D-Link®

DFE-580TX

DFE-580TX Fast Ethernet server card with 4 10/100Mps auto-sensing ports

4-port Fast Ethernet Server Card

The DFE-580TX is a high-performance, versatile server card designed for very fast server connection. Outfit with 4 Fast Ethernet ports, the card gives you a 4-port trunk link from a server to a Fast Ethernet switch, providing load-sharing aggregated bandwidth and redundant backup links, allowing you to cost-effectively run bandwidth-intensive and mission-critical applications in client-server Windows and Unix environments.

4 Fast Ethernet Ports
With 4 twisted-pair ports running capable of running at full-duplex, the DFE-580TX provides connection at near Gigabit speed for servers on your existing Cat. 5 or lower grade network cable. All 4 ports support 10/100Mbps auto-sensing, and can be combined into a high-speed trunk transferring data at up to 800Mbps full-duplex.

Reliable High Performance
The card operates at the PCI Bus Master mode with clock speed support at up 33/66MHz. It is equipped with 4 independent MAC controllers, allowing each of the 4 ports to establish an independent full bandwidth segment with the attached switch. In the unlikely event where one MAC fails, the remaining controllers will continue to operate, guaranteeing uninterrupted server connection.

Load-sharing Aggregated Bandwidth
You can configure all 4 ports to operate at the load-sharing mode. In this configuration, the ports share the traffic load to and from the switch, while the card ensures a balanced load for each of the ports. This mode guarantees that bottlenecks are eliminated at peak traffic time.

Fail-over Redundant Backups
An alternative is to configure the card with 2 redundant backed-up load-sharing trunks. One trunk is active, the other trunk in the stand-by mode. In case if one trunk fails, the other trunk will provide the backup link. This configuration can be applied for mission-critical situations, or more common applications such as video-conference and IP telephony.

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

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.

Features

- *4 10/100Mbps auto-sensing Fast Ethernet ports*
- *4 with independent MAC controllers*
- *Full/half duplex for each port*
- *32-bit Bus Master data transfer with PC host*
- *IEEE 802.3x Flow Control for fast, reliable data transmission*

- *Low network command processing overhead*
- *800Mbps server-to-switch trunk*
- *Per-port load-balance/fault-tolerance configuration*
- *Dynamic fail-over function for backup mode*
- *IEEE 802.1p Priority Queues*

DFE-580TX

Technical Specifications

General

Standards
- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- PCI local bus 2.2 specifications
- IEEE 802.3x Flow Control
- IEEE 802.1P priority tagging
- PCI 2.2

Topology
Star

Protocol
CSMA/CD

Data Transfer Rates
- Ethernet:
  10Mbps (half duplex)
  20Mbps (full duplex)
- Fast Ethernet:
  100Mbps (half duplex)
  200Mbps (full duplex)

Network Cables
- 10BASE-T:
  2-pair UTP Cat. 3, 4, 5 (100 m max.)
  EIA/TIA-586 100-ohm STP (100 m max.)
- 100BASE-TX:
  UTP Cat. 5 (100 m max.)
  EIA/TIA-568 100-ohm STP (100 m max.)

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

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

Flow Control (per port)
- IEEE 802.3x flow control in 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

Priority Queues
4 queues

Configuration
- Telnet
- Web-based configuration

Environmental & Physical

Power Consumption
3 watts (maximum)

Dimensions
160 mm x 100 mm

Weight
135 grams

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

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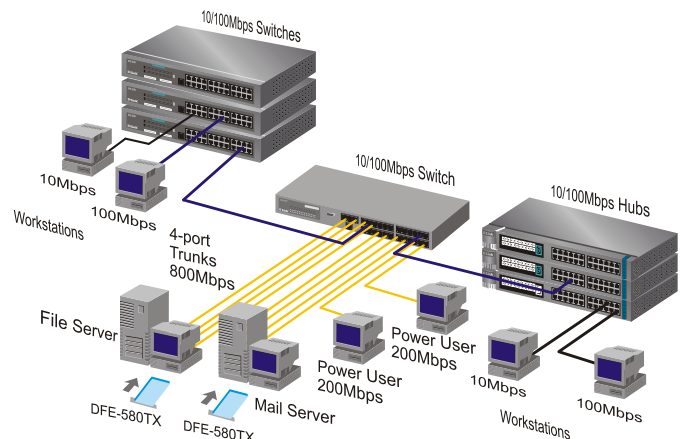$-25°$ - $55°$C ($-13°$ - $131°$F)

