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Product Highlights

Flexibility and Safety

Ethernet and SFP ports make it ideal for a wide range of applications and environments, and surge protection is built into the device itself

Security and Authentication Features

Robust security features, including the D-Link Safeguard Engine™ protect against malicious attacks, while authentication tools allow access control

Optimal Network Performance

Control traffic and bandwidth down to each individual port. Multicast support streamlines simultaneous distribution to multiple ports

DGS-1210 Series

Managed Ethernet Switches

Features

Flexible Hardware Design

- Selectable 24 or 48 10/100/1000BASE-T ports and 24 or 48ports 10/100/1000BASE-T PoE model
- IEEE802.3af, IEEE802.3at PoE Interface
- Wirespeed and Nonblocking Architecture
- Each model has four individual SFP ports
- 19″ case allows for 1U rack-mounting

Surge Protection

- All ports feature surge protection

L2 Features

- 16K MAC Address Table
- 802.1D STP, 802.1w RSTP, and 802.1s MSTP
- Loopback detection
- Supports 802.3ad Link Aggregation
- Port-based Q-in-Q
- VLAN Trunking

Security/Authentication

- Port security
- SSH/SSL
- IP-MAC-Port Binding (IMPB)
- Access Control List (ACL)
- 802.1X
- Guest VLAN

Management

- SNMP v1/v2c/v3
- RMON v1/v2
- Link Layer Discovery Protocol (LLDP)

The DGS-1210 Series Managed Ethernet Switches are a family of Ethernet switches ideal for Metro Ethernet applications. These Managed Ethernet Switches provide 24/48 copper connections on upgraded Gigabit Ethernet ports, along with Gigabit SFP ports for improved uplink bandwidth. Surge protection ensures resilience against unexpected electrical spikes, while a full suite of security and management features keeps your network safe from internal and external threats.

Gigabit Performance

The DGS-1210 Series all come with 10/100/1000 Mbps Ethernet downlink ports for superior Gigabit performance for your network. All models offer Gigabit SFP uplink ports and the DGS-1210-28P, DGS-1210-28MP or DGS-1210-52MP also offer IEEE 802.3af/at Power-over-Ethernet (PoE) so network devices such as PoE IP cameras can be installed in remote locations without immediate access to power outlets. Simply use an Ethernet cable to connect to these devices at the deployment location and it can act as a conduit not only for data, but for power as well.

Security & Authentication

DGS-1210 Series Managed Ethernet Switches support 802.1X port-based/host-based access control, guest VLAN, and RADIUS/TACACS+ authentication for strict access control over the network. The IP-MAC-Port Binding feature allows administrators to bind a source IP address with an associated MAC and also to define the port number to enhance user access control. The built-in D-Link Safeguard Engine™ protects the CPU from broadcast/multicast/unicast flooding by automatically trapping packets and logging events in these situations. In addition, the Access Control List (ACL) feature enhances network security and switch performance.

Efficient and Resilient

For mission critical environments, the DGS-1210 Series Managed Ethernet Switches support 802.1D 2004 edition, 802.1w, and 802.1s Spanning Tree Protocols (STP). STP allows the switch to be configu ed with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in emergency situations. The switches also support 802.3ad link aggregation, which enables multiple ports to be grouped in parallel to form a single

port, increasing bandwidth and redundancy for higher availability. These models feature 802.1p Quality of Service (QoS), allowing for real-time traffic classific tion into Weighted Round Robin (WRR) and Strict priority levels mapped to 8 queues. Packet classific tion is based on TOS, DSCP, MAC, IPv4, VLAN ID, TCP/UDP port number, protocol type, or user-defined packet content for fl xible configu ation for specific multimedia applications such as VoIP or IPTV.

Traffic & Bandwidth Control

Integrated bandwidth control allows network administrators to defin the throughput levels for each port to manage bandwidth. It provides minimum granularity of 64 Kbps, ingress control for port and fl w-based bandwidth control. The DGS-1210 Series also supports traffi control, which optimizes performance by dropping packets beyond the threshold, and port mirroring helps administrators facilitate traffic di nostics and track switch performance. The DGS-1210 Series also provides IGMP snooping with IGMP authentication to prune multicast traffi and to optimize network performance.

Multicast Applications

The DGS-1210 Series Managed Ethernet Switches feature a full set of L2 multicast functions, including IGMP snooping, IGMP fil ering, fast leave, and multicast traffi configu ation for specific ports. With L2 multicast support, the DGS-1210 Series is ready and capable of handling growing IPTV applications. Host-based IGMP/MLD snooping allows for multiple multicast subscribers per physical interface, and ISM VLAN sends multicast streams in a multicast VLAN, saving bandwidth on the backbone network. ISM VLAN profiles allow users to bind/replace the predefined multicast registration information to subscriber ports quickly and easily.

