

Product Highlights

10 Gigabit Connectivity

Ideal for deployment in SMB networks with large bandwidth demands such as data replication and backup, video-on-demand, and 10G server connections

Comprehensive Management Solution

Easily manage your entire network via the Web GUI or D-Link Network Assistant with automatic switch discovery and batch operations

Strong Security

Innovative IP-MAC-Port binding, Safeguard Engine, ACL, and ARP Spoofing Prevention protect your network from malicious attacks and unauthorized access

Unparallelled Flexibility

Physical and virtual stacking provides redundancy and expandability, while enabling simple deployment and management



DGS-1510 Series

Gigabit Stackable SmartPro Switches with Uplinks

Features

Advanced Features

- Single IP Management (Virtual Stacking), stack up to 32 devices
- Physical Stacking via 2 10G ports, stack up to 6 devices
- Static Routing
- IPv6 Management Support
- · Auto Surveillance VLAN
- Auto Voice VLAN
- Loopback Detection automatically disables a port or VLAN when a loop is detected
- Configurable MDI/MDIX
- · LLDP/LLDP-MED

Security Features

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

Intuitive Management

- D-Link Network Assistant Utility or Multi-language Web-based GUI
- Built-in SNMP MIB for remote NMS (D-View 6.0)
- Full CLI via console port
- IPv4/IPv6 Stack
- Dual Image

Green Technology

- IEEE 802.3az Energy Efficient Ethernet
- D-Link Green 3.0 power-saving features

The DGS-1510 series is D-Link's latest generation of SmartPro switches with 10G port connectivity, making them ideal for deployment in the SME/SMB core. They also offer the flexibility and reliability required for medium to large scale enterprise deployments, providing a solid interconnection between core switches and edge switches. Available in 16, 24 or 48 10/100/1000 Mbps port models, these switches also include 2 Gigabit SFP ports and 2 10G SFP+ ports. The DGS-1510 Series now features an IEEE 802.3at certified 24 10/100/1000 Mbps PoE model which is ideal for simplyfing deployment of VoIP phones and network cameras.

The DGS-1510 Series Gigabit Stackable SmartPro Switches with Uplinks include a PoE-enabled switch for businesses looking to power VoIP phones, wireless access points or network cameras. The DGS-1510-28P is a 24-port PoE Switch that provides 24 PoE-enabled ports that can support up to 30 W of power output following the IEEE 802.3at standard. The design allows more flexibility in power allocation for a variety of powered devices with affordable installation costs.

Two 10G SFP+ Stacking/Uplink Ports

Depending on whether linear or fault-tolerant ring stacking is implemented, users can use one or two 10-Gigabit SFP+ ports to create a physical stack. 6 units or 288 Gigabit ports can be configured for a stack using optional direct attach cables to provide high bandwidth on the DGS-1510 Series with cost efficiency. Users can mix any models from the DGS-1510 SmartPro series in a single stack to allow simultaneous and easy configuration, management and troubleshooting.

Flexibility and Scalability

DGS-1510 series supports virtual stacking via D-Link's Single IP Management (SIM), allowing up to 32 devices to be managed via a single IP. This simplifies management of small workgroups or wiring closets while allowing the network to be scaled to handle increased bandwidth demand. SIM not only reduces the number of IP address needed in your network but also allows switches to be stacked together over Ethernet instead of using physical uplink or stacking ports. This eliminates the need for any specialised stacking cables while at the same





time removing the distance barriers that typically limit topology options when using other stacking technology.

Extensive Layer 2 Features

The DGS-1510 Series switches are equipped with a complete lineup of Layer 2 features including IGMP Snooping, Port Mirroring, Spanning Tree, and Link Layer Discovery Protocol (LLDP). 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 or VLAN and automatically shut down the affected port or VLAN. The Cable Diagnostics feature, designed primarily for administrators and customer service representatives, can quickly discover the type of error on cables and determine the cable quality.

QoS, Bandwidth Control

The DGS-1510 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 built into D-Link Smart Switches. This technology consolidates data and surveillance video transmission through a single SmartPro switch, sparing businesses the expense of maintaining expensive 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 VoIP service by automatically placing voice traffic from an IP phone to an assigned VLAN. With higher priority and an individual VLAN, these features guarantee the 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 more bandwidth or might require high priority.

IPv6 Ready

The DGS-1510 Series is IPv6 ready and supports various IPv6 functions such as MLD Snooping, IPv6 ACL/QoS, and IMPBv6 to ensure seamless integration of next generation networks. The DGS-1510 Series also supports a IPv4/v6 dual stack function that allows the switch to act as a bridge between IPv4 and IPv6 networks. Finally, all DGS-1510 Series are certified to be IPv6 Ready Logo Phase 2, which guarantees interoperability for IPv6 environments.

