

Highlights

Easy Management

A multilingual web UI, a full CLI, and a variety of management features allow the switches to integrate with the existing network.

Expand Your Network

All models include high-speed 4 x 10G SFP+ uplink ports, enabling easy network expansion.

Power Over Ethernet

Support for IEEE 802.3af/at allow the PoE models in the series to power more devices with greater port density.



DGS-1250 Series

Gigabit Smart Managed Switches

Key Features

Green Technology

- Link status detection
- Port and LED 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 (up to 64 MAC addresses per port)
- ARP Spoofing Prevention
- IMPB Support

Smart Fan

- 5-speed smart fan design automatically adjusts according to device operating temperature
- Quiet mode or silent fan-off mode

Intuitive Management

- Multi-lingual Web UI
- Full command line support via console port
- DNH-1000 and DNH-3000 (Management System v1.3.2 or later), and Nuclias Hyper (v1.0.1 or later)

Advanced Features

- Static routing
- Surveillance Mode and Voice VLAN
- Dual software images
- Dual configuration file
- Embedded 6kV surge protection on all Gigabit Ethernet access ports

The D-Link DGS-1250 Series Gigabit Smart Managed Switches are built to meet the demands of modern businesses. With 30W PoE per port, they power access points, IP cameras, VoIP phones, and other devices without extra cabling. Advanced Layer 2 features including VLANs, QoS, and link aggregation optimize traffic management and boost performance. Scalable and reliable, the DGS-1250 Series is the perfect choice for businesses seeking efficient, future-ready network expansion.

Seamless Integration

The DGS-1250 Series includes a wide range of port and media types. All models in the DGS-1250 Series feature four 10G SFP+ ports, allowing you to choose the most suitable media type for your requirements. All DGS-1250 Series PoE switches include support for IEEE 802.3af/at and higher power budgets, allowing more PoE devices to be powered by the switch and for devices to be installed in remote locations without immediate access to power outlets. Furthermore, the DGS-1250-28XP and DGS-1250-52XP can supply PoE power up to 370W, providing even more power for connected devices.

Surveillance Mode

The DGS-1250 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.

Enhance Network Security

D-Link's innovative Safeguard Engine™ helps protect the switches against traffic flooding caused by malicious attacks. 802.1X port-based and host-based authentication allows clients to be authenticated through external RADIUS servers and can provide a more secure network connection. The Access Control List (ACL) feature can help enhance network security and better control access between internal networks. The DHCP server screening feature can filter DHCP replies on unauthorized ports to prevent them from being assigned an IP address, which provides an additional security mechanism.

Intelligent Fan Operation

The DGS-1250 Series have built-in internal fans which can automatically start working to prevent the device from overheating. The fan speed will be gradually adjusted between 5 levels of cooling according to the operating temperature of the switch. Administrators can also configure the operation state of internal fans through Web UI or command line interface (CLI). The switch fans can be manually set to Fan Off mode or Quiet mode if the ambient temperature or PoE load do not exceed the critical level.

Versatile Management Tools

The DGS-1250 Series supports various management tools to adapt to users' different needs. Nuclias Network Controller (Management System for DNH-1000/3000 v1.3.2 or later) can discover multiple D-Link devices and allow you to manage and configure the settings of the discovered devices. The DGS-1250 Series can also be managed by Nuclias Hyper (v1.0.1 or later), a central network management system. Full command line interface (CLI) is supported and IT personnel can directly configure the device through the console port or via Telnet. SNMP allows for the central management of network assets, remote configuration, and logging functions.

