



High Performance Switching:

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

Security:

- + DoS Attack prevention
- + SSHv1/2, SSLv2
- + Microsoft® NAP
- + TACACS+, RADIUS
- + IP-MAC-Port binding
- + DHCP server screening
- + Traffic segmentation
- + L2/3/4 Access Control List
- + Guest VLANs

Network Management:

- + SNMPv1/v2c/v3 Support
- + RMON (4 Groups)
- + Web GUI or 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 group

Managed 24/48-Port 10/100Mbps plus 2 Gigabit Copper Ports and 2 Combo SFP Slots

Overview

The D-Link® xStack™ DES-3500 Series is a high-performance, managed, stackable Layer 2 switch that provides an ideal solution for workgroups and departments. D-Link Single IP Management (SIM) allows to cluster up a virtual stack of up to 32 DES-3526/3550 switches dispersed switches with fewer distance limitation through a single IP address. The clustering environment spans buildings, making it perfect for businesses that require multiple building deployment. The xStack switch also provides comprehensive security for edge access such as Access Control List, DHCP server screening, and DoS attack prevention.

Non-Blocking Switching

The D-Link xStack DES-3526/3550 provides non-blocking switching solution for a 10/100 fast Ethernet connection. The DES-3526 supports 24 10/100Mbps ports, with 2 gigabit 10/100/1000BASE-T ports. These gigabit copper ports will be disabled if the two 1000BASE-X SFP are used - known as dual personality or combo ports. DES-3550 also sports 2 combo gigabit ports, but features 48 10/100Mbps ports. The DES-3526 has a non-blocking bandwidth of 8.8Gbps, while the DES-3550 has an aggregated bandwidth of 13.6Gbps. Both xStack switches have a redundant power option for mission critical apps.

D-Link Safeguard Engine and Security

The DES-3526/3550 incorporates advanced mechanisms to detect an attack against the central processing unit of the switch and to take corrective action on the attacking interface. When a Denial of Service (DoS) attack is waged against the xStack switches, the D-Link Safeguard Engine detects the threat and prevents overload of the central processor thus insuring network integrity and helping to maintain open network bandwidth channels.

In addition, the DES-3500 Series supports 802.1x authentication, which is a secure means to allow users to log onto your network. When used in conjunction with a RADIUS server, 802.1x requires each user workstation attached to the xStack switches to provide a username and password before gaining access to the local area network. Other security features include access control list, which an administrator can restrict the access of a network through a variety of means including MAC address, IP, UDP/TCP, and even VLAN ID.

For edge network security, the DES-3500 Series supports features such as DHCP server screening, 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 Microsoft® Windows Server 2008, the DES-3526/3550 works in conjunction with the Microsoft® Network Access Protection (NAP) as part of an ecosystem that enforces compliance with network health policies. xStack switches will grant network host access only if it complies with IT security policies such as up-to-date anti-virus signatures and operating system patches. This prevents an infected client or server from gaining access and further contaminating the network.

Ease of Management

DES-3526/3550 supports SNMP v1/2/3 so traps can be set on abnormal events and information can be polled to maximize the productivity of the network. Other standard management features are also supported including RMON, intuitive Web-based graphic interface, and industry-standard Command Line Interface (CLI).

IP Clustering Stackable

The xStack DES-3526/3550 includes D-Link Single IP Management Technology (SIM), which allows a set of switches to be managed by a single IP, regardless of geographical locations. Traffic running across units in this virtual stack utilize full-duplex interfaces and network wires, eliminating costly and cumbersome cables. Without any stacking cables, cable distance barriers, and physical stacking limitations, your stack can be comprised of units that are located anywhere on the network, minimizing the impact of any single point of failure. Furthermore, multiple xStack 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, with all units identified by a single IP address. You can see a Tree View of the members of the stack and a network topology showing the locations of the units and their link information. This simple yet powerful Web-based management eliminates the need for you to install expensive SNMP network management software. Add up to 32 switches per stack, not limited to any specific D-Link models. With embedded SIM, you can expand your Ethernet stack to include L3 core Gigabit and chassis based switches to accommodate your network growth.

Voice and Video Applications

For today's business, having voice, data and video on the same network is common practice. This challenge is met by the D-Link 3500 Series, which supports 802.1p with 4 queues. The administrator can designate the priority of the traffic based on a variety of means including IP or MAC address, so that voice data always is always clear and jitter free. Video traffic can also be assigned with the same priority. In addition, the D-Link DES-3500 Series provides IGMP Snooping, which allows the forwarding of multicast packets such as streaming audio, video, without increasing network broadcast congestion. By snooping IGMP registration information within a frame, a list of workstations who have joined the multicast group is created. This list then allows the switch to intelligently forward packets to only the appropriate member workstations. In conjunction with 802.1Q VLANs, Quality of Service and security can be achieved on a network infused with data traffic.

