DES-1210
Smart Switch Series

8/24/48-Port Smart Switches

Green Technology
- Fanless Design- silent operation[1]
- Time-based PoE

Security Features
- Access Control List
- D-Link Safeguard Engine -protects CPU from malicious traffic
- Port Security
- ARP spoofing[2]
- DHCP server screening[2]

Intuitive Management
- PC-based SmartConsole
- Web-based GUI
- SNMP compatible
- Compact CLI through Telnet
- Firmware-upgradeable

VoIP & IP Surveillance
- Highest priority for VoIP services
- Auto Voice VLAN

QoS
- Ensures efficient delivery of mission critical data
- Layer 2 QoS (4 queues)
- Layer 3 CoS (DSCP)

Advanced Features
- Loopback Detection automatically disables a port when a loop is detected
- Cable Diagnostics allows administrators to determine the cable status
- Rapid Spanning Tree – prevents loops and ensures availability
- IGMP snooping - save bandwidth on multicast traffic

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

[1] Except DES-1210-28P
[2] Available in next firmware upgrade
[3] Not available for the DES-1210-08P

The DES-1210 Series is the latest generation of Smart Switches. Equipped with 8, 24 or 48 Fast Ethernet ports, 2 Gigabit ports[3] and 2 combo Gigabit/SFP ports[3], this series offers all the features needed in a small and medium business, without the complexity or cost involved. The built-in web interface and PC based SmartConsole Utility make these switches easy to deploy, configure and troubleshoot. Its complete set of features allows for seamless integration in every environment.

The PoE versions in this series are the 8 & 24 port which integrate power-saving technologies such as time-based PoE which allows the power to be shut off at a predetermined time, saving power on VoIP phones, Wireless Access Points or any other PoE equipment. The DES-1210-28P integrates the Smart Fan feature which automatically turns on the built in fans only when a certain temperature is reached, providing continuous operation, increasing the switch's lifespan. The DES-1210-28P is also compliant with the new PoE+ standard, enabling it to feed up to 30 Watts to connected devices.

Extensive set of Features
Equipped with a complete line-up of features, these switches include Quality of Service, Port Trunking, Spanning Tree and IGMP snooping. Network monitoring and maintenance features include Port Mirroring, Loopback Detection and the innovative Cable Diagnostics. With Cable diagnostics, the switch will flag a faulty Ethernet cable connected to any of its ports, detailing the type of error detected.

Ready for network convergence
These switches are ideal for converged networks, where IP telephony, traditional LAN and Surveillance systems are integrated in the data flow. The Auto Voice and Auto Surveillance[2] VLAN features will automatically place these types of traffic on separate VLANs, thus guaranteeing the confidentiality, prioritisation and quality of these services on the network.

Secure Your Network
The DES-1210 series support RADIUS authentication, to ensure that only authorised users are able to log into the network. In addition, the Access Control List (ACL) feature further enhances security by ensuring that network resources are accessible only by their legitimate users. In addition, the DES-1210 Series protects against the most widespread network attacks, such as ARP spoofing or rogue DHCP servers[2].

Avoid Network Disruption
D-Link's innovative Safeguard Engine protects aginst traffic flooding caused by broadcast storms or virus attacks, blocking traffic that reaches the definable threshold and avoiding network lock-ups before they occur. Spanning Tree (STP) and Rapid Spanning Tree (RSTP) allow for redundant paths in a network to ensure servers and other resources are always available.

Versatile Management
The new generation of Smart switches is provided with an intuitive PC-based SmartConsole utility and a friendly web interface that enables administrators to configure and control their network down to the port level. The SmartConsole automatically discovers multiple D-Link Web Smart Switches within the same network segment, so administrators can access all of them even before they have been configured. This allows for very quick deployments and initial setups, including firmware upgrades. For more advanced administrators, the DES-1210 series supports a Command Line Interface (CLI) accessible with Telnet.

In addition, the DES-1210 series is SNMP compatible so they can be monitored and managed from any SNMP application such as D-Link's D-View 6.0. A 30-day evaluation copy is included with every switch or available to download from our website.

