

DAG 9.2X2



The Endace DAG® 9.2X2 is the world's first dual-port, x8 lane PCI Express 2.0 network monitoring card capable of line-rate capture to host memory on a full-duplex 10 Gigabit Ethernet link regardless of packet size (the card can alternatively be configured for full-duplex 1GbE links).

The 9.2X2 sets new benchmarks in packet capture capability and performance. As the packet capture component in a stand alone 10Gbps system, it offers the broadest range and the best feature set of any capture card in the category.

In addition to interrupt-free and zero-copy DMA, Endace-developed Enhanced Packet Processing (EPP) functionality increases packet processing performance via hardware-based filtering and load-balancing techniques. EPP effectively accelerates application performance by offloading common features into hardware and ultimately freeing up more CPU resources for packet processing applications.

On high-speed full-duplex 10 Gigabit Ethernet networks, the DAG 9.2X2 allows you to capture and record 100% of the data flowing across the link.

KEY FEATURES

Dual-port network monitoring card utilizing enhanced small form factor (SFP+) optical transceivers supporting:

- 10Gbps IEEE 802.3ae Ethernet supporting LAN and WAN configurations (or 1Gbps IEEE 802.3ab)
- 100% packet capture into host memory at full line rate for all packets from 64 to 9600 bytes (including jumbo frames)
- Full packet or set length packet capture configurable for each memory buffer
- Support for up to 32 memory buffers for load balancing in multi-core host architecture
- Support for 64 hardware-based classification rules for on-board steering and duplication
- Precise packet timestamping and clock synchronization from the host or from an external time reference
- Easy integration into existing server hardware with 8-lane PCIe Gen2 bus technology
- Relative timed data replay option enables precise reproduction of traffic conditions.



DAG 9.2X2 – Technical Specifications

Monitoring interfaces	2x SFP+ transceivers
Network type	IEEE 802.3ae LAN IEEE 802.3ae WAN
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 PCI Express Gen. 2.0
Operating system supported	Endace software is supported on the following operating systems: Linux, FreeBSD, and Windows Server 2003 and 2008
Power requirements	Less than 20W
Operating temperature	32 to 131° F (0 to 55°C)
Airflow requirements	200 LFM (@50°C Ambient)
Operating humidity	5 to 95% non condensing
Physical dimensions	Half height, half length Height 2.53" (64.25mm) Length 6.6" (167.5mm)

Companion Products

The following products are compatible with the DAG 9.2X2:

Transceivers

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

Time Measurement Accessories

Trimble Acutime™ Gold GPS receiver	GPS-2
EndRun Technologies Præcis Ct™ CDMA receiver	CDMA-1
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 information about Taps, Switches, and Cables visit endace.com/accessories

For more information on Endace products visit: endace.com
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