

## Accelerators for Smarter Data Delivery

# NT200A01-2x100 2-PORT 100G PCIe GEN3

### 2 × 100 Gbps PACKET CAPTURE AND ANALYSIS

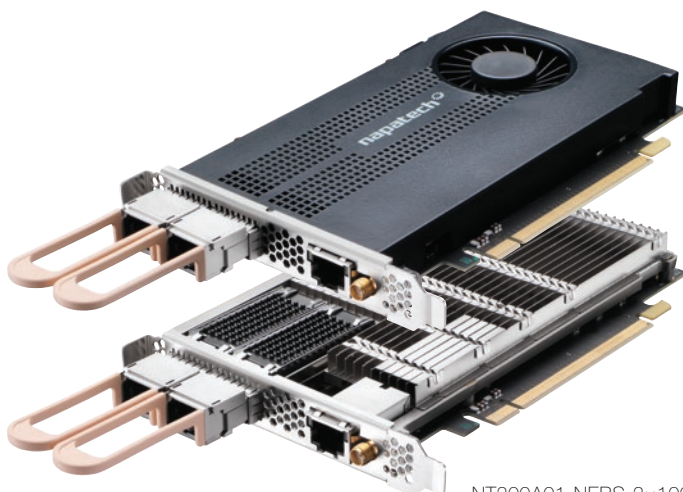
Use cutting-edge network acceleration technology to add real-time line rate performance to your application. Napatech 2-port 100 Gbps accelerators provide full packet capture and analysis of network data at 200 Gbps with zero packet loss. The Napatech accelerator will capture all frames, including erroneous frames normally discarded by standard NICs.

The Napatech accelerator allows you to merge data from two ports into a single, time-ordered analysis stream. The compact form factor of the NT200A01 enables 2 × 100G applications in 1U server platforms, saving rack space and reducing the overall cost of the solution.

The 12 GB DDR4 RAM buffer allows buffering packets on the accelerator to prevent packet loss during peak server loads. Packets are hardware time-stamped when they arrive at the network ports, ensuring that the time stamp is always reliable.

The accelerator also comes in a NEBS level 3 compliant variant.

NT200A01-SCC-2x100



NT200A01-NEBS-2x100

### FEATURE HIGHLIGHTS

- Scalable pipeline architecture
- Network ports: 2 × QSFP28
- Capture of Ethernet traffic: Full 2 × 100 Gbps
- Zero packet loss for all frame sizes
- 12 GB DDR4 RAM buffer (500 ms at 200 Gbps)
- Typical CPU load: < 5% of one core
- Addressing up to 1 TB application buffer memory
- Packet or segment delivery to application
- Hardware-accelerated:
  - Multi-port packet merge
  - Load distribution across up to 128 CPU cores
  - 1 ns time stamp resolution
  - Frame and protocol information
  - Filtering based on e.g. L3/L4 criteria
  - GTP, IP-in-IP, GRE and NVGRE tunneling support
  - Slicing at fixed or dynamic offset
  - RMON1 counters, including jumbo frames
- PPS time synchronization
- OS time synchronization
- Easy-to-integrate API
- Linux, Windows, libpcap and WinPcap

### NAPATECH-SUPPORTED APPLICATIONS

Napatech accelerators enable OEM vendors to build high-performance network appliances based on standard servers. Examples of applications include:

- Revenue and services optimization
- Quality of experience optimization
- Financial latency measurement
- Customer experience analysis
- Data loss prevention
- Virtualized activity analysis
- Cyber defense
- Fraud detection and compliance management
- Infrastructure management and security
- Network and application performance
- Troubleshooting and compliance

## SPECIFICATIONS

### GENERAL FEATURES

- Full line-rate processing for all frames from 64 bytes to 10,000 bytes - keep or discard erroneous frames
- IEEE standard: IEEE 802.3 100 Gbps Ethernet support
- Network interface: 2 × QSFP28 ports
- Supported QSFP28 modules: 100GBASE-SR4 and 100GBASE-LR4
- Data rate: 2 × 100 Gbps
- Typical CPU load: < 5%
- Time formats: PCAP-ns/-μs and UNIX 10 ns
- Time stamp resolution: 1 ns
- Stratum 3 compliant TCXO
- SMA interface for PPS time synchronization
- RJ45 100/1000BASE-T interface for future IEEE1588 PTP support.

### ACCELERATOR SOFTWARE

- Operating systems: Linux, Windows
- Napatech API for high performance and advanced features
- libpcap
- SDK tools included in source code for debugging and prototyping and as application examples

### ACCELERATOR HARDWARE

- Bus type: 16-lane 8 GT/s PCIe Gen3\*
- 12 GB onboard DDR4 RAM
- Flash: Support for two boot images
- Built-in thermal protection
- Physical dimensions: ½-length and full-height PCIe
- Weight excluding 2 x QSFP28:
  - NT200A01-SCC-2×100: 455 g
  - NT200A01-NEBS-2×100: 475 g
- MTBF according to UTE C 80-810:
  - NT200A01-SCC-2×100: 317,821 hours
  - NT200A01-NEBS-2×100: 311,435 hours
- Power consumption including 2 x QSFP28:
  - NT200A01-SCC-2×100: max 75 Watts
  - NT200A01-NEBS-2×100: max 75 Watts

\* To enable the throughput of 16-lane PCIe Gen3, the COTS server must support PCIe bifurcation.

### ENVIRONMENT FOR NT200A01-SCC-2×100

- Operating temperature: 0 °C to 45 °C (32 °F to 113 °F)
- Operating humidity: 20% to 80%

### ENVIRONMENT FOR NT200A01-NEBS-2×100

- Operating temperature: -5 °C to 55 °C (23 °F to 131 °F) measured around the accelerator
- Operating humidity: 5% to 85%

### REGULATORY APPROVALS AND COMPLIANCES

- PCI-SIG®, NEBS level 3, CE, CB, RoHS, REACH, cURus (UL), FCC, ICES, VCCI, C-TICK

### COMPANY PROFILE

Napatech is the world leader in data delivery solutions for network management and security applications. As data volume and complexity grow, organizations must monitor, compile and analyze all the information flowing through their networks. Our products use patented technology to capture and process data at high speed and high volume with guaranteed performance, enabling real-time visibility. We deliver data faster, more efficiently and on demand for the most advanced enterprise, cloud and government networks. Now and in the future, we enable our customers' applications to be smarter than the networks they need to manage and protect.

### Napatech. SMARTER DATA DELIVERY

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