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Technical Specifications		DES-1210-08P	DES-1210-28	DES-1210-28P	DES-1210-52
General	Size	Desktop	19" rack mountable, 1U		
	Interface	8 10/100BASE-TX	24 10/100BASE-TX 2 1000BASE-T 2 Combo 1000BASE-T/SFP	24 10/100BASE-TXPoE 2 1000BASE-T 2 Combo 1000BASE-T/SFP	48 10/100BASE-TX 2 1000BASE-T 2 Combo 1000BASE-T/SFP
	Port Standards	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit Ethernet (fiber)		
	Auto negotiation	Yes			
	IEEE 802.3x Flow Control	Yes			
	Auto MDI/MDIX	Yes			
Performance	Switching Capacity	1.6 Gbps	12.8 Gbps	12.8 Gbps	17.6 Gbps
	64-Byte Packet Forwarding Rate	1.19 Gbps	9.5 Mpps	9.5 Mpps	13.1 Mpps
	MAC Address Table Size	8K Entries			
	Packet Buffer Memory	384 KB	512 KB	512 KB	1 MB
	Flash Memory	16 MB			
	Transmission Method	Store-and-forward			
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 upto 15.4 or 30 watts per port Port 5-24 upto 15.4 watts per port	
	PoE Power Budget	72 watts		193 watts	
LEDs	Power (Per Device)	Yes			
	Console (Per Device)	Yes			
	Link/Activity/Speed (Per Port)	Yes			
MTBF (Hours)		350,704 hours	419,467 hours	197,343 hours	289,012 hours
Acoustics		0 dB	0 dB	53.9 dB	0 dB
Heat Dissipation		305.03 BTU/hr	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	440 x 250 x 44 mm
Fan Quality		Fanless	Fanless	3 Smart Fans[2]	Fanless
Operating Temperature		0 to 40˚ C			
Storage Temperature		-10 to 70˚ C			
Operating Humidity		5% to 95% non-condensing			
Emission (EMI)		FCC Class A, CE Class A, VCCI Class A, IC, C-Tick			
Safety		cUL, LVD			

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

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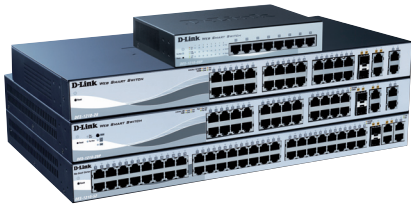
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Software Features

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 groups
  - Supports at least 64 static multicast addresses
  - IGMP per VLAN
  - Supports IGMP Querier
- Spanning Tree Protocol
  - 802.1D STP
  - 802.1w RSTP
- Loopback Detection
- 802.3ad Link Aggregation
  - 8 groups per device
  - 8 ports per group
- Port Mirroring
  - One-to-One
  - Many-to-One
  - Supports Mirroring for Tx/Rx/Both
- Cable Diagnostics
- Configurable Auto MDI/MDIX
- Multicast Filtering[3]
  - Forwards all unregistered groups
  - Filters all unregistered groups#

VLAN
- 802.1Q
- 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

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 for 10/100 Mbps and 1850 Kb/s for 1000 Mbps)

Access Control List (ACL)
- Max. 50 profiles
- Max. 240 rules shared by profiles
- ACL based on:
  - MAC Address
  - IPv4 Address
  - ICMP/IGMP/TCP/UDP
  - VLAN ID
  - 802.1p Priority Queues
  - DSCP
- ACL Actions
  - Permit
  - Deny

Security
- 802.1X
- Port Security
  - Supports up to 64 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- Static MAC
- D-Link Safeguard Engine
- DHCP Server Screening[3]
- ARP Spoofing Prevention[3]
  - Max. 64 entries
- SSL2
  - Supports v1/v2/v3
  - Supports IPv4

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
- LLDP-MIB[1]

RFC Standard Compliance
- RFC 768 UDP
- 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 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

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

[1]For DES-1210-28P only
[3]Available in future release for DES-1210-28/52

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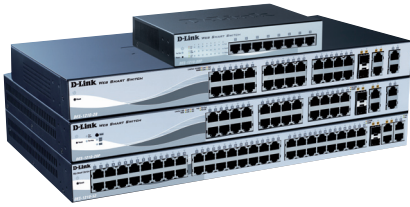
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Optional Products

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

Optional Management Software	
DV-600S	D-View 6.0 Network Management System (Standard Edition)
DV-600P	D-View 6.0 Network Management System (Professional Edition)
DV-601P[4]	E2ES Console Plugin for D-View 6.0

[4]Plugin available in future

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