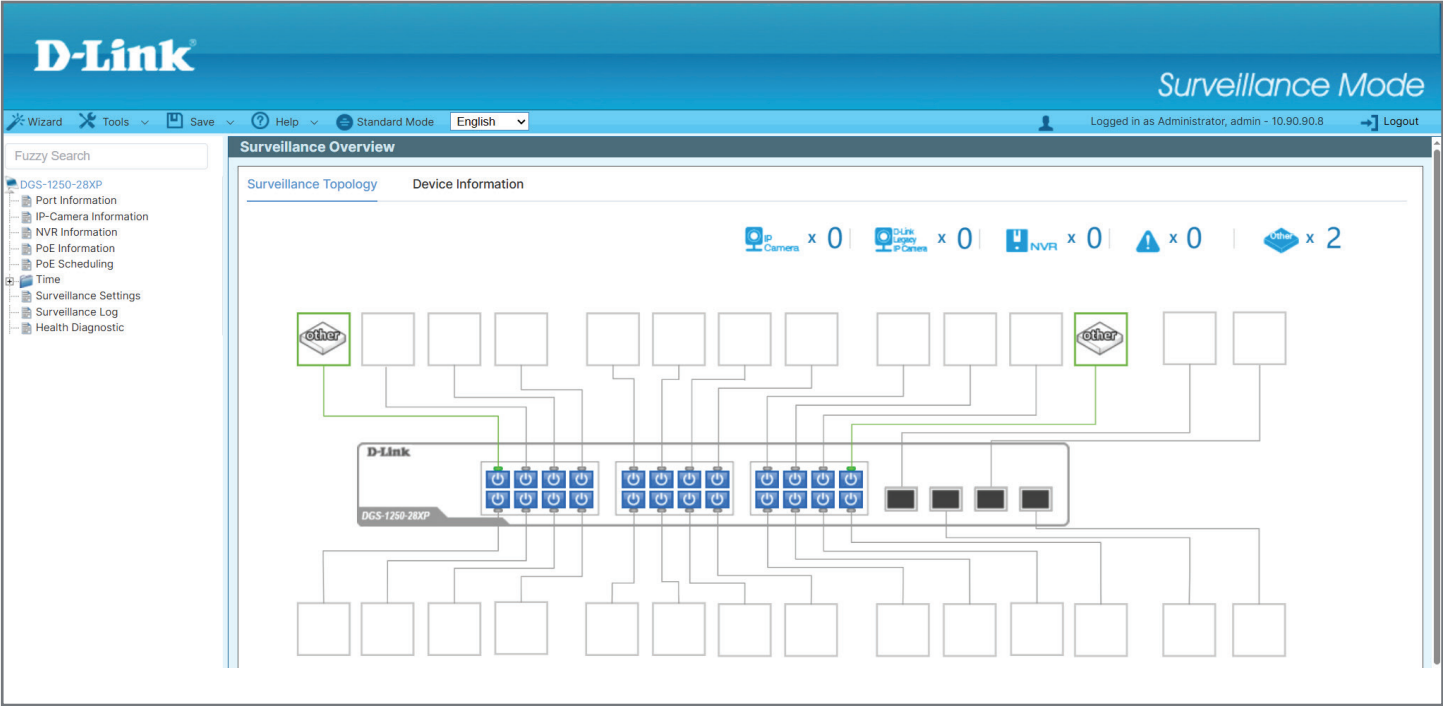
Enhanced 6kV Surge Protection

The DGS-1250 Series switches offer enhanced 6kV surge protection on all 2.5-Gigabit Ethernet access ports. The 6kV surge protection helps shield the switches against sudden electrical surges, such as lightning strikes or unstable electrical current. Built-in 6kV surge protection helps reduce the chances of equipment being damaged from electrical surges, and effectively lowers maintenance costs by minimizing the need for expensive repairs and replacement.

