

## Product Highlights

### Flexibility and Reliability

Gigabit Ethernet and SFP ports make it ideal for a wide range of applications and environments

### Security and Authentication Features

Robust security features, including the protect against malicious attacks, while authentication tools allow access control

### Optimal Network Performance

Control traffic and bandwidth down to each individual port while multicast support streamlines simultaneous distribution to multiple ports



## DGS-F2800-10P Gigabit Ethernet Switch

### Features

#### L2 Features

- 802.1D (STP), 802.1W (RSTP), and 802.1S (MSTP)
- Supports 802.3ad Link Aggregation
- VLAN Trunking
- Jumbo frame 9K
- 6KV Surge Protection on all Ethernet Ports

#### Security/Authentication

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

#### L3 Features

- IP interfaces
- Static routing

D-Link DGS-F2800-10P is a new-generation managed Gigabit Ethernet access switch designed for carrier's IP MAN and enterprise networks. Based on the new-generation high-performance hardware, it supports functions such as ACL, and QoS.

### Gigabit Performance

The DGS-F2800-10P is a 10/100/1000 Mbps copper ports offer 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.

### Efficient & Resilient

For mission critical environments, DGS-F2800-10P supports the Ethernet-ring protection protocol with a protection shift time of less than 50ms. This switch also supports 802.1D 2004 edition, 802.1W, and 802.1S Spanning Tree Protocols (STP). STP allows the switch to be configured with a redundant backup path, so transmission and reception of packets can be guaranteed in Link Failure situations. The switches also support 802.3ad link aggregation, which enables multiple ports to be grouped 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 classification into Weighted Round Robin (WRR) and strict priority levels mapped to 8 queues. Packet classification is based on TOS, DSCP, IPv4 (TCP/ IP), VLAN ID, TCP/UDP port number, protocol type, or user-defined packet content for flexible configuration for specific multimedia applications such as VoIP or IPTV.

## Rich QoS Policies

DGS-F2800-10P supports complex traffic classification based on VLAN IDs, source MAC/IP addresses, destination MAC/IP addresses, IP protocols, or priorities. These functions provide an effective way for users to optimize their businesses. Provides flexible bandwidth control policies, supporting port-/flow-based flow limit, and ensuring the line speed forwarding of each port to make sure the high quality of video, audio and data services. The switch also supports multiple queue algorithms such as SP, WRR or SP+WRR.

## Security & Authentication

DGS-F2800-10P Gigabit Ethernet Switch 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. It provides multiple security measures to defend against attacks from SYN Flood, UDP Flood, broadcast storm and mass flow of DOS or TCP

## Management Capabilities

A web-based GUI provides a user-friendly interface and easy management, and DHCP auto-configuration gives administrators enhanced management features, allowing them to save Configuration presets to a TFTP server 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 of these switch supports a cable diagnostic feature that helps to detect cable related problems such as length or cable functionality issues, so the administrator can quickly identify and fix this problem. It supports multiple management styles such as Console, Telnet and SSH.

## Traffic & Bandwidth Control

Integrated bandwidth control allows network administrators to define the throughput levels for each port to manage bandwidth. It provides minimum granularity of 64 Kbps, ingress control for port-based bandwidth control. The DGS-F2800-10P switch also supports traffic control, which optimizes performance by dropping packets beyond the threshold. Port mirroring helps administrators to facilitate traffic diagnostics and track switch performance. The DGS-F2800-10P switch also provides IGMP snooping with IGMP authentication to prune multicast traffic and to optimize network performance.

## Multicast Applications

The DGS-F2800-10P Gigabit Ethernet Switch features a full set of L2 multicast functions, including IGMP snooping, IGMP snooping querier, IGMP filtering, fast leave, and multicast traffic configuration for specific ports. With L2 multicast support, It is ready and capable of handling growing IPTV applications.

Technical Specifications	
Part code	DGS-F2800-10P
H/W version	B1
Ports	8*10/100/1000 Base-T, 2*Gigabit SFP ports
Switching Capacity	20 Gbps
Forwarding Rate	15 Mpps
Dimensions in mm (WxDxH)	280*180*44
Power Consumption	No load: <7W, Full Load: 142.5W
Packet buffer Memory	1.5MB
POE/POE+	IEEE 802.3af & 802.3at standard support on all ports
POE Power	130 W
Power Supply	AC: 100V -240V, 50Hz ±10%
Standard Protocols	<ul style="list-style-type: none"> <li>· IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)</li> <li>· IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)</li> <li>· IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)</li> <li>· IEEE 802.3az compliance</li> <li>· Auto-negotiation, support MDI/MDIX</li> <li>· IEEE 802.3x Flow Control</li> </ul>
Environment	Operating temperature/ Humidity: 0°C-50°C, 10%-90% non-condensation
	Storage temperature/ Humidity: -20°C-70°C; 5%-95% non-condensation
	Power Saving by: Link status, LED or Port Shutoff
MAC Switching Function	Static configuration and dynamically learning of MAC address
	Check and delete MAC address
	Configuring of MAC address aging time
	MAC address table size 8K
	Limit on MAC address learning number, MAC address filtering

Port Mirroring	One-to-One, Many-to-One
	Supports Mirroring for Tx/Rx/Both
VLAN	802.1Q VLAN & 4K VLAN entries
	GVRP
	Voice VLAN
	IP- VLAN
	MAC VLAN
Ring Protection	802.1D (STP), 802.1W (RSTP), 802.1S (MSTP), ERPS
	BPDU protection, root protection and loop protection
Multicast	IGMP v1/v2/v3
	IGMP Snooping
	IGMP Fast Leave
	Multicast group policy and multicast number limit
	MVR, IGMP Filter
IPv6	ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet
	IPv6 Neighbor Discovery
	MLD v1/v2
	MLD Snooping
QoS	Traffic classification of each field of L2/L3/L4 protocol headers
	CAR traffic control
	802.1P/DSCP priority remark
	Multiple queuing algorithms such as SP, WRR or SP+WRR
	WRED/WFQ
	Traffic Policing and Traffic Shaping
Security features	Identification and filtering of L2/L3/L4 based ACL, IPv4 & IPv6 ACL,
	DOS or TCP attacks Prevention
	Suppression of broadcast, multicast and unknown unicast packet
	Port isolation
	Port security, IP+MAC+Port binding
	DHCP Snooping, DHCP Option 82
	IEEE 802.1x certification
	Radius and Tacacs+
Reliability	Static/LACP link aggregation
L3 Routing	IPv4/IPv6 Dual Stack, Static routes, RIP, OSPF
Management and Maintenance	Support Console, Telnet, SSH V2.0, Syslog
	Support browser-based WEB management
	Support SNMP v1/v2/v3
	Support TFTP/FTP/SFTP file upload and download management
	Support RMONv1/v2, Syslog
Certification	CE
MTBF	1000000hrs

# DGS-F2800-10P Gigabit Ethernet Switch

Order Information	
DGS-F2800-10P	8 *10/100/1000 Base-T POE+ ports, 2*Gigabit SFP ports, 1 Console port, Rack-mountable L2 Managed Switch.
Optional SFP Transceivers	
DEM-F310GT	1000BASE-LX, single-mode, 10 km
DEM-F311GT	1000BASE-SX, multi-mode, 550 m
DGS-712G	1000BASE-T transceiver