

Product Highlights

10 Gigabit Connectivity

10G physical stacking and/or uplink eliminates the bottleneck of stacking backbone servers and storage accesses

Comprehensive Management

Intuitive graphical Web UI complete with 10 languages for SMB; comprehensive Command Line Interface (CLI) and SNMP for out-of-band console management

Layer 3 Functions

Wire-speed inter-VLAN routing helps by reducing the pressure of routers and backbone networks, improving overall network efficiency



DGS-1510 Series

Gigabit Stackable SmartPro Switches with 10G Uplinks

Features

Advanced Features

- Physical Stacking via two 10G ports, can stack up to 6 devices
- Ethernet Ring Protection Switching (ERPS)
- Static Routing
- Auto Surveillance VLAN
- Auto Voice VLAN
- Loopback Detection
- LLDP/LLDP-MED

Security Features

- Access Control List
- D-Link Safeguard Engine
- BPDU Attack Protection
- ARP Spoofing Prevention
- IP-MAC-Port Binding
- DoS Attack Prevention
- Clientless MAC/Web Access Control

Intuitive Management

- Multi-language Web-based GUI
- Built-in SNMP MIB for remote network management systems
- Comprehensive CLI support
- Manageability for both IPv4/IPv6 environments
- Dual Image
- D-Link Network Assistant (DNA) Utility for Easy Installation
- Console interface for out-of-band management

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 SME/SMB aggregation environments. The DGS-1510 Series provides a reliable and scalable interconnection between core switches and edge switches. Available in 16, 24, or 48 10/100/1000 Mbps port models with additional fiber ports for physical stacking and/or uplinks, the DGS-1510 Series are perfect for any business network environment.

The DGS-1510 Series PoE-enabled switches are ideal for businesses looking to power VoIP phones, wireless access points, or network cameras. Both the DGS-1510-28P and DGS-1510-28XMP support up to 30W of power output, giving you flexible power allocation for a variety of powered devices. This enables you to scale your operations to meet business growth and incorporate new technologies all with affordable installation costs.

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 as a stack using optional direct attach cables to provide high bandwidth with cost efficiency. Users can also easily configure and manage any of the DGS-1510 SmartPro series in a single stack. With 20 Gbps full duplex capabilities, the DGS-1510 offers 10G connectivity to core networks and servers while still maintaining fast data transfer rates.

Layer 3 Traffic Management

The DGS-1510 Series provides static routing, 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, allowing it to manage external traffic and security.

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. Network maintenance features include Loopback Detection and Cable Diagnostics; Loopback Detection is used to detect loops created by a specific port or VLAN and will automatically shut down the affected port or VLAN. The Cable Diagnostics feature, designed primarily for administrators and customer service representatives, can determine cable quality and can quickly discover sections of cabling that need to be replaced.

Traffic Classification & QoS

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 ensuring uninterrupted VoIP for network users.

Keep Your Network Secure

D-Link's innovative Safeguard Engine protects DGS-1510 Series against traffic flooding caused by malicious attacks. The series also supports 802.1X port-based authentication, allowing the network to be authenticated through external RADIUS servers.

The DGS-1510 Series supports both MAC and Web-based access control. These provide a user-friendly way to alleviate deployment time, giving customers an effective and efficient authentication choice.

With an Access Control List (ACL), the DGS-1510 Series both enhances network security and helps to protect the internal IT network by screening ingress traffic based on any user defined content. 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. For added security, the DHCP Server Screening feature screens rogue DHCP server packets from user ports to prevent unauthorized IP assignment.

IPv6 Ready

The DGS-1510 Series is IPv6 ready and supports various IPv6 functions such as MLD Snooping, IPv6 ACL/QoS, and IP-MAC-Port Binding (IMPB) to ensure seamless integration of next generation networks. The DGS-1510 Series also supports an IPv4/v6 dual stack function that allows the switch to act as a bridge between IPv4 and IPv6 networks.

Versatile Management

The 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 address. This simplifies management of small workgroups or wiring closets while reducing the number of IP addresses needed in your network.

