# **D-Link**<sup>®</sup>

### Highlights

#### **Easy Management**

A multilingual Web UI, a compact CLI, and a variety of management features allow the switches to integrate with your existing network

#### IPv6 Ready

IPv6 compliance means that the switches are ready to meet future addressing standards, and are compatible with both your IPv4 and IPv6 network

#### **Power over Ethernet**

Increased PoE capability and support for IEEE 802.3af/at allow the PoE models in the series to power more devices with greater port density

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## DGS-1210 Series Smart Managed Switches

### Features

**Green Technology** 

- Link status detection
- Port shut-off
- System hibernation
- Time-based PoE (PoE models only)

#### **Security Features**

- Access Control Lists (ACLs)
- D-Link Safeguard Engine helps the CPU resist broadcast/multicast/unicast flooding
- Port Security supports up to 64 MAC addresses per port
- ARP Spoofing Prevention
- Smart Binding

#### **Intuitive Management**

- D-Link multi-lingual Web UI
- Built-in SNMP MIB for remote NMS (D-View 8)
- Compact Command Line Interface (CLI)
   through Telnet

#### **Advanced Features**

- Static routing
- Auto IGMP
- Surveillance Mode
- Auto Voice VLAN
- Dual configuration files
- Multiple Spanning Tree

The D-Link DGS-1210 Series Smart Managed Switches are the latest generation of switches to provide increased Power over Ethernet (PoE) output, a range of physical interface types, multiple management interfaces, and advanced Layer 2 features. With all of these features combined, the DGS-1210 Series provides a cost-efficient and flexible solution for expanding any business network.

### **Seamless Integration**

The DGS-1210 Series includes a wide range of port and media types, including 10/100/1000BASE-T RJ-45 ports, 100/1000 Mbps combo ports, and 100/1000 Mbps SFP ports. The DGS-1210-08P features two 100/1000 Mbps SFP ports, while all other DGS-1210 Series models feature four GbE/SFP combo ports, allowing you to choose the most suitable media type for your requirements. All DGS-1210 Series PoE switches support IEEE 802.3af/at, enabling numerous PoE devices to be powered by the switch and allowing installation in remote locations without the immediate need for access to power outlets.

### Advanced Features

The DGS-1210 Series comes equipped with a complete lineup of L2 features, including IGMP snooping, port mirroring, Multiple Spanning Tree Protocol (MSTP), 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 transfers. The DGS-1210 Series also supports advanced features such as static routing, which allow network administrators to divide the network into VLANs, increasing network efficiency. Network maintenance features include loopback detection and cable diagnostics. Loopback detection significantly speeds up troubleshooting by automatically detecting and shutting down switching loops. The cable diagnostics feature, designed primarily for administrators and customer service representatives, determines the cable quality and quickly discovers errors, allowing for hassle-free diagnostics and maintenance.

### **Automatic Configuration**

The DGS-1210 Series supports Auto Voice VLAN and Surveillance Mode, which allows voice and video traffic to be automatically identified and handled differently than regular network traffic. Auto Voice VLAN detects Voice over IP (VoIP) traffic and automatically segments it from the rest of the network, adding a layer of isolation and allowing Quality of Service (QoS) to be applied. Surveillance Mode detects compatible ONVIF cameras and places them in a surveillance VLAN, allowing a single switch to be used for voice, video, and data, removing the need for dedicated hardware and reducing maintenance costs. Surveillance Mode also includes its own Web UI, making surveillance features easily accessible and simplifying management of your surveillance network.

### **Advanced Access Control**

D-Link's innovative Safeguard Engine helps to protect the switches against traffic flooding caused by malicious attacks. The DGS-1210 Series supports 802.1X port-based authentication, allowing the clients to be authenticated through external RADIUS servers. The Access Control List (ACL) feature helps to enhance network security and helps to protect the internal IT network. The DGS-1210 Series also features Address Resolution Protocol (ARP) spoofing prevention, which helps to provide protection from attacks on the network that could allow an intruder to sniff data frames, modify traffic, or bring traffic to a halt altogether by sending fake ARP messages. To help prevent ARP spoofing attacks, the switch uses packet control ACLs to block invalid packets that contain fake ARP messages. The DHCP server screening feature filters DHCP replies on unauthorized ports to prevent them from being assigned an IP address.