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 to be authenticated through external RADIUS servers. In addition, the Access Control List (ACL) feature enhances network security and helps to protect the internal IT network by screening ingress traffic based on MAC or IP addresses. The DGS-1510 Series includes ARP Spoofing Prevention, which protects from attacks on the Ethernet

network that may allow an intruder to sniff data frames, modify traffic, or bring traffic to a halt altogether by sending fake ARP messages to the network. To prevent ARP Spoofing attacks, the switch uses Packet Control ACLs to block invalid packets that contain fake ARP messages. For added security, the DHCP Server Screening feature screens rogue DHCP server packets from user ports to prevent unauthorised IP assignment.

Versatile Management

The DGS-1510 series provides a D-Link Network Assistant Utility and a webbased management interface that enables administrators to remotely control their network down to the port level. The D-Link Network Assistant Utility allows customers to easily discover multiple D-Link SmartPro Switches within the same L2 network segment. With this utility, users do not need to change the IP address of their PC. It also simplifies the initial setup of the SmartPro Switches. Switches within the same L2 network segment that are connected to the user's PC are displayed on screen for instant access. This allows extensive switch configuration and basic setup of discovered devices including password changes and firmware upgrades. The DGS-1510 series also supports D-View 6.0 and a fully featured Command Line Interface (CLI) via console port. 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. CLI management of the switches is possible via console port and Telnet interfaces. This makes it possible to adjust basic settings, passwords, configuration files, and firmware with ease.

Layer 3 Traffic Management

The DGS-1510 Series provides static route, allowing you to segment your network into workgroups and communicate across VLANs without degrading application performance. With these capabilities, you can boost the efficiency of your network by offloading internal traffic-handling tasks from your router and allowing it to manage external traffic and security.

Energy Saving

DGS-1510 switches are capable of conserving power without sacrificing operational performance or functionality by using D-Link Green 3.0 technology. Using the 802.3az 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-1510 switches offer advanced power-saving settings including port shutoff, LED shutoff, and system hibernation based on custom scheduling profiles. The profiles can also be applied to the PoE switch so that there is no unnecessary power consumption during off hours.





DGS-1510-20



DGS-1510-28



DGS-1510-28P



DGS-1510-52



General	DGS-1510-20	DGS-1510-28	DGS-1510-52
Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, 802.3ae 10 GbE, IEEE 802.3x Flow Control for Full-Duplex Mode, Auto-negotiation		
Number of Ports	16 10/100/1000 Mbps, 2 Gigabit SFP, 2 10G SFP+	24 10/100/1000 Mbps, 2 Gigabit SFP, 2 10G SFP+	48 10/100/1000 Mbps, 2 Gigabit SFP, 2 10G SFP+
Network Cables	UTP Cat. 5, Cat. 5e (100 m max.) EIA/TIA-568 100-ohm STP (100 m max.)		
Full/Half Duplex	Full/half duplex for 10/100 Mbps and Gigabit speed		
Media Interface Exchange	Auto or configurable MDI/MDIX		
Performance			
Switching Capacity	76 Gbps	92 Gbps	140 Gbps
Transmission Method	Store-and-forward		
MAC Address Table	16,000 entries per device		
MAC Address Update	Up to 512 static MAC entries Enable/disable auto-learning of MAC addresses		
Maximum 64 bytes Packet Forwarding Rate	56.54 Mpps	68.45 Mpps	104.16 Mpps
Packet Buffer Memory	DGS-1510-20/28 - 1.5 MB per device DGS-1510-52 - 3 MB per device		





Physical & Environment	DGS-1510-20	DGS-1510-28	DGS-1510-52
AC Input	100 to 240 VAC 50/60 Hz internal universal power supply		
Maximum Power Consumption	20.3 W	24 W	38.4 W
Standby Power Consumption	12.2 W	15.2 W	27.6 W
Smart Fan Quantity	1	1	2
Acoustics	43.8 dB(A)	47.5 dB(A)	44.2 dB(A)
Heat Dissipation	41.602 BTU/hr	72.292 BTU/hr	130.944 BTU/hr
Operation Temperature	-5 to 50 °C (23 to 122 °F)		
Storage Temperature	-20 to 70°C (-4 to 158 °F)		
Operation Humidity	0% to 95% non-condensing		
Storage Humidity	0% to 95% non-condensing		
Dimensions	280 x 180 x 44 mm (11 x 7.09 x 1.73 inches) 19" standard rack mounting width, 1U height	440 x 210 x 44 mm (17.36 x 8.26 x 1.73 inches) 19" standard rack mounting width, 1U height	440 x 210 x 44 mm (17.36 x 8.26 x 1.73 inches) 19" standard rack mounting width, 1U height
Weight	1.24 kg	2.00 kg	2.40 kg
Diagnostic LEDs	Power/Stacking ID/Fan (per device), Link/Activity/Speed (per 10/100/1000 Mbps port), Link/ Activity/Speed (per Gigabit SFP port), Link/Activity/Speed (per 10G SFP+ port)		
Certifications	CE, FCC, C-Tick, VCCI, BSMI, CCC		
Safety	cUL, CB		



