Green Technology
- Fanless Design
- Time-based PoE[1]
- Smart Fan feature[2]

Security Features
- Access Control List
- D-Link Safeguard Engine
- Port Security

Intuitive Management
- SmartConsole and web-based GUI
- Built-in SNMP MIB for remote NMS (D-View)
- Compact CLI through Telnet

VoIP Deployment
- Highest priority for VoIP services
- Auto Voice VLAN

QoS
- Ensures efficient delivery of mission critical data
- Supports IEEE 802.1p QoS, up to 4 Priority Queues per port
- DSCP

Advanced Features
- Loopback Detection
- Cable Diagnostics
- Combined copper/SFP ports for increased flexibility
- Configurable MDI/MDIX
- Auto-Surveillance VLAN
- LLDP[1]
- LLDP-MED[2]

Trap & Logs
- SNMP Trap
- Trap for SmartConsole Utility

Online Help via Web-based Management
- Link to local support website
- Online User Guide

[1] DES-1210-08P/28P only
[2] DES-1210-28P only

8/28/52-Port Web Smart Switch

The DES-1210 Series is the latest generation of D-Link Web Smart switches. Equipped with 24 or 48 10/100 Mbps ports, 2 10/100/1000BASE-T ports, and 2 combo 10/100/1000BASE-T/SFP ports, the DES-1210 Series integrates advanced management and security functions for enhanced performance and scalability. The DES-1210-08P/28P are built with 10/100 Mbps ports that are PoE-enabled, offering ease-of-use and green features such as Time-based PoE, which can shut off PoE power at a predetermined time. The Smart Fan feature on the DES-1210-28P 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. Management options include SNMP, Web Management, SmartConsole Utility, and Compact Command Line for easy deployment. The DES-1210 Series provides a complete and affordable solution that is ideal for small and medium businesses and the enterprise edge.

Seamless Integration
The Web Smart switches are designed to provide SMB users with complete control over their network. With Ethernet and Gigabit copper ports capable of connecting to existing CAT5 twisted-pair cables, these switches eliminate the need for complex reconfiguration. The DES-1210 Series allows for flexible connection to a backbone or server. Additionally, all ports support auto-negotiation of MDI/MDIX crossover, eliminating the need for crossover cables or uplink ports.

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). IEEE 802.3x Flow Control allows servers to directly connect to the switch for reliable data transfer. At 2000 Mbps 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 shuts down the affected port. Cable Diagnostics allow network administrators to quickly examine the quality of the copper cables and also determine the type of cable error.

QoS & Bandwidth Control
The DES-1210 Series switches support Auto Surveillance VLAN (ASV) and Auto Voice VLAN for VoIP and video surveillance deployments. ASV ensures the quality of real-time video for monitoring and control without compromising the transmission of conventional network data. DSCP markings on Ethernet packets enable different levels of service to be assigned to network traffic. In addition, with Bandwidth Control, network administrators can reserve bandwidth for important functions that require more bandwidth or require high 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 that pretend to be PCs, servers, routers, or gateways. For added security, DHCP Server Screening screens rogue DHCP server packets from user ports to prevent unauthorized IP assignment.

Versatile Management
This new generation of Web Smart Switches provides growing businesses with simple and easy management of their network by using an intuitive SmartConsole utility and a web-based management interface that enables administrators to remotely control their network down to the port level. The SmartConsole allows customers to easily 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 also provides an easy setup of the Smart Switches. Switches within the same L2 network segment that are connected to the user's local PC are displayed on screen for instant access. This allows for extensive switch configuration settings and basic configuration (password changes and firmware upgrades) of discovered devices.

The DES-1210 Series supports D-View 6.0 and Compact Command Line Interface (CLI) control through Telnet. D-View 6.0 is a Network Management System that allows for central management of critical network characteristics and provides a useful set of tools for network administrators who want to effectively manage device configurations, fault tolerance, performance, and security. CLI management of switches is possible via Telnet, and allowing administrators to perform basic operations such as password changes, firmware upgrades, and configuration file uploads.



Technical Specifications		DES-1210-08P	DES-1210-28	DES-1210-28P	DES-1210-52
					
General	Size	7.5" Metal Case	19" Metal Case		
	Interface	8 10/100BASE-TX PoE	24 10/100BASE-TX 2 1000BASE-T 2 Combo 10/100/1000BASE-T / 100/1000SFP	24 10/100BASE-TX PoE 2 1000BASE-T 2 Combo 10/100/1000BASE-T / 100/1000SFP	48 10/100BASE-TX 2 1000BASE-T 2 Combo 10/100/1000BASE-T / 100/1000SFP
	Port Standards	IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) Auto-negotiation IEEE 802.3x Flow Control	IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted- pair copper) IEEE 802.3z Gigabit Ethernet (fiber) ANSI/IEEE 802.3 Auto-negotiation IEEE 802.3x Flow Control		
Performance	Switching Capacity	1.6 Gbps	12.8 Gbps		17.6 Gbps
	64-Byte Packet Forwarding Rate	1.19 Mpps	9.5 Mpps		13.1 Mpps
	MAC Address Table Size	8K Entries			
	Packet Buffer Memory	384 KB	512 KB		1 MB
	Flash Memory	16 MB			
	Forwarding Method	Store-and-forward			
Power over Ethernet (PoE)	PoE Standard	802.3af	-	802.3af and 802.3at	-
	PoE Capable Ports	Port 1-8 up to 15.4 watts per port	-	Port 1-4 up to 15.4 or 30 watts per port Port 5-24 up to 15.4 watts per port	-
	PoE Power Budget	72 watts	-	193 watts	-
Diagnostic LEDs	Power (Per Device)	✓			
	Link/Activity/Speed (Per Port)	✓			
MTBF (Hours)		350,704 hours	419,467 hours	197,343 hours	289,012 hours
Acoustics		0 dB		53.9 dB	0 dB
Heat Dissipation		305.03 BTU per hour	60.05 BTU per hour	866.65 BTU per hour	98.61 BTU per hour
Power Input		100 to 240 VAC, 50 to 60 Hz Internal Universal Power Supply			
Max Power Consumption		89.4 watts (PoE on) 9.7 watts (PoE off)	17.6 watts	254 watts (PoE on), 26.4 watts (PoE off)	28.9 watts
Dimensions (W x D x H)		190 x 120 x 38 mm	440 x 210 x 44 mm	440 x 250 x 44 mm	
Cooling Fans		Fanless		3 Smart Fans[2]	Fanless
Operating Temperature		0 to 40˚ C			
Storage Temperature		-10 to 70˚ C			