### Versatile Management

The DGS-1210 Series supports various management tools to adapt to users' different needs. D-Link Network Controller (DNC) and D-Link Network Hub (DNH) can discover multiple D-Link devices and allow you to manage and configure the settings of the discovered devices. The DGS-1210 Series also supports D-View 8 and Command Line Interface (CLI) through Telnet. D-View 8 is a network management system that allows for the central management of network assets, remote configuration, and logging functions.





### Surveillance Topology Web Interface Screenshot



Technical Specificatio	ns				
Model Number	• DGS-1210-16 • DGS-1210-24 • DGS-1210-48				
Hardware Version	• Gx				
Mounting Options	• Desk	top or 19" Rack Mount (mounting brackets in	ncluded)		
General					
Interfaces	<ul> <li>16 x 10/100/1000BASE-T ports</li> <li>4 x 100/1000 Mbps GbE/SFP combo ports</li> </ul>	<ul> <li>24 x 10/100/1000BASE-T ports</li> <li>4 x 100/1000 Mbps GbE/SFP combo ports</li> </ul>	<ul> <li>48 x 10/100/1000BASE-T ports</li> <li>4 x 100/1000 Mbps GbE/SFP combo ports</li> </ul>		
Port Standards	IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)     IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)     IEEE 802.3u 100BASE-FX 100 Mbps over fiber optic     IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted- pair copper)     IEEE 802.3z 1000BASE-X 1 Gbps over fiber optic     IEEE 802.3az Energy Efficient Ethernet (EEE)     IEEE 802.3x Flow Control				
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.)				
Duplex Mode	Full/Half-duplex for 10/100 Mbps     Full-duplex for 1000 Mbps				
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports				
Performance					
Switching Capacity	• 40 Gbps	• 56 Gbps	• 104 Gbps		
Transmission Method	Store-and-forward				
MAC Address Table	• 8K entries	• 8K entries	• 16K entries		
Static MAC Addresses	• 256 entries				
Max 64 Byte Packet Forwarding Rate	• 29.8 Mpps	• 41.7 Mpps	• 77.4 Mpps		
Packet Buffer Memory	• 4.1 Mbits	• 4.1 Mbits	• 12 Mbits		
CPU Memory	• DDR3 128 MB				
Flash Memory		• 32 MB			
LEDs					
Power (per device)		$\checkmark$			
Link/Active/Speed (per port)		$\checkmark$			
Physical/Environmen- tal					
Power Input	• 100 to	240 V AC 50/60 Hz internal universal pow	er supply		
Maximum Power Consumption	• 13.08 W/100 V • 13.02 W/240 V	• 17.32 W/100 V • 16.94 W/240 V	• 34.85 W/100 V • 34.2 W/240 V		
Standby Power Consumption	• 5.47 W/100 V • 5.56 W/240 V	• 6.49 W/100 V • 6.55 W/240 V	• 13.7 W/100 V • 13.9 W/240 V		
Acoustics		• 0 dB(A)			



Heat Dissipation	• 44.62 BTU/hr (100V) • 44.41 BTU/hr (240V)	• 59.09 BTU/hr (100V) • 57.79 BTU/hr (240V)	• 118.92 BTU/hr (100V) • 116.7 BTU/hr (240V)		
Operating Temperature	<ul> <li>-5 to 50°C</li> </ul>				
Storage Temperature	• -20 to 70°C				
Operating Humidity	0% to 95% relative humidity				
Storage Humidity	• 0% to 95% relative humidity				
Dimensions (L x W x H)			• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)		
Weight	• 1.75 kg (3.86 lbs) • 2.15 kg (4.74 lbs) • 3.46 kg (7.63 lbs)				
Certifications	• EMI: CE Class A, VCCI Class A, FCC Class A, BSMI • Safety: CB, UL, BSMI, LVD				
MTBF	• 1,087,100 hours	• 992,594 hours	• 400,667 hours		



