D-Link®

DFE-550FX
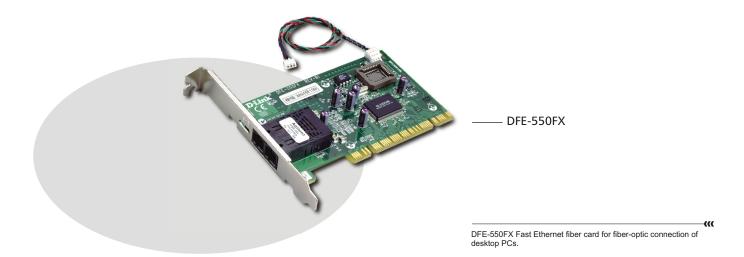
Optical Fiber Fast Ethernet Card

The DFE-550FX is a high-performance Fast Ethernet card that connects your desktop PC to a reliable fiber network. The card plugs into a PCI expansion slot inside your PC, transmits data at 100Mbps half duplex or 200Mbps full duplex. Supporting advanced functions including traffic priority queues and VLAN, this card provides a secure environment to let you run bandwidth-demanding applications, such as IP telephony and video conferencing.

Reliable Fiber Connection
The DFE-550FX card allows you to establish secure fiber link for your PC. It can be used to set up a power workstation or a server with a direct fiber connection to a Fast Ethernet switch. Capable of running at 200Mbps full-duplex, this card serves well in a high electro-magnatic interference environment, providing a cable distance of up to 2 km to the switch.

Wake-On-LAN Power Management
The card supports Advanced Configuration Power Interface (ACPI) Wake-On-LAN (WOL), allows your computer to be powered ON/OFF from a remote place. Providing a great utility for power management of the PC, this function allows the administrator to send a wake-up signal to the computer to initiate action at irregular times and from distant locations.

High Performance
With 32-bit bus master operation, the card guarantees the highest performance. Bus master transfers data directly between the card and the host at multi-megabits per second, bypass the host CPU to alleviate its workload.

Flow Control to Minimize Packet Loss
The card's embedded flow control provides a means to protect against possible data loss during transmission on the network. When connected to a Fast Ethernet switch that supports flow control, the card receives signals from the switch regarding buffer overrun during peak usage periods.

The card then delays transmission until the switch is ready again to accept new data.

VLAN to Improve Performance and Security
The card supports IEEE 802.1Q multiple Virtual LAN, allowing you to segment the network to smaller domains to improve performance and security. Dissemination of broadcast and unnecessary computer-to-computer packets can be restricted to reduce extraneous traffic. The card provides a VLAN table for the following functions: filtering packets by recognizing VLAN Tags, stripping VLAN Tags on receive, and inserting VLAN Tags on transmit.

IEEE 802.1p Priority Queues Support
With packet prioritization capability, the card allows traffic to be queued as critical and non-critical, permitting your computer to run voice over IP, video-conference and multimedia applications where packets are delivered at best-effort speeds.

RPL and PXE Remote Boot Options
2 remote boot options are available for selection. Administrators can choose to set up a security scheme for diskless workstations to boot from servers using (1) the traditional Remote Program Load (RPL) or (2) Intel's Pre-boot Execution Environment (PXE). Stations with boot ROMs installed on the on-board socket can boot O.S. from NetWare, NT and other servers to run applications designated by the administrator.

Key Features

- *100Mbps Fast Ethernet fiber connection*
- *32-bit PCI bus master operation*
- *Full/half duplex support*
- *Wake-on-LAN (WOL) for power management*
- *IEEE 802.3x full-duplex flow control*

- *IEEE 802.1Q VLAN support*
- *IEEE 802.1p priority tagging*
- *Runs Win95, 98, 2000, NT, NetWare, Linux*
- *Optional boot ROM for remote program load from servers*

DFE-550FX
Technical Specifications

General
Standards
- IEEE 802.3u 100BASE-FX Fast Ethernet
- PCI local bus 2.2 specifications
- IEEE 802.3x Flow Control
- IEEE 802.1Q VLAN tagging
- IEEE 802.1p priority tagging
- Advanced Configuration and Power Interface (ACPI) v.1.0

Topology
Star

Protocol
CSMA/CD

Network Data Transfer Rates
- 100Mbps (half-duplex)
- 200Mbps (full-duplex)

Network Cable
62.5/125 micron multimode fiber-optics
(2km at full-duplex, 412m at half-duplex)

Fiber Connector
SC

Diagnostic LED Report
- Link
- Activity (Tx/Rx)
- Full duplex

Cache Buffer
- 2K bit receive FIFO
- 2K bit transmit FIFO

Flow Control
- IEEE 802.3x flow control per for full duplex
- Back pressure in half duplex

System Setup
IRQ
Allocated by system

I/O Address
Allocated by system

Full/half Duplex
- Auto-detected upon connection to network device
- User-selectable through software

Environmental & Physical
Power Consumption
1.5 watts (maximum)

Dimensions
120 x 73 mm (4.73 x 2.88 inches)

Weight
120g (0.26 lb.)

Operating Temperature
0° - 50°C (32° - 122°F)

Storage Temperature
-25° - 55°C (-13° - 131°F)

Humidity
10% - 90% non-condensing

Emission
- FCC Class B
- CE Class B
- C-Tick
- BSMI Class B

Network O.S. Support
- Microsoft Windows 95/95OSR2
- Microsoft Windows 98/98SE/ME
- Microsoft Windows 2000/XP/server 2003
- Microsoft NT 3.51/4.0
- NDIS 3 driver
- NDIS 4 driver
- NDIS 5 driver
- Novell Netware ODI driver
- Novell Netware Server 4.1x
- Novell Netware Server 5.x
- Novell Netware Server 6.x
- Linux Kernel v.2.4.x

Remote Boot (Optional)
Boot ROM Address
Searched by system BIOS

Boot ROM Flash Memory
- RPL boot ROM: 2KB
- PXE boot ROM: 2KB

Boot Servers Supported
- Novell RPL Boot ROM code
- NetWare 3.x, 4.x RPL server
- Microsoft Windows NT 3.51, 4.x RPL server
- Intel PXE 2.0

ACN 052 202 838

Ordering Information

Fast Ethernet Fiber Card	
DFE-550FX	100BASE-FX Fast Ethernet fiber PCI card (SC connector)
Remote Boot ROMs	
DFE-554FR	RPL boot ROM for DFE-550FX
DFE-554FP	PXE boot ROM for DFE-550FX

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