



Routing Switch for Departmental Connection

The DES-3326 is a multi-layer routing switch that combines wire-speed Layer 2 switching, multiple link aggregation and quality of service (QoS) with basic Layer 3 IP packet routing, all in one single box. Designed to give everything a business needs for today's switched networks, this switch gives you the edge device simplicity and the price/performance ratio ideal for departmental connection.

24 10/100Mbps Ports

The switch comes with 24 auto-sensing 10/100Mbps ports for direct connection to desktops. With this high port density, you can easily group workstations together for intra-domain Layer 2 packet switching, or inter-domain Layer 3 local packet routing.

2 Optional Gigabit Ports

An expansion slot allows for installation of 2 optional Gigabit ports, which are useful for Layer 3 switching. These ports inter-connect the domains, routing packets to/from servers or other switches connected to the Gigabit backbone. Gigabit options installable include the fiber and twisted-pair copper Gigabit ports.

Wire-speed IP Routing

The switch is designed for basic IP routing, with instant support for Windows, Unix and Internet environments. It provides wire-speed non-blocking switch fabrics with hardware-based packet filtering/forwarding. Packet routing is performed by on-board ASICs at speeds many times faster than CPU-based routers.

Ready for Voice, Video Applications

With Priority Queues and IP multicast (IGMP snooping) support, Quality of Services (QoS) can be guaranteed for successful execution of delay-sensitive applications like videoconference and IP telephony.

Easy Integration

With this switch, you can start with Layer 2 switching, then upgrade to Layer 3 routing anytime by simply re-configuring the ports. The switch can be seamlessly integrated into any existing Ethernet network. To filter extraneous traffic, your network can be segmented into (1) VLANs (Layer 2) with custom filters based on users' physical MAC addresses, or (2) domains (Layer 3) using subnet IDs and user IP numbers for packet routing.

Port Trunking

Port trunking provides an easy and economical alternative solution for server connection to attain near-Gigabit bandwidth. Up to 8 10/100Mbps ports can be combined together to create a multi-link load-sharing trunk. With low cost per port, domain servers can be cost-effectively connected on Fast Ethernet port trunks for wire-speed Layer 3 routing.

Redundant Power Supply

The switch can operate with or without a redundant power supply. For mission-critical applications, an optional RPS can be connected to the back of the switch to provide added reliability against power interruption risks.

Key Features

- 24 10/100Mbps ports
- 1 open slot for 2 optional Gigabit ports
- Choices of copper and fiber Gigabit ports
- Full/half duplex for Fast Ethernet ports
- Full duplex for Gigabit ports
- IEEE 802.3x flow control in full duplex mode
- Back pressure in half duplex mode (10/100Mbps ports only)
- IEEE 802.1Q VLANs
- Up to 6 port trunks, up to 8 Fast Ethernet ports per trunk
- Port mirroring
- IEEE 802.1D Spanning Tree for redundant backup paths
- SNMP/web-based management, RMON monitoring
- TFTP firmware upgradeable
- Telnet configuration
- Redundant power supply support

Technical Specifications

Multi-layer Switch

General

Standards

- IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.3x Flow Control
- IEEE 802.1p Priority Queues
- IEEE 802.1Q VLAN
- IEEE 802.1D Spanning Tree

Protocol

CSMA/CD

Data Transfer Rates

- Ethernet:
 - 10Mbps (half duplex)
 - 20Mbps (full duplex)
- Fast Ethernet:
 - 100Mbps (half duplex)
 - 200Mbps (full duplex)
- Gigabit Ethernet:
 - 2000Mbps (full duplex)

Topology

Star

Network Cables

- 10BASE-T:
 - 2-pair UTP Cat. 3, 4, 5 (100 m)
 - EIA/TIA-568 100-ohm STP (100 m)
- 100BASE-TX, 1000BASE-T:
 - UTP Cat. 5 (100m max.)
 - EIA/TIA-568 100-ohm STP (100m max.)

Full/half Duplex

- Full/half duplex for 10/100Mbps speeds
- Full duplex only for Gigabit speed

Media Interface Exchange

MDI-II/MDI-X uplink port (shared with 1 Fast Ethernet port)

Performance & Management

Switch Fabric

8.8Gbps

Packet Forwarding Rate

6.6Mpps

Switching Method

Store-and-forward

Routing Protocols

RIP-1, RIP-2, OSPF*

MAC Address Table

8K entries per device

IP Address Routing Table

2K entries per device

RAM Buffer

16MB per device

IEEE 802.1p Priority Queues

4 queues

RMON Groups

1, 2, 3, 9

MIBs

- MIB-II (RFC 1213)
- Bridge MIBs (RFC 1493)
- RMON MIBs (RFC 1757)
- VLAN MIBs (RFC 2674)
- IF MIBs (RFC 2233)
- IF-Forward MIBs (RFC 2096)
- RIP-2 MIBs (RFC 1724)
- IGMP MIBs
- ID_REC MIBs
- IPMROUTE MIBs
- PIM MIBs
- DVMRP MIBs

IP Number Self-identification

Through DHCP client, Bootp client

Console Port

DB-9 RS-232

Diagnostic LEDs

- Link/Act (per port)
- 10/100Mbps (per 10/100Mbps port)
- Power (per device)
- Console (per device)

* OSPF routing protocol supported in next version

Physical & Environmental

Ventilation

2 40 x 40 x 10 mm DC fans

Power Consumption

35 watts max.