Technical Specification	ıs		
Model	• DGS-1210-08P • DGS-1210-24P		
Hardware Version	• Gx		
Mounting Options	Desktop or 19" Rack Mount (mounting brackets included)		
General			
Interfaces	• 8 x 10/100/1000BASE-T PoE ports• 24 x 10/100/1000BASE-T PoE ports• 2 x 100/1000 Mbps SFP ports• 4 x 100/1000 Mbps GbE/SFP combo ports		
Port Standards	IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)     IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)     IEEE 802.3u 100BASE-TX 100 Mbps over fiber optic     IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted- pair copper)     IEEE 802.3z 1000BASE-X 1 Gbps over fiber optic     IEEE 802.3az Energy Efficient Ethernet (EEE)     IEEE 802.3ar Flow Control     IEEE 802.3af/at compliance (for PoE ports)		
Network Cables	• UTP Cat. 5, Cat	t. 5e (100 m max.)	
Duplex Mode	Full/Half-duplex for 10/100 Mbps     Full-duplex for 1000 Mbps		
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports		
Performance			
Switching Capacity	• 20 Gbps	• 56 Gbps	
Transmission Method	Store-and-forward		
MAC Address Table	• 8K e	ntries	
Static MAC Addresses	• 256 entries		
Maximum 64 Byte Packet Forwarding Rate	• 14.88 Mpps	• 41.7 Mpps	
Packet Buffer Memory	• 4.1 Mbits	• 4.1 Mbits	
CPU Memory	• DDR3	128 MB	
Flash Memory	• 32 MB		
PoE			
PoE Capable Ports	Ports 1 to 8	• Ports 1 to 24	
Power Budget	• 65 W	• 193 W	
LEDs			
Power (per device)	$\checkmark$	✓	
Link/Active/Speed (per port)	$\checkmark$	$\checkmark$	
PWR Max	$\checkmark$	√	
Fan Error	• N/A	$\checkmark$	



Physical/Environmental				
Power Input	• 54.0 V DC external power adapter	• 100 to 240 V AC 50/60 Hz internal universal power supply		
Maximum Power Consumption (PoE enabled)	• 81.9 W/100 V • 80.6 W/240 V	• 263.9 W/100 V • 247.4 W/240 V		
Maximum Power Consumption (PoE disabled)	• 7.6 W/100 V • 7.5 W/240 V	• 30.6 W/100 V • 28.1 W/240 V		
Standby Power Consumption	• 2.5 W/100 V • 2.5 W/240 V	• 19.6 W/100 V • 16.6 W/240 V		
Acoustics	• 0 dB(A)	<ul><li>High speed: 51.7 dB(A)</li><li>Low speed: 44.9 dB(A)</li></ul>		
Heat Dissipation	• 279.59 BTU/hr (100 V) • 275.04 BTU/hr (240 V)	• 900.36 BTU/hr (100 V) • 844.23 BTU/hr (240 V)		
Fans	• N/A	• 2		
Operating Temperature	• -5 to 50°C	(23 to 122°F)		
Storage Temperature	• -20 to 70°0	C (-4 to 158°F)		
Operating Humidity	• 0% to 95% relative humidity			
Storage Humidity	• 0% to 95% relative humidity			
Dimensions (L x W x H)	• 280 x 126 x 44 mm (11.02 x 4.96 x 1.73 in)	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)		
Weight	• 0.95 kg (2.10 lbs)	• 3.75 kg (8.27 lbs)		
Certifications		Class A, FCC Class A, BSMI, UL, BSMI, LVD		
MTBF	• 729,258 hours	• 469,262 hours		