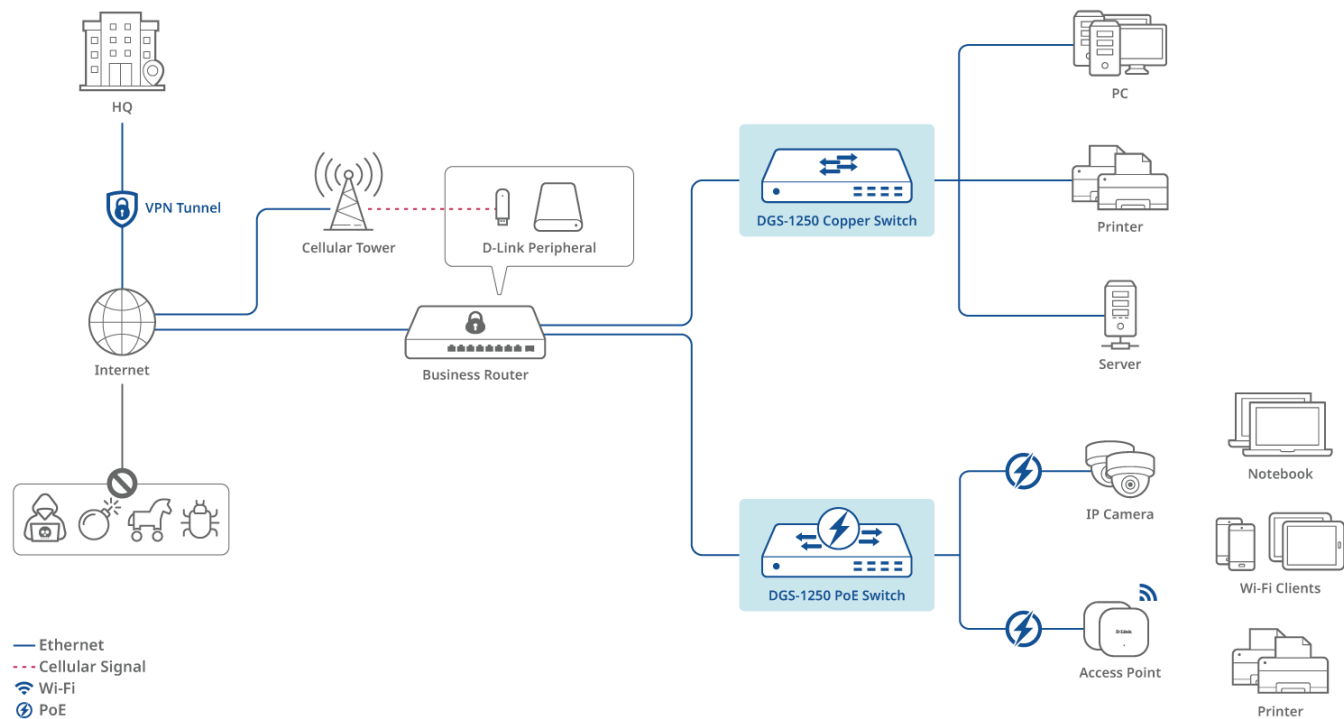
Advanced L2/L2+ Features

The DGS-1250 Series switches provides configurable L2 network features like VLANs, Quality of Services, Spanning Tree Protocol. The Auto Surveillance VLAN (ASV) and Voice VLAN function can guarantee the quality of video and voice services through the individual VLAN with higher priority. The Differentiated Service Code Point (DSCP) markings on Ethernet packets enable different levels of service to be assigned to network traffic. These voice and video packets thus can take precedence over other packets. It also supports Static route, IPv4/IPv6, LACP link aggregation and IGMP snooping, which can meet the needs of most business applications.