Weight

2.8kg (6.2 lb.)

Dimensions

441 x 210 x 43 mm (17.3 x 53.3 x 1.7 inches)
Standard 19-inch rack-mount width, 1 U height

Power Supply

- 100 - 240VAC 50/60Hz internal universal power supply
- Socket for connection to RPS

Operating Temperature

0°C - 50°C (32° - 122° F)

Storage Temperature

-25°C - 55°C (-13° - 131° F)

Emission

- FCC Class A/ICES-003 (Canada)
- CE Class A (EN55022, EN50082-1)
- C-Tick (AS/NZS 3548)
- VCCI Class A ITE - BSMI (CNS 13438)

Safety

- IEC 950 (CB)
- UL 1950 (CB)
- TUV (EN60950)



Ordering Information

10/100Mbps Multi-layer Routing Switch

DES-3326 24 10/100Mbps ports

Optional Modules

- DES-332T 2 RJ-45 100BASE-TX/1000BASE-T Gigabit copper ports
- DES-132G 2 SC 1000BASE-SX Gigabit fiber ports
- DES-132GL 2 SC 1000BASE-LX Gigabit fiber ports
- DES-132GB 2 GBIC ports

Optional Modules For Use With GBIC Ports

- DGS-701 1000BASE-SX GBIC FTR-8519-3A (Finisar), Wavelength 850m, Fiber type 50um/125um 500 MHz-km multimode fiber, distance 550m max.
- DGS-702 1000BASE-LX GBIC FTR-1319-3A (Finisar), Wavelength 1310m, Fiber type 9um single-mode fiber, distance 5km max.

Optional Redundant Power Supply & Module

- DPS-1000 8-slot redundant power supply chassis (includes one DPS-1001)
- DPS-1001 DC power module

D-Link®

Specifications subject to change without prior notice.
D-Link is a registered trademark of D-Link Corporation/D-Link System Inc. All other trademarks belong to their proprietors.



RECYCLABLE

Rev.01 (Sep. 2001)
Printed in Taiwan
7DES33260010

U.S.A	TEL: 1-949-788-0805	FAX: 1-949-753-7033	www.dlink.com
Canada	TEL: 1-905-829-5033	FAX: 1-905-829-5095	www.dlink.ca
Europe	TEL: 44-20-8731-5555	FAX: 44-20-8235-5511	www.dlink.co.uk
U.K	TEL: 44-20-8731-5555	FAX: 44-20-8235-5511	www.dlink.co.uk
Germany	TEL: 49-61-96779900	FAX: 49-61-967799300	www.dlink.de
Benelux	TEL: 31-40-2668713	FAX: 31-40-2668666	www.dlink-benelux.nl
France	TEL: 33-1-30-23-86-88	FAX: 33-1-30-23-86-89	www.dlink.fr
Italy	TEL: 39-02-2900-0676	FAX: 39-02-2900-1723	www.dlink.it
Iberia	TEL: 34-93-4965751	FAX: 34-93-4965701	www.dlinkiberia.es
Sweden	TEL: 46-(0)8-564-61900	FAX: 46-(0)8-564-61901	www.dlink.se
Norway	TEL: 47-22-991890	FAX: 47-22-207039	
Denmark	TEL: 45-43-96-90-40	FAX: 45-43-42-43-47	www.dlink.dk
Finland	TEL: 358-9-622-91660	FAX: 358-9-622-91661	www.dlink.fi.com
Singapore	TEL: 65-774-6233	FAX: 65-774-6322	www.dlink-intl.com
Australia	TEL: 61-2-9417-7100	FAX: 61-2-9417-1077	www.dlink.com.au
Japan	TEL: 81-3-5434-9678	FAX: 81-3-5434-9868	www.dlink.co.jp
China	TEL: 86-10-88097777	FAX: 86-10-88096789	
India	TEL: 91-22-652-6696	FAX: 91-22-652-8914	www.dlink-india.com
Middle East	TEL: 20-2-2456176	FAX: 20-2-2456192	www.dlink-me.com
South America	TEL: 56-2-232-3185	FAX: 56-2-232-0923	www.dlink.cl
South Africa	TEL: 27(0)126652165	FAX: 27(0)126652186	www.d-link.co.za
Russia	TEL: 7-095-737-3389	FAX: 7-095-737-3390	www.dlink.ru
Taiwan	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515	www.dlinktw.com.tw
D-Link Corp.	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299	www.dlink.com