Software		
L2 Features	<ul> <li>MAC Address Table <ul> <li>8K entries</li> <li>16K entries (DGS-1210-52/52MP only)</li> </ul> </li> <li>IGMP Snooping <ul> <li>IGMP v1/v2 Snooping</li> <li>IGMP v3 awareness</li> <li>Supports 256 IGMP groups</li> <li>Supports at least 64 static multicast addresses</li> <li>IGMP per VLAN</li> <li>Auto IGMP</li> <li>Supports IGMP Snooping Querier</li> </ul> </li> <li>Loopback Detection <ul> <li>802.3ad Link Aggregation:</li> <li>DGS-1210-08P: Supports a maximum of 4 groups per device and 8 ports per group</li> <li>DGS-1210-24/24P: Supports a maximum of 8 groups per device and 8 ports per group</li> <li>DGS-1210-48: Supports a maximum of 16 groups per device and 8 ports per group</li> </ul> </li> </ul>	<ul> <li>LLDP</li> <li>LLDP-MED</li> <li>Jumbo Frame <ul> <li>Up to 10,000 bytes</li> </ul> </li> <li>Spanning Tree Protocol <ul> <li>802.1D STP</li> <li>802.1W RSTP</li> </ul> </li> <li>Flow Control <ul> <li>802.3x Flow Control</li> <li>HOL Blocking Prevention</li> </ul> </li> <li>Port Mirroring <ul> <li>One-to-One</li> <li>Many-to-One</li> <li>Supports Mirroring for Tx/Rx/Both</li> </ul> </li> <li>Multicast Filtering <ul> <li>Forwards all unregistered groups</li> <li>Filters all unregistered groups</li> <li>Configurable MDI/MDIX</li> <li>MLD snooping v1/v2 (256 groups)</li> </ul> </li> </ul>
VLAN	<ul> <li>802.1Q</li> <li>VLAN Group</li> <li>Max. 256 static VLAN groups</li> <li>Configurable VID from 1 - 4094</li> <li>Asymmetric VLAN</li> </ul>	<ul> <li>Auto Voice VLAN</li> <li>Max. 10 user-defined OUI</li> <li>Max. 8 default OUI</li> <li>Auto Surveillance VLAN</li> </ul>
Quality of Service (QoS)	<ul> <li>802.1p Quality of Service</li> <li>8 queues per port</li> <li>Queue Handling</li> <li>Strict</li> <li>Weighted Round Robin (WRR)</li> <li>Bandwidth Control</li> <li>Port-based (ingress/egress, min granularity 10/100/1000 is 16 Kbps)</li> </ul>	<ul> <li>QoS based on:</li> <li>802.1p priority queues</li> <li>DSCP</li> <li>MAC address</li> <li>EtherType</li> <li>IP address</li> <li>Protocol type</li> <li>ToS</li> <li>IP preference</li> <li>IPv6 Traffic Class</li> <li>TCP/UDP port</li> </ul>
L3 Features	<ul> <li>IP interface</li> <li>Supports 4 interfaces</li> <li>IPv6 Neighbor Discovery (ND)</li> </ul>	<ul> <li>Static routing</li> <li>124 IPv4 static route entries</li> <li>50 IPv6 static route entries</li> </ul>
Access Control List (ACL)	<ul> <li>Max. 50 access lists</li> <li>Max. 768 rules shared by IPv4, MAC, and IPv6</li> <li>Each rule can only be associated with a single port</li> <li>ACL based on <ul> <li>MAC address</li> <li>802.1p priority mask</li> <li>VID mask</li> <li>Source/destination MAC address mask</li> <li>EtherType mask</li> <li>IP address</li> <li>Source/destination IP address mask</li> <li>DSCP mask</li> <li>Protocol type mask</li> <li>TCP/UDP port number mask</li> </ul> </li> </ul>	<ul> <li>IPv6 address</li> <li>Source/destination IP address mask</li> <li>DSCP mask</li> <li>Protocol type mask</li> <li>TCP/UDP port number mask</li> <li>IPv6 traffic class mask</li> </ul>
Security Features	<ul> <li>Broadcast/Multicast/Unicast Storm Control</li> <li>D-Link Safeguard Engine</li> <li>Traffic segmentation</li> <li>SSH v2</li> <li>TLS v.1.2</li> <li>DoS attack prevention</li> <li>802.1X Port-based Access Control</li> <li>Port Security <ul> <li>Supports up to 64 MAC addresses per port</li> <li>ARP Spoofing Prevention</li> <li>Max. 127 entries</li> </ul> </li> </ul>	<ul> <li>DHCP Server Screening</li> <li>IP-MAC-Port Binding (Smart Binding)</li> <li>ARP Inspection <ul> <li>Max. 256 entries</li> <li>IPv4 Inspection</li> <li>Max. 127 entries</li> <li>IPv6 Inspection</li> <li>Max. 63 entries</li> <li>DHCP Snooping</li> <li>Max. 512 entries</li> </ul> </li> </ul>

