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

Features

PoE Functionality[1]
- IEEE 802.3af/at compliant
- Fast and perpetual PoE

Energy Saving 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 normal mode

Advanced Features
- Static routing
- Surveillance Mode and Voice VLAN
- Dual software images
- Dual configuration file
- Up to 6kV surge protection on selected models

Intuitive Management
- Multi-lingual Web UI
- Full command line support via console port
- Supports Nuclias Unity, Nuclias hardware controller, and Nuclias software controller for centralized management, monitoring, and maintenance

Overview

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.

Copper



DGS-1250-28X
- 24 x 10/100/1000BASE-T
- 4 x 10G SFP+



DGS-1250-52X
- 48 x 10/100/1000GBASE-T
- 4 x 10G SFP+

PoE



DGS-1250-28XP
- 24 x 10/100/1000BASE-T PoE
- 4 x 10G SPF+



DGS-1250-52XP
- 48 x 10/100/1000BASE-T PoE
- 4 x 10G SFP+

DGS-1250 Series Gigabit Smart Managed Switches

Seamless Integration

The 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 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 hardware 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 software controller and Nuclias Unity, 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

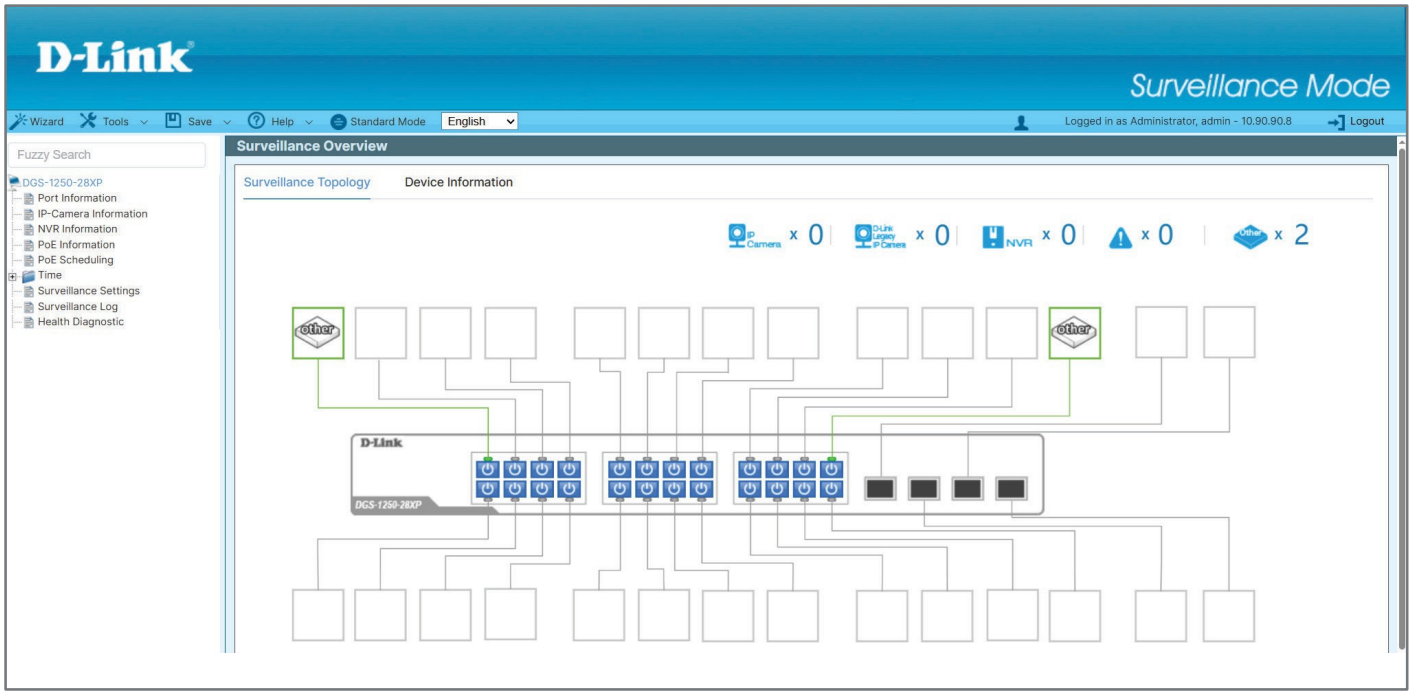
The DGS-1250 Series switches offer enhanced 6kV surge protection on all 2.5-Gigabit Ethernet access ports. The 6kV surge protection helps shield the switches against sudden electrical surges, such as lightning strikes or unstable electrical current. Built-in 6kV surge protection helps reduce the chances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