Surveillance Topology Web Interface



Connection Diagram



Technical Specifications				
Model Number	DGS-1250-28X	DGS-1250-28XP	DGS-1250-52X	DGS-1250-52XP
Hardware Version	B1			
General				
Interfaces	• 24 x 10/100/1000BASE-T • 4 x 10G SFP+ ports	• 24 x 10/100/1000BASE-T PoE • 4 x 10G SFP+ ports	• 48 x 10/100/1000BASE-T • 4 x 10G SFP+ ports	• 48 x 10/100/1000BASE-T PoE • 4 x 10G SFP+ ports
Port Standards	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3u 100BASE-FX • IEEE 802.3ab 1000BASE-T • IEEE 802.3z 1000BASE-X • IEEE 802.3az Energy-Efficient Ethernet (EEE) • IEEE 802.3x Flow Control • IEEE 802.3ae 10 Gigabit Ethernet • IEEE 802.3af/at PoE			
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	128 Gbps	128 Gbps	176 Gbps	176 Gbps
Transmission Method	Store-and-forward			
MAC Address Table	16K	16K	32K	32K
Static MAC Addresses	256 entries			
Maximum 64 Byte Packet Forwarding Rate	95.24 Mpps	95.24 Mpps	130.95 Mpps	130.95 Mpps
Packet Buffer Memory	12 Mbits	12 Mbits	16 Mbits	16 Mbits
Flash Memory	32 MB			
DRAM Size	512 MB DDR3			
PoE				
PoE Standard	--	IEEE 802.3af/at	--	IEEE 802.3af/at
PoE Capable Ports	--	24	--	48
PoE Power Budget	--	375W (30W per port)	--	375W (30W per port)
LEDs				
Power (per device)	✓			
Link/Active/Speed (per RJ-45 port)	✓			
Link/Active/Speed (per 10G SFP+ port)	✓			
PoE Max and PoE Status ¹	✓			
Physical				
Power Input	100 to 240 V AC 50/60 Hz internal universal power supply			

Maximum Power Consumption	• 21.699W/100V • 21.55W/240V	• PoE On: • 452.52W/100V • 432.36W/240V • PoE Off: • 31.7W/100V • 31.33W/240V	• 38.843W/100V • 37.952W/240V	• PoE On: • 475.38W/100V • 451.63W/240V • PoE Off: • 44.443W/100V • 43.615W/240V
Standby Power Consumption	• 5.672W/100V • 5.815W/240V	• 10.969W/100V • 10.833W/240V	• 13.971W/100V • 13.745W/240V	• 21.915W/100V • 21.58W/240V
Surge Protection	6kV surge protection on all Ethernet access ports			
Fan	1 x smart fan	1 x smart fan	1 x smart fan	3 x smart fans
Acoustics	• Max: 50.4 dB(A) • Min: 19.4 dB(A)	• Max: 59.9 dB(A) • Min: 33.7 dB(A)	• Max: 50.8 dB(A) • Max: 25.4 dB(A)	• Max: 53.6 dB(A) • Min: 36.6 dB(A)
Heat Dissipation	• 74.04 BTU/hr (100V) • 73.53 BTU/hr (240V)	• PoE On: • 1543.998 BTU/hr (100V) • 1475.212 BTU/hr (240V) • PoE Off: • 108.171 BTU/hr (100V) • 106.908 BTU/hr (240V)	• 132.53 BTU/hr (100V) • 129.49 BTU/hr (240V)	• PoE On: • 1621.997 BTU/hr (100V) • 1540.962 BTU/hr (240V) • PoE Off: • 151.64 BTU/hr (100V) • 148.814 BTU/hr (240V)
MTBF	700,176.27 hours	322,413.39 hours	520,414.64 hours	237,386.08 hours
Operating Temperature	-5 to 50°C (23 to 122°F)			
Storage Temperature	-20 to 70°C (-4 to 158°C)			
Operating Humidity	0% to 95% relative humidity			
Storage Humidity	0% to 95% relative humidity			
Dimensions (L x W x H)	440 x 140 x 44 mm (17.32 x 5.51 x 1.73 in)	440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)	440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)
Weight	2.08 kg (4.58 lbs)	3.83 kg (8.44 lbs)	3.13 kg (6.90 lbs)	4.23 kg (9.32 lbs)
Certifications				
Safety	CB, UL, BSMI			
EMI	CE Class A, VCCI Class A, FCC Class A, BSMI			
Software				
L2 Features	• MAC Address Table • 16K entries • 32K entries (DGS-1250-52X/52XP only) • IGMP Snooping • IGMP v1/v2/v3 Snooping • Supports 256 IGMP groups • Supports at least 128 static multicast addresses • IGMP per VLAN • Supports IGMP Snooping Querier • Loopback Detection • 802.3ad Link Aggregation: • Max. 8 groups per device, 8 ports per group • LLDP • LLDP-MED • Jumbo Frame • Up to 12,000 bytes • ERPS (Ethernet Ring Protection Switching) • Spanning Tree Protocol • 802.1D STP • 802.1W RSTP • 802.1s MSTP • Flow Control • 802.3x Flow Control • HOL Blocking Prevention • Port Mirroring • One-to-One • Many-to-One • Supports Mirroring for Tx/Rx/Both • Multicast Filtering • Forwards all registered groups • Filters all unregistered groups • Configurable MDI/MDIX • MLD snooping v1/v2 (384 groups) • PD-Alive • DDM support for optics			
VLAN	• 802.1Q • VLAN Group • Max. 4094 static VLAN groups • Configurable VID from 1 - 4094 • Asymmetric VLAN • Auto Voice VLAN • Max. 10 user-defined OUI • Max. 8 default OUI • Auto Surveillance VLAN • GVRP • Double VLAN (Q-in-Q) • Selective Q-in-Q • VLAN Translation • ISM VLAN			

