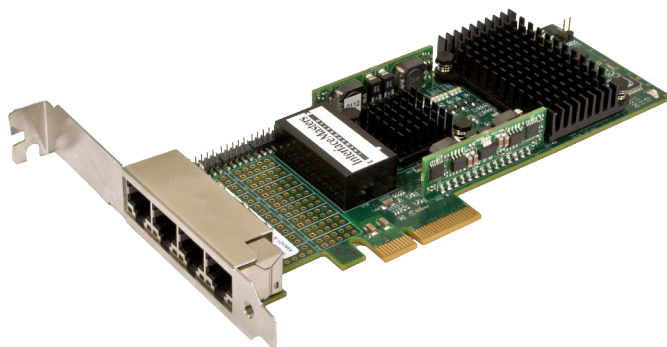


Overview

Niagara 42064-xx family is a low profile Quad Port Copper NIC series based on Intel's 82580 One Gigabit technology, Cavium's Nitrox 16xx series IPsec and SSL acceleration technology and Interface Masters' sterling design and customer service.

Niagara 42064-xx family supports several members of the Cavium Nitrox family including CN1605, CN1610 & CN1620.

Niagara 42064-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 82580 Quad MAC & PHY controller](#)
- Four RJ45 Connectors
- Peak bandwidth 8 Gb/s in each direction per PCI Express lane
- 8 Gigabit per second of traffic when fully utilized
- PCI-E x4 (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 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
- Low power consumption
- Full RoHS compliance
- FCC Class A and CE certification

Drivers

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

Component Specifications

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 & 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

The Cavium Nitrox 16xx chip family provides support for:

- [Cavium Nitrox PX family](#) 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

Power Consumption & Dimensions

	Niagara 42064-S		Niagara 42064-2S		Niagara 42064-3S	
Max. Power Consumption	22 Watts		28 Watts		34 Watts	
Dimensions	mm	Inch	mm	Inch	mm	Inch
	167.64	6.6	167.64	6.6	167.64	6.6
	68.58	2.7	68.58	2.7	68.58	2.7

Ordering Part Numbers

Ordering Part Number	Ethernet Controller	No. of 1G Copper ports	No. of SSL / IP Sec Controller(s)
Niagara 42064-S	Intel 82580	4	1
Niagara 42064-2S	Intel 82580	4	2
Niagara 42064-3S	Intel 82580	4	3

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.

[Interface Masters Technologies](#) 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 [hardware load-balancers](#), [specialized 10GE internal server adapter cards](#), switches, [10 Gigabit external intelligent Network TAP](#) and [Bypass](#) and [failover](#) 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.



Contact Interface Masters

150 East Brokaw Rd, San Jose, CA 95112
Phone: 408-441-9341 x122
Fax: 815-364-0888
Email: sales@interfacemasters.com
Web: www.interfacemasters.com

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