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AAA	<ul> <li>802.1X Authentication</li> <li>Supports local/RADIUS database</li> <li>Supports port-based access control</li> <li>Supports EAP, OTP, TLS, TTLS, PEAP</li> <li>Max. 128 entries when using local database</li> </ul>	<ul> <li>IPv6 RADIUS server</li> <li>Support MD5 authentication</li> </ul>
OAM	Cable diagnostics	• Factory reset
Management	<ul> <li>Web-based GUI</li> <li>D-Link Network Assistant Utility</li> <li>Compact CLI</li> <li>Telnet Server</li> <li>TFTP Client</li> <li>Configurable MDI/MDIX</li> <li>SNMP <ul> <li>Supports v1/v2c/v3</li> </ul> </li> <li>SNMP Trap</li> <li>Backup/upgrade firmware</li> <li>Smart Wizard</li> <li>Upload/download configuration file</li> <li>BootP/DHCP Client</li> </ul>	<ul> <li>System Log</li> <li>Max. 500 log entries</li> <li>SNTP</li> <li>ICMP v6</li> <li>IPv4/v6 Dual Stack</li> <li>DHCP Auto Configuration</li> <li>Time setting <ul> <li>SNTP</li> <li>RMONv1</li> <li>Trusted host</li> <li>Dual configuration</li> </ul> </li> </ul>
Green V3.0 Technology	<ul> <li>Power Saving by:</li> <li>Link Status</li> <li>Time-based PoE: PoE ports can be turned on/off by port or system through schedule</li> </ul>	<ul> <li>System hibernation</li> <li>Port shut off</li> <li>Cable length detection</li> </ul>
MIBs	<ul> <li>RFC1212 Concise MIB Definitions</li> <li>RFC1213 MIBII</li> <li>RFC1215 MIB Traps Convention</li> <li>RFC1493 Bridge MIB</li> <li>RFC1493 RFC2573, RFC2575, RFC2576 SNMP MIB</li> <li>RFC1442, RFC1901, RFC1902, RFC1903, RFC1904, RFC1905, RFC1906, RFC1907, RFC1908, RFC2578, RFC3418 SNMPv2 MIB</li> <li>RFC271, RFC1757, RFC2819 RMON MIB</li> <li>RFC2021 RMONv2 MIB</li> <li>RFC1398, RFC1643, RFC1650, RFC2358, RFC2665 Ether- like MIB</li> </ul>	<ul> <li>RFC2674 802.1p MIB</li> <li>Interface Group MIB</li> <li>RFC2618 RADIUS Authentication Client MIB</li> <li>RFC4022 MIB for TCP</li> <li>RFC4113 MIB for UDP</li> <li>RFC2389 MIB for Diffserv.</li> <li>Private MIB</li> <li>POE MIB</li> <li>DDP MIB</li> <li>LLDP-MED MIB</li> </ul>
RFC Standards	<ul> <li>RFC791 IP</li> <li>RFC768 UDP</li> <li>RFC793 TCP</li> <li>RFC792 ICMPv4</li> <li>RFC2463, RFC4443 ICMPv6</li> <li>RFC826 ARP</li> <li>RFC1321, RFC2284, RFC2865, RFC2716, RFC3580 Extensible Authentication Protocol (EAP)</li> </ul>	<ul> <li>RFC2573 SNMP Applications</li> <li>RFC2461, RFC4861 Neighbor Discovery for IPv6</li> <li>RFC2462, RFC4862 IPv6 Stateless Address Autoconfiguration (SLAAC)</li> <li>RFC2464 IPv6 over Ethernet and definition</li> <li>RFC4291 IPv6 Addressing Architecture</li> <li>RFC2893, RFC4213 IPv4/IPv6 dual stack function</li> </ul>

