

NTPORT4E CAPTURE

Expansion Adapters

8-port 10 M / 100 M / 1 G Ethernet PCIe Solution

DATA SHEET

Port Expansion

The NTPORT4E Expansion Adapter can be combined with an NT4E 4 Gbps PCIe Capture Adapter to form a high-performance 8 x 1 Gbps solution for very advanced data capture, processing and delivery of network traffic. The combined 8-port 1 Gbps solution has the same features as the NT4E Capture Adapter, but for 8 ports.

For the combined NT4E and NTPORT4E, all frame processing (except the MAC processing) is done by the NT4E adapter.

The NTPORT4E and NT4E Capture Adapters support a total of 8 Ethernet ports in 3 different configurations as either 8 electrical, 8 optical, or 4 electrical and 4 optical interfaces.



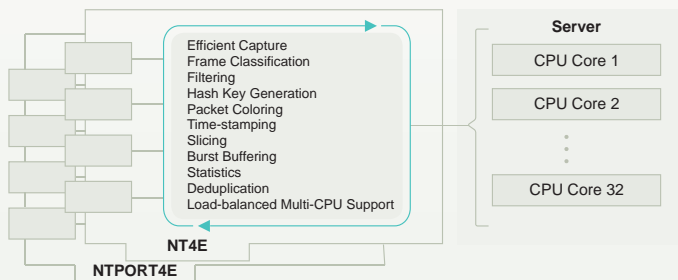
NTPORT4E-4: 4 x 1 Gbps PCIe



NTPORT4E-4T: 4 x 1 Gbps PCIe

No configuration of the NT4E + NTPORT4E adapter pair is required to make the two adapters work as one 8-port adapter. When the NT driver is loaded, it will find NT4E and NTPORT4E adapter pairs and configure them appropriately.

The advantage of an 8-port NT4E + NTPORT4E solution compared to having two NT4E adapters in the same server is that the network traffic from all 8 ports can undergo combined processing and be seamlessly delivered into the host buffers in the server. This includes efficient flow-based load balancing between up to 32 host buffers.



FEATURE HIGHLIGHTS AND APPLICATIONS

Feature Highlights

- 8 x 1 Gbps SFP and/or RJ45 connections
- Full-duplex monitoring
- Full-line-rate capture and processing for all frame sizes
- Efficient capture: < 1% host CPU load
- High-precision 10 ns time-stamping
- Advanced hardware time synchronization
- 6 sec. of on-board data burst buffering
- 8 Gbps frame processing including protocol decoding, programmable filters, conditional slicing, hash keys, buffering, advanced statistics, deduplication and multi-CPU support
- On-the-fly fully reconfigurable setup
- Easy-to-integrate API
- LibPCAP and WinPCAP support
- Linux, FreeBSD and Windows support

Napatech-supported Applications

The Napatech Capture Adapters enable our OEM customers to build cost-effective and value-added appliances to meet requirements for many different solutions. Examples of supported applications are:

- Advanced Frame Analysis and Statistics
- Packet Jitter and Latency Analysis
- Flow Analysis of any IP end-to-end traffic
- Data Recording of network traffic
- Data Retention, Logging and Forensic Analysis
- Lawful Intercept
- Intrusion Detection
- Network QoS Assurance for media streams
- Transaction Performance Analysis

SPECIFICATIONS

General Features

- Full-line-rate processing for all frames from 64 bytes to 10.000 bytes
- IEEE standard: IEEE 802.3 10 Mbit/s / 100 Mbit/s / 1 Gbit/s Ethernet
- Physical interfaces:
 - NTPORT4E-4: 4 SFP ports
 - NTPORT4E-4T: 4 RJ45 ports
- Supported SFP modules: Multimode SR (850 nm), single-mode LR (1310 nm), 1000BASE-T or 10/100/1000BASE-T
- Data rate: 4 x 1 Gbit/s full line rate (8-port solution: 8 x 1 Gbit/s)
- CPU utilization:
 - < 1% of the CPU is used for any data transfer
 - 0% of the CPU is used for any on-board processing
- High-precision HW time-stamping

Host Interface

- Bus type: 4-lane 2.5 GHz PCIe Gen1 for configuration and power purposes only
- Support for 32-bit/64-bit addressing and host DMA addressing

Adapter Hardware

- Flash: Supports two boot images
- Physical dimensions: ½-length full-height PCIe

Environment

- Power consumption: 15 Watts including SFP SR or RJ45 modules
- Operating temperature: 0 - 45 °C, 32 - 113 °F
- Operating humidity: 20 - 80%
- Hardware compliance: RoHS, UL, CE, FCC, CSA, VCCI, C-TICK

Software

- Linux kernel 2.6: 32-bit/64-bit
- FreeBSD 6.x and 7.x: 32-bit/64-bit
- Windows Server 2003/2008 and XP: 32-bit/64-bit

COMPANY PROFILE

Napatech develops and markets the world's most advanced programmable network adapters for network traffic analysis and application off-loading. Napatech is the leading OEM supplier of Ethernet network acceleration adapter hardware. Napatech is fully focused on providing the most cost-effective hardware acceleration solutions for Gigabit Ethernet connectivity, increasing our customers' ability to keep their competitive advantage, while maintaining the flexibility and cost position of standard server equipment and operating systems.

Napatech provides unmatched value-add to our OEM customers by offering a very flexible feature set and a highly scalable range of network adapters. With easy-to-use APIs, Napatech adapters enable effective integration of Network Monitoring, Network Security, Network Control and Assurance, and Network Traffic Generation appliances. Napatech has a strong international focus supporting OEM customers worldwide with headquarters and development located in Denmark, and sales and customer support located in the USA.

Europe, Africa and Asia

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