



## OVERVIEW

The NITROX XL CNN35XX adapter family delivers the world's highest security and compression performance for application delivery, cloud computing and WAN optimization appliances. The NITROX XL CNN35XX family delivers up to 1 Million 1024-bit RSA operations, 150K 2048-bit RSA operations, 60 Gbps of security and compression performance. This family of adapters integrates SRIOV functionality to deliver virtualization capability for security and compression performance. The single chip NITROX XL adapter supports Gen2 PCI Express and the multi-chip adapter supports Gen3 PCI Express. The NITROX XL adapters can be integrated into a wide range of equipment including Application Delivery Controllers, WAN Optimization Appliances, Servers for Cloud Services, L4+ Switches, Unified Threat Management Appliances, WLAN controllers, Web servers and Storage appliances.

## FEATURES

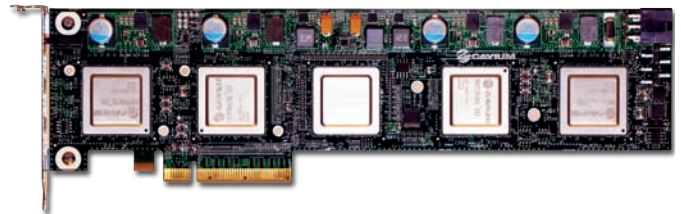
- High performance security processing for both RSA operations and for bulk cryptography
  - 35K – 1M RSA Ops/s (1024-bit)
  - 6K to 150K RSA Ops/s (2048-bit)
  - 5 to 60 Gbps of Security Performance
- High Compression performance
  - 5 to 60 Gbps GZIP/LZS performance
- Integrated SRIOV for IO Virtualization
  - 8, 16, 32, 64 Virtual Functions
- PCI Express Gen2 support on single chip Adapter and Gen3 support on multi-chip Adapter
- Low power starting at < 20W for 200K RSA Ops/sec
- Top to bottom Hardware & Software compatibility

## APPLICATIONS

- Virtualized Data Center & Cloud Computing
  - Application Delivery Controllers (ADC)
  - WAN optimization
  - Server Ooad for cloud services
  - Secured Cloud Computing
  - L4+ Switches
  - Unified Threat Management Appliances
  - WLAN Controllers
  - Web Servers
  - Encryption (AES XTS) and Compression (LZS) for Storage Appliances



CNN35XX-NHB

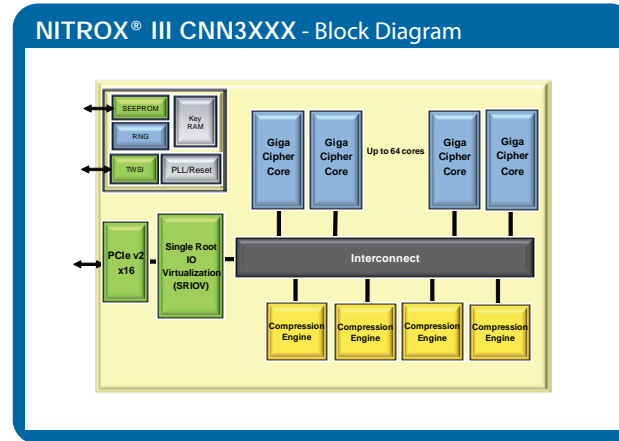


CNN35XX-NHB4

## Security Adapters

# NITROX® XL CNN35XX Security Adapter Family

### Product Brief



### Specifications

#### Cryptography

- IPsec, SSL, TLS 1.2, DTLS, ECC Suite B (ECDH, ECDSA), DES, 3DES, ARC4, AES 256-Bit (ECB, CBC, XCBC, CNTR, GCM, XTS)
- MD5, SHA-1, SHA-2, MAC-MD5/SHA-1/SHA-2, HMAC-MD5/SHA-1/SHA-2 (including SHA-224, SHA-256, SHA-384, SHA-512)
- RSA 2048, RSA 4096, Diffie-Hellman, KASUMI

#### Compression

- GZIP, PKZIP, LZS

#### Virtualization

- Single Root – IO Virtualization (SRIOV)
  - 8, 16, 32, 64 Virtual Functions

#### I/O

- PCI Express Gen2 x8 (Single chip adapter)
- PCI Express Gen3 x8 (Multi chip adapter)

#### Software

- Multi Protocol support – SSL, TLS, IPsec
- Software Development Kit – SSL, IPsec
- Drivers
  - Linux
  - FreeBSD
  - Microsoft Windows 2008 R2
  - RedHat KVM
  - Citrix XenServer

### Software and API Support

- Drivers for Linux and FreeBSD
  - RHEL 5.3, Fedora Core 10.x, FreeBSD 6.3 and 7.2
- Java Cryptographic Extension support
- OpenSSL and TurboSSL support
- PKCS#11 Crypto-service provider
- OpenSSH
- API libraries for Card and key management
- Performance optimized SSL macro APIs

### NITROX® III CNN35XX - Product Family

ORDERING INFO					
Device	Bulk Crypto	1024b RSA ops/sec	2048b RSA ops/sec	Comp	Dimensions
CNN35xx-NHB-G	5G to 20G	35K to 230K	6K to 41K	X	2.54" x 6.6"
CNN35xx-Cxx-NHB-G	5G to 20G	35K to 230K	6K to 41K	5G to 20G	2.54" x 6.6"
CNN35XX-NHB4-G	60G	1M	140K	X	2.54" x 9.9"
CNN35XX-Cxx-NHB4-G	60G	1M	140K	60G	2.54" x 9.9"