

## Product Highlights

- **D-Link Green 3.0**  
Advanced power saving technologies
- **Robustness & Security**  
IEEE802.1X port-based Access Control, Port Security, D-Link Safeguard Engine and Traffic Segmentation
- **Advanced QoS**  
DSCP and Bandwidth Control
- **Useful L2 Features**  
Equipped with a complete line up of L2 features, these switches include IGMP Snooping, Port Mirroring, Spanning Tree, and Link Aggregation Control Protocol (LACP)



## DGS-1210 -20/28/28P/52

# Gigabit Smart Switches

## Key Features

### Green Technology

- IEEE 802.3az Energy Efficient Ethernet
- D-Link Green 3.0 power-slaving features
- LED and Port Shutoff
- Port Standby
- System Hibernation
- Cable Length Detection
- Link Status Detection
- Time-based PoE (PoE model only)

### Security Features

- Access Control List
- D-Link Safeguard Engine
- Port Security
- ARP Spoofing Prevention
- Smart IP-MAC-Port Binding

### Intuitive Management

- IPv4/IPv6 Dual Stack<sup>1</sup>
- Web GUI (supports 10 languages)
- SmartConsole utility
- SNMP and RMON
- Simplified CLI through Telnet

### QoS

- Supports IEEE 802.1p QoS
- Supports DSCP

### Advanced Features

- Auto Surveillance VLAN
- Auto Voice VLAN
- Port or VLAN-based Loopback Detection
- Cable Diagnostics
- LLDP/LLDP-MED

### Trap & Logs

- SNMP Trap
- Trap for SmartConsole Utility
- System Log

The DGS-1210 Series is the latest generation of D-Link Gigabit Smart Switches featuring D-Link Green 3.0 technology. The series complies with the IEEE 802.3az Energy Efficient Ethernet standard. Support for IPv6 management and configurations ensure your network remains protected after the upgrade from IPv4 to IPv6.

By offering multiple management options, the DGS-1210 series allows quick deployment, infrastructure expansion, and seamless function upgrades. Targeting small and medium sized businesses, the DGS-1210 Gigabit Smart Switches provide functionality, security, and manageability for a fraction of the standard cost of ownership.

The new DGS-1210-28P is a PoE Gigabit Smart Switch that provides 24 10/100/1000 Base-T PoE ports with 4 Gigabit SFP ports. In addition to IEEE 802.3af compliance, ports 1-4 provide up to 30 watts of power output following IEEE 802.3at. The design allows more flexibility in power allocation for a variety of powered devices with affordable installation costs.

## Energy Saving

DGS-1210 switches are capable of conserving power without sacrificing operational performance or functionality by using D-Link Green 3.0 technology. Using the Energy Efficient Ethernet standard, the network will automatically decrease the power usage when traffic is low with no setup required. For environments not fully supporting the standard, DGS-1210 switches offer advanced power-saving settings including port shutoff and standby, LED shutoff, and system hibernation based on custom time profiles. The time profiles can also be applied to the PoE switch so that unnecessary power consumption can be saved during off hours. The DGS-1210 Series switches can also detect the length of connected cables to automatically reduce power usage on shorter cable connections.

<sup>1</sup>IPv6 management and configuration supported since firmware v3.10.

### Energy Saving

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### Easy Management

The D-Link Gigabit Smart Switch series is designed for easy management. All configurations can be made through a Web interface regardless of the host PC's operating system. Furthermore, the web UI contains ten language options to make operations more straightforward. In the first installation, the SmartConsole Utility will automatically discover all D-Link Smart switches in the network, allowing administrators to assign IP addresses and the subnet mask quickly. It also allows simultaneous firmware upgrades to multiple switches, saving a great deal of time. Important management commands, such as download firmware or configuration file, offer a sophisticated method of batch operations for multiple switches.

### Auto Surveillance VLAN and Voice VLAN

D-link Gigabit Smart series automates the process of setting up IP surveillance and VoIP devices on a network. Auto Surveillance VLAN consolidates data and surveillance video transmission through the network, sparing businesses the expense of maintaining dedicated facilities. ASV also protects the quality of real-time video by grouping IP surveillance devices on a single high priority VLAN. This ensures that surveillance video streams will not be affected when ordinary data traffic are at their highest levels. Similarly, the Auto Voice VLAN guarantees clear quality and efficient transmission for all voice communication.