For other multimedia-on-demand applications, such as IPTV deployments, the xStack DES-3526/DES-3550 provides advanced features for easy video streaming management. For example, this xStack family supports per port multicast stream control, which allows a service provider to assign limited multicast addresses per port. This means it can act as a security control pre-configured channels for each subscriber on a port level to prevent unauthorized multicast access. DES-3526/DES-3550 also supports IGMP multicast VLAN, which eliminates duplicate multicast traffic being sent to clients in different VLANs and thus removing bottlenecks in 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



DES-3526/DES-3550 xStack™ Layer 2 Switch

	DES-3526	DES-3550
Power		
Internal Power Supply	AC to DC	AC to DC
Power Input	100 to 240VAC, 10A, 50 to 60Hz	100 to 240VAC, 10A, 50 to 60Hz
Power Output	12VDC, 5A Maximum	12VDC, 5A Maximum
Power Consumption	23 Watts Maximum	40 Watts Maximum
Optional Redundant Power Supply	yes	yes
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		
Ventillation DC Fans	1 Fan (1.6" x 1.6")	1 Fan (1.6" x 1.6")
BTU/Hour	73.8	157
Dimensions (W x D x H)	17.4" x 8.1" x 1.7" (441mm x 207mm x 44mm)	17.4" x 12.2" x 1.7" (441mm x 309mm x 44mm)
Size	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height
Weight	5.64lbs (2.56kg)	9.70lbs (4.40kg)
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
MTBF	53,838 Hours	49,414 Hours
Acoustic (Refer to ISO-7779)	< 34dB	< 43dB

Software Functions

VLAN	+ IEEE 802.1Q Tagged VLAN	+ 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
Security	+ Port Security (64 MAC Addresses Maximum)	+ 802.1x Port-based Access Control
	+ 802.1x MAC-based Access Control	+ SSH v1, v2
	+ SSL v2	+ Per Port Traffic Segmentation
	+ IP-MAC-port Binding (512 Entries)	+ DHCP Client Filtering
	+ DHCP Server Screen	+ NetBIOS Filtering
	+ TACACS	+ RADIUS Authentication for Management
Access Control List Multi-layer ACL (100 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)
	+ Per Port ACL Definition	
Spanning Tree Protocol	+ 802.1D Spanning Tree Compatible (802.1D, 2004)	+ 802.1w Rapid Spanning Tree (Ring Protection with Network Recovery Time of Less Than 15 Seconds)
	+ Per Port BPDU Filter	
IP Multicast	+ IGMP v1, v2	+ IGMP Snooping (128 Groups)
	+ Enable Definite VLAN for Multicast	+ IGMP Fast Leave
	+ User-definable Per-port IP Multicast Range Limit	
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
Performance Enhancement Functions	+ 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	
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
	+ Web-based MAC Address Browsing	+ RFC 2030 SNTP (Simple Network Time Protocol)
	+ SNMP v1, v2c, v3	+ Bootp/DHCP Client
	+ DHCP Relay Option 82	+ Loopback Detection
	+ Password Recovery	+ Three-level User Account
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	

Optional SFP Transceivers

DEM-310GT	SFP Transceiver for 1000BASE-LX, Single-mode Fiber, Maximum Distance 10km, 3.3v
DEM-311GT	SFP Transceiver for 1000BASE-SX, Multi-mode Fiber, Maximum Distance 550m, 3.3v

Optional Redundant Power Supply

DPS-200	60-watt Redundant Power Supply
DPS-800	2-slot Redundant Power Supply Chassis
DPS-900	8-slot Redundant Power Supply Chassis

Management Software

DS-510	D-View® 5.1 SNMP Network Management Program
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Ordering Information

Part Number	Description
DES-3526	xStack 24-Port 10/100BASE-TX Switch with 2 Combo SFP/1000BASE-T Gigabit Ports
DES-3550	xStack 48-Port 10/100BASE-TX Switch with 2 Combo SFP/1000BASE-T Gigabit Ports
DEM-310GT	SFP Transceiver for 1000BASE-LX, Single Mode Fiber, Maximum Distance 10Km
DEM-311GT	SFP Transceiver for 1000BASE-SX, Single Mode Fiber, Maximum Distance 550M
DPS-200	Redundant Power Supply
DPS-800	2-Slot Redundant Power Supply Chassis
DPS-900	8-Slot Redundant Power Supply Chassis
DS-510	D-View 5.1 SNMP Network Management Program