D-Link®

DES-3828P

XSTACK™

xStack® Managed 24-Port 10/100 Stackable L3 PoE Switch with 4 Gigabit Ports and 2 Combo SFP Slots

High Performance Switching
+ 24 Full Power 802.3af PoE ports
+ Stack Up to 32 Units Per Stack using D-Link® Single IP Management (SIM)
+ Optional Redundant Power Support
+ Jumbo Frame Support (up to 9K)
+ IPv6 Aware

Advanced Metro Switching
+ 802.1p Priority (8 Queues)
+ Double VLAN Tagging
+ Bandwidth Control
+ QoS based on L2/3/4
+ 802.3ad (Link Aggregation)
+ 802.1D, 802.1w, 802.1s Spanning Tree
+ 802.1X Port-based/MAC-based Authentication
+ 802.1Q VLANs (Up to 4K Groups)
+ Guest VLAN
+ WAC (Web-based Authentication)
+ MAC (Mac-based Authentication)
+ IP/MAC-Port Binding

Advanced L3 Function
+ RIP v1/2
+ OSPF
+ DVMRP
+ Multiple IP per VLAN
+ Floating Static Route
+ IGMP v1/2/v3
+ PIM-DM/PIM-SM
+ VRRP

Network Management
+ Console/Telnet/Web GUI
+ SNMPv1/v2c/v3
+ Port Mirroring
+ SYSLOG
+ SSH, SSL
+ ACL L2/L3/L4
+ RMON (4 Groups)
+ RADIUS/TACACS+
+ Microsoft® NAP Support

Overview
For the SMB requiring a cost-effective core switching solution, as well as for larger enterprise and Metropolitan Service Provider (MSP) environments needing a managed, feature-rich switch capable of uplinking to backbone switches, the D-Link® xStack® DES-3828P is designed to meet the needs of the most demanding departmental and enterprise connectivity applications. The DES-3828P is a fully managed Layer 3 switch that provides 24 10/100Mbps Fast Ethernet ports each capable of up to 15.4 Watts of IEEE 802.3af PoE and two combo SFP/1000BASE-T Gigabit Ethernet ports. In addition, two fixed 1000BASE-T ports in the back-panel can provide a dedicated trunk connection between devices or core switches. The DES-3828P also provides virtual stacking functionality via D-Link Simple IP Management (SIM) technology allowing up to 32 units to be managed via a single IP address. With support for Q-in-Q Double VLAN tagging, IPv6 aware, Dynamic Layer 3 Routing, IEEE 802.1s, and bandwidth control, the DES-3828P incorporates advanced features suitable for the MSP as well as the SMB and enterprise size networks.

Metro Switching
Service provider networks are moving from circuit-based access to newer packet-based access that requires highly reliable intelligent switching and demands resiliency and dependability. The DES-3828P meets this demand by supporting industry standards for 802.1s (Multiple Spanning Tree), 802.3ad link aggregation for up to 32 groups, bandwidth rate limiting down to 64k, and support for an external redundant power option for added peace of mind. In addition, the DES-3828P offers Double VLAN Q-in-Q tagging, which adds on an additional tag to a VLAN tag, expanding the VLAN space and allowing service providers to deploy their service quickly and securely. The DES-3828P also incorporates advanced QoS support such as the ability to filter and forward traffic based on Layer 2/3/4, making it an ideal choice for VoIP, video, and audio services targeting business class customers.

Network Security
The DES-3828P is equipped to handle many of today's emerging security vulnerabilities. Up to 800 independent access control lists can be configured with the ability to filter and block traffic based on criteria such as: Port, MAC, 802.1p priority, VLAN, DSCP, IP address, Protocol type, and TCP/UDP port number and content, proving that the DES-3828P provides unparalleled security. In addition, the DES-3828P incorporates 802.1X Port-based and MAC-based RADIUS authentication for secure network logins and SSH/SSL for increased management security. Furthermore, the DES-3828P incorporates MAC-IP-Port Binding and the D-Link Safeguard Engine™ to protect the CPU from broadcast, multicast, and unicast flooding.

Advanced L3 Routing
The DES-3828P is a high-performance Layer 3 switch that provides an ideal solution by offering advanced Layer 3 routing features such as RIP, OSPF, VRRP, up to ten IP addresses per VLAN, and floating static routes. Multipath Routing[1], which is the method of establishing multiple paths between given source-destination nodes within a network, is also supported on the xStack DES-3828P. These added routing features provide redundancy, improve network utilization, and provide load balancing for the network.

IEEE 802.3af Power over Ethernet
The DES-3828P supports 24 ports of 802.3af Power over Ethernet and supplies up to 15.4 watts per port. The need for Power over Ethernet enabled switching devices is growing with the proliferation of PoE capable access points, IP phones, and security cameras. The difficulty and cost often associated with running new AC power outlets to difficult to reach locations has made PoE an indispensible technology for SMBs, schools, and enterprise class networks.

