



DES-3526

DES-3550

## 24/48-Port 10/100Mbps Stackable Switches

### With 2 Combo 1000BASE-T/SFP Gigabit Ports

The D-Link DES-3500 series of 10/100Mbps Stackable Switches are mutually stackable switches that feature D-Link's state-of-the-art Single IP Management technology. Equipped with 24 to 48 10/100BASE-TX ports and 2 combo 1000BASE-T/SFP Gigabit in a low-profile rack-mount box, these switches are designed for secure and flexible connection. Simple to deploy and easy to manage, these switches comprise the departmental access-layer devices that can be easily stacked and configured with any switches supporting D-Link's Single IP Management, including the L3 core switches, to form part of a multi-level network structured with backbone and centralized high-speed servers.

#### Cost-Effective Virtual Stacking

Basically, the DES-3500 series switches form a departmental stack providing 10/100Mbps speed with flexible Gigabit uplinks. Traffic running among the stacked units is through the fast full-duplex Gigabit interfaces and your usual network wires, doing away with the costly and cumbersome stacking cables. Without any stacking cable, cable distance barrier and physical stacking method limitations, your stack can comprise units that are located anywhere on the network, eliminating the possibility of any single point of failure.

#### Single IP Management

The DES-3500 series simplifies and speeds up your management tasks, as multiple switches can be configured, monitored and maintained from any workstation running a web browser through one unique IP address. The stack is managed as a single object, and all stacked units are identified by a single IP address. Through the built-in web manager, you can have a Tree View with clear information about the members of the stacks, and your Network Topology that shows the locations of the stacked units and their link information. This simple yet powerful web-based management eliminates the need for you to install expensive SNMP network management software.

#### Easy Expansion to 32 Units per Stack

From an access-level departmental stack, you can easily add units to up to 32 switches per stack not limited to any specific models. Your Virtual Stack's support for any switch models with embedded Single IP Management means that you can expand your stack to include L3 core switches, chassis-based switches or any other switches, to accommodate your network growth.

#### Comprehensive Security

The DES-3500 series provides a complete set of security features for connectivity and access control. This set includes Access Control Lists (ACLs) based on MAC address, switch port, IP address, and/or TCP/UDP port numbers, 802.1x user authentication and MAC address control. The DES-3500 also provides central management for administration access via TACACS+ and RADIUS\*. Together with network application control, this security ensures that not only proper user access is served, but malicious traffic is also prevented from being spread across the network.

#### Enhanced Network Performance & Availability

The DES-3500 series switches provide extensive VLAN support including GARP/GVRP, 802.1Q and asymmetric VLAN to enhance network security and performance. Bandwidth control allows you to set traffic limit for each port to control the traffic volume from the edge of the network. The switches supports redundant power option to maximize network uptime. Other features include 802.3ad Link Aggregation, 802.1d Spanning Tree and 802.1w Rapid Spanning Tree to increase network reliability and availability of your Virtual Stack.

#### Multi-layer Quality of Service (QoS)

The DES-3500 series implements a robust set of multi-layer (L2, L3, L4) QoS/CoS features to ensure that critical network services like VoIP, ERP, Intranet and video conference are served with proper priority. 4 priority queues for 802.1p/TOS/DiffServ are supported, with classification and marking based on MAC SA/DA, IP SA/DA, and/or TCP/UDP port numbers.