DGS-1510 Series PoE

Technical Specifications		
General	DGS-1510-28P	
Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, 802.3ae 10 GbE, IEEE 802.3x Flow Control for Full-Duplex Mode, Auto-negotiation	
Number of Ports	24 10/100/1000 Mbps PoE capable, 2 Gigabit SFP, 2 10G SFP+	
Network Cables	UTP Cat. 5, Cat. 5e (100 m max.); EIA/TIA-568 100-ohm STP (100 m max.)	
Full/Half Duplex	Full/half duplex for 10/100 Mbps and Gigabit speed	
Media Interface Exchange	Auto or configurable MDI/MDIX	
Performance		
Switching Capacity	92 Gbps	
Transmission Method	Store-and-forward	
MAC Address Table	16,000 entries per device	
MAC Address Update	Up to 512 static MAC entries, Enable/disable auto-learning of MAC addresses	
Maximum 64 bytes Packet Forwarding Rate	68.45 Mpps	
Packet Buffer Memory	1.5 MB per device	
РоЕ		
PoE Standard	IEEE 802.3af, 802.3at	
PoE Capable Ports	Ports 1 to 24: Up to 30 W	
PoE Power Budget	Max. 193 W	
Physical & Environment		
AC Input	100 to 240 VAC 50/60 Hz internal universal power supply	
Maximum Power Consumption	238.7 W (PoE on), 29 W (PoE off)	
Standby Power Consumption	21 W	
Smart Fan Quantity	2	
Acoustics	46.4 dB(A)	
Heat Dissipation	813.967 BTU/hr	
Operation Temperature	-5 to 50 °C (23 to 122 °F)	
Storage Temperature	-20 to 70°C (-4 to 158 °F)	
Operation Humidity	0% to 95% non-condensing	
Storage Humidity	0% to 95% non-condensing	
Dimensions	440 x 250 x 44 mm (17.36 x 9.84 x 1.73 inches) 19" standard rack mounting width, 1U height	
Weight	2.54 kg	
Diagnostic LEDs	Power/Stacking ID/Fan Error/PoE Push Button (per device), Link/Activity/Speed/PoE Mode (per 10/100/1000 Mbps port), Link/Activity/Speed (per SFP port), Link/Activity/Speed (per 10G SFP+ port)	
Certifications	CE, FCC, C-Tick, VCCI, BSMI, CCC	
Safety	cUL, CB	



