



High Performance Switching:

- + D-Link® Single IP Management (SIM) Stacks Up to 32 Units with a Single IP Address

Security:

- + DoS Attack Prevention
- + SSHv1/2, SSLv2
- + Microsoft® NAP Support
- + TACACS+, RADIUS
- + IP-MAC-Port Binding
- + DHCP Server Screening
- + Traffic Segmentation
- + L2/3/4 Access Control List
- + Guest VLAN

Network Management:

- + SNMPv1/v2c/v3 Support
- + RMON v1 (4 Groups)
- + Web GUI and CLI
- + Port Mirroring

Advanced Standards Based Enterprise Features:

- + 802.1p Priority (4 Queues)
- + L2/L3/L4 QoS
- + 802.1X (Port/MAC-based)
- + 802.1Q VLANs (Port-based, up to 255 Groups)
- + IGMP Snooping
- + 802.3ad Link Aggregation
- + 802.1w Rapid Spanning Tree
- + 802.1s Multiple Spanning Tree

xStack® Managed 24/48-Port 10/100 Stackable L2 Switch with 2 Gigabit Copper Ports and 2 Combo SFP Slots

Overview

The D-Link® xStack® DES-3500 Series features high-performance, managed, stackable Layer 2 switches for the ideal workgroup and department solution. D-Link Single IP Management (SIM) clusters virtual stacks of up to 32 DES-3526/3550 switches, meaning fewer distance limitations through a single IP address. The clustering environment can span buildings, making it perfect for businesses that require multiple building deployment. The switches also provide comprehensive security for edge access such as Access Control List, DHCP server screening, and D-Link Safeguard Engine™.

Non-Blocking Switching

The DES-3526/3550 provide non-blocking switching on all 10/100 connections, with enough bandwidth for traffic on all ports. The 24 10/100 ports on the DES-3526 have a non-blocking bandwidth of 8.8 Gbps. The DES-3550 provides 13.6Gbps of non-blocking bandwidth on 48 10/100 ports. In addition, each switch provides two 10/100/1000BASE-T combo ports, which are disabled when a corresponding 1000BASE-X SFP slot is engaged, providing greater network flexibility.

D-Link Safeguard Engine™ and Security

These switches incorporate advanced mechanisms to detect attacks and take corrective action on the attacking interface. When a Denial-of-Service (DoS) attack is waged, the D-Link Safeguard Engine prevents overload of the central processor to ensure network integrity and help maintain open network bandwidth channels.

In addition, the switches support 802.1X authentication, which is used in conjunction with a RADIUS server to require a username and password before access to the network is allowed. Other security features include Access Control Lists, which restrict network access through such means as a MAC address, IP, UDP/TCP, and even VLAN ID.

For edge network security, the DES-3526/3550 support features such as DHCP Server Screening, DHCP Client Filtering, and IP-MAC-Port Binding to prevent security breaches such as rogue DHCP server, man-in-the-middle attacks or IP spoofing. For clients with Windows® XP SP3, Windows Vista®, or servers with Windows Server® 2008, the switches work in conjunction with Microsoft® Network Access Protection (NAP), enforcing compliance with network health policies. The switches will grant access only when network hosts comply with IT security policies, such as up-to-date anti-virus signatures and operating system patches, preventing infected clients and servers from gaining access and contaminating the network.

Ease of Management

The DES-3526/3550 support SNMP v1/2c/3, which enables the switches to be polled for valuable status information and send traps on abnormal events. This sharing of vital management information saves time and money. Other standard management features include RMON, an intuitive Web-based graphic interface, and an industry-standard Command Line Interface (CLI). Both xStack switches also have redundant power options for mission critical applications.

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Single IP Management

The DES-3526/3550 utilize Single IP Management Technology (SIM) so a set of switches can be managed by a single IP address regardless of geographical location. Traffic crosses this virtual stack through full-duplex interfaces and network wires, eliminating costly and cumbersome cables. Without stacking cables, cable distance barriers, or physical stacking limitations, stacked units can be located anywhere on the network, minimizing the impact of any single point of failure. Furthermore, switch configuration, monitoring, and maintenance can be performed over the Internet using one unique IP address. The stack is managed as a single object with a single IP address. A Tree View shows all the members of the stack and a network topology with switch locations and their link information, eliminating the need for expensive SNMP network management software. Up to 32 D-Link switches can be on a single stack. With embedded SIM, you can expand the Ethernet stack to include L3 core Gigabit and chassis-based switches to accommodate network growth.