### Key Features

- Choices of 24 and 48 10/100BASE-TX ports per switch
- 2 combo 1000BASE-T/SFP Gigabit uplinks per switch
- Virtual stacking of up to 32 units per stack
- Up to 13.6Gbps backplane bandwidth
- Complete network access management solution
- Multi-layer (L2, L3, L4) Quality of Service
- Advanced Access Control Lists (ACL), enhanced TACACS+ and RADIUS authentication \*
- 802.3ad LACP Link Aggregation port trunks
- IGMP snooping for multimedia applications
- CLI, Web-based and SNMP management, RMON monitoring
- Optional redundant power support

\* RADIUS support available in future firmware upgrade

# DES-3526/3550

## Technical Specifications

## 10/100Mbps L2 Stackable Switch

### Hardware

#### Number of Ports

- DES-3526: 24 10/100BASE-TX ports, 2 combo 1000BASE-T/SFP
- DES-3550: 48 10/100BASE-TX ports, 2 combo 1000BASE-T/SFP

#### Port Standard/Function Support

- IEEE 802.3 10BASE-T/802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T/802.3z 1000BASE-SX/LX
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.3x Flow Control
- Auto MDI/MDIX

#### SFP Support

- IEEE 802.3z 1000BASE-LX (DEM-310GT transceiver)
- IEEE 802.3z 1000BASE-SX (DEM-311GT transceiver)
- IEEE 802.3z 1000BASE-LH (DEM-314GT transceiver)
- IEEE 802.3z 1000BASE-ZX (DEM-315GT transceiver)

### Software

#### VLAN

- IEEE 802.1Q Tagged VLAN
- Port-based VLAN
- GARP/GVRP
- Maximum number of VLANs per device: 255 static VLANs

#### Priority Queues (CoS)

- Standard: IEEE 802.1p
- Number of queues: 4

#### Traffic Classification (CoS)

Can be based on user-definable application types:

- TOS
- Diffserv (DSCP)
- Port-based
- MAC address
- IP address
- TCP/UDP port number

#### Access Security

- 802.1x port-based access control
- 802.1x MAC-based access control
- Port security
- SSH v.1, v.2

#### Access Control List

Multi-layer ACL based on:

- Port number
- TOS
- Diffserv (DSCP)
- MAC address
- IP address
- Packet protocol type
- TCP/UDP port number (user-definable application types)
- TCP/UDP payload (user-definable packet content)
- Per port ACL definition

#### Spanning Tree Protocol

- 802.1D Spanning Tree compatible
- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree \*

\* Function available in future firmware upgrade

#### IP Multicast

- IGMP Snooping
- IGMP v.3 \*

\* Function supported in future firmware upgrade

#### Port Trunk

- Maximum number of ports per trunk: 8
- Maximum number of trunks per device: 6 (DES-3526), 6 (DES-3550)
- Operation mode: load sharing
- 802.3ad compatible Link Aggregation (LACP) static & dynamic modes

#### Performance Enhancement Functions

- Traffic segmentation
- Bandwidth control

### Performance

#### Switch Fabric

- DES-3526: 8.8Gbps
- DES-3550: 13.6Gbps

#### Packet Forwarding Rate

- DES-3526: 6.6Mpps
- DES-3550: 10.1Mpps

#### Transmission Method

Store-and-forward

#### MAC Address Table

- DES-3526: 8K entries per device
- DES-3550: 8K entries per device

#### MAC Address Learning

- Dynamic entries: automatic update
- Static entries: user-defined

#### Packet Buffer Memory

- DES-3526: 16Mbytes per device
- DES-3550: 64Mbytes per device

### Configuration & Management

#### Management Support

- Single IP Management v.1
- SNMP v.1, v.2c, v.3
- Web-based management
- Web GUI traffic monitoring
- Web-based MAC address browsing
- CLI (command line interface)
- RMON monitoring
- Telnet server (up to 8 sessions)
- TACACS+ authentication on switch admin access
- RADIUS authentication on switch admin access \*
- SYSLOG
- DHCP/Bootp relay
- DNS relay
- Dual Images
- Back-Door function
- Web GUI traffic monitoring
- Web MAC address browsing
- Port description
- CPU utilization monitoring

\* Function available in future firmware upgrade

#### MIBs

- MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- RMON MIB (RFC 1757)
- 802.1p Priority Queues (RFC 2674)
- 802.1Q VLAN MIB (RFC 2674)
- IGMP MIB (RFC 2833)
- IF MIB (RFC 2233)
- Ethernet-like MIB (RFC 1643)
- 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