Software Features		
Stackability	Virtual Stacking Support D-Link Single IP Management Up to 32 devices per virtual stack Up to 20G stacking bandwidth	 Physical Stacking Supports Duplex Chain/Ring topology Up to 40G stacking bandwidth full duplex Up to 6 units per stack
L2 Features	MAC Address Table: 16K Flow Control 802.3x Flow Control HOL Blocking Prevention Jumbo Frame up to 9000 Bytes IGMP Snooping IGMP v1/v2 Snooping IGMP v3 awareness Supports 512 IGMP groups Supports 128 static multicast addresses IGMP per VLAN Supports IGMP Snooping Querier Host-based IGMP Snooping Fast Leave MLD Snooping¹ Supports 512 groups Supports 128 Static Multicast Addresses Per VLAN MLD Snooping Host-Based MLD Fast Leave MLD Snooping Host-Based MLD Fast Leave	Spanning Tree Protocol 802.1D STP 802.1w RSTP 802.1s MSTP Loopback Detection 802.3ad Link Aggregation Max. 32 groups per device/8 ports per group Port Mirroring Support 4 mirroring groups 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 Tagged VLAN 4K VLAN Groups Configurable VID: 0~4094	Asymmetric VLANAuto Voice VLANAuto Surveillance VLAN
Quality of Service (QoS)	802.1p Quality of Service Queue Handling Strict Weighted Round Robin (WRR) 8 queues per port Bandwidth Control Port-based (Ingress/Egress, min. granularity for 10/100/1000Base-T ports is 64 Kb/s)	CoS based on 802.1p priority VLAN MAC address Ether type IP address DSCP Protocol type TCP/UDP port number DSCP of IPv6 Traffic Class IPv6 flow label
L3 Features	ARP 256 Static ARP Supports Gratuitous ARP IPv6 Neighbour Discovery (ND)	 Default Routing Static Routing 64 IPv4 Static Route Entries 32 IPv6 Static Route Entries
Access Control List (ACL)	ACL based on 802.1p priority VLAN MAC address Ether type IP address DSCP Protocol type TCP/UDP port number DSCP of IPv6 Traffic Class IPv6 flow label	 ACL Actions Permit Deny Max. 256 access list Max. 768 rules Single or multiple ports (each rule) Time-based ACL ACL Statistics
Security	Port Security Supports up to 128 MAC addresses per port Broadcast/Multicast/Unicast Storm Control Dynamic ARP Inspection Static MAC D-Link Safeguard Engine DHCP Server Screening ARP Spoofing Prevention Max. 64 entries SSH Supports V02 Supports IPv4/IPv6	 SSL Supports v1/v2/v3 Supports IPv4/IPv6 Traffic Segmentation IP-MAC-Port Binding DHCP snooping IP Source Guard Dynamic ARP inspection DHCPv6 Guard RA Guard IPv6 Snooping IPv6 Snooping IPv6 Source guard DoS Attack Prevention
AAA	Compound Authentication 802.1X Port and MAC-based Authentication Supports RADIUS and Local Server Supports EAP, OTP, TLS, TTLS, PEAP Web-based Access Control (WAC) Port-based Access Control Host-based Access Control Dynamic VLAN Assignment	 MAC-based Access Control (MAC) Port-based Access Control Host-based Access Control Dynamic VLAN Assignment Japan Web-based Access Control (JWAC) Port-based Access Control Host-based Access Control Dynamic VLAN Assignment
OAM	Cable Diagnostics	Factory Reset





Software Features		
Management	CLI Telnet Server TFTP Client IPv6 Neighbor Discovery Configurable MDI/MDIX SNMP Supports v1, v2c, v3 SNMP Trap System Log Max. 10,000 log entries	 DHCP Client D-Link Network Assistant support¹ SNTP ICMPv6 IPv4/v6 Dual Stack¹ DHCP Auto Configuration RMON v1
D-Link Green 3.0 Technology	Power Saving by: Link Status LED or Port Shutoff	System Hibernation modeTime-based PoE (PoE model only)



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-LHX, single-mode, 50 km	
DEM-315GT	1000BASE-ZX, single-mode, 80 km	
DGS-712	1000Base-T to SFP transceiver	
Optional WDM SFP Transceivers		
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	
DEM-330T	1000BASE-LX, Wavelength Tx 1550nm, Rx 1310nm, single-mode, 10km	
DEM-330R	1000BASE-LX, Wavelength Tx 1310nm, Rx 1550nm, single-mode, 10km	
Optional SFP+ Transceivers		
DEM-431XT	10GBASE-SR SFP+ Transceiver (without DDM), 80m: OM1 & OM2 MMF,300m: OM3 MMF	
DEM-431XT-DD	10GBASE-SR SFP+ Transceiver (with DDM), 80m: OM1 & OM2 MMF, 300m: OM3 MMF	
DEM-432XT	10GBASE-LR SFP+ Transceiver (without DDM), 10km	
DEM-432XT-DD	10GBASE-LR SFP+ Transceiver (with DDM), 10km	
DEM-433XT	10GBASE-ER SFP+ Transceiver (without DDM), 40km	
DEM-433XT-DD	10GBASE-ER SFP+ Transceiver (with DDM), 40km	
DEM-434XT	10GBASE-ER SFP+ Transceiver (without DDM), 80km	
DEM-435XT	10GBASE-LRM SFP+ Transceiver (without DDM), 220m	
DEM-435XT-DD	10GBASE-LRM SFP+ Transceiver (with DDM), 220m	
DEM-436XT-BXD	10GBASE-LR SFP+ Transceiver. Wavelength: Tx 1330nm Rx: 1270nm (without DDM), 20km	
DEM-436XT-BXU	10GBASE-LR SFP+ Transceiver. Wavelength: Rx 1330nm Tx: 1270nm (without DDM), 20km	
Optional SFP+ Direct Attached Stacking Cables		
DEM-CB100S	10-GbE SFP+ 1 m Direct Attach Cable	
DEM-CB300S	10-GbE SFP+ 3 m Direct Attach Cable	
DEM-CB700S	10-GbE SFP+ 7m Direct Attach Cable	



For more information: www.dlink.com