The DGS-1510 Series provides a D-Link Network Assistant Utility and a web-based management interface that enables administrators to easily set up and remotely manage their networks. The D-Link Network Assistant Utility allows customers to easily discover and perform initial setup on multiple D-Link products simultaneously. This greatly reduces the deployment time for services required by network administrators such as device firmware upgrades, configuration backup and restoration, setting IP addresses, or even solution deployment like ASV.

The DGS-1510 Series also supports fully featured Command Line Interface (CLI) and SNMP MIBs. It provides the capability of central management in a large scale network. CLI management of the switches is also available via a console port. With out-of-band manageability, accessing the switch is still possible even if its network data plane is overwhelmed by bulk or malicious traffic.

Energy Efficient

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 power usage when traffic is low. 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 Series
Gigabit Stackable SmartPro Switches with 10G Uplinks

DGS-1510-20



DGS-1510-28



DGS-1510-28P



DGS-1510-28XMP



DGS-1510-28X



DGS-1510-52



DGS-1510-52X



Technical Specifications - DGS-1510 Switches

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	Up to 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	1.5 MB per device		3 MB per device
MTBF	882152.37 hours	516593.25 hours	433434.16 hours
Physical & Environment			
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)	43.8 dB(A)	44.2 dB(A)
Heat Dissipation	41.602 BTU/hr	72.292 BTU/hr	130.944 BTU/hr
Operating Temperature	-5 to 50 °C (23 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	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 250 x 44 mm (17.36 x 9.84 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	CE, FCC, C-Tick, VCCI, BSMI, CCC, IPv6 Ready Logo Phase 2	
Safety	cUL, CB		

Technical Specifications - DGS-1510 Switches

General	DGS-1510-28X	DGS-1510-52X
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, 4 10G SFP+	48 10/100/1000 Mbps, 4 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	128Gbps	176Gbps
Transmission Method	Store-and-forward	
MAC Address Table	Up to 16,000 entries per device	
MAC Address Update	Up to 512 static MAC entries, Enable/disable auto-learning of MAC addresses	
Maximum 64 byte Packet Forwarding Rate	95.24Mpps	130.95Mpps
Packet Buffer Memory	1.5 MB per device	3MB per device
MTBF	516593.25 hours	416789.03 hours
Physical & Environment		
AC Input	100 to 240 VAC 50/60 Hz internal universal power supply	
Maximum Power Consumption	22.3 W	44.2 W
Standby Power Consumption	15.2 W	28.9 W
Smart Fan Quantity	1	2
Acoustics	42.7 dB(A)	45.8 dB(A)
Heat Dissipation	76.043 BTU/hr	138.787 BTU/hr
Operating Temperature	-5 to 50 °C (23 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	440mm x 210mm x 44mm	440mm x 250mm x 44mm
Weight	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, IPv6 Ready Logo Phase 2	
Safety	cUL, CB	

DGS-1510 Series PoE Gigabit Stackable SmartPro Switches with 10G Uplinks

Technical Specifications - DGS-1510 PoE Switches

General	DGS-1510-28P	DGS-1510-28XMP
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+	24 10/100/1000 Mbps PoE capable, 4 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	128 Gbps
Transmission Method	Store-and-forward	
MAC Address Table	Up to 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	95.24 Mpps
Packet Buffer Memory	1.5 MB per device	
MTBF	275428.54 hours	274796.39 hours
PoE		
PoE Standard	IEEE 802.3af, 802.3at	
PoE Capable Ports	Ports 1 to 24: Up to 30 W	
PoE Power Budget	Max. 193 W	Max. 370 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)	436.3 W (PoE on), 38.4 W (PoE off)
Standby Power Consumption	21 W	28.3 W
Smart Fan Quantity	2	
Acoustics	46.4 dB(A)	56.9 dB(A)
Heat Dissipation	813.967 BTU/hr	1487.783 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 210 x 44 mm (17.36 x 8.26 x 1.73 inches) 19" standard rack mounting width, 1U height	440 x 308 x 44 mm (17.36 x 12.12 x 1.73 inches) 19" standard rack mounting width, 1U height
Weight	2.54 kg	4.25 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	CE, FCC, C-Tick, VCCI, BSMI, CCC , IPv6 Ready Logo Phase 2
Safety	cUL, CB	