Quality of Service (QoS)	• 802.1p Quality of Service • 8 queues per port • Queue Handling • Strict • Weighted Round Robin (WRR) • WDRR • Bandwidth Control • Port-based (ingress/egress, min granularity 10/100/1000 is 16 Kbps)	• QoS based on: • 802.1p priority queues • DSCP • MAC address • EtherType • IP address • Protocol type • ToS • IP preference • IPv6 Traffic Class • TCP/UDP port
L3 Features	• IP interface • Supports 4 interfaces • IPv6 Neighbor Discovery (ND) • Supports IPv6 interface	• Static routing • 128 IPv4 static route entries • 64 IPv6 static route entries
Access Control List (ACL)	• Max. 50 access lists • Max. 768 rules shared by IPv4, MAC, and IPv6 • Each rule can only be associated with a single port • ACL based on • MAC address • 802.1p priority mask • VID mask • Source/destination MAC address mask • EtherType mask • IP address • Source/destination IP address mask • DSCP mask • Protocol type mask • TCP/UDP port number mask	• IPv6 address • Source/destination IP address mask • DSCP mask • Protocol type mask • TCP/UDP port number mask • IPv6 traffic class mask
Security Features	• Broadcast/Multicast/Unicast Storm Control • D-Link Safeguard Engine • Traffic segmentation • SSH v2 • TLS v.1.3 • DoS attack prevention • 802.1X Port-based Access Control • Port Security • Supports up to 64 MAC addresses per port • ARP Spoofing Prevention • Max. 128 entries	• DHCP Server Screening • AAA support for RADIUS/TACACS+ • Password encryption • MAC authentication • IP Source Guard • IPv6 Snooping • Dynamic ARP Inspection (DAI) • DHCPv6 Guard • IPv6 Route Advertisement (RA) Guard • IPv6 ND Inspection • Duplicate Address Detection (DAD)
AAA	• 802.1X Authentication • Supports local/RADIUS database • Supports port-based access control • Supports host-based access control • Supports EAP, OTP, TLS, TTLS, PEAP	• IPv6 RADIUS server • Support MD5 authentication • Max. 128 entries when using local database
OAM	Cable diagnostics	
Management	• Web-based GUI • Full CLI • Telnet Server • TFTP Client • Configurable MDI/MDIX • SNMP • Supports v1/v2c/v3 • SNMP Trap • Backup/upgrade firmware • Smart Wizard • Upload/download configuration file • BootP/DHCP Client	• System Log • Max. 4000 log entries • SNTP • ICMP v6 • IPv4/v6 Dual Stack • DHCP Auto Configuration • Time setting • SNTP • RMONv2 • Trusted host • Dual image • Dual configuration • Command logging
Green V3.0 Technology	• Power Saving by: • Link Status • Time-based PoE: PoE ports can be turned on/off by port or system through schedule	• System hibernation • Port shut off

