



High Port Density

- + 24-Port (DES-3028 and DES-3028P)
- + 48-Port (DES-3052 and DES-3052P)
- + 4 10/100/1000BASE-T
- + 2 Combo SFP

Security

- + Port Security
- + ACL L2/L3/L4/Time-based
- + IP-MAC-Port Binding
- + 802.1X Guest VLAN
- + Traffic Segmentation
- + D-Link® Safeguard Engine™

QoS

- + Granular Bandwidth Control
- + 4 Hardware Queues
- + Packet Classification TOS/DSCP-based

Resiliency/Performance

- + 802.1Q VLAN Groups (4K)
- + 802.1D, 802.1w, and 802.1s Spanning Tree
- + 802.3ad Link Aggregation (Port Trunks)
- + Mini Jumbo Frame Support

Configuration/Management

- + Web-based GUI
- + Command Line Interface (CLI)
- + Telnet Client/Server
- + SNMP v1, v2c, v3, RMON v1, v2
- + D-Link Single IP Management (SIM)
- + RADIUS/TACACS+ Authentication for Management Access
- + SSH v2 and SSL v3
- + DHCP Relay Option 82
- + Port Mirroring
- + Link Layer Discovery Protocol (LLDP)

Managed 10/100 Stackable L2 Switches with 4 Gigabit Ports and 2 Combo SFP Slots with PoE (DES-3028P and DES-3052P)

Overview

The DES-3028 and DES-3052 are managed 10/100 Layer 2 stackable switches with 4 Gigabit ports and 2 combo SFP slots. The DES-3028P and DES-3052P are also managed 10/100 Layer 2 stackable switches with 4 Gigabit ports and 2 combo SFP slots, but also include PoE capabilities. With the option for 24 ports (DES-3028 and DES-3028P) or 48 ports (DES-3052 and DES-3052P), these high port density switches allow SMBs to set up secure and effective networks at an affordable cost. The fan-less design of the DES-3028 and DES-3052 ensures quiet operation and less heat emission than standard switches. With additional features such as enhanced network security, bandwidth control, and advanced management, the DES-3028, DES-3028P, DES-3052, and DES-3052P are cost-effective switches that deliver proven results.

Enhanced Security

The DES-3028, DES-3052, DES-3028P, and DES-3052P support comprehensive security functions including Access Control List (ACL), IP-MAC-Port Binding, and 802.1X Guest VLAN.

The D-Link® Safeguard Engine™ incorporates advanced mechanisms to detect an attack against the central processing unit of the switch and to take corrective measures on the attacking interface. When a Denial of Service attack is waged against any of the switches, the D-Link Safeguard Engine prevents the overload of the central processor, thus ensuring network integrity and helping to maintain open network bandwidth channels.

Supported by 802.1X Authentication, the DES-3028, DES-3052, DES-3028P, and DES-3052P also allow multiple users per port, bandwidth control, enable dynamic VLAN assignment, and secure access to the network via the individual member workstations. The IP-MAC-Port Binding feature allows administrators to bind a source IP address

with an associated MAC address and define the port number to enhance user access control. Furthermore, with the DHCP Snooping feature, the switches automatically understand the IP/MAC pairs by snooping DHCP packets and saving them to the IMPB white list.

Layer 2 Performance

The DES-3028, DES-3052, DES-3028P, and DES-3052P provide support for up to 4,094 802.1Q VLANs for improved convergence and bandwidth utilization. VLANs provide a means of securing each broadcast domain, segregating them from each other. This in turn prevents users on one VLAN from gaining access to resources on other network segments. VLANs can be configured to segment departmental resources. For example, VLANs can be implemented on an SMB network to prevent the Marketing department from gaining access to secure resources in the Accounting department.

Loop detection is also supported by the DES-3028 and DES-3052 Series, which detects a loop in the network even though the end device causing the loop is without spanning tree. When the switch detects a loop in the connected node, it shuts down the port with the loop so that the entire system will continue to function normally.

QoS

To help streamline networks, 802.1p Priority Tagging places a priority tag in a specified frame. When this frame is received by the switch, it is placed in a priority queue, enabling it to be prioritized ahead of other frames. IEEE 802.1p enables administrators to assign and designate traffic priority. This process helps applications such as VoIP and video conferencing to be delivered clear and jitter-free. The DES-3028 Series also support packet prioritization based on various attributes (e.g. VLAN ID or IP address) to ensure QoS in a busy network.

802.3af Power over Ethernet (DES-3028P and DES-3052P)

The DES-3028P and DES-3052P can supply power to PoE-enabled devices. Each port on the DES-3028P can support up to 15.4W of power, budgeting a total of 185W throughout all 24 ports. Each port on the DES-3052P can also support 15.4W of power, budgeting a total of 370W throughout all 48 ports. This can eliminate the need to place devices near power outlets and help clean up clutters of loose wires and cables. For any devices that are not PoE-enabled, PoE Adapters such as the D-Link DWL-P50 can be used to provide power to non-compliant devices.