Management Capabilities

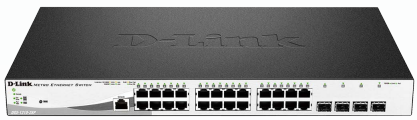
A web-based GUI provides a user-friendly interface and easy management, and DHCP auto-configu ation gives administrators enhanced management features, allowing them to save configu ation presets to a TFTP server. Individual switches can then retrieve their IP addresses from the server and load the preset configu ation. Support for Link Layer Discovery Protocol (LLDP) allows a network device to advertise its identity and capabilities on the local network, which helps businesses better manage their network topology. Also, each port on these switches supports a cable diagnostic feature that helps detect cable related problems such as length or cable functionality issues, so the administrator can quickly identify and fix this p oblem.

IPv6 Technology

The DGS-1210 Series is fully compliant with future IPv6 networks. It supports remote IPv6 manageability from Telnet, HTTP, or SNMP. To create secure IPv6 networks, the DGS-1210 Series uses IPv6 ACL, DHCPv6 Snooping, and Neighbor Discovery (ND) Snooping functions to protect the network from illegal IPv6 clients. The DGS-1210 Series has been certified with IPv6 Ready Logo Phase 2 from the IPv6 forum, a worldwide IPv6 advocacy consortium. The IPv6 Ready Logo Program ensures the conformance and interoperability of IPv6 products.

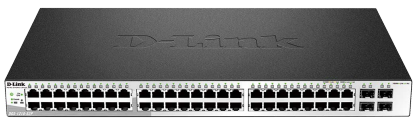
DGS-1210-28

DGS-1210-28P

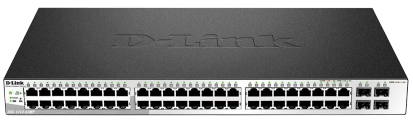


DGS-1210-28MP

DGS-1210-52



DGS-1210-52P



DGS-1210-52MP

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DGS-1210 Series Managed Ethernet Switches

Technical Specifications			
Model Number	DGS-1210-28	DGS-1210-28MP	DGS-1210-28P
Interface			
Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-X Gigabit Ethernet, IEEE 802.3x Flow Control for Half/Full-Duplex Mode, Auto-negotiation, Auto or configurable MDI/MDIX		
Interface	• 24 10/100/1000BASE-T + 4 SFP	• 24 10/100/1000BASE-T PoE + 4 SFP	• 24 10/100/1000BASE-T PoE + 4 SFP
Console Port	RJ-45 Console Port		
Performance			
Switching Capacity	56 Gbps		
64-byte Max. Forwarding Rate	41.7 Mbps		
MAC Address Table Size	16K Entries		
RAM for CPU	128 MB DDR3		
Packet Buffer	1.5 MB		
Flash Memory	32 MB		
LEDs			
Power (per device)	✓	✓	✓
Console (per device)	✓	✓	✓
Link/Active/Speed (per port)	✓	✓	✓
Fan Error		✓	✓
Physical/Environmental			
MTBF (Hours)	388,138 hours	294,101 hours	239,534 hours
Acoustic	0 dB(A)	52.4 dB(A)	52.4 dB(A)
Heat Dissipation	76.59 BTU/hr	850.58 BTU/hr	840.89 BTU/hr
Power Input	AC Input: 100 to 240 V AC, 50/60 Hz		
Power Consumption	17.84 Watts	27.49 Watts	26.3 Watts
Dimensions (WxDxH)	440 mm x 140 mm x 44 mm	440 mm x 210 mm x 44 mm	440 mm x 210 mm x 44 mm
Ventilation	Fanless	2 x Smart Fan	2 x Smart Fan
Power Surge Protection	All Ethernet ports support IEC61000-4-5 surge protection		
Operating Temperature	-5 to 50 °C (23 to 122 °F)		
Storage Temperature	-40 to 70 °C (-40 to 158 °F)		
Operating Humidity	10% to 90% non-condensing		
Storage Humidity	5% to 90% non-condensing		

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DGS-1210 Series Managed Ethernet Switches

