Endace DAG 9.2X2

Endace's DAG™ 9.2X2 is a high-performance data capture card, designed for use in appliances for monitoring and capturing network traffic at high-speed in10GbE or mixed 1GbE and 10GbE environments.

The DAG 9.2X2 is ideally suited for use in network performance monitoring, security analytics, data archival and latency measurement applications in large, complex, network environments where 100% packet capture is critical.

Based on PCI Express (PCIe) 2.0 x8, the DAG 9.2X2 delivers full line rate data capture for both ports, regardless of packet size, with captured packets transferred direct to host memory via direct memory access (DMA). This removes interrupt overhead from the host CPU, freeing it up for analysis or other tasks.

In addition to interrupt free and zero copy packet capture, the DAG 9.2X2 provides extremely flexible memory allocation and powerful on-card, rule-based filtering, duplication and steering (directing packets to specific streams) . This makes analyzing captured traffic simpler and quicker, enabling more powerful analysis and further reducing load on the host CPU.

Captured traffic is available in industry-standard packet capture formats (PCAP) making it easy to use in the applications you choose for monitoring and analysis.

Multiple Endace DAG cards can be combined in a single appliance, enabling high-density deployment, saving rack-space, and further reducing the total cost-of-ownership.

Endace's DAG cards are engineered to ensure long life and reliability. They are trusted by customers around the world to deliver proven 100% accurate capture and low cost-of-ownership with best-in-class performance.

Note: We recommend the DAG 10X2-S and 10X2-P for incorporating in new designs.

DAG 9.2X2 AT A GLANCE

- 2x SFP+ monitoring ports each configurable for 1GbE or 10GbE links
- 10GbE LAN and WAN-PHY configuration
- Hardware time-stamping with synchronization from host or external time reference via a dedicated time sync port
- PCIe 2.0 x8 based card
- Linux and FreeBSD drivers

BENEFITS

Accurate

- 100% packet capture at full line rate for all packet sizes from 64 Bytes to 9600 Bytes
- Nanosecond-level time-stamping accuracy on every packet

Powerful

- Supports up to 64 classification rules for onboard filtering, duplication and steering of captured traffic in hardware at full line rate
- Relative timed replay enables precise reproduction of traffic as captured for testing, performance measurement and other purposes

Flexible

- Supports up to 32 capture streams with configurable memory allocation per stream (up to 2GB per stream) for load balancing in multi-core host architecture
- Full packet capture or set length capture configurable for every capture stream
- Up to seven DAG cards per server (in a 3U chassis) delivers high-density and low cost of ownership
- Compatible with standard server architecture using PCIe 2.0 x8 bus technology

Reliable

- Engineered for high-reliability and extended mean time between failure (MTBF) rates
- Zero-fan cooling reduces failure points

DAG 9.2X2 – Technical Specifications

Monitoring interfaces	2x SFP+ transceivers
Network type	IEEE 802.3ae LAN IEEE 802.3ae WAN IEEE 802.3ab
Packet encapsulations	Ethernet
Hardware packet processing	Enhanced Packet Processing v2
Time synchronization	External: IEEE-1394 connector for RS-422 PPS and IRIG-B signal from GPS, CDMA or TDS (using adapter) Internal: Host PC clock Other DAG cards
Packet timestamping	7.5ns
PCI interface	x8 lane PCIe 2.0
Operating system supported	Endace software is supported on the following operating systems: Linux and FreeBSD
Power requirements	Less than 20W
Operating temperature	0 to 55°C (32 to 131°F)
Airflow requirements	200 LFM (@50°C Ambient)
Operating humidity	5 to 95% non condensing
Physical dimensions	Half Height, Half Length Height 64.25mm (2.53") Length 167.5mm (6.6")

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission [FCC] Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction document, may cause harmful interference to radio communications.

Companion Products

Transceivers

10GBase-SR optical SFP+ transceiver 850nm, Multi-mode with LC connectors	TXR-10G-850-MM-SFP+
10GBase-LR optical SFP+ transceiver 1310nm, Single-mode with LC connectors	TXR-10G-1310-SM-SFP+
10GBase-ER optical SFP+ transceiver 1550nm, Single-mode with LC connectors	TXR-10G-1550-SM-SFP+
1000Base-SX optical Ethernet SFP transceiver 850nm, Multi-mode with LC connectors	TXR-1000SX
10GBase-ZR optical SFP+ transceiver 1550nm, Single-mode with LC connectors	TXR-10G-1550-SM-HS-SFP+
1000Base-LX optical Ethernet SFP transceiver 1310nm, Single-mode with LC connectors	TXR-1000LX
1000Base-ZX optical Ethernet SFP transceiver 1550nm, Single-mode with LC connectors	TXR-1000ZX
1/10 Gigabit LR (10km) SFP+ transceiver 1310nm, Single-mode	TXR-10G-1G-SWCH-850-MM-SFP+
1/10 Gigabit SR SFP+ transceiver 850nm, Multi-mode	TXR-10G-1G-SWCH-1310-SM-SFP+

Time Measurement Accessories

Trimble Acutime™ Gold GPS receiver	GPS-2
Endace 2-port Time Distribution Server, accepts serial input from GPS/CDMA sources	TDS-2
Endace 6-port expansion module for TDS-2, shares common reference time source	TDS-6
Endace 24-port Time Distribution Server, accepts serial input from GPS/CDMA sources	TDS-24

For more information on the Endace portfolio of products, visit: endace.com/products

For further information, email: info@endace.com