Order Information		
DGS-1210-08P	8 x 10/100/1000BASE-T PoE ports and 2 x 100/1000 Mbps SFP ports	
DGS-1210-16	16 x 10/100/1000Base-T ports and 4 x 100/1000 Mbps GbE/SFP combo ports	
DGS-1210-24	24 x 10/100/1000BASE-T ports and 4 x 100/1000 Mbps GbE/SFP combo ports	
DGS-121024P	24 x 10/100/1000BASE-T PoE ports and 4 x 100/1000 Mbps GbE/SFP combo ports	
DGS-1210-48	48 x 10/100/1000BASE-T ports and 4 x 100/1000 Mbps GbE/SFP combo ports	



Optional SFP Transceivers				
DGS-712	1000BASE-T copper			
DEM-302S-LX	1000BASE-LX, single-mode, 2 km			
DEM-302S-BXD/BXU	Gigabit WDM transceiver, single-mode, 2 km			
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	100BASE-ZX, single-mode, 80 km			
DEM-330T/R	Gigabit WDM transceiver, single-mode 10 km			
DEM-331T/R	Gigabit WDM transceiver, single-mode 40 km			
DEM-210	100BASE-FX, single-mode, 15 km			
DEM-211	100BASE-FX, multi-mode, 2 km			
DEM-220T/R	Fast Ethernet WDM transceiver, single-mode, 20 km			
D-View 8 Order Information				
Part Number	Description			
DV-800S-LIC	D-View 8 Standard License			
DV-800E-LIC	D-View 8 Enterprise License			
DV-800SE-LIC	Upgrade License from Standard to Enterprise Edition			
D-View 8 (v2.00) now offers annual maintenance service licenses for Standard and Enterprise editions, as shown below:				
DV-800MS-Y1-LIC	D-View 8 Standard Maintenance License (Y1=365 days)			
DV-800MS-Y2-LIC	D-View 8 Standard Maintenance License (Y2=730 days)			
DV-800MS-Y3-LIC	D-View 8 Standard Maintenance License (Y3=1095 days)			
DV-800MS-Y4-LIC	D-View 8 Standard Maintenance License (Y4=1460 days)			
DV-800MS-Y5-LIC	D-View 8 Standard Maintenance License (Y5=1825 days)			
DV-800ME-Y1-LIC	D-View 8 Enterprise Maintenance License (Y1=365 days)			
DV-800ME-Y2-LIC	D-View 8 Enterprise Maintenance License (Y2=730 days)			
DV-800ME-Y3-LIC	D-View 8 Enterprise Maintenance License (Y3=1095 days)			
DV-800ME-Y4-LIC	D-View 8 Enterprise Maintenance License (Y4=1460 days)			
DV-800ME-Y5-LIC	D-View 8 Enterprise Maintenance License (Y5=1825 days)			

DV-800MS-Yn-LIC is a maintenance license applicable to D-View 8 Standard edition, and DV-800ME-Yn-LIC is a maintenance license applicable to the Enterprise edition. The applicable annual maintenance service can only be activated after D-View 8 has been activated as Standard or Enterprise Edition. After the first-year or annual maintenance expires, functions such as device view, topology map, firmware management, and configuration management will be limited to only 30 devices that can fully operate, and other devices cannot use these common functions.

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