Multicast

The DES-3028, DES-3028P, DES-3052, and DES-3052P support IGMP snooping, MLD snooping, and ISM VLAN for multicast applications. By passively snooping IGMP packets that are transferred between the DES-3028, DES-3028P, DES-3052, and DES-3052P and the IP multicast host, registration information is recorded and sorted into multicast groups. These switches can then intelligently forward traffic to only those ports that request multicast traffic. MLD snooping enhances efficiency in selective distribution by forwarding IPv6 multicast data to receiving ports, rather than flooding all ports in a VLAN.

Management

The DES-3028, DES-3052, DES-3028P, and DES-3052P support a plethora of standards-based management protocols including SNMP, RMON, Telnet, web-based GUI, LLDP, SSH/SSL protocols, and DHCP Replay Option 82. The switches feature a cable diagnostic utility that automatically detects when you have a bad cable, making troubleshooting much easier. D-Link also simplifies management by featuring Single IP Management (SIM), a useful tool that allows multiple switches to be configured, monitored, and maintained from any workstation using a single IP address. D-Link SIM stacking enables administrators to manage a virtual stack of up to 32 D-Link switches under a single IP address. D-Link SIM stacking is ideal for networks where switches may span across different buildings but still require a shared IP address. The Link Layer Discovery Protocol (LLDP) allows a network device to advertise its identity and capabilities on the local network, which help businesses better manage their network topology.



	DES-3028	DES-3052	DES-3028P	DES-3052P
Interface				
10/100BASE-TX Ports	24	48	24	48
10/100/1000BASE-T Ports	4	4	4	4
Combo SFP	2	2	2	2
802.3af PoE Support	n/a	n/a	per 10/100BASE-TX Port	per 10/100BASE-TX Port
RS-232 Console Port	yes	yes	yes	yes
Performance				
Switch Capacity	12.8Gbps	17.6Gbps	12.8Gbps	17.6Gbps
64-Byte Packet Forwarding Rate	9.5Mpps	13.1Mpps	9.5Mpps	13.1Mpps
MAC Address Table Size	8K	8K	8K	8K
Packet Buffer	512KB	512KB	512KB	512KB
Flash Memory	8MB	8MB	8MB	8MB
Mini-Jumbo Frame (2048 Bytes)	yes	yes	yes	yes
Diagnostic LED Indicators				
Power (Per Device)	yes	yes	yes	yes
Console (Per Device)	yes	yes	yes	yes

	DES-3028	DES-3052	DES-3028P	DES-3052P
Link/Activity (Per Port)	yes	yes	yes	yes
	yes	yes	yes	yes
Speed Indicator (Per Port)	yes	yes	yes	yes
PoE	n/a	n/a	yes	yes

Physical & Environmental

Maximum Supplied PoE Power Per Device	n/a	n/a	185W	370W
Power Consumption	25W	26W	217W	395W
Power Input	10 to 240 VAC, 50 to 60HZ Internal Universal Power Supply	10 to 240 VAC, 50 to 60HZ Internal Universal Power Supply	10 to 240 VAC, 50 to 60HZ Internal Universal Power Supply	10 to 240 VAC, 50 to 60HZ Internal Universal Power Supply
Dimensions (W x D x H)	17.36" x 8.15" x 1.73" (441mm x 207mm x 44mm)	17.36" x 12.17" x 1.73" (441mm x 309mm x 44mm)	17.36" x 12.17" x 1.73" (441mm x 309mm x 44mm)	17.36" x 12.17" x 1.73" (441mm x 309mm x 44mm)
Size	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height
Weight	5.2lbs (2.36kg)	8.48lbs (3.85kg)	9.9lbs (4.5kg)	12.56lbs (5.7kg)
Ventilation	Fan-less	Fan-less	2 DC Fans	3 DC Fans
Heat Dissipation	84.23 BTU/hour	86.96 BTU/hour	742.7 BTU/hour	1347 BTU/hour
MTBF	449,357 hours	292,133 hours	196,003 hours	169,185 hours
Operating Temperature	32° to 104°F (0° to 40°C)	32° to 104°F (0° to 40°C)	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)	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)
Operating Humidity	5% ~ 95% Non-condensing	5% ~ 95% Non-condensing	5% ~ 95% Non-condensing	5% ~ 95% Non-condensing
EMI/EMC	FCC Class A, CE, C-Tick, VCCI Class A	FCC Class A, CE, C-Tick, VCCI Class A	FCC Class A, CE, C-Tick, VCCI Class A	FCC Class A, CE, C-Tick, VCCI Class A
Safety	cUL, LVD	cUL, LVD	cUL, LVD	cUL, LVD

Interface Options

RJ-45	10BASE-T, 100BASE-TX, & 1000BASE-T	10BASE-T, 100BASE-TX, & 1000BASE-T	10BASE-T, 100BASE-TX, & 1000BASE-T	10BASE-T, 100BASE-TX, & 1000BASE-T
LC	With Optional Standard Form-Factor Pluggable (SFP) Gigabit Transceivers	With Optional Standard Form-Factor Pluggable (SFP) Gigabit Transceivers	With Optional Standard Form-Factor Pluggable (SFP) Gigabit Transceivers	With Optional Standard Form-Factor Pluggable (SFP) Gigabit Transceivers

