D-Link®

DES-3226L

24-Port Managed 10/100Mbps Switch
With 2 Combo 1000BASE-T/SFP Gigabit

The DES-3226L is designed as a single-chip SNMP managed switch solution supporting 24 10/100BASE-TX ports and 2 combo 1000BASE-T/SFP (mini GBIC) Gigabit ports. This versatile switch provides cost-effective and reliable connection to 24 Ethernet workstations and 2 high-speed Gigabit servers. Advanced features like port trunks, VLANs and priority queues are provided, allowing a department to effectively deploy a bottleneck-free switching network for easy integration with a larger enterprise or campus network.

24 10/100BASE-TX Ports for Workstations

The switch provides 24 10/100Mbps ports supporting auto-sensing and auto-negotiation of network speeds and full/half duplex. These ports can connect to workstations and print servers, giving each a dedicated bandwidth. All ports support auto MDI/MDIX plug-and-play, allowing you to connect to workstations, servers, or other switches from any port without the need to change your usual straight-through twisted-pair cables.

2 Flexible Gigabit Connections

The switch provides 2 combo 1000BASE-T/SFP (mini GBIC) for flexible Gigabit connection. For cost-effective server deployment, you can connect them to your existing Cat. 5 twisted-pair network cable, using the 1000BASE-T ports. Alternately, the 1000BASE-T ports can be used to cascade the switches together to increase the port density. For network backbone attachment, optional transceivers can be installed in the SFP to connect to the fiber cable. Use of the SFP will disable their corresponding built-in copper 1000BASE-T connections.

VLANs for Enhanced Security & Performance

VLANs improve security and bandwidth utilization by limiting the broadcast domains and confining intra-group traffic within their segments. To segment up the network, nodes supporting IEEE 802.1Q VLAN Tagging connected to the switch can be grouped into different Virtual LANs (VLANs). The switch also supports GARP and GVRP (GARP VLAN Registration Protocol) for automatic VLAN configuration distribution.

Advanced CoS Support

The switch supports Layer 2 802.1p Priority Queue control to allow you to attach video servers to the switch to run delay-sensitive applications like video conference.

IGMP Snooping for Multicast Control

The switch listens to IGMP (Internet Group Management Protocol) messages to build mapping table and associate forwarding filters. It dynamically configures the switch ports to forward IP multicast traffic only to those ports associated with multicast hosts.

Port Mirroring

This function allows you to mirror adjacent ports for the purpose of analyzing incoming and outgoing packets where packet patterns can be studied.

Port Trunks for Aggregated Bandwidths

Port trunks provide an economical alternative for server connection to attain Gigabit bandwidth. Up to 4 10/100BASE-TX ports can be combined together to create a load-sharing aggregated bandwidth to a server.

Standards & Features

- *24 10/100BASE-TX ports*
- *2 combo 1000BASE-T/SFP (mini GBIC) Gigabit ports*
- *802.1Q, port-based, asymmetric VLAN for enhanced performance and security **
- *QoS with 802.1p Priority Queues for multimedia applications*
- *802.1x port-based authentication*
- *IGMP snooping (multicasting) for multimedia application support*

- *Port trunks, with 802.3ad LACP support **
- *802.1D and 802.1w Rapid Spanning Tree * for redundant backup bridge paths*
- *SNMP v.1, v.2C, v.3 management, RMON monitoring, Telnet support*
- *Web-based management with web GUI traffic monitoring*

* LACP, Rapid Spanning Tree and asymmetric VLAN available in future firmware upgrade

DES-3226L
Technical Specifications

General
Standards
- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet
- IEEE 802.3z Gigabit Ethernet
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.3x Flow Control

Number of Ports
- 24 10/100BASE-TX ports
- 2 combo 10/100/1000BASE-T/SFP (mini GBIC)

* Use of the SFP will disable their corresponding 1000BASE-T ports

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)

Network Cables
- 10BASE-T:
  UTP Cat. 3, 4, 5 (100 m max.)
  EIA/TIA-586 100-ohm STP (100 m max.)
- 100BASE-TX, 1000BASE-T:
  UTP Cat. 5, Cat. 5e (100 m max.)
  EIA/TIA-568 100-ohm STP (100 m max.)

