 10 Gigabit and 40 Gigabit Ethernet network access and network connectivity solutions that integrate with monitoring systems, inline networking appliances, IPS, UTM, Load Balancing, WAN acceleration, and other mission-critical IT and security appliances.

Flagship product lines include <u>hardware load-balancers</u>, <u>specialized 10GE internal server</u> <u>adapter cards</u>, switches, <u>10 Gigabit external intelligent Network TAP</u> and <u>Bypass</u> and <u>failover</u> systems that increase network visibility capabilities, network reliability and inline appliance availability.

Company Headquarters is located in San Jose, CA with satellite offices in Hong Kong and Europe.



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### **Contact Interface Masters**

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