Advanced L2/L2+ Features

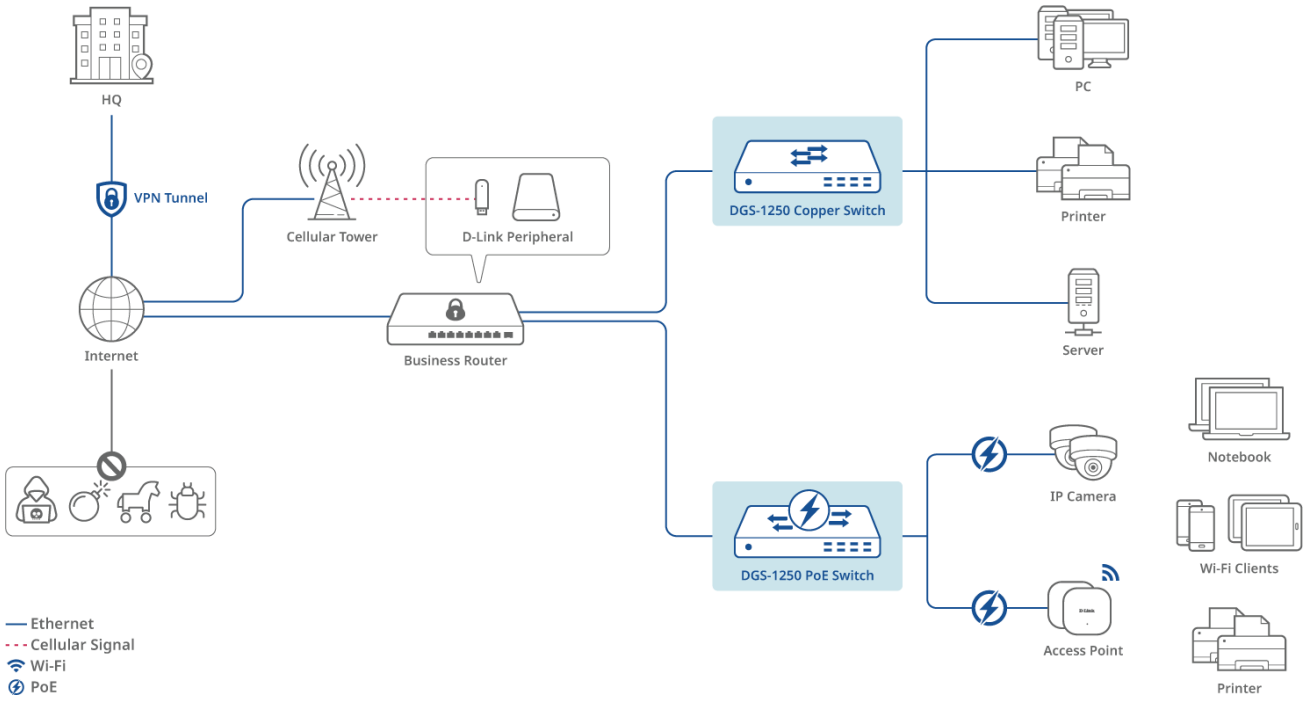
The DGS-1250 Series switches provides configurable L2 network features like VLANs, Quality of Services, Spanning Tree Protocol. The Auto Surveillance VLAN (ASV) and Voice VLAN function can guarantee the quality of video and voice services through the individual VLAN with higher priority. The Differentiated 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.

