

Highlights

Easy Management

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

Expand your Network

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

Power over Ethernet

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



DGS-1250 Series

Smart Managed Switches

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 supports up to 64 MAC addresses
- ARP Spoofing Prevention
- IMPB Support

Intuitive Management

- D-Link Network Assistant (DNA) utility or multilingual Web UI
- Built-in SNMP MIB for remote NMS (D-View 7.0)
- Full command line support via console port

Advanced Features

- Static routing
- Surveillance Mode
- Auto Voice VLAN
- Dual software images
- · Dual configuration files

The D-Link DGS-1250 Series Smart Managed Switches are the latest generation of switches to provide increased Power over Ethernet (PoE) output, high port density, multiple management interfaces, and advanced Layer 2 features. With all of these features combined, the DGS-1250 Series provides a cost-efficient and flexible solution for expanding any business network.

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-1250-28XMP and DGS-1250-52XMP can supply PoE power up to 370 W providing even more power for connected devices.

Advanced Features

The DGS-1250 Series comes equipped with a complete lineup of L2 features, including IGMP snooping, port mirroring, Spanning Tree Protocol (STP), 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-1250 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 swift diagnostics and maintenance.



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.

Advanced Access Control

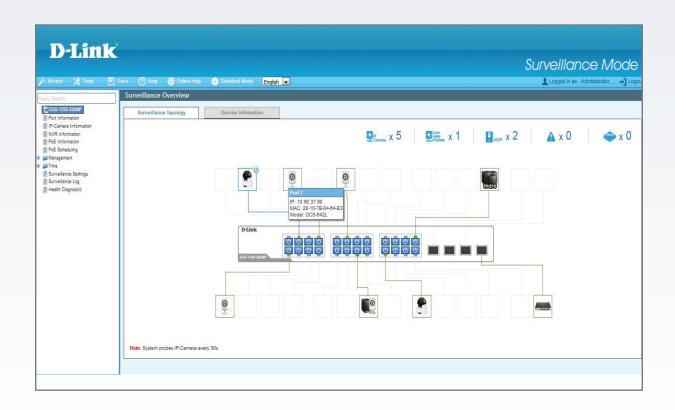
D-Link's innovative Safeguard Engine helps to protect the switches against traffic flooding caused by malicious attacks. The DGS-1250 Series supports 802.1X port-based authentication, allowing clients to be authenticated through external RADIUS servers. The Access Control List (ACL) feature helps to enhance network security and helps to protect the internal IT network. The DGS-1250 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 filters DHCP replies on unauthorized ports to prevent them from being assigned an IP address.

Versatile Management

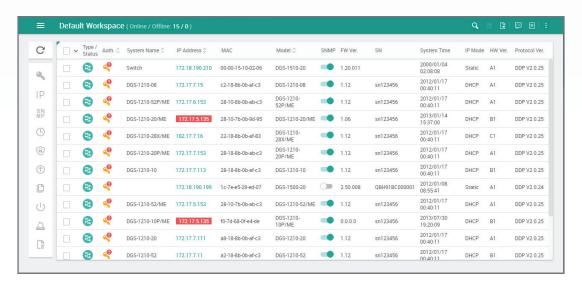
The DGS-1250 Series comes with the D-Link Network Assistant (DNA) utility that enables administrators to remotely control their network down to the port level. The D-Link Network Assistant utility furthermore allows customers to easily discover multiple D-Link Smart Managed Switches within the same L2 network segment and display them onscreen for instant access. With this utility, users do not need to change the IP address of their PC. This allows for simultaneous configuration and setup of all discovered devices, including password changes and firmware upgrades. The DGS-1250 Series supports Command Line Interface (CLI) through console port. SNMP is also supported which allows for the central management of network assets, remote configuration, and logging functions.



Surveillance Topology Web Interface



D-Link Network Assistant (DNA)





Model Number	• DGS-1250-28X	• DGS-1250-28XMP	• DGS-1250-52X	• DGS-1250-52XMP
Hardware Version	• A1			
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 Po • 4 x 10G SFP+ 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-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 for full-duplex mode, auto-negotiation IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3af/at 			
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
CPU Memory	• 2G DDR3			
Flash Memory	• 64 MB			
PoE				
PoE Standard		• IEEE 802.3af/at		• IEEE 802.3af/at
PoE Capable Ports		• 24		• 48
PoE Power Budget		• 370 W • 30 W per port		• 370 W • 30 W per port
LEDs				
Power (per device)	✓			
Link/Active/Speed (per RJ-45 port)	✓			
Link/Active/Speed (per 10G SFP+ port)		v	(