### Extensive Layer 2 Features

Equipped with a complete line up 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 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 shut down the affected port. The Cable Diagnostic feature designed primarily for administrators and customer service representatives, can rapidly discover the type of error and determine the cable quality.

### Secure your Network

D-Link's innovative Safeguard Engine protects the switches against traffic flooding caused by virus attacks. The switches also support 802.1X port-based authentication, allowing the network clients to be authenticated through external RADIUS servers. In addition, the Access Control List (ACL) feature enhances network security and protects the network by screening traffic from illegal MAC or IP addresses. ARP Spoofing Prevention prevents malicious intruders from sending massive fake ARP messages through a manipulated source. This protects important data from being stolen by Man-in-the-Middle attacks, and prevents wasting CPU cycles on these packets. For added security, the DHCP Server Screening feature blocks rogue DHCP server packets from user ports to prevent unauthorised IP assignment.



If the worst should happen to your network you need the very best support and fast. Downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively. Our highly trained technicians are on standby around the clock, ensuring that award-winning support is only a phone call away.

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best:

#### D-Link Assist Gold - for comprehensive 24-hour support

D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four hour around-the-clock response. Cover applies 24/7 for every day of the year including holidays.

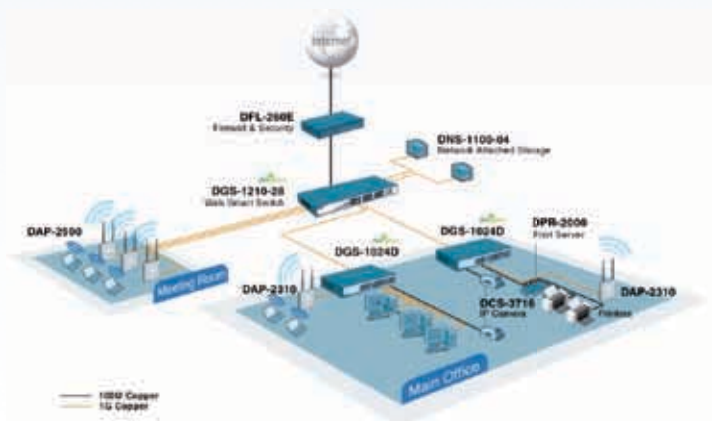
#### D-Link Assist Silver - for prompt same-day assistance

D-Link Assist Silver is designed for 'high availability' businesses that require rapid response designed within regular working hours. It provides a four hour response service Monday to Friday from 8am to 5pm, excluding holidays.

#### D-Link Assist Bronze - for guaranteed response on the next business day

D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or IP Surveillance equipment from D-Link, your peace of mind is guaranteed. D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.



Technical Specifications	DGS-1210-20	DGS-1210-28	DGS-1210-52	DGS-1210-28P
<b>General</b>				
Port Standards & Functions	<ul style="list-style-type: none"> <li>• IEEE 802.3 10BASE-T Ethernet</li> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>• IEEE 802.3x Flow Control for Full-Duplex Mode Auto-negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 802.3 10BASE-T Ethernet</li> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>• IEEE 802.3x Flow Control for Full-Duplex Mode Auto-negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 802.3 10BASE-T Ethernet</li> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>• IEEE 802.3x Flow Control for Full-Duplex Mode Auto-negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 802.3 10BASE-T Ethernet</li> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>• IEEE 802.3x Flow Control for Full-Duplex Mode</li> <li>• IEEE 802.3af compliance</li> <li>• IEEE 802.3at compliance Auto-negotiation</li> </ul>
Number of Ports	• 16 10/100/1000 Mbps, 4 SFP	• 24 10/100/1000 Mbps, 4 SFP	• 48 10/100/1000 Mbps 4 dual-speed SFP	• 24 10/100/1000 Mbps PoE capable, 4 SFP
Network Cables	<ul style="list-style-type: none"> <li>• UTP Cat. 5, Cat. 5e (100 m max.)</li> <li>• EIA/TIA-568 100-ohm STP (100 m max.)</li> </ul>			
Full/Half Duplex	<ul style="list-style-type: none"> <li>• Full/half duplex for 10/100 Mbps speeds</li> <li>• Full duplex for Gigabit speed</li> </ul>			
Media Interface Exchange	• Auto or configurable MDI/MDIX			
<b>Performance</b>				
Switching Capacity	• 40 Gbps	• 56 Gbps	• 104 Gbps	• 56 Gbps
Transmission Method	• Store-and-forward			
MAC Address Table	• 16,000 entries per device			
MAC Address Update	<ul style="list-style-type: none"> <li>• Up to 256 static MAC entries</li> <li>• Enable/disable auto-learning of MAC addresses</li> </ul>			
Maximum 64 bytes packet forwarding rate	• 29.8 Mpps			
Packet Buffer Memory	• 1 MB per device	• 41.7 Mpps	• 77.4 Mpps	• 41.7 Mpps
<b>PoE</b>				
PoE Standard				• IEEE 802.3af and IEEE 802.3at
PoE Capable Ports				<ul style="list-style-type: none"> <li>• Ports 1 to 4: Up to 30 W</li> <li>• Ports 5 to 24: Up to 15.4 W</li> </ul>
PoE Power Budget				• Max. 185 W
Temperature				
Humidity				
Certifications				

