Green Technology

- Fan-Less Deisgn
- Time Based PoE[1]
- Smart Fan Feature[2]
- Silent operation
- Saves energy while lowering costs
- Provides continuous, reliable and eco-friendly operation

Security Features

- Access Control List secures network
- D-Link Safeguard Engine™ protects CPU from Broadcast/Multicast/Unicast flooding
- Port security supports 64 MACs per port

Intuitive Management

- Manage using SmartConsole or web-based GUI
- Built-in MIB browser for SNMP Management
- D-View 6.0 module support
- Compact CLI through Telnet

VoIP Deployment

- Highest priority for VoIP services
- Auto Voice VLAN

QoS

- Ensure time-sensitive data gets delivered efficiently
- Supports IEEE 802.1p QoS up to four 802.1p Priority Queues
- DSCP QoS

Trap & Logs

- SNMP Trap supports link and STP state change
- Trap for SmartConsole Utility

b u s i n e s s

Web Smart 24/48-Port Switches with 4 GbE and 2 Combo SFP Slots

Overview

The D-Link® DES-1210 Series is the latest generation of Web Smart Switches. Equipped with 24 or 48 10/100Mbps ports, two 10/100/1000BASE-T ports, and two combo 10/100/1000BASE-T/SFP ports, the series integrates advanced management and security functions to provide performance and scalability. The DES-1210-28P is built with 10/100 Mbps ports that are PoE-enabled, offering ease-of-use and green features like Time-based PoE and Smart Fan. Time-based PoE can shut off PoE power at a predetermined time, and the Smart Fan feature allows the built-in fans to automatically turn on at a certain temperature, providing continuous, reliable, and eco-friendly operation of the switch. Compliant with 802.3af and 802.3at, the DES-1210-28P is capable of feeding power of up to 30 watts to devices. While easy to use, the DES-1210 Series provides a complete and affordable solution for small and medium businesses. Management options for the switches include SNMP, Web Management, SmartConsole Utility, and compact Command Lines. The series also supports ACL filtering and the D-Link Safeguard Engine™. Furthermore, the DES-1210 Series uses Auto Voice VLAN, ensuring higher priority for voice traffic. Both models come with an innovative fanless design in 19" metal cases.

Seamless Integration

The Web Smart Switches are designed to provide SMB users complete control over the network. With Ethernet and Gigabit copper ports capable of connecting to existing Cat.5 twisted-pair cables, these switches eliminate the need for a complex reconfiguration process. The DES-1210 Series allows for a flexible connection to a backbone or servers. Additionally, all ports support auto-negotiation of MDI/MDI-X crossover, or configurable auto MDI, and therefore do away with crossover cables or uplink ports. This brings inexpensive and easy connectivity to your desktop.

Extensive Layer 2 Features

Equipped with a complete lineup of L2 features, these switches include IGMP Snooping, Port Mirroring, Spanning Tree and Link Aggregation Control Protocol (LACP). The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast, reliable data transfer. At 2000Mbps Full Duplex, the Gigabit ports provide high-speed data pipes to servers with minimum data transfer loss. Network maintenance features include Loopback Detection and Cable Diagnostics. Loopback Detection is used to detect loops created by a specific port and automatically shut down the affected port. Cable Diagnostics are designed for network administrators to quickly examine the quality of the copper cables and determine the type of cable error.

Auto Surveillance VLAN and Bandwidth Control

The DES-1210 Series supports Auto Surveillance VLAN (ASV), and Auto Voice VLAN which are best suited for VoIP and video surveillance deployments. Auto Surveillance VLAN is a new, industry-leading technology that the D-Link Web Smart Switch series provides. This technology consolidates data and surveillance video transmission through a single Switch, thus sparing businesses the expense of dedicated hardware and facilities. ASV also ensures the quality of real-time video for monitoring and control without compromising the transmission of conventional network data. The Auto Voice VLAN technology enhances the VoIP service by automatically placing voice traffic from an IP phone to an assigned VLAN. With higher priority and individual VLAN, these features guarantee the

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Web Smart 24/48-Port Switches with 2GbE and 2 Combo SFP Slots

Advanced Features

- Loopback detection auto disables port when loop is detected
- Cable Diagnostics allows administrator to determine cable status
- Configurable MDI/MDI-X
- Auto Surveillance VLAN
- LLDP/LLDP-MED (DES-1210-28P only)

Online Help

- Link to local support web site
- Downloadable user guide
- Real-time manual checks

quality and security of VoIP traffic. Furthermore, the DSCP markings on Ethernet packets enable different levels of service to be assigned to network traffic. As a result, these voice and video packets take precedence over other packets. In addition, with Bandwidth Control, network administrators can reserve bandwidth for important functions that require a larger bandwidth or might have higher priority.