#### LED Indicators

Per Device:

- Power
- Console
- RPS

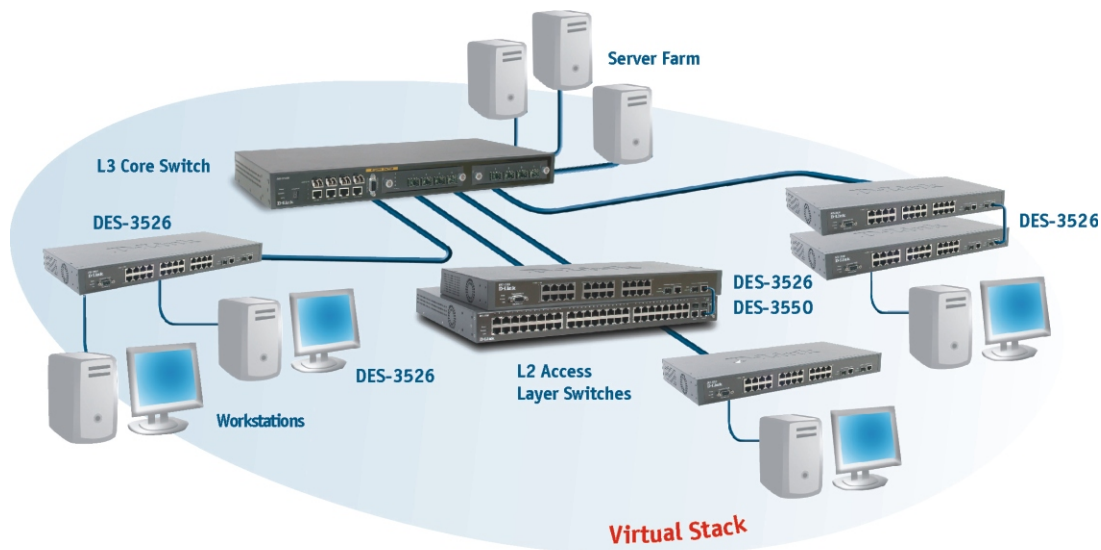
Per Port:

- 10/100Mbps
- GE

# DES-3526/3550

## Technical Specifications

### 10/100Mbps L2 Stackable Switch



### Virtual Stacking With Single IP Management

#### Power Supply

100 to 120 VAC, 200 to 250 VAC, 50 to 60 Hz  
Internal universal power supply

#### Redundant Power Backup Support

Connector to external RPS

#### Power Consumption

- DES-3526: 23 watts (max.)
- DES-3550: 40 watts (max.)

#### Ventilation

- DES-3526: 40mm x 40mm DC fan x 1
- DES-3550: 40mm x 40mm DC fan x 2

#### Dimensions

- DES-3526: 441 x 207 x 44 mm (device only)
- DES-3526: 441 x 309 x 44 mm (device only)
- 19-inch rack-mount width, 1U height

#### Weight

- DES-3526: 2.56 kg (device only)
- DES-3550: 4.4 kg (device only)

#### Operating Temperature

0° to 40 °C

#### Storage Temperature

-40° to 70 °C

#### Humidity

5% to 95% non-condensing

#### Emission (EMI)

- FCC Class A
- CE Class A
- C-Tick

#### Safety

CSA International



### Ordering Information

#### L2 Stackable Switches

- DES-3526** 24 10/100BASE-TX ports, 2 combo 1000BASE-T/SFP
- DES-3550** 48 10/100BASE-TX ports, 2 combo 1000BASE-T/SFP

#### 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 50km, 3.3V
- DEM-315GT** SFP transceiver for 1000BASE-ZX, single-mode fiber, max. distance 80km, 3.3V

#### Optional Redundant Power Supply

- DPS-200** 60-watt redundant power supply

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