Technical Specifications			
Model Number	DGS-1210-52	DGS-1210-52P	DGS-1210-52MP
Interface			
Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-X Gigabit Ethernet, IEEE 802.3x Flow Control for Half/Full-Duplex Mode, Auto-negotiation, Auto or configurable MDI/MDIX		
Interface	• 48 10/100/1000BASE-T + 4 SFP	• 24 Ports 10/100/1000Mbps PoE + 24 Ports 10/100/1000Mbps + 4 SFP	• 48 10/100/1000BASE-T PoE + 4 SFP
Console Port	RJ-45 Console Port		
Performance			
Switching Capacity	104 Gbps		
64-byte Max. Forwarding Rate	77.4 Mbps		
MAC Address Table Size	16K Entries		
RAM for CPU	128 MB DDR3		
Packet Buffer	3.0 MB		
Flash Memory	32 MB		
LEDs			
Power (per device)	✓	✓	✓
Console (per device)	✓	✓	✓
Link/Active/Speed (per port)	✓	✓	✓
Fan Error	✓	✓	✓
Physical/Environmental			
MTBF (Hours)	334,101 hours	334,101 hours	318,616 hours
Acoustic	38.27 dB(A)	46.5 dB(A)	52.4 dB(A)
Heat Dissipation	130.58 BTU/hr	912.96 BTU/hr	1648.23 BTU/hr
Power Input	AC Input: 100 to 240 V AC, 50/60 Hz		
Power Consumption	38.27 Watts	38.27 Watts	48.9 Watts
Dimensions (WxDxH)	440 mm x 210 mm x 44 mm	440 mm x 430 mm x 44 mm	440 mm x 430 mm x 44 mm
Ventilation	1 x Smart Fan	3 x Smart Fan	3 x Smart Fan
Power Surge Protection	All Ethernet ports support IEC61000-4-5 surge protection		
Operating Temperature	-5 to 50 °C (23 to 122 °F)		
Storage Temperature	-40 to 70 °C (-40 to 158 °F)		
Operating Humidity	10% to 90% non-condensing		
Storage Humidity	5% to 90% non-condensing		

EMI	FCC class A, CE class A, VCCI, C-Tick, BSMI, CCC
Safety Certifications	CCC CE LVD UL/cUL

Software Features

L2 Features	• MAC Address Table: 16K • Spanning Tree Protocols - 802.1D STP - 802.1w RSTP - 802.1s MSTP - BPDU filtering - Root restriction • Loopback detection • Jumbo Frames up to 9216 Bytes • Link aggregation - Compliant with 802.3ad - Supports max 8 groups, 8 ports per group • Mirroring - Support 1 mirroring group - Support One-to-One, Many-to-One, Flow-based(ACL) mirroring for ingress traffic • L2 Protocol Tunneling (L2PT)
L2 Multicasting	• IGMP Snooping - IGMP v1/v2/v3 snooping - IGMP authentication/filtering - Supports 256 groups - VLAN/host-based IGMP snooping fast leave - Report suppression • MLD snooping - MLD v1, MLD v2 - Support 256 groups
VLAN	• 802.1Q tagged VLAN • VLAN group • Max. 4094 active VLAN groups • Port-based VLAN • GVRP • Asymmetric VLAN • Max. 256 dynamic VLAN • 802.1v protocol VLAN • VLAN trunking • MAC-based VLAN • Port-based Q-in-Q • ISM VLAN
L3 Features	• Max. 256 ARP entries • Supports 255 static ARP entries • Support Gratuitous ARP • Default Routing • Static Routing • 32 IPv4 Static Route Entries • 16 IPv6 Static Route Entries • Vlan interface
Quality of Service (QoS)	• Bandwidth Control(Rate Limitting) - Port-based (Ingress, Min. Granularity 64 Kbps) - Flow-based (Ingress, Min. Granularity 64 Kbps) - Egress queue bandwidth control (Min. Granularity 64 Kbps) • 8 outbound queues • Queue Handling - Strict priority - Weighted Round Robin (WRR) • CoS based on: - Switch port - 802.1p priority queues - VLAN ID - MAC address - IPv4/IPv6 address - DSCP - TOS - Protocol type - TCP/UDP port - IPv6 traffic class
Access Control List (ACL)	• Up to 256 ingress access rules • ACL based on - Switch port - 802.1p priority - VLAN ID - MAC address - Ether type - TOS - IPv4/v6 address - DSCP - Protocol type - IPv4/IPv6 TCP/UDP port number - ICMP - IPv6 traffic class • ACL Action (permit/deny/mirror) • Time-based ACL • ACL statistics • CPU interface filtering
AAA	• Guest VLAN • 802.1X - Port-based access control - Host-based access control • 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 • RADIUS accounting • TACACS+ accounting • User Account Privilege (4 level user account) • RADIUS and TACACS+ authentication for switch access

