

# **D-Link™ DFE-520TX**

## **32-bit PCI Fast Ethernet Network Adapter**

### **Manual**

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# Table of Contents

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**INTRODUCTION.....1**

System Requirements .....1

Features .....1

**INSTALLATION .....3**

Unpack and Inspect.....3

Software Installation .....3

Installing the Adapter .....4

Connecting the Network Cable.....4

**TROUBLESHOOTING.....5**

**SPECIFICATIONS .....6**

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# ***Introduction***

Thank you for choosing the D-Link DFE-520TX, the value leader among Fast Ethernet adapters for PCI Bus personal computers. The DFE-520TX provides IEEE 802.3x Flow Control Enhancements, which are needed for a network adapter to function with a switch. In full-duplex mode, the MAC implements the PAUSE control function. This means when a switch is connected in full-duplex mode and it senses that its buffer will overflow in the near future, the switch will transmit one standard Ethernet packet that causes the DFE-520TX to pause for a period, thus avoiding internal buffer overflow and packet loss.

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## **System Requirements**

Before installing the DFE-520TX, check your system for the following minimum configuration requirements.

- One of the following slot types:
  - An open PCI bus master slot, 32-bit, operating at 33MHz.
- 32 MB of System Memory
- 150 MHz processor, or faster
- The latest BIOS for your computer
- One of the following types of twisted-pair network cabling:
  - Category 5 or better for 100Mbps
  - Category 3, 5 or better for 10Mbps

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## **Features**

Designed for versatility and performance, the DFE-520TX Network Adapter provides the following:

- Operability in 32-bit, 33 MHz slot servers and workstations
- Universal Bus support 3.3V
- Compliance with IEEE 802.3u Fast Ethernet standards and IEEE 802.3 Ethernet standards.
- Plug-and-Play installation
- Supports half and full duplex at 10Mbps, half and full-duplex at 100Mbps.
- Supports 802.3x flow control
- Supports ACPI 2.0
- One built-in RJ-45 connector
- Auto-negotiation to the highest available speed

- one LED indicators: Link/Activity
- Driver<sup>†</sup> support for:

√ Microsoft Windows 7 (32/64 bits)	√ Linux kernel (2.4.x/2.6.x)
√ Microsoft Windows Vista (32/64 bits)	√ NetWare Server (5.x/6.x)
√ Microsoft Windows XP (32/64 bits)	√ Netware ODI Driver for DOS
√ Microsoft Windows Server 2008 (32/64 bits)	√ Mac OS 10.7 (for x86 PC)
√ Microsoft Windows Server 2003 (32/64 bits)	√ NDIS2 for DOS
√ Microsoft Windows Server 2000 (32/64 bits)	√ Packet Driver

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<sup>†</sup> Check <http://www.dlink.com> for newest release of drivers.

## Installation

### Unpack and Inspect

**CAUTION:** *Under ordinary circumstances, a DFE-520TX card will not be affected by a static charge that may be received through your body during handling of the unit. In special circumstances, the user may carry an extraordinarily high static charge and it is good practice to reduce the charge by touching a ground before handling the adapter card.*

Open the shipping carton and carefully remove all items. Ensure that the following items are included:

- One DFE-520TX PCI Fast Ethernet Adapter Card
- DFE-520TX Drivers and Manual on CD-ROM

If any of these items are missing or damaged, please contact your local reseller for replacement.

### Software Installation

You must install the driver software for your DFE-520TX before installing the PCI card into your PC. Insert the CD into your PC's CD-ROM drive. It should begin running the driver installation program, if you have auto-execute enabled.

When the screen shown below appears, click the **Install Driver** link.



If you do not have auto-execute enabled for your PC's CD-ROM drive, navigate to the root directory of the CD using Windows Explorer and click on the file named **Autorun.exe**. This will open the window shown above. Then click the **Install Driver** link to install the driver.

The CD-ROM included with your DFE-520TX is designed to make installation of necessary software a painless and trouble-free process. Simply click on the **Install Drivers** link, and an Installation Wizard will guide you through the process, no matter which operating system you're running. The included Adobe Acrobat Reader, which is needed to read or print out your user manual, will also come in handy for many other applications.

Simply follow the directions in the Wizard, and your DFE-520TX will be installed successfully in just a few minutes, allowing you to enjoy the many advantages of joining an Ethernet LAN.

When the driver installation program (shown above) is complete, you can then install the PCI card inside your PC. When you restart your PC, the DFE-520TX will be ready to use.

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## Installing the Adapter

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1. Shut down the computer, unplug its power cord, and remove the chassis cover.

**(Important:** Opening the case of your computer may compromise the warranty of your computer. Consult the computer manufacturer before opening the case to ensure that you adhere to warranty guidelines. In some cases, you may need to have the DFE-520TX installed by your computer manufacturer.)

2. Insert the contact edge of the DFE-520TX card into the connector of any available PCI Bus Master expansion slot. Press the card firmly into the connector such that the card's contacts are fully seated in the connector.
3. Install the bracket screw that secures the card to the computer chassis.
4. Replace the computer's chassis cover.
5. Reconnect the computer's power cord, and switch computer power on. If the BIOS section of your computer's boot program is Plug-and-Play compliant, then at power-up the BIOS will automatically configure any newly installed DFE-520TX adapter.

**NOTE:** *Due to a fault in some Plug-and-Play BIOS programs, occasionally a newly installed adapter is assigned an Interrupt Number which has already been assigned to another device. In such a case, the conflict of the Interrupt Number will cause faults in the behavior of both devices. Therefore, the user must run the CMOS Setup utility, and manually assign a non-conflicting Interrupt Number.*

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## Connecting the Network Cable

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Category 5 UTP cable qualifies for both 100BASE-TX Fast Ethernet and 10BASE-T Ethernet cabling rules. The maximum length of any single cable segment is 100 meters. Please keep in mind, however, that the maximum cable run between any two stations in a collision domain is 205m.

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## ***Troubleshooting***

If you experience any problems with the adapter, check to see:

- that the appropriate driver is loaded;
- that the proper grade of cable is employed for the network connection;
- that the supporting hub is properly qualified for the application.

The DFE-520TX Adapter features one LED indicators:

- **Link/Activity** – Steady green indicates good linkage between the DFE-520TX and its supporting server or switch. Flashing green indicates activity (transmitting or receiving) within the adapter.

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## *Specifications*

EMC And Safety Certifications:

- FCC Class B
- CE Class B
- C-Tick

Host interface: 32-bit PCI Bus (Bus Master)

I/O base address assigned by Plug and Play system

Interrupt Number Assigned by Plug and Play system

Physical Dimensions: 4.72" (L) x 1.46" (W) or 120mm(L) x 37mm(W)

Environment:

- Storage: -25° to 55°C (-13° to 131° F)
  - Operating: 0° to 40° C (32° to 104° F)
  - Humidity: 5% to 90% non-condensing
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