Physical & Environmental				
AC Input	100 to 240 VAC 50/60 Hz internal universal power supply			
Maximum Power Consumption	• 14.06 W	• 16.81 W	• 43.5 W	• 238.4 W (PoE on), 27.4 W (PoE off)
Standby Power Consumption	• 6.7 W/110 V, 7.2 W/240 V	• 5.9 W/110 V, 6.42 W/240 V	• 20.68 W/110 V, 22.05 W/240 V	• 16 W/110 V, 14 W/240 V
Fan Quantity	• 0	• 0	• Two smart fans	• Two smart fans
Acoustics	• 0 dB(A)	• 0 dB(A)	• 47.1 dB(A)	• 52.2 dB(A)
Heat Dissipation	• 47.97 BTU/hr	• 57.36 BTU/hr	• 148.42 BTU/hr	• 813.42 BTU/hr
Operating Temperature	• -5 to 50 °C (41 to 122 °F)			
Storage Temperature	• -20 to 70 °C (-4 to 158 °F)			
Operating Humidity	• 0% to 95% non-condensing			
Storage Humidity	• 0% to 95% non-condensing			
Dimensions	• 440 x 140 x 44 mm (17.32 x 5.51 x 1.73 inches) • 19" standard rack mounting width, 1U height	• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 inches) • 19" standard rack mounting width, 1U height	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 inches) • 19" standard rack mounting width, 1U height	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 inches); • 19" standard rack mounting width, 1U height
Weight	• 2.2 kg (4.85 lbs)	• 2.9 kg (6.39 lbs)	• 4.1 kg (9.04 lbs)	• 3.7 kg (8.15 lbs)
Diagnostic LEDs	• Power (per device) • Link/Activity/Speed (per 10/100/1000 Mbps port) • Link/Activity/Speed (per SFP port)	• Power (per device) • Link/Activity/Speed (per 10/100/1000 Mbps port) • Link/Activity/Speed (per SFP port)	• Power (per device) • Link/Activity/Speed (per 10/100/1000 Mbps port) • Link/Activity/Speed (per SFP port) • Fan (per device)	• Power (per device) • PoE Max (per Device) • Link/Activity/Speed (per 10/100/1000Base-T port) • Link/Activity/Speed (per SFP port) • Fan (per device) • Button to switch • LED display mode between PoE and Link/Activity
Certifications	<ul style="list-style-type: none"> <li>• FCC Class A</li> <li>• CE Class A</li> <li>• ICES-003</li> <li>• VCCI Class A</li> <li>• C-Tick</li> <li>• BSMI</li> </ul>			
Safety	<ul style="list-style-type: none"> <li>• cUL</li> <li>• CE LVD</li> </ul>			

## Software Features

### L2 Features

- MAC Address Table
  - 16,000 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 Snooping Querier
- Spanning Tree Protocol
  - 802.1D STP
  - 802.1w RSTP
- Loopback Detection
- 802.3ad Link Aggregation
  - DGS-1210-20:
    - Max. 10 groups per device/8 ports per group
    - DGS-1210-28/28P:
      - Max. 14 groups per device/8 ports per group
      - DGS-1210-52:
        - Max. 26 groups per device/8 ports per group
- Port Mirroring
  - One-to-One, Many-to-One
  - Supports Mirroring for Tx/Rx/Both
- Multicast Filtering
  - Forwards all unregistered groups
  - Filters all unregistered groups
- LLDP, LLDP-MED

### 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
- Auto Surveillance VLAN

### 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
  - ToS1
- Bandwidth Control
  - Port-based (Ingress/Egress, min. granularity for 10/100/1000Base-T ports is 64 Kb/s)
- Configurable MDI/MDIX
- SNMP
  - Supports v1, v2, v3
- SNMP Trap
- System Log
  - Max. 500 log entries
- BootP/DHCP Client