BUSINESS

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Technical Specifications

Product Specifications

DES-3828P	xStack Managed 24-Port 10/100 Stackable L3 PoE Switch, 4 Gigabit Copper Ports + 2 Combo SFP
Packet Buffer	32MB
MAC Address Table	16K
IP Address Table	4K
IP Routing	128 Static/2k Hardware Routing Table
Aggregated Bandwidth	12.8Gbps
Transmission Method	Store-and-Forward
Forwarding Rate	14,880pps (10M), 148,800pps (100M), 1,488,000pps (1000M)
VLANs Support	Up to 4K Static, 4K Dynamic 802.1Q VLAN Groups
Priority Queues	8 Queues - Strict Priority or Weight Round Robin Queue Scheduling
Classification ACLs	MAC Address, IPv4/v6 Address, TCP/UDP Port Number & Payload, Physical Port, DSCP, 802.1p, VLAN, Protocol Type, IPv6 Traffic Class & Flow Label
Classification QoS	MAC Address, IP Address, TCP/UDP Port Number, Physical Port, DSCP, ToS, IPv6
Multicast Support	IGMP v1/2/3, IGMP Snooping, PIM-SM, PIM-DM, DVMRP, MLD Snooping v1/v2
Jumbo Frames	Up to 9K
Number of IP Interfaces per VLAN	64
Port Security	Supports 16 MAC Addresses per Port
Broadcast Storm Bandwidth Control	Minimum Granularity: 128pkt/s
IP-MAC-Port Binding	Supports 500 Entries per Device
Safeguard Engine™	Protect CPU from Broadcast/Multicast/Unicast Flooding
CPU Monitoring	Utilization via Web/CLI/SNMP, Trap/Logging Notification When Configurable Threshold Reached

Interface Options

RJ-45	10BASE-T, 100BASE-TX, & 1000BASE-T
LC	With Optional Standard Small Form-Factor Pluggable (SFP) Gigabit Transceivers
RPS	Redundant Power Supply via Optional (DPS-600)

Network Management

In Band & Out of Band	Telnet, CLI/Console, RMON, Web-based HTTP, SNMPv1/v2c/v3, Syslog, Port Mirroring, TFTP Client, BootP Client, DHCP Client, IEEE 802.3 Ethernet, 802.3u Fast Ethernet, 802.3ab Gigabit Ethernet, 802.3z Gigabit Ethernet, 802.1d Spanning Tree, 802.1w Rapid Spanning Tree, 802.1p Priority Tags, 802.1Q VLANs (4K static/ 4K dynamic), 802.3ad Link Aggregation (32 Groups/8 ports), 802.3x Flow Control, 802.1x Port-based/MAC based control, 802.1s (Multiple Spanning Tree), 802.3af Power over Ethernet, WRED congestion control, Loopback detection, GVRP, Guest VLAN, Per port limit IP multicast address range, Web GUI Traffic Monitoring, Web MAC address Browsing, SNMP Trap on MAC Notification, DHCP Relay Option 82, DHCP Auto-configuration, Trap/Alarm/Log Severity Control, Dual Image, Dual Configuration, Port Description, Editable Login Banner, Editable System Prompt

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IETF	RFC 1157 SNMP, RFC 1112/2236 IGMPv1/2 IGMPv3, RFC 1757/2021/2819 RMON (4 Groups), RFC 1493 Bridge MIB, RFC 1213 MIB II, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, and DiffServ, RFC 1724 RIP v1/2, RFC 1850 OSPF[1], DVMRP, RFC 2934 PIM-DM, PIM-SM[1], RFC 2932 Multicast Routing, RFC 2787 VRRP, RFC 2096 IP Forwarding Table, RFC 2618/2620 RADIUS Client, RFC 2863 IF MIB, RFC 2674 802.1p MIB, RFC 2665 ether-like MIB, SSH, SSL, TACACS+, IGMPv3 MIB, RFC 2620 RADIUS Accounting Client MIB

Electrical & Emissions Summary

Emissions	CE Class A, FCC Class A, VCCI Class A, C-Tick Class A
Power Supply	AC Input: 100 - 240 VAC, 50/60 Hz Internal Universal Power Supply
Power Consumption	395.2 Watts
Power Dissipation	1159.2 BTU/Hr
PoE Budget	370 Watts
PoE per port	1-16.8 Watts (user configurable)

Safety Agency Certification

Safety	CSA International, CB Report

Physical and Environmental

Temperature	Operating: 32° to 104°F (0° to 40°C) Storage: -40° to 158°F (-40° to 70° C)
Humidity	Operating: 10% ~ 85% RH, Non-condensing Storage: 5% ~ 95% RH, Non-condensing

Physical Specifications

Dimensions (W x D x H)	17.36in x 14.53in x 1.73in (441mm x 369mm x 44mm)
Weight	13.27lbs (6.02kg)

Warranty and Support Information

Warranty	Lifetime[2]

Ordering Information

Part Number	Description
DES-3828P	xStack Managed 24-Port 10/100 Stackable L3 PoE Switch, 4 Gigabit Copper Ports + 2 Combo SFP
DES-3828P-TAA	xStack Managed 24-Port 10/100 Stackable L3 PoE Switch, 4 Gigabit Copper Ports + 2 Combo SFP (TAA compliant)
DEM-310GT	1000BASE-LX SFP Module, up to 10Km
DEM-311GT	1000BASE-SX SFP Module, up to 550m
DPS-600	Redundant Power Supply Unit, 500 Watt RPSU
DV-600P	D-View 6.0 Network Management Software, Professional Version
DV-600S	D-View 6.0 Network Management Software, Standard Version

[1] Feature only available with firmware v4.50.B2. Available for download at support.dlink.com.
[2] Lifetime warranty available only in the USA and Canada if purchased on or after March 30, 2009. Visit www.dlink.com for warranty details.

All reference 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

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