D-Link
Building Networks for People

Product Highlights

High-speed Transmission

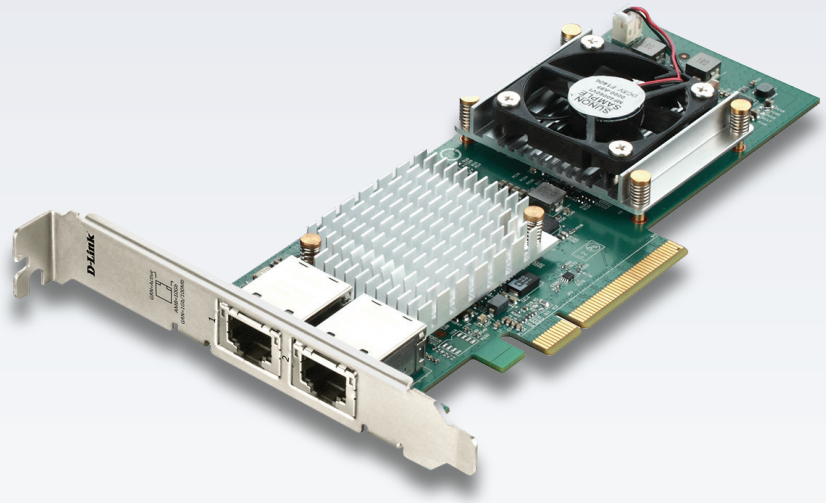
High-speed data transmission at rates of up to 40 Gbps allow for seamless data transfer[1]

Advanced Features

802.3x flow control for traffic management, 802.1Q VLAN tagging for increased security, and checksum offloading to reduce CPU processing burden

Bandwidth Management

NIC partitioning enables administrators to manage bandwidth for greater network efficiency



DXE-820T

Dual Port 10GBASE-T RJ-45 PCI Express Adapter

Features

High-Performance:

- PCI Express Interface v2.0
- Auto-negotiation
- Up to 40 Gbps throughput

Advanced Standards-based Enterprise Features:

- 802.1Q VLAN tagging
- 802.3x flow control
- 802.3ad teaming
- Jumbo frame support
- SNMP statistics
- TCP/UDP/IP checksum offloading

The D-Link DXE-820T Dual Port 10GBASE-T RJ-45 PCI Express Adapter is a high performance adapter designed for the high-speed PCI Express bus architecture. The Dual Port 10GBASE-T RJ-45 PCI Express Adapter offers increased bandwidth, reliability, and more functionality than standard PCI network cards. It is specifically designed to allow throughput at rates up to 40 Gbps, thus eliminating the bottleneck that exists with current 32 and 64-bit PCI bus architectures.

Advanced Features and Security

The adapter features onboard screening of 802.1Q VLAN tagged Ethernet frames, allowing you to assign multiple subnets to each server and isolate devices within each VLAN from the rest of the network for better traffic control and security. With support for advanced features such as 802.3x flow control, jumbo frames, and SNMP for network management, the DXE-820T can easily interoperate with your current networking equipment.

Performance and Reliability

The DXE-820T increases network throughout by utilizing PCI Express bus architecture. With Smart Load Balancing™ the DXE-820T configures multiple adapters to work as a team, sharing traffic and ensuring data reliability. This both creates a faster network and provides fault tolerance resulting in a stable and efficient network.

Checksum Offloading

The DXE-820T features TCP, UDP, and IP checksum offloading functionality, which transfers the checksum processing tasks from the computer's CPU to the network card. The DXE-820T's ability to handle the checksum processing means that the CPU's processing power can be used for other tasks while still achieving 20 Gbps network speeds.

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Technical Specifications

General

Standards	• IEEE 802.1Q VLAN tagging • IEEE 802.3x flow control • IEEE 802.3an 10GBASE-T • IEEE 802.3ab 1000BASE-T	• IEEE 802.3u 100BASE-TX • IEEE 802.3az Energy-Efficient Ethernet (EEE) • IEEE 802.3ad teaming • PCI Express x8 2.0, 5 GT/s compliant
Power	• Maximum Power Consumption: 23.38 W	• Input Voltage: 3.3 V and 12 V
Data Transfer Rate	• 1 Gbps Full Duplex • 10 Gbps Full Duplex	• Auto mode (support 100 Mbps)

Transmit Distance	• 10GBASE-T
	  • 100M with Cat 6A or higher UTP
	  • 50M with Cat 6 UTP
		• 100/1000BASE-T
		  • 100M with Cat 5 or higher UTP

Interface Slot	• PCI Express v2.0 x8/x16 slot	

Supported Functions	• NIC partitioning
	• Other performance features
	  • TCP, IP, UDP checksum
	  • TCP segmentation
	  • Adaptive interrupts
	  • Receive Side Scaling (RSS)
	• Manageability
	  • Statistics for SNMP MIB II, Ethernet-like MIB, and Ethernet MIB
	  • SMBus controller
	  • IPMI support (IPMI pass thru mode)
	• Advanced network features
	  • Jumbo frames (up to 9 KB)
	  • Virtual LANs
	  • Smart load balancing teaming
	  • LiveLink™ (supported in both the 32-bit and 64-bit Windows operating systems)
		• Logical Link Control (IEEE Std 802.2)
		• Layer-2 Priority Encoding (IEEE Std 802.1p)
		• High-speed on-chip RISC processor
		• Up to 3 classes of service (CoS)
		• Integrated 96 KB frame buffer memory
		• Quality of Service (QoS)
		• Support for multicast addresses via 256 bits hashing hardware function
		• JTAG support
		• PCI Power Management Interface (v1.1)
		• 64-bit BAR support
		• iSCSI Boot support
		• Virtualization
		  • Microsoft
		  • VMware

Functionality

Driver Support	• Windows Server 2008 (x86, x64)/2008 R2 (x64) • Windows Server 2012 • RHEL 6.4/6.5 (x64), RHEL 5.9 (x64)	• SLES 11.2/11.3 (x64) • Solaris 11/11.1
Diagnostic LED	• Speed/Link	• Activity

Physical

Dimensions	• 181 mm x 120.9 mm x 21.6 mm (7.13 x 4.76 x 0.85 inches)	
Temperature	• Operating: 0 to 40 °C (32 to 104 °F)	• Storage: -20 to 70 °C (-4 to 158 °F)
Humidity	• Operating: 10% to 90% non-condensing	• Storage: 10% to 90% non-condensing
Certifications	• CE • FCC	• C-Tick

DXE-820T Dual Port 10GBASE-T RJ-45 PCI Express Adapter

Order Information	
Part Number	*Description*
DXE-820T	Dual Port 10GBASE-T RJ-45 PCI Express Adapter

[1] When connected in full-duplex mode.

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