

DFE-580TX

DFE-580TX Fast Ethernet server card with 4 10/100Mbps 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

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Technical Specifications

10/100Mbps Server Card

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

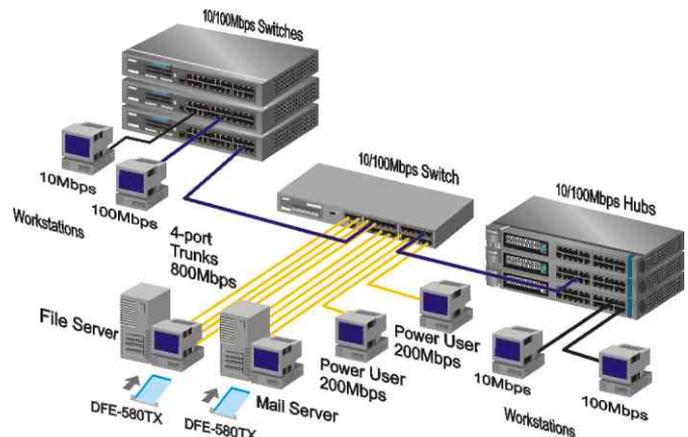
5% - 90% non-condensing

EMI Certification

- FCC Class B
- CE Class B
- VCCI Class B
- BSMI Class B

Network O.S. Support

- Microsoft Windows 2000, NT 4.0
- 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®

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