Secure Your Network
D-Link's innovative Safeguard Engine protects against traffic flooding caused by virus attacks. These switches also support 802.1X port-based authentication, allowing the network to be authenticated through external RADIUS servers. In addition, the Access Control List (ACL) feature enhances network security and protects the internal IT network. The DES-1210 Series supports ARP Spoofing Prevention, which prevents the network from being cut off or eavesdropped by hackers using faked ARPs. For added security, DHCP Server Screening screens rogue DHCP server packets from user ports to prevent unauthorized IP assignment.

Versatile Management
The new generation of Web Smart Switches provides growing businesses simple and easy management

of their network using an intuitive SmartConsole Utility or web-based management interface that enables administrators to remotely control their network down to the port level. The SmartConsole Utility easily allows customers to discover multiple D-Link Web Smart Switches within the same L2 network segment. With this utility, users do not need to change the IP address of their PC and it provides an easy initial setting of the Smart Switches. Switches with the same L2 network segment that are connected to the user's local PC are displayed on screen for instant access. This allows extensive switch configuration settings and basic configuration of discovered devices such as password changes and firmware upgrades.

The DES-1210 Series also supports D-View 6.0 and Command Line Interface (CLI) through Telnet. D-View 6.0 is a Network Management System that allows for the central management of critical network characteristics such as availability, reliability, resilience, and security in a consistent way. D-View 6.0 provides a useful set of tools for network administrators who want to effectively manage device configurations, fault tolerance, performance, and security. CLI management through Telnet makes the adjustment of basic settings such as password changes or firmware and configuration file uploads possible.

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Technical Specifications

	DES-1210-28	DES-1210-28P	DES-1210-52
Number of Ports	• 24 10/100Mbps • 2 10/100/1000BASE-T • 2 combo 10/100/1000BASE-T/SFP	• 24 PoE 10/100Mbps • 2 10/100/1000BASE-T • 2 combo 10/100/1000BASE-T/SFP	• 48 10/100Mbps • 2 10/100/1000BASE-T • 2 combo 10/100/1000BASE-T/SFP
Port Standards & Functions	• IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper) • IEEE 802.3x Flow Control	• IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3z Gigabit Ethernet (fiber) ANSI/IEEE 802.3 • Auto-negotiation	
Network Cables	• UTP Cat.5, Cat.5e (100m max) • EIA/TIA-568 100-ohm STP (100m max) • Full/half duplex for 10/100Mbps speeds • Full duplex for Gigabit speed • Auto MDI/MDI-X adjustment for all twisted pair ports		
Full/Half Duplex			
Media Interface Exchange			
Switching Capacity	• 12.8Gbps	• 12.8Gbps	• 17.6Gbps
Transmission Method	• Store-and-forward		
MAC Address Table	• 8K entries per device		• 8K entries per device
MAC Address Update	• Up to 256 static MAC entries	• Enable/disable auto-learning of MAC addresses	
Maximum 64 bytes packet forwarding rate	• 9.5Mpps	• 9.5 Mpps	• 13.1Mpps
RAM Buffer	• 512KB per device	• 512KB per device	• 1MB per device
AC Input	• 100 to 240 VAC 50/60 internal universal power supply		
Maximum Power Consumption	• 17.6W	• 254 N (Power On) • 26.4 W (Power Off)	• 28.9W
Fan Quantity	• 0	• 3 Smart Fans	• 0
Acoustics	• 0 dB	• 53.9 dB	• 0 dB
Heat Dissipation	• 60.05 BTU/hr	• 866.65 BTU/hr	• 98.61 BTU/hr
Operating Temperature	• 32º to 104ºF (0º to 40ºC)		
Storage Temperature	• 14º to 158ºF (-10º to 70ºC)		
Operating Humidity	• 10% to 95% non-condensing		
Emission (EMI)	• FCC Class A, CE Class A, VCCI Class A, C-Tick	• FCC Class A, CE Class A, VCCI Class A, C-Tick	

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Storage Humidity	• 5% to 95% non-condensing		
Dimensions	• 17.3in x 8.3in x 1.7in (440mm x 210mm x 44mm) • 19-inch standard rack mounting width, 1U height	• 17.4in x 9.8in x 1.7in (440mm x 250mm x 44mm) • 19-inch standard rack mounting width, 1U height	• 12.4in x 9.8in x 1.7in (440mm x 250mm x 44mm) • 19-inch standard rack mounting width, 1U height
Weight	• 5.73 lbs (2.6kg)	• 8.14 lbs lbs (3.7kg)	• 7.27 lbs (3.3kg)
MTBF	• 419,467 hours	• 197.343 hours	• 289,012 hours
Diagnostic LEDs	• Power (per device)	• Link/Activity/Speed (per 10/100/1000Mbps port, per 10/100Mbps port, per SFP port)	
Emission (EMI)	• FCC Class A, CE Class A, VCCI Class A, C-Tick		
Safety	• cUL, LVD		

PoE - DES-1210-28P Only

PoE Standard	• 802.3af	• 802.3at
PoE Capable Ports	Port 1 to 4: 15.4W or 30W per port	• Port 5 to 24: 15.4W per port