MIBs	• RFC1212 Concise MIB Definitions • RFC1213 MIBII • RFC1215 MIB Traps Convention • RFC1493 Bridge MIB • RFC1157, RFC2573, RFC2575, RFC2576 SNMP MIB • RFC1442, RFC1901, RFC1902, RFC1903, RFC1904, RFC1905, RFC1906, RFC1907, RFC1908, RFC2578, RFC3418 SNMPv2 MIB • RFC271, RFC1757, RFC2819 RMON MIB • RFC2021 RMONv2 MIB • RFC1398, RFC1643, RFC1650, RFC2358, RFC2665 Ether-like MIB	• RFC2674 802.1p MIB • Interface Group MIB • RFC2618 RADIUS Authentication Client MIB • RFC4022 MIB for TCP • RFC4113 MIB for UDP • RFC2389 MIB for Diffserv. • RFC2620 RADIUS Accounting Client MIB • Private MIB • PoE MIB • DDP MIB • LLDP-MED MIB
RFC Standards	• RFC791 IP • RFC768 UDP • RFC793 TCP • RFC792 ICMPv4 • RFC2463, RFC4443 ICMPv6 • RFC826 ARP • RFC1321, RFC2284, RFC2865, RFC2716, RFC3580 Extensible Authentication Protocol (EAP)	• RFC2573 SNMP Applications • RFC2461, RFC4861 Neighbor Discovery for IPv6 • RFC2462, RFC4862 IPv6 Stateless Address Auto-configuration (SLAAC) • RFC2464 IPv6 over Ethernet and definition • RFC4291 IPv6 Addressing Architecture • RFC2893, RFC4213 IPv4/IPv6 dual stack function

Order Information

DGS-1250-28X	24 Ports 1G + 4 Ports 10G SFP+ Standard Smart Managed Switch
DGS-1250-28XP	24 Ports 1G PoE + 4 Ports 10G SFP+ Standard Smart Managed Switch
DGS-1250-52X	48 Ports 1G + 4 Ports 10G SFP+ Standard Smart Managed Switch
DGS-1250-52XP	48 Ports 1G PoE + 4 Ports 10G SFP+ Standard Smart Managed Switch

Optional SFP Transceivers

DGS-712	1000BASE-T copper
DEM-310GT	1000BASE-LX, single-mode, 10 km
DEM-311GT	1000BASE-SX, multi-mode, 550 m
DEM-314GT	1000BASE-LHX, single-mode, 50 km

Optional SFP+ Transceivers

DEM-410T ²	10GBASE-T copper SFP+ transceiver (without DDM), 30 m
DEM-431XT	10GBASE-SR SFP+ transceiver (without DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF
DEM-432XT	10GBASE-LR SFP+ transceiver (without DDM), 10 km

DAC Cables

DEM-CB100S	1 meter 10G 30AWG Passive SFP+ to SFP+ direct attach cable
DEM-CB300S	3 meter 10G 30AWG Passive SFP+ to SFP+ direct attach cable

¹ Available on PoE models only.
² The DEM-410T/A2 can only be used in environments not exceeding an ambient temperature of 40°C (104°F) and a total of up to 2 DEM-410T/A2 transceiver.

Actual performances may vary due to settings, cabling, temperature, network configuration, interface, device compatibility, environmental and on-site conditions, and other similar factors. References to power capability, signal or processing speed, signal range or distance, data encryption, storage capacity, display properties, or other performance metrics are based on optimal conditions derived from industry standards and provided for informational purposes only. Specifications may be subject to change without prior notice.