DGS-1250 Series Gigabit Smart Managed Switches

Surveillance Topology Web Interface



Connection Diagram



DGS-1250 Series Gigabit Smart Managed Switches

Specifications

Model	DGS-1250-28X	DGS-1250-28XP	DGS-1250-52X
Hardware Version	B1	B1	B1
General			
Interface	• 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
Port Standards	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • 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 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • 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	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • 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
Network Cables	• Cat. 5, Cat. 5e (100 m max.)	• Cat. 5, Cat. 5e (100 m max.)	• Cat. 5, Cat. 5e (100 m max.)
Media Interface Exchange	Auto MDI/MDIX	Auto MDI/MDIX	Auto MDI/MDIX
Performance			
Switching Capacity	128 Gbps	128 Gbps	176 Gbps
Transmission Method	Store-and-forward	Store-and-forward	Store-and-forward
MAC Address Table	16 K	16 K	32 K
Static MAC Addresses	256 entries	256 entries	256 entries
Packet Forwarding Rate	95.24 Mpps	95.24 Mpps	130.95 Mpps
Packet Buffer Memory	12 Mbits	12 Mbits	16 Mbits
Flash Memory	32 MB	32 MB	32 MB
DRAM Size	512 MB	512 MB	512 MB
PoE			
PoE Standard	-	IEEE 802.3af/at	-
PoE Capable Port	-	24	-
PoE Power Budget	-	375W (30W per port)	-
Physical			
Power Input	100 to 240V AC 50/60 Hz	100 to 240V AC 50/60 Hz	100 to 240V AC 50/60 Hz
Surge Protection	6kV surge protection on all Ethernet access ports	6kV surge protection on all Ethernet access ports	6kV surge protection on all Ethernet access ports
Fan	1 x smart fan	1 x smart fan	1 x smart fan
Operating Temperature	-5 to 50°C (23 to 122°F)	-5 to 50°C (23 to 122°F)	-5 to 50°C (23 to 122°F)
Storage Temperature	-20 to 70°C (-4 to 158°C)	-20 to 70°C (-4 to 158°C)	-20 to 70°C (-4 to 158°C)
Operating Humidity	0% to 95% relative humidity	0% to 95% relative humidity	0% to 95% relative humidity
Operating Humidity	0% to 95% relative humidity	0% to 95% relative humidity	0% to 95% relative humidity
Max Power Consumption	• 21.699 W/100 V • 21.55 W/240 V	PoE on: • 452.52 W/100 V • 432.36 W/240 V PoE off: • 31.7 W/100 V • 31.33 W/240 V	• 38.843 W/100 V • 37.952 W/240 V
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)
Weight	2.08 kg (4.58 lbs)	3.83 kg (8.44 lbs)	3.13 kg (6.90 lbs)
Certifications			
Safety	UL, CB, BSMI	UL, CB, BSMI	UL, CB, BSMI
EMI	CE Class A, FCC Class A, VCCI Class A, BSMI	CE Class A, FCC Class A, VCCI Class A, BSMI	CE Class A, FCC Class A, VCCI Class A, BSMI

DGS-1250 Series Gigabit Smart Managed Switches

Specifications

Model	DGS-1250-52XP
Hardware Version	B1
General	
Interface	• 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 802.3ab 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	• Cat. 5, Cat. 5e (100 m max.)
Media Interface Exchange	Auto MDI/MDIX
Performance	
Switching Capacity	176 Gbps
Transmission Method	Store-and-forward
MAC Address Table	32 K
Static MAC Addresses	256 entries
Packet Forwarding Rate	130.95 Mpps
Packet Buffer Memory	16 Mbits
Flash Memory	32 MB
DRAM Size	512 MB
PoE	
PoE Standard	IEEE 802.3af/at
PoE Capable Port	48
PoE Power Budget	375W (30W per port)
Physical	
Power Input	100 to 240V AC 50/60 Hz
Surge Protection	6kV surge protection on all Ethernet access ports
Fan	3 x smart fans
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
Operating Humidity	0% to 95% relative humidity
Max Power Consumption	PoE on: • 475.38 W/100 V • 451.63 W/240 V PoE off: • 44.443 W/100 V • 43.615 W/240 V
Dimensions (L x W x H)	440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)
Weight	4.23 kg (9.32 lbs)
Certifications	
Safety	UL, CB, BSMI
EMI	CE Class A, VCCI Class A, FCC Class A, BSMI

DGS-1250 Series Gigabit Smart Managed Switches

Software

Feature		
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 number
L3 Feature	• 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)	• ACL based on - MAC address • 802.1p priority mask • VID mask • Source/destination MAC address mask • Ether Type 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 • Max. 50 access lists • Max. 768 rules shared by IPv4, MAC and IPv6 • Each rule can only be associated with a single port
Security Features	• Broadcast/Multicast/Unicast Storm Control • D-Link Safeguard Engine • Traffic segmentation • SSH v2 • TLS v1.3 • 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)
OAM	Cable diagnostics	

DGS-1250 Series Gigabit Smart Managed Switches

Software

Feature		
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
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
Power Saving 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 Console 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

Ordering Information

Model	Description
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

DGS-1250 Series Gigabit Smart Managed Switches

Optional SFP Transceivers

Model	Speed	Connector	Fiber Type	Wavelength	Max. Distance
DGS-712[3]	1G	RJ-45	Copper	–	100 m
DEM-310GT	1G	Duplex LC	Single-mode	1310 nm	10 km
DEM-311GT	1G	Duplex LC	Multi-mode	850 nm	550 m
DEM-314GT	1G	Duplex LC	Single-mode	1310 nm	50 km

Optional SFP+ Transceivers

Model	Speed	Connector	Fiber Type	Wavelength	Max. Distance
DEM-410T[2]	10G	RJ-45	Copper	–	30 m
DEM-431XT	10G	Duplex LC	Multi-mode	850 nm	300 m*
DEM-432XT	10G	Duplex LC	Single-mode	1310 nm	10 km*

Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables

Model	Description
DEM-CB100S	10G SFP+ Direct Attach Cable, 1m
DEM-CB300S	10G SFP+ Direct Attach Cable, 3m

[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.
[3] The DGS-712/G1 can only be used in environments not exceeding an ambient temperature of 40°C (104°F) and a total of up to 4 DGS-712/G1 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.

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