

Intelligent Network Adapters

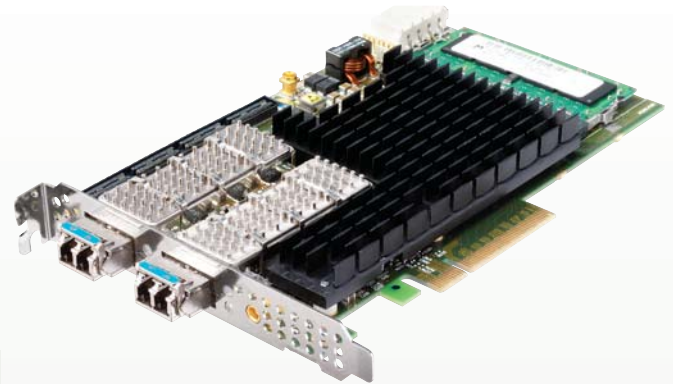
NT20E-NEBS In-Line 2-Port 10 G Ethernet PCIe

DATA SHEET

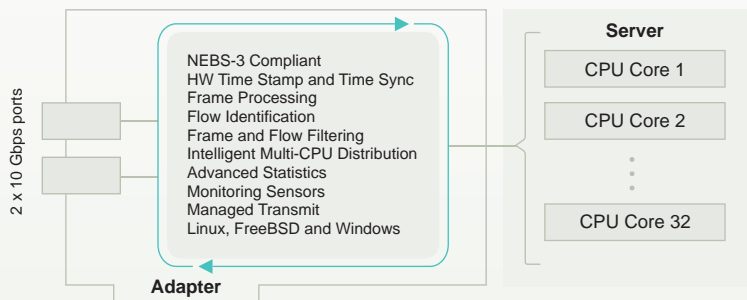
NEBS Compliant In-Line Packet Analysis

The NT20E-NEBS In-Line Adapter is designed for Telecom in-line packet analysis applications, which require compliance with NEBS requirements.

The NT20E-NEBS provides the same high performance and feature set as the NT20E In-Line Adapter, but is based on enhanced hardware capable of operating under extreme conditions with high reliability.



NT20E-NEBS: 2 x 10 Gbps PCIe



Feature Highlights and Applications

Feature Highlights

- NEBS level-3 compliance
- 2 x 10 Gbps XFP connections
- 10 Gbps in-line processing for all frame sizes
- Less than 5% host CPU load
- High-precision 10 ns time-stamping
- GPS, CDMA and IEEE 1588 time synchronization
- Intelligent features for application acceleration
- 10 ns control of IFG for transmitted frames
- RMON1 statistics
- Temperature and voltage sensors
- Support for IPv4, IPv6, UDP, TCP, GRE, SCTP, GTP
- Support for ISL, VLAN and MPLS encapsulation
- On-the-fly fully reconfigurable setup
- Easy-to-integrate API
- LibPCAP support

Napatech-Supported Applications

The Napatech NEBS Adapters enable OEM vendors to build high-performance network appliances based on standard servers that meet the stringent requirements of Telecom and Government applications, such as:

- Traffic Shaping
- Traffic Generation and Replay
- Policy Enforcement
- Intrusion Prevention

Specifications

General Features

- Full-line-rate processing for all frames from 64 bytes to 10,000 bytes
- IEEE standard: IEEE 802.3 10 Gbit/s Ethernet
- Physical interface: 2 XFP ports
- Supported XFP modules: Multi-mode SR (850 nm), single-mode LR (1310 nm) or single-mode ER (1550 nm)
- Data rate: 2 x 10 Gbit/s
- PCIe performance: 12.5 Gbit/s full duplex
- CPU load:
 - Low CPU load for data transfer
 - 0% of the CPU is used for any onboard processing
- Time formats: Native 10 ns, NDIS 10 ns, UNIX 10 ns

Software

- Linux kernel 2.6: 32-/64-bit
- FreeBSD 6.x: 64-bit, 7.x: 32-/64-bit and 8.0: 32-/64-bit
- Windows Server 2003/2008: 32-/64-bit, Windows XP: 64-bit and Windows 7: 32-/64-bit
- API supporting user level applications
- LibPCAP support
- SDK tools included in source code for debugging and prototyping and as examples of how the adapters are used

Host Interface

- Bus type: 8-lane 2.5 GHz PCIe Gen1
- Data transfer modes:
 - Bus master DMA
 - Memory write or memory read transactions
- Support for 32-/64-bit addressing and host DMA addressing

Adapter Hardware

- Flash: Supports two boot images
- Memory options: Standard SO-DIMM 200-pin 1 GB, 2 GB or 4 GB DDR2 RAM modules
- Physical dimensions: ½-length full-height PCIe

Environment

- Power consumption: 36 Watts including SFP SR or RJ45 modules
- Operating temperature (up to 1,800 m): -5 °C to 55 °C (23 °F to 131 °F) measured around the network adapter
- Altitude -60 m to 1,800 m (-197 ft to 5,906 ft) @ 55 °C
- Altitude -60 m to 4,000 m (-197 ft to 13,123 ft) @ 45 °C
- Operating humidity: 5% to 85%
- Compliance: RoHS, UL, cUL, CE, FCC, CSA, VCCI, C-TICK, NEBS-3
- MTBF: 222,902 hours according to RIAC-HDBK-217Plus
- The adapter requires a laminar air flow along the board with a minimum velocity of 0.5 m/s (100 LFM) for operation up to 40 °C and 2.5 m/s (500 LFM) for operation up to 55 °C

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.

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