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

Media Dependent Interface
Auto MDI/MDIX adjustment for all twisted-pair ports

LED Indicators
- Per 10/100Mbps port: Link/Act, Speed, FDX
- Per Gigabit port: Link/Act, Speed, FDX
- Per device: Power, Console

Software
VLAN
- 802.1Q Tagged VLAN
- Port-based VLAN
- GARP/GVRP
- Number of VLANs (static and dynamic combined):
  255 per device (max.)

Traffic Classification (CoS)
802.1p-based Priority Queues (2 queues)

Spanning Tree
- 802.1D Spanning Tree compatible
- 802.1w Rapid Spanning Tree *

* Available in future firmware upgrade

Multicast
IGMP Snooping

Access Security
- 802.1x port-based authentication - RADIUS client for 802.1x support
- SSH

Port Trunk
- Up to 4 ports per trunk
- Up to 7 trunks per device (including 1 trunk for Gigabit ports)
- 802.3ad LACP link aggregation support *

* Available in future firmware upgrade

Port Monitoring
- Port mirroring
- Broadcast storm control

Performance
Transmission Method
Store-and-forward

MAC Address Table
4K entries per device

MAC Address Learning
- Automatic update
- Disable MAC address learning per port

Packet Filtering/Forwarding Rates (half duplex)
- Ethernet: 14,880 pps per port
- Fast Ethernet: 148,809 pps per port
- Gigabit Ethernet: 1,488,095 pps per port

Switch Fabric
8.8Gbps

RAM Buffer
3MBits (embedded) per device

Configuration & Management
Management Support
- SNMP v.1, v.2C, v.3
- RMON monitoring
- Telnet server
- Command Line Interface (CLI)
- Web-based management with web GUI traffic monitoring and web MAC
  address browsing
- Traffic segmentation *
- Bandwidth control for 10/100BASE-TX ports (100K increment)

* Available in future firmware upgrade

MIBs
- MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- RMON MIB (RFC 1757)
- Ethernet-like MIB (RFC 1643)
- 802.1p MIB (RFC 2674)
- IGMP MIB
- D-Link enterprise MIB

RMON Groups
1, 2, 3, 9 (Alarm, Statistics, History, Event)

IP Number Self-Identification
Through DHCP client, Bootp client

Firmware Upgrade
TFTP

Console Port
DB-9 RS-232 DCE

Physical & Environmental
AC Input
100 to 240 VAC, 50/60 Hz
Internal universal power supply

Dimensions
441 (W) x 208 (D) x 44 (H) mm (device only)
19-inch standard rack-mount width, 1 U height

Weight
4.0 kg (device only)

Operating Temperature
$0°$ to $40 °C$

Storage Temperature
$-25°$ to $55 °C$

Humidity
5% to 95% non-condensing

Emission (EMI)
- FCC Class A
- CE Class A
- C-Tick

Safety
CSA International

CSA 950
UL 1950
IEC 60950
EN60950

Ordering Information

10/100Mbps Managed Switch

DES-3226L   24 10/100BASE-TX ports
2 combo 10/100/1000BASE-T/SFP (mini GBIC)

Optional SFP Transceiver

DEM-310GT   SFP transceiver for 1000BASE-LX, single-mode fiber,
max. distance 10km, 3.3V

DEM-311GT   SFP transceiver for 1000BASE-SX, multi-mode fiber,
max. distance 550m, 3.3V

DEM-314GT   SFP transceiver for 1000BASE-LHX, single-mode fiber,
max. distance 35km, 3.3V

DEM-315GT   SFP transceiver for 1000BASE-ZX, single-mode fiber,
max. distance 80km, 3.3V

D-Link®

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Middle East (Dubai)	TEL: 9714-8834234	FAX: 9714-8834394
Turkey	TEL: 90-212-335-2553	FAX: 90-212-335-2500
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
Brasil	TEL: 55-11-55039320	FAX: 55-11-55039321
South Africa	TEL: 27(0)1266-52165	FAX: 27(0)1266-52186
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RECYCLABLE
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