Gigabit Stackable SmartPro Switches with 10G Uplinks

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: Up to 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 Snooping - Supports MLD v1/v2 awareness - Supports 512 groups - Supports 128 Static Multicast Addresses - Per VLAN MLD Snooping - Host-based MLD Fast Leave - MLD Snooping Querier	- 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 - Ethernet Ring Protection Switching (ERPS)
VLAN	802.1Q Tagged VLAN 4K VLAN Groups - Configurable VID: 0~4094 - GVRP	- Asymmetric VLAN - Auto Voice VLAN - Auto Surveillance VLAN
Quality of Service (QoS)	- 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	802.1p Quality of Service - Queue Handling - Strict Priority Queue (SPQ) - Weighted Round Robin (WRR) - Deficit Round Robin (DRR) - SPQ + WRR 8 queues per port - Bandwidth Control - Port-based (Ingress/Egress, min. granularity for 10/100/1000 BASE-T ports is 64 Kb/s)
L3 Features	- ARP 256 Static ARP - Supports Gratuitous ARP - IPv6 Neighbour Discovery (ND) 16 IP interfaces	- 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 v2 - Supports IPv4/IPv6 - BPDU Attack Protection - DoS Attack Prevention	- SSL - Supports v1/v2/v3 - Supports IPv4/IPv6 - Traffic Segmentation - IP-MAC-Port Binding - DHCP snooping - IP Source Guard - Dynamic ARP Inspection - IPv6 DHCP Guard - IPv6 RA Guard - IPv6 Snooping - IPv6 Source Guard - IPv6 ND Inspection
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 - Guest VLAN - RADIUS and TACACS+ authentication for switch access - RADIUS and TACACS+ accounting	- 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

Gigabit Stackable SmartPro Switches with 10G Uplinks

Software Features		
OAM	• Cable Diagnostics • sFlow	• Factory Reset
Management	• Command Line Interface (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 • Debug command • Dual images	• DHCP Client • D-Link Network Assistant support • SNMP • ICMPv6 • IPv4/v6 Dual Stack • DHCP Auto Configuration • RMON v1 • LLDP, LLDP-MED • DHCP relay • Web-based GUI • TFTP Client • NTP
D-Link Green 3.0 Technology	• Power Saving by: • Link Status • LED or Port Shutoff	• System Hibernation mode • Time-based PoE (PoE model only)
Order Information		
Product Number	Description	
DGS-1510-20	16 10/100/1000 Mbps, 2 Gigabit SFP and 2 10G SFP+	
DGS-1510-28	24 10/100/1000 Mbps, 2 Gigabit SFP and 2 10G SFP+	
DGS-1510-52	48 10/100/1000 Mbps, 2 Gigabit SFP and 2 10G SFP+	
DGS-1510-28X	24 10/100/1000Mbps and 4 10G SFP+	
DGS-1510-52X	48 10/100/1000Mbps and 4 10G SFP+	
DGS-1510-28P	24 10/100/1000 Mbps PoE capable, 2 Gigabit SFP and 2 10G SFP+	
DGS-1510-28XMP	24 10/100/1000 Mbps PoE capable, 4 10G SFP+	

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
DEM-302S-BXD	1000BASE-LX, wavelength Tx:1550nm Rx:1310nm, Single-mode, 2 km
DEM-302S-BXU	1000BASE-LX, wavelength Tx:1310nm Rx:1550nm, Single-mode, 2 km
Optional SFP+ Transceivers	
DEM-431XT	10GBASE-SR SFP+ Transceiver (without DDM), 33m: OM1 MMF, 82m: OM2 MMF, 300m: OM3 MMF
DEM-431XT-DD	10GBASE-SR SFP+ Transceiver (with DDM), 33m: OM1 MMF, 82m: 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-ZR SFP+ Transceiver (without DDM), 80km
DEM-436XT-BXD	10GBASE-LR BiDi SFP+ Transceiver (without DDM), Wavelength Tx 1330nm, Rx: 1270nm, 20km
DEM-436XT-BXU	10GBASE-LR BiDi SFP+ Transceiver (without DDM), Wavelength Tx 1270nm, Rx: 1330nm, 20km
Optional SFP+ Direct Attach 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