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
+ 802.1x Port-based/MAC-based Access Control
+ 802.1x Guest VLAN
+ Traffic Segmentation
+ 802.1Q VLAN Groups (4K)
+ CPU DOS Prevention

QoS

+ Granular Bandwidth Control
+ 802.1p 4 Hardware Queues
+ Packet Classification TOS.DSCP Based

Resiliency/Performance

+ 802.1d, 802.1w, and 802.1s Spanning Tree
+ 802.3ad Link Aggregation (Port Trunks)
+ 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) v1.6
+ Virtual Stacking up to 32 units
+ RADIUS/TACACS+ Authentication for Management Access
+ SSH v2 and SSL v3
+ DHCP Relay Option
+ Port Mirroring

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 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. 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 many security functions including Access Control List (ACL), 802.1x Port-Based/MAC-Based Access Control, 802.1x Guest VLAN, and RADIUS/TACACS+ authentication.

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 detects the threat and prevents the overload of the central processor, thus insuring network integrity and helping to maintain open network bandwidth channels.

802.1Q VLANs

The DES-3028, DES-3052, DES-3028P, and DES-3052P provide support for 802.1Q VLANs for improved security 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. Guest VLAN is also supported by DES-3028, DES-3028P, DES-3052, and DES-3052P, which automatically segregates unauthenticated visitors from accessing confidential resources.

QoS

802.1p Priority Tagging helps streamline networks by placing 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. 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. DES-3028 supports a variety of different ways to prioritize the packets to ensure QoS in a busy network.

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

The DES-3028P and DES-3052P are able to supply power to PoE enabled devices. Each port on the DES-3028P can support up to 15.4W of power, budgeting a total of 195W throughout all 24 ports. Each port on the DES-3052P can also support up to 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.

IGMP Snooping

By passively snooping IGMP packets that are transferred between the DES-3028, DES-3028P, DES-3052, or DES-3052P and the IP multicast host, registration information is recorded and sorted into multicast groups. These can then intelligently forward traffic to only those ports that request multicast traffic. Adversely, without IGMP snooping, multicast traffic is treated like broadcast traffic, with packets forwarded to all ports causing network inefficiencies.

Hardware vA1

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, SSH/SSL protocols, and DHCP Relay Option 82. 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 switches (DES-3028, DES-3052, DES-3028P, and DES-3052P) 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.

	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 Fowarding Rate	9.5Mbps	13.1Mbps	9.5Mbps	13.1Mbps
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
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

	DES-3028	DES-3052	DES-3028P	DES-3052P
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	Fanless	Fanless	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 0°C)	-40° to 158°F (-40° to 0°C)	-40° to 158°F (-40° to 0°C)	-40° to 158°F (-40° to 0°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

	DES-3028	DES-3052	DES-3028P	DES-3052P
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 (mac. 256 groups)	+ IGMP Snooping Fast Leave
	+ 802.1D Spanning Tree	+ 802.1w Rapid Spanning Tree
	+ 802.1s Multiple Spanning Tree	+ BPDU Filtering per Port
	+ STP Loopback Detection	+ 802.3ad Link Aggregation (8 Ports per Group/ 6 Groups per Device)
	+ Port Mirroring (One to One, Many to One)	+ Jumbo Frame (max. 2048 bytes)
VLAN	+ Standard: 802.1Q	+ Static VLAN Groups: 4K
	+ Dynamic VLAN Groups: 200	+ GVRP
Quality of Service (QoS)	+ Quality of Service (QoS)	+ 802.1p Priority Queues: 4 Queues
	+ Packet Classification Based on: - Switch Port - VLAN ID - TCP/UDP Port Number - MAC Address - IPv4 - 802.1p Priority - TOS - DSCP - User Defined Packet Content - Protocol Type	+ Support WRR/ Strict Mode
Access Control List (Maximum 256 Profiles/Rules)	+ Multi-Layer ACL based on: - Switch Port - VLAN ID - 802.1p Priority - MAC Address - IPv4 - 802.1p Priority - TOS - DSCP - Protocol Type - TCP/UDP Port Number - Time-Based ACL - 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
	+ SSH v1, v2 / SSL v3	+ CPU Interface Filtering
	+ Traffic Segmentation	+ Broadcast Storm Control
	+ D-Link Safeguard Engine	
Bandwidth Control	+ Rate Limit According to Network Speed - Under 2Mbps: in step of 64KB - Above 100Mbps: in step 8MB	- Under 100Mbps; in step of 1MB
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	+ Port Description
	+ Web GUI Traffic/ CPU Monitoring	+ SNMP Trap on MAC Notification
	+ DHCP Auto Configuration	+ DHCP Relay
	+ DHCP Relay Option 82	+ SMTP Client (E-mail Notification)
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 Authentication Client MIB (RFC 2618)
	+ RADIUS Accounting Client MIB (2620)	+ Ping & TRACEROUTE MIB (RFC 2925)
	+ Private MIB	

Warranty Information

Warranty	Limited Lifetime

Ordering Information

Part Number	Description
DES-3028	Managed 24-Port 10/100 Switch, L2 Stackable, 4 Gigabit Ports, and 2 Combo SFP Slots
DES-3028P	Managed 24-Port 10/100 PoE Switch, L2 Stackable, 4 Gigabit Ports, and 2 Combo SFP Slots
DES-3052	Managed 48-Port 10/100 Switch, L2 Stackable, 4 Gigabit Ports, and 2 Combo SFP Slots
DES-3052P	Managed 48-Port 10/100 PoE Switch, L2 Stackable, 4 Gigabit Ports, and 2 Combo SFP Slots
DEM-310GT	1000BASE-LX, Single-mode, 10km
DEM-311GT	1000BASE-SX, Multi-mode, 500m
DEM-211	100BASE-FX, Multi-mode, 2km

BUSINESS