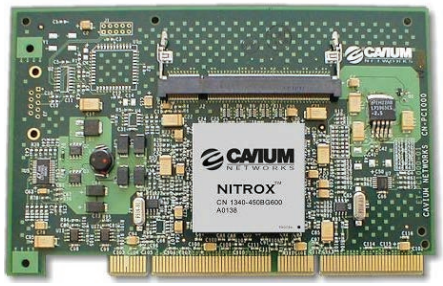
Accelerator Boards

NITROX™ Production Board

PCI/PCI-X Board for SSL and IPsec - Product Brief

OVERVIEW

The NITROX Production Board enables system designers to quickly integrate high performance SSL and IPsec into their systems. The NITROX Board can be used with a wide variety of networking equipment like routers, switches, web-servers, server load balancers, firewalls, SANs, and VPN gateways. The NITROX Board has optional local DRAM for IPsec SA or SSL session context.



NITROX Board

FEATURES

System Performance
- Up to 28,000 SSL transactions per second
- Up to 2 Gbps of SSL Record processing
- Up to 2 Gbps of 3DES+SHA1 IPsec packet processing
- Up to 6,000 IKE Main Mode /sec (2 DH + 2RSA ops)
- Optional local 64bit DRAM for IPsec SA or SSL Context
- Supports unlimited SSL context or IPsec SAs with host memory
- 200 Mbps Random Number Generator

BENEFITS

SSL or IPsec Performance (depending on Processor Part)

Random Number Generator

PRODUCT SPECIFICATION

CN1220 or CN1230 processor

Interfaces
PCI Industry Standard
- PCI v2.2 compliant, 64bit, 66MHz, 3.3V
- PCI-X v1.0 compliant, 64bit, 133MHz, 3.3V

Memory (optional)
DDR Dim connector
- 200-pin SODIMM Slot
- Up to 1GB, 133 MHz DDR with ECC protection

Operating Data
- Operating Temperature: 0° C to 55° C
- Power Consumption: 2W, no heat sink required

FCC Class A certified, CE compatibility

SOFTWARE

Operating Systems
- Linux, BSD and Windows
- Software Development Kit with low level drivers, diagnostics, APIs, source code and documentation

SSL Systems
- Modified OpenSSL using Cavium's TurboSSL modifications

IPsec Systems
- Modified KAME, Free S/WAN and support for CheckPoint with Cavium's TurboIPsec modifications

NITROX XL Security Acceleration Boards

Part Number	System Interfaces	Performance				
		RSA 1024b ops/s	DH 180b ops/s	IPsec Mbps (3DES+SHA-1)	SSL Rec Mbps (ARC4+MD5)	COMP Mbps (AES CTR w/CBC MAC)
CN1220-350-NPB	64-bit/-133 MHz PCI-X	14,000	24,000	1,200	100	1,200
CN1230-350-NPB	64-bit/-133 MHz PCI-X	28,000	48,000	2,000	200	2,000

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