Software Specifications

L2 Features	+ IGMP Snooping v1, v2	+ IGMP Snooping Fast Leave
	+ MLD Snooping v1, v2 (max. 256 Groups)	+ 802.1D Spanning Tree (2004 Edition)*
	+ 802.1w Rapid Spanning Tree	+ 802.1s Multiple Spanning Tree
	+ BPDU Filtering per Port	+ Loopback Detection
	+ 802.3ad Link Aggregation (8 Ports per Group/6 Groups per Device)	+ Port Mirroring (One to One, Many to One)
	+ Mini Jumbo Frame (max. 2048 bytes)	+ IGMP Filtering (24 profiles, 128 ranges per profile)*

VLAN	+ Standard: 802.1Q	+ Static VLAN Groups: 4K
	+ Dynamic VLAN Groups: 200	+ GVRP
	+ VLAN Trunking*	+ Asymmetric VLAN*
	+ ISM VLAN*	+ Q-in-Q (Port-based)*
Quality of Service (QoS)	+ Quality of Service (QoS)	+ Outbound Priority Queues: 4 Queues
	+ Packet Classification Based on: <ul style="list-style-type: none"> - Switch Port - TCP/UDP Port Number - IPv4 - TOS - User Defined Packet Content 	+ Bandwidth Control <ul style="list-style-type: none"> - Rate Limit According to Network Speed <ul style="list-style-type: none"> + Under 2Mbps: in step of 64KB + Under 100Mbps: in step of 1MB + Above 100Mbps: in step of 8MB
	+ WRPR/Strict Queue Handling Mode	
Access Control List (Maximum 256 Profiles/Rules)	+ Multi-Layer ACL based on: <ul style="list-style-type: none"> - Switch Port - MAC Address - TOS - TCP/UDP Port Number 	<ul style="list-style-type: none"> - VLAN ID - IPv4 - DSCP - Time-Based ACL - 802.1p Priority - Protocol Type - User Defined Packet Content
Network Access/Security	+ RADIUS/TACACS+ Authentication for Management Access	+ RADIUS Accounting for Management Access
	+ Port Security (max. 16 MAC entries per port)	+ 802.1X Port-based Access Control
	+ 802.1X MAC-based Access Control	+ 802.1X Guest VLAN
	+ 802.1X Dynamic VLAN Assignment*	+ SSH v1, v2/SSL v3
	+ CPU Interface Filtering	+ Traffic Segmentation
	+ Broadcast Storm Control	+ D-Link® Safeguard Engine™
	+ DoS Attack Prevention*	+ IP-MAC-Port Binding*
	+ Gratuitous ARP*	
Management	+ D-Link Single IP Management (SIM) v1.6	+ Web-based GUI
	+ CLI (Command Line Interface)	+ Telnet Client/Server
	+ TFTP client	+ SNMP v1, v2c, v3
	+ RMON v1, v2	+ BOOTP/DHCP Client
	+ SNTP	+ SYSLOG
	+ Dual Image	+ Debug Command*
	+ Web GUI Traffic/CPU Monitoring	+ SNMP Trap
	+ DHCP Auto Configuration	+ DHCP Relay
	+ DHCP Relay Option 82	+ SMTP Client (E-mail Notification)
	+ LLDP*	+ Cable Diagnostics*

MIB Support	+ MIBII (RFC 1213)	+ Bridge MIB (RFC 1493)
	+ SNMP v2 MIB (RFC 1907)	+ RMON v2 MIB (RFC 1757, 2819)
	+ Ether-like MIB (RFC 1643, 2358, 2665)	+ 802.1p MIB (RFC 2674)
	+ IF MIB (RFC 2233, 2863)	+ RADIUS Accounting Client MIB (2620)
	+ Ping & TRACEROUTE MIB (RFC 2925)	+ Private MIB
	+ RADIUS Authentication Client MIB (RFC 2618)	

Warranty Information

Warranty	Limited Lifetime ¹
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Ordering Information

<i>Part Number</i>	<i>Description</i>
DES-3028	Managed 24-Port 10/100 Stackable L2 Switch, 4 Gigabit Copper Ports + 2 Combo SFP Slots
DES-3028P	Managed 24-Port 10/100 Stackable L2 PoE Switch, 4 Gigabit Copper Ports + 2 Combo SFP Slots
DES-3052	Managed 48-Port 10/100 Stackable L2 Switch, 4 Gigabit Copper Ports + 2 Combo SFP Slots
DES-3052P	Managed 48-Port 10/100 Stackable L2 PoE Switch, 4 Gigabit Copper Ports + 2 Combo SFP Slots
DEM-211	100BASE-FX Multimode LC SFP Transceiver, up to 2Km
DEM-310GT	1000BASE-LX SFP Module, up to 10Km
DEM-311GT	1000BASE-SX SFP Module, up to 550m

* Available on Firmware v.2.00B27 on support.dlink.com
¹ Lifetime Warranty available only in the U.S.A. and Canada.