

# D-Link™ DFE-520TX

## 32-bit PCI Fast Ethernet Network Adapter

### Manual

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RECYCLABLE

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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. This introduction gives a general description of the newer networking technologies found on the DFE-520TX.

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 for full-duplex double network throughput
- 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† support for:

- |                                 |  |
|---------------------------------|--|
| √ Microsoft Windows Vista x86   | √ Red Hat Linux 9.0 (kernel 2.4)         |
| √ Microsoft Windows Vista x64   | √ Fedora Core 5 (kernel 2.6)             |
| √ Microsoft Windows XP / XP x64 | √ Macintosh OSX (10.2.x)                 |
| √ Microsoft Windows Server 2003 | √ Netware Server 5.0, 5.1, 6.0 ~ 6.5     |
| √ Microsoft Windows 2000        | √ Netware Client 32 for DOS/Windows 3.1x |
| √ Windows 95/95 OSR2/98/98SE/ME | √ ODI Driver for DOS                     |
| √ Windows NT 3.51/NT 4.0        | √ NDIS2 Driver for DOS                   |
| √ Windows for WorkGroup 3.11    | √ Packet Driver for DOS                  |

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† 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: 4.73 inches(L) x 1.65 inches (W) [121mm(L) x 42mm(W)]

## Environment:

- Storage:  $-25^{\circ}$  to  $55^{\circ}$ C ( $-13^{\circ}$  to  $131^{\circ}$  F)
  - Operating:  $0^{\circ}$  to  $40^{\circ}$  C ( $32^{\circ}$  to  $104^{\circ}$  F)
  - Humidity: 5% to 90% non-condensing
  - Power Consumption: 0.4W
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Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

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- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

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- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.com/>.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to **D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708**. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

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**FCC Statement:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

# Product Registration

Register your D-Link product online at <http://support.dlink.com/register/>

**Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.**

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