Advanced Enterprise Features

With voice, data, and video often on the same network, today's businesses need to prioritize network traffic. The DES-3526/3550 meet this challenge with a variety of

advanced features. This begins with 802.1p CoS with 4 queues. The administrator can prioritize traffic based on IP or MAC address for voice data that is always clear and jitter-free. Video traffic can also be assigned as a priority.

The switches also utilize IGMP Snooping to analyze data packets and forward them through only where appropriate. This means that multicast packets, such as streaming audio and video or other bandwidth hogs, get through without creating extra network congestion. This smart packet management also reduces the workload of other devices further down the line, making your entire network function more efficiently. With these advanced features used in conjunction with 802.1Q VLANs, Quality of Service and greater security can be achieved on your network.

The DES-3526/3550 also provide easy video streaming management, supporting per port multicast stream control so service providers can assign limited multicast addresses per port. This provides more security control for each subscriber on a port level to prevent unauthorized multicast access. The DES-3526/3550 also support IGMP multicast VLAN, so duplicate multicast traffic is not sent to clients in different VLANs and bottlenecks are removed from the uplink port.



	DES-3526	DES-3550
Interface		
10/100BASE-TX Ports	24	48
Combo 10/100/1000BASE-T Ports/SFP Slots	2	2
Auto-Negotiation of Network Speeds (RJ-45 Ports)	yes	yes
Auto-MDI/MDIX (RJ-45 Ports)	yes	yes
RS-232 Console Port	yes	yes
Power		
Power Input	100 to 240VAC, 10A, 50 to 60Hz	100 to 240VAC, 10A, 50 to 60Hz
Power Consumption	23 Watts Maximum	40 Watts Maximum
Optional Redundant Power Supply	yes	yes

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	DES-3526	DES-3550
Performance		
Switching Capacity	8.8Gbps	13.6Gbps
Maximum 64-Byte System Packet Forwarding Rate	6.6Mpps	10.1Mpps
MAC Address Table	8K	8K
Packet Buffer Size	16MB	64MB
Diagnostic LEDs		
10Mbps or 100Mbps Speed (Per Ethernet Port)	yes	yes
10/100Mbps or 1000Mbps Speed (Per Gigabit Port)	yes	yes
Link/Activity (Per Port)	yes	yes
Power, Console, RPS (Per Device)	yes	yes
Physical/Environmental		
Ventilation DC Fans	1 Fan (1.6" x 1.6")	2 Fans (1.6" x 1.6")
BTU/Hour	73.8	157
Dimensions (W x D x H)	17" x 8" x 1.7" (431.8mm x 203.2mm x 43.9mm)	17.5" x 12.2" x 1.7" (444.5mm x 308.9mm x 43.9mm)
Size	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height
Weight	8.8 lbs (4 kg)	9.4 lbs (4.3 kg)
Operating Temperature	32° to 104°F (0° to 40°C)	32° to 104°F (0° to 40°C)
Storage Temperature	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)
Humidity	5% ~ 95% Non-condensing	5% ~ 95% Non-condensing
EMI	FCC Class A, CE, C-Tick	FCC Class A, CE, C-Tick
Safety	CSA International	CSA International
Acoustic (Refer to ISO-7779)	< 34dB	< 43dB
Software Functions		
VLAN	+ IEEE 802.1Q Tagged VLAN (2005 Edition) ²	+ Port-based VLAN
	+ Maximum Number of VLANs per Device: 255 VLANs (Static and Dynamic Combined)	+ GARP/GVRP
Priority Queues (CoS)	+ Standard: IEEE 802.1p	+ Number of Queues: 4
Traffic Classification (Cos) Can be used on user-definable application types:	+ TOS	+ Diffserv (DSCP)
	+ Port-based	+ MAC Address
	+ IP Address	+ TCP/UDP Port Number