8/28/52-Port Web Smart Switch

Operating Humidity	5% to 95% non-condensing
Emission (EMI)	FCC Class A, CE Class A, VCCI Class A, IC, C-Tick
Safety	cUL, CE LVD

[2]Default fan speed is low. Fan switches to high speed automatically at 33° C ambient temperature

Software Features

L2 Features

- MAC Address Table
  - 8K entries
- Flow Control
  - 802.3x Flow Control
  - HOL Blocking Prevention
- IGMP Snooping
  - IGMP v1/v2 Snooping
  - Supports 256 IGMP snooping groups
  - Supports 64 static multicast addresses
  - Per VLAN IGMP snooping
  - Supports IGMP Querier
- L2 Multicast Filtering
  - Forwards all unregistered groups
  - Filters all unregistered groups
- Spanning Tree Protocol
  - 802.1D STP
  - 802.1w RSTP
- Loopback Detection
- 802.3ad Link Aggregation
  - Max. 8 groups per device, max. 8 ports per group
- Port Mirroring
  - One-to-One
  - Many-to-One
  - Supports Mirroring for Tx/Rx/Both
- Cable Diagnostics
- Configurable MDI/MDIX

VLAN

- 802.1Q tagged VLAN
- VLAN Group
  - Max. 256 static VLAN groups
  - Max. 4094 VIDs
- Management VLAN
- Asymmetric VLAN
- Auto Voice VLAN
  - Max. 10 user defined OUI
  - Max. 8 default OUI
- Auto Surveillance VLAN

QoS (Quality of Service)

- 802.1p
- Max. 8 queues per port, max. 8 ports per queue
- 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 for 10/100 Mbps and 1850 Kb/s for 1000 Mbps)

Access Control List (ACL)

- Max. 50 ingress ACL profiles
- Max. 240 ingress ACL rules shared by profiles
- ACL based on:
  - MAC address
  - IPv4 address
  - ICMP/IGMP/TCP/UDP
- ACL Actions
  - Permit
  - Deny

Security

- 802.1X
  - Port-based access control
- Port Security
  - Supports up to 64 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- Static MAC
- D-Link Safeguard Engine
- DHCP Server Screening
- ARP Spoofing Prevention
  - Max. 64 entries
- SSL
  - Supports v1/v2/v3

Management

- Web-based GUI
- Compact CLI through Telnet
- Telnet Server
- SmartConsole Utility
- TFTP Client
- SNMP
  - Supports v1/v2/v3
- SNMP Trap
- Trap for SmartConsole Utility
- System Log
  - Max. 500 log entries
  - Supports IPv4 log server
- BootP/DHCP Client
- Time Setting
  - SNTP
- LLDP[1]
- LLDP-MED[2]
- Time-based PoE[1]

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 768 UDP
- RFC 783 TFTP client
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 854, 855, 856, 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 BootP/DHCP client
- RFC 1901, 1907, 1908 SNMP
- RFC 1945 HTTP/1.0
- RFC 2131, 2132 DHCP
- RFC 2138 Radius Authentication
- RFC 2233 Interface MIB
- RFC 2570, 2575 SNMP

- RFC 2578 Structure of Management Information Version 2 (SMIv2)
- RFC 2647 802.1p
- RFC 3416, 3417 SNMP
- RFC 3621 Power Ethernet (PoE Model only)

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Optional Products

Optional SFP Transceivers

DEM-310GT	1000BASE-LX, Single-mode, 10 km
DEM-311GT	1000BASE-SX, Multi-mode, 550 m
DEM-312GT2	1000BASE-SX, Multi-mode, 2 km
DEM-314GT	1000BASE-LX, Single-mode, 50 km
DEM-315GT	1000BASE-LX, Single-mode, 80 km
DEM-210	100BASE-FX, Single-mode, 15 km
DEM-211	100BASE-FX, Multi-mode, 2 km

Optional WDM SFP Transceivers

DEM-220T	100BASE-BX, Wavelength Tx:1550 nm, Rx:1310 nm, Single-mode, 20 km
DEM-220R	100BASE-BX, Wavelength Tx:1310 nm, Rx:1550 nm, Single-mode, 20 km
DEM-330T	1000BASE-LX, Wavelength Tx:1550 nm, Rx:1310 nm, Single-mode, 10 km
DEM-330R	1000BASE-LX, Wavelength Tx:1310 nm, Rx:1550 nm, Single-mode, 10 km
DEM-331T	1000BASE-LX, Wavelength Tx:1550 nm, Rx:1310 nm, Single-mode, 40 km
DEM-331R	1000BASE-LX, Wavelength Tx:1310 nm, Rx:1550 nm, Single-mode, 40 km

ACN 052 202 838

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