Humidity
5% - 90% non-condensing

EMI Certification
- FCC Class B
- CE Class B
- VCCI Class B
- BSMI Class B

Network O.S. Support
- Microsoft Windows 2000, NT 4.0, 2003server
- Linux support kernel versions: 2.2.18, 2.2.19, 2.4.2 through 2.4.16

Port Trunking

Connecting all 4 ports of the DFE-580TX server adapter to a switch in load-sharing configuration or redundant backup link mode.

Ordering Information

10/100Mbps Server Card
DFE-580TX   4 RJ-45 10BASE-T/100BASE-TX ports

D-Link®

Country	TEL	FAX
U.S.A.	TEL: 1-800-326-1688	FAX: 1-866-743-4905
Canada	TEL: 1-905-8295033	FAX: 1-905-8295223
Europe (U. K.)	TEL: 44-20-8731-5555	FAX: 44-20-8731-5511
Germany	TEL: 49-6196-77990	FAX: 49-6196-7799300
France	TEL: 33-1-30238688	FAX: 33-1-30238689
Netherlands	TEL: 31-10-282-1445	FAX: 31-10-282-1331
Belgium	TEL: 32(0)2-517-7111	FAX: 32(0)2-517-6500
Italy	TEL: 39-02-2900-0676	FAX: 39-02-2900-1723
Sweden	TEL: 46-(0)8564-61900	FAX: 46-(0)8564-61901
Denmark	TEL: 45-43-969040	FAX: 45-43-424347
Norway	TEL: 47-99-300-100	FAX: 47-22-309580
Finland	TEL: 358-9-2707 5080	FAX: 358-9-2707-5081
Spain	TEL: 34-93-4090770	FAX: 34-93-4910795
Portugal	TEL: 351-21-8688493	
Czech Republic	TEL: 420-(603)-276-589	
Switzerland	TEL: 41-(0)-1-832-11-00	FAX: 41(0)-1-832-11-01
Greece	TEL: 30-210-9914 512	FAX: 30-210-9916902
Luxemburg	TEL: 32-(0)2-517-7111	FAX: 32-(0)2-517-6500
Poland	TEL: 48-(0)-22-583-92-75	FAX: 48-(0)-22-583-92-76
Hungary	TEL: 36-(0)-1-461-30-00	FAX: 36-(0)-1-461-30-09
Singapore	TEL: 65-6774-6233	FAX: 65-6774-6322
Australia	TEL: 61-2-8899-1800	FAX: 61-2-8899-1868
India	TEL: 91-022-26526696	FAX: 91-022-26528914
Middle East (Dubai)	TEL: 971-4-3916480	FAX: 971-4-3908881
Turkey	TEL: 90-212-289-56-59	FAX: 90-212-289-76-06
Egypt	TEL: 202-414-4295	FAX: 202-415-6704
Israel	TEL: 972-9-9715700	FAX: 972-9-9715601
LatinAmerica	TEL: 56-2-232-3185	FAX: 56-2-232-0923
Brazil	TEL: 55-11-218-59300	FAX: 55-11-218-59322
South Africa	TEL: 27-12-665-2165	FAX: 27-12-665-2186
Russia	TEL: 7-095-744-0099	FAX: 7-095-744-0099 #350
China	TEL: 86-10-58635800	FAX: 86-10-58635799
Taiwan	TEL: 886-2-6600-0123	FAX: 886-2-6600-1188
Headquarters	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299

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