### Access Control List (ACL)

- DGS-1210-20/28/28P
  - Max. 50 profiles
  - Max. 240 rules shared by profiles
  - Single or multiple ports (each rule)
- DGS-1210-52
  - Max. 50 profiles
  - Max. 450 rules shared by profiles
- ACL based on
  - MAC Address
  - IPv4 Address (ICMP/IGMP/TCP/UDP)
  - 802.1p
  - DSCP
  - Ether type
- ACL Actions
  - Permit
  - Deny

### Security

- Port Security
  - Supports up to 64 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- Static MAC
- D-Link Safeguard Engine
- DHCP Server Screening
- Trusted Host
- ARP Spoofing Prevention
  - Max. 64 entries
- SSL
  - Supports v1/v2/v3
  - Supports IPv4/IPv6
- Traffic Segmentation
- Smart Binding
  - Supports 512 entries of IP-MAC-Port binding
  - Discover connected devices and click to bind
  - Inspect ARP packets and/or IP packets
  - Supports DHCP Snooping

### AAA

- 802.1X Port-based Authentication
  - Supports RADIUS Server
  - Supports EAP, OTP, TLS, TTLS, PEAP
- OAM
- Cable Diagnostics
- Factory Reset

### 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
- SNMP
  - ICMPv6
- IPv4/v6 Dual Stack
- DHCP Auto Configuration
- RMON v1
- Time-based PoE (PoE model only)

### RFC Standard Compliance

- RFC 783 TFTP
- RFC 854 Telnet Server
- RFC 951 BootP/DHCP Client
- RFC 1157 SNMP v1, v2, v3
- RFC 1213 MIB II, IF MIB
- RFC 1215 MIB Traps Convention
- RFC 1350 TFTP
- RFC 1493 Bridge MIB
- RFC 1542 BootP/DHCP Client
- RFC 1769 SNTF
- RFC 1901 SNMP v1, v2, v3
- RFC 1907 SNMP v2 MIB
- RFC 1908 SNMP v1, v2, v3
- RFC 2068 FCS
- RFC 2131 BootP/DHCP Client
- RFC 2138 RADIUS Authentication
- RFC 2139 RADIUS Authentication
- RFC 2233 Interface Group MIB
- RFC 2246 SSL
- RFC 2475
- RFC 2570 SNMP v1, v2, v3
- RFC 2575 SNMP v1, v2, v3
- RFC 2598 CoS
- RFC 2616 FCS
- RFC 2618 RADIUS Authentication
- RFC 2819 RMON v1
- RFC 2865 RADIUS Authentication
- RFC 3164 System Log
- RFC 3195 System Log
- RFC 3411-17 SNMP
- RFC 3621 Power Ethernet MIB

### Management

- Multi-Language Web-based GUI
  - English (default)
  - Simplified Chinese
  - Traditional Chinese
  - French
  - German
  - Italian
  - Japanese
  - Portuguese
  - Russian
  - Spanish
- SmartConsole Utility
- Simplified CLI
- Telnet Server
- RFC1492 TACACS
- RFC3176 sFlow

### D-Link Green 3.0 Technology

- Power Saving by:
  - Link Status
  - Cable Length detection
  - LED or Port Shutoff
  - Port Standby mode
  - System Hibernation mod

<sup>1</sup> IPv6 management and configuration supported since firmware v3.10

**Optional WDM SFP Transceivers**

**DGS-1210 20/28/28P**

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

**Optional SFP Transceivers**

**DGS-1210-20/28/28P**

DGS-712	• 1000BASE-T Copper
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-LHX, Single-mode, 50 km
DEM-315GT	• 1000BASE-ZX, Single-mode, 80 km

**Optional WDM SFP Transceivers**

**DGS-1210-52**

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

**Optional SFP Transceivers**

**DGS-1210-52**

DGS-712	• 1000BASE-T Copper
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-LHX, Single-mode, 50 km
DEM-315GT	• 1000BASE-ZX, Single-mode, 80 km
DEM-210	• 100BASE-FX, Single-mode, 15 km
DEM-211	• 100BASE-FX, Multi-mode, 2 km



For more information: [www.dlink.com](http://www.dlink.com)

D-Link European Headquarters. D-Link (Europe) Ltd., D-LinkHouse, Abbey Road, Park Royal, London, NW10 7BX.  
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