Physical					
Power Input	• 100 to 240 V AC 50/60 Hz internal universal power supply				
Maximum Power Consumption	• 30.6 W/100 V • 29.6 W/240 V	• PoE On: • 455.1 W/100 V • 431.5 W/240 V • PoE Off: • 38.6 W/100 V • 39.1 W/240 V	• 51 W/100 V • 51.2 W/240 V	• PoE On: • 467.3 W/100 V • 443.6 W/240 V • PoE Off: • 56.4 W/100 V • 57.2 W/240 V	
Standby Power Consumption	• 8.7 W/100 V • 9.3 W/240 V	• 18.5 W/100 V • 19 W/240 V	• 23 W/100 V • 23.5 W/240 V	• 27.8 W/100 V • 28.4 W/240 V	
Acoustics	• Max: 47.6 dB(A) • Min: 33.2 dB(A)	• Max: 50.8 dB(A) • Min: 42.0 dB(A)	• Max: 50.7 dB(A) • Max: 39.0 dB(A)	• Max: 51.2 dB(A) • Min: 43.0 dB(A)	
Heat Dissipation	• 104.346 BTU/hr (100 V) • 100.936 BTU/hr (240 V)	• PoE On: • 1551.891 BTU/hr (100 V) • 1471.415 BTU/hr (240 V) • PoE Off: • 131.626 BTU/hr (100 V) • 133.331 BTU/hr (240 V)	• 173.91 BTU/hr (100 V) • 174.592 BTU/hr (240 V)	PoE On: 1593.493 BTU/hr (100 V) 1512.676 BTU/hr (240 V) PoE Off: 192.324 BTU/hr (100 V) 195.052 BTU/hr (240 V)	
MTBF	• 743,482.45 hours	• 463,430.16 hours	• 589,984.72 hours	• 309,053.10 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	• 1.75 kg (3.86 lbs)	• 3.46 kg (7.63 lbs)	• 3.01 kg (6.63 lbs)	• 3.85 kg (8.49 lbs)	
Certifications					
Safety		• CB, UL	, BSMI, CCC		
EMI	CE Class A, VCCI Class A, FCC Class A, IC, BSMI				
Software					
L2 Features	MAC Address Table 16K entries 32K entries (DGS-1250-52X/52XMP only) IGMP Snooping IGMP v1/v2/v3 Snooping Supports 256 IGMP groups Supports at least 64 static multicast addresses IGMP per VLAN Supports IGMP Snooping Querier Loopback Detection 802.3ad Link Aggregation: Supports maximum 8 groups per per device and 8 ports per group LLDP LLDP-MED Jumbo Frame Up to 12,000 bytes		 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 awareness (256 groups) PD-Alive 		



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 	
Quality of Service (QoS)	 802.1p Quality of Service 8 queues per port Queue Handling Strict Weighted Round Robin (WRR) 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)	Static routing 124 IPv4 static route entries 50 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.1.2 DoS attack prevention 802.1X Port-based Access Control Port Security Supports up to 64 MAC addresses per port ARP Spoofing Prevention Max. 127 entries	 DHCP Server Screening IP-MAC-Port Binding (Smart Binding) ARP Inspection Max. 64 entries IPv4 Inspection Max. 127 entries IPv6 Inspection Max. 63 entries DHCP Snooping Max. 512 entries 	
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	Factory reset	



Management	Web-based GUI D-Link Network Assistant 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. 500 log entries SNTP ICMP v6 IPv4/v6 Dual Stack DHCP Auto Configuration DHCP Relay Time setting SNTP RMONv1 Trusted host Dual image Dual configuration 	
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 hibernationPort shut offCable length detection	
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 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 10/100/1000 Mbps + 4 Ports 10G SFP+ Smart Managed Sw	vitch	
DGS-1250-28XMP	24 Ports 10/100/1000 Mbps PoE + 4 Ports 10G SFP+ Smart Managed	d Switch	
DGS-1250-52X	48 Ports 10/100/1000 Mbps + 4 Ports 10G SFP+ Smart Managed Sw	ritch	
DGS-1250-52XMP	48 Ports 10/100/1000 Mbps PoE + 4 Ports 10G SFP+ Smart Managed Switch		
Optional SFP Trans	ceivers		
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	
Optional SFP+ Transceivers		
DEM-410T	10GBASE-T SFP+ transceiver, 100 m	
DEM-431XT	10GBASE-SR SFP+ transceiver (without DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF	
DEM-431XT-DD	10GBASE-SR SFP+ transceiver (with DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF	
DEM-432XT	10GBASE-LR SFP+ transceiver (without DDM), 10 km	
DEM-432XT-DD	10GBASE-LR SFP+ transceiver (with DDM), 10 km	
DEM-433XT	10GBASE-ER SFP+ transceiver (without DDM), 40 km	
DEM-433XT-DD	10GBASE-ER SFP+ transceiver (with DDM), 40 km	
DEM-434XT	10GBASE-ZR SFP+ transceiver (without DDM), 80 km	
DEM-436XT-BXD	10GBASE-LR BiDi SFP+ transceiver (without DDM), wavelength Tx: 1330 nm, Rx: 1270 nm, 20 km	
DEM-436XT-BXU	10GBASE-LR BiDi SFP+ transceiver (without DDM), wavelength Tx: 1270 nm, Rx: 1330 nm, 20 km	

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