Software Features

L2 Features

MAC Address Table	• 8K	
Flow Control	• 802.3x Flow Control	• HOL Blocking Prevention
IGMP Snooping	• IGMP v1/v2 Snooping • Supports at least 64 static multicast addresses • Supports IGMP Snooping Querier	• Supports 256 IGMP groups • IGMP per VLAN
Spanning Tree Protocol	• 802.1D STP	• 802.1w RSTP
Loopback Detection	• Yes	
802.3ad Link Aggregetion	• 8 groups per device/8 ports per group	
Port Mirroring	• One-to-One, Many-to-One, Supports Mirroring for Tx/Rx/Both	
Cable Diagnostics	• Yes	
Configurable Auto MDI/MDI-X	• Yes	

VLAN

802.1Q	• 2003 Edition
VLAN Group	• Max 256 static VLAN groups, max 4094 VID
Management VLAN	• Supports 1 Management VLAN
Asymmetric VLAN	• Yes
Auto Voice VLAN	• Max. 10 user defined OUI, Max. 8 default OUI
Auto Surveillance VLAN	• Yes

QoS (Quality of Service)

802.1p Quality of Service	• 4 Queues per port
Queue Handling	• Strict, Weighted Round Robin (WRR)
CoS based on	• 802.1p Priority Queues, DSCP
Bandwidth Control	• Port-based (Ingress/Egress, min. granularity 64 Kb/s)

Access Control List

Maximum profiles	• 50
Maximum rules shared by	• 240
ACL based on	• MAC Address, IPv4 Address (ICMP/IGMP/TCP/UDP), VLAN ID, 802.1p Priority, DSCP

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ACL Actions	• Permit, Deny

Security

802.1X Port-based Access	• Default 802.1X forwarding
Port Security	• Supports up to 64 MAC addresses per port
Traffic Control	• Broadcast/Multicast/Unicast Storm Control
Static MAC	• Supports 256 Static MAC entries
D-Link Safeguard Engine	• Yes
DHCP Server Screening	• Yes
ARP Spoofing Prevention	• Max 64 entries
SSL	• v1/v2/v3

MIB

MIB	• 1213 MIB II, 1493 Bridge MIB, 1907 SNMP v2 MIB, 1215 Trap Convention MIB, 2233 Interface Group MIB, D-Link Private MIB, Power Ethernet MIB[1], LLDP-MIB[1]

RFC Standard Compliance

RFC	• RFC 768 UDP, RFC783TFTP client, RFC 791 IP, RFC 792 ICMP, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet Server, RFC 855 Telnet Server, RFC 856 Telnet Binary Transmission, RFC 858 Telnet Server, RFC 896 Congestion Control in TCP/IP Network, RFC 903 Reverse Address Resolution Protocol, RFC 951 BootP Client, RFC 1155 MIB, RFC 1157 SNMP v1, RFC 1191 Path MTU Discovery, RFC 1212 Concise MIB Definition, RFC 1213 MIB II, IF MIB, RFC 1215 Traps for use with the SNMP, RFC 1239 Standard MIB, RFC 1350 TFTP, RFC 1493 Bridge MIB, RFC 1519 CIDR, RFC 1542 Boot P / DHCP client, RFC 1901, 1907, 1908 SNMP, RFC 1945 HTTP/1.0, RFC 2131 DHCP, RFC 2132 DHCP Options and BOOTP Vendor Extensions, RFC 2138 Radius Authentication, RFC 2233 Interface MIB, RFC 2578 Structure of Management Information Version 2 (SMIv2), RFC 2647 802.1p, RFC 3416 SNMP, RFC 3417 SNMP, RFC 3621 Power Ethernet[1]

Management

Web-based GUI	• Supports IPv4
Compact CLI through Telnet	• Yes
Telnet Server	• Maximum connection is 4, Supports IPv4
TFTP Client	• Supports IPv4
SNMP	• Supports v1/v2/v3
SNMP Trap	• Yes
Trap for SmartConsole Utility	• Yes
System Log	• Max. 500 log entries, supports IPv4 log server
BootP/DHCP Client	• Yes
Time Setting	• SNTP
LLDP	• DES-1210-28P only
LLDP-MED	• DES-1210-28P only
Time-based PoE	• DES-1210-28P only

Warranty Information

Warranty	• Limited Lifetime[2]

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Ordering Information

Part Number	Description
DES-1210-28	• Web Smart 24-Port 10/100 Switch, 4GbE, 2 Combo SFP Slots
DES-1210-28P	• Web Smart 24-Port 10/100 Switch, 4GbE, 2 Combo SFP Slots
DES-1210-52	• Web Smart 48-Port PoE 10/100 Switch, 4GbE, 2 Combo SFP Slots
DEM-211	• 100BASE-FX Multimode LC Transceiver, up to 2Km
DEM-310GT	• 1000BASE-LX SFP Module, up to 10Km
DEM-311GT	• 1000BASE-SX SFP Module, up to 550m

[1] For DES-1210-28P
[2] Limited Lifetime Warranty available only in the USA and Canada.
 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.
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