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Security	+ Port Security (64 MAC Addresses Maximum)	+ 802.1x Port-based Access Control
	+ 802.1X MAC-based Access Control	+ SSH v1, v2
	+ Per Port Traffic Segmentation	+ ARP Spoof Prevention
	+ SSL v2	+ DHCP Client Filtering
	+ IP-MAC-Port Binding (512 Entries)	+ NetBIOS Filtering
	+ DHCP Server Screening	+ RADIUS Authentication for Management
	+ TACACS+/Radius/+ARP Spoofing Prevention ²	
Access Control List Multi-layer ACL (800 entries) 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)
	+ Time-based ACL ²	
Spanning Tree Protocol	+ 802.1D Spanning Tree Compatible (2004 Edition)	+ 802.1w Rapid Spanning Tree
	+ Per Port BPDU Filtering	
IP Multicast	+ IGMP Snooping v1, v2 (128 Groups)	+ Limited IP Multicast Range
	+ Enable Definite VLAN for Multicast	+ IGMP Snooping Fast Leave
	+ ISM VLAN	
Port Trunk	+ Maximum Number of Ports per Trunk: 8	+ Maximum Number of Trunks per Device: 6
	+ Operation Mode: Load Sharing	+ 802.3ad compatible Link Aggregation (LACP) Static and Dynamic Modes on Uplink and Downlink Ports for Traffic Load Balance and Redundancy
Firmware Upgrade	+ TFTP Remote Upgrade	
Management Support	+ Single IP Management (SIM) v1.6	+ Command Line Interface (CLI)
	+ RMON v1 Monitoring	+ Telnet Client
	+ Telnet Server (Up to 8 Sessions)	+ SYSLOG
	+ Dual Images	+ Web GUI Traffic Monitoring
	+ Cable Diagnostics ²	+ RFC 2030 SNTP (Simple Network Time Protocol)
	+ SNMP v1, v2c, v3	+ BootP/DHCP Client
	+ DHCP Relay Option 60 ² /61 ² /82	+ Loopback Detection
	+ LLDP ²	+ Three-level User Account
Performance Enhancement Functions		+ DHCP Local Relay
	+ Traffic Segmentation	+ Bandwidth Control from 1Mbps to the Port's maximum Rate (in steps of 1Mbps)
	+ Broadcast Storm Control: User-configurable from 1pps (Packet per Second)	+ D-Link Safeguard Engine™
	+ CPU Interface Filtering	

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MIBs	+ 802.1Q Q-BRIDGE-MIB (RFC 2674)	+ 802.1p P-BRIDGE-MIB (RFC 2674)
	+ MIB-II (RFC 1213)	+ Bridge MIB (RFC 1493)
	+ RMON MIB (RFC 1757) Group 1, 2, 3, 9 (Alarm, Statistics, History, Event)	+ IGMP MIB (RFC 2933)
	+ IF MIB (RFC 2933)	+ Ethernet-like MIB (RFC 1643)
	+ PING-MIB and TRACEROUTE-MIB (RFC 2925)	+ ICMP Ping by MIB
	+ Rate Limiting by MIB	+ Save Configuration by MIB
	+ 802.1w Setting and Read by MIB	+ Port Interface MIB-II Trap (RFC 1215)
	+ D-Link® Enterprise MIB	
Warranty	Lifetime ¹	

Ordering Information

Part Number	Description
DES-3526	xStack Managed 24-Port 10/100 Stackable L2 Switch, 2 Gigabit Copper Ports + 2 Combo SFP
DES-3550	xStack Managed 48-Port 10/100 Stackable L2 Switch, 2 Gigabit Copper Ports + 2 Combo SFP
DEM-310GT	1000BASE-LX SFP Module, up to 10Km
DEM-311GT	1000BASE-SX SFP Module, up to 550m
DPS-200	Redundant Power Supply Unit, 60 Watt RPSU
DPS-800	2-Slot RPSU Open Chassis for DPS-200/DPS-500
DPS-900	8-Slot RPSU Open Chassis for DPS-200/DPS-500
DV-600P	D-View 6.0 Network Management Software, Professional Version
DV-600S	D-View 6.0 Network Management Software, Standard Version

¹ Lifetime warranty available only in the USA and Canada if purchased on or after March 30, 2009. Visit www.dlink.com for warranty details.

² Feature only available with firmware v5.01.B52. Available for download at support.dlink.com.

All references to speed are for comparison purposes only. Product specifications, size and shape are subject to change without notice, and actual product appearance may differ from that depicted herein. Some features only available on firmware version v5.01 B52