Security	• SSH v2 • SSL v1/2/3 • Port security (Up to 64 MAC addresses per port) • Broadcast/Multicast/Unicast storm control • IP source guard • Loop protection • IP-MAC-Port Binding (IMPB) - ARP inspection - IP inspection - IPv6 DHCP snooping	• D-Link Safeguard Engine • DHCP server secreening • DHCP snooping • DHCP client filtering • Dynamic ARP protection • DoS attack prevention • BPDU attack protection • Root protection • Traffic segmentation
OAM	• Cable diagnostics • 802.3ah Ethernet Link OAM Support 802.3ah link layer remote loopback and discovery (System log and SNMP)	- 802.3ah D-Link extension: D-link Unidirectional Link Detection (DULD), (System log and SNMP)
Management	• Web-based GUI (IPv4/IPv6) • Command Line Interface (CLI) • Telnet Server/ Client (Support IPv4/IPv6) • TFTP client (IPv4/IPv6) • Command logging • SNMP v1/v2c/v3 • SNMP traps • Syslog • RMON v1 • RMON v2 • LLDP/ LLDP-MED • BootP/DHCP client • DHCP Auto-configuration • DHCP Server, Relay (IPv4/IPv6) - DHCP relay agent/local relay - DHCP relay option 12, 37, 38 - DHCP relay option 82	• PPPoE Circult-ID tag insertion • Trap/alarm/log severity control • CPU monitoring • Secure FTP (SFTP) Client • Dual images • SNTP/ NTP • Debug command • Password recovery Password encryption • Backdoor password • Trusted host • Text-editable config file • Trusted host
MIB	• RFC1213 MIB II • RFC1493 Bridge MIB • RFC1907 SNMPv2 MIB • RFC1757, 2819 RMON MIB • RFC2021 RMONv2 MIB • RFC1398, 1643, 1650, 2358, 2665 Ether-like MIB • RFC2674,4363 802.1p MIB	• RFC 2233, 2863 IF MIB • RFC 2618 RADIUS authentication client MIB • RFC 2620 RADIUS accounting client MIB • RFC 2925 ping & traceroute MIB • Private MIB • D-Link Zone Defense MIB
IETF Standard	• RFC768 UDP • RFC791 IP • RFC792 ICMPv4 • RFC2463, 4443 ICMPv6 • RFC793 TCP • RFC826 ARP	• RFC 2474, 3260 definition of the DS Field in the IPv4 and IPv6 header • RFC 1321, 2284,2865, 3580, 3748 Extensible Authentication Protocol (EAP) • RFC2571, RFC2572, RFC2573, RFC2574 SNMP
IPv6	• RFC1981 Path MTU Discovery • RFC2460 IPv6 • RFC2461, 4861 Neighbor Discovery • RFC2462, 4862 IPv6 Stateless Address Auto-configuration	• RFC2464 IPv6 Neighbor over Ethernet and definition • RFC3513, 4291 IPv6 addressing architecture • RFC2893, 4213 IPv4/IPv6 dual stack function
Green Features	• Compliant with RoHS • Power Saving by Link Status • IEEE 802.3az Energy Efficient Ethernet (EEE)	• Power Saving by Cable Length • Time-based PoE

Optional Management Software	Description
DV-600S	D-View 6.0 Network Management Software (Standard Edition)
DV-600P	D-View 6.0 Network Management Software (Professional Edition)
Optional SPF Transceivers	**Description**
DEM-310GT	1000BASE-LX, Single-mode, 10km
DEM-311GT	1000BASE-SX, Multi-mode, 500m
DEM-312GT2	1000BASE-SX, Multi-mode, 2km
DEM-312GT2	1000BASE-LHX, Single-mode, 50km
DEM-315GT	1000BASE-ZX, Single-mode, 80km
DGS-712	1000BASE-T 100m (Only supported 1000 Mbps mode) (no flow control)
DEM-302S-LX	1000BASE-LX, Single-mode, 2km
Optional WDM SFP Transceiver	**Description**
DEM-330T	1000BASE-LX, Single-mode, 10km, TX-1550/RX-1310nm
DEM-330R	1000BASE-LX, Single-mode, 10km, TX-1310/RX-1550nm
DEM-331T	1000BASE-LX, Single-mode, 40km, TX-1550/RX-1310nm
DEM-331R	1000BASE-LX, Single-mode, 40km, TX-1310/RX-1550nm
DEM-302S-BXD	1000BASE-LX, Single-Mode, 2km, TX-1550/RX-1310nm
DEM-302S-BXU	1000BASE-LX, Single-Mode, 2km, TX-1310/RX-1550nm

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