



DGS-3308TG Layer 2/ Layer 3 Gigabit switch with 6 1000BASE-SX fiber Gigabit ports and 2 GBIC fiber gigabit ports.

## Multi-layer Fiber Gigabit Switch

The DGS-3308FG is a multi-layer routing switch that combines wire-speed Layer 2 switching, multiple link aggregation and quality of service (QoS) with basic Layer 3 IP packet routing. Designed to give everything a business needs for today's switched networks, this switch offers Gigabit high speed, reliable fiber cabling, edge device simplicity and ideal price/performance ratio for backbone and campus connection.

### Wire-speed IP Packet Routing

Using standard-based routing, the DGS-3308FG provides instant support for Windows, Unix and Internet environments. Built-in wire-speed non-blocking switch fabric provides hardware-based packet filtering/forwarding. Packet routing is performed by on-board ASICs, which is many times faster than traditional CPU-based routers.

### Seamless Integration

The DGS-3308FG can be instantly integrated into any existing network for seamless integration of Layer 2 and Layer 3 packet switching. With Layer 2 and Layer 3 support for every port, you can flexibly segment the network into domains and sub-domains, using (1) subnet IDs and user IP numbers to route traffic, and (2) custom filters based on users' physical MAC addresses to filter extraneous traffic. At Layer 2, the switch uses auto-learned and user-defined MAC addresses to discard and forward packets. At Layer 3, it looks at the user-specified routing table to route packets to their destinations.

### 8 Gigabit Fiber Ports

The DGS-3308FG provides 8 Gigabit fiber ports with full-duplex support (6 SC 1000BASE-SX and 2 GBIC interfaces). The 1000BASE-SX ports support cable distances of 525 meters using 50/125µm multi-mode fiber, and 275 meters using 62.5/125µm multi-mode fiber. The GBIC ports have open sockets for flexible multi-mode and single-mode fiber connections, an optional PHY module must be installed in this socket. Single-mode fiber provides distance coverage of up to 5 kilometers.

### Maximum Network Uptime

The switch provides the capability to operate with an optional redundant power supply. This gives you the added reliability

against power interruption risks and is important for mission critical applications.

### VLANs for Performance & Security

When operating at Layer 2, you can set up VLANs for different ports to set broadcast domains and segment network traffic to manage available bandwidths and enhance network security.

### Port Trunks for Bandwidth Aggregation

The Gigabit ports can be combined together to create a multi-link load-sharing trunk. Up to 4 Gigabit ports can be set up per trunk. The switch supports up to 4 port trunks. Port trunks are useful for switch-to-switch cascading, providing very high full-duplex speeds.

### Quality of Service (QoS)

Built-in IEEE 802.1P Priority Queues capability allows your workstations and server to attach to the switch and run delay-sensitive applications like video-conference and IP telephony based on traffic prioritization and queuing mechanism.

### IP Multicast (IGMP snooping)

The switch listens to IGMP (Internet Group Management Protocol) messages to build mapping table and associate forwarding filters. It uses GMRP (GARP Multicast Registration Protocol) to dynamically configure the switch ports to forward IP multicast traffic only to those ports associated with multicast hosts.

### Port Mirroring

This capability allows you to mirror adjacent ports for the purpose of analyzing incoming and outgoing packets where packets can be studied.

## Features

- 6 1000BASE-SX Gigabit ports
- 2 GBIC Gigabit ports
- 16Gbps switch fabric
- QoS support based on traffic prioritization
- Full duplex with flow control for each port
- Enhanced security & performance with IP routing (Layer 3) and VLANs (Layer 2)
- Up to 4 port trunks per switch, up to 4 ports per trunk
- IP multicast & port mirroring capabilities
- IEEE 802.1D Spanning Tree for redundant backup paths
- SNMP/web-based management, RMON monitoring
- TFTP firmware upgradeable
- Telnet configuration
- Redundant power supply support

# DGS-3308FG

## Technical Specifications

## Multi-layer Gigabit Switch

### General

#### Standards

- IEEE 802.3z 1000BASE-SX Gigabit Ethernet
- IEEE 802.3x Flow Control
- IEEE 802.1Q VLANs
- IEEE 802.1P Priority Queues

#### Topology

Star

#### Protocol

CSMA/CD

#### Network Data Transfer Rate

200Mbps (full-duplex)

#### Network Cables

- 62.5/125 micron multi-mode fiber (260 m)
- 50/125 micron multi-mode fiber (550 m)
- 9 micron single-mode fiber (5 Km)

#### Number of LAN Ports

- 6 1000BASE-SX ports (SC connectors)
- 2 GBIC ports

#### Diagnostic LEDs

- Link/Act (per port)
- Power (per device)
- Console (per device)

### Layer 2 Switching

#### Switching Method

Store-and-forward

#### MAC Address Table

8K entries per device

### Routing

#### Routed Packet Type

IP-protocol packets

#### Routing Protocols

- Static Routing
- RIP-1, RIP-2

#### Routing Table

2K entries per device

### Configuration & Management

#### Standards

SNMP, RMON, Web-based, Telnet

#### RMON Groups

1, 2, 3, 9

#### MIBs

- MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- VLAN MIB (RFC 2674)
- RMON MIBs (RFC 1757)
- IF MIBs (RFC 2233)
- IP-Forward MIB (RFC 2096)
- RIP-2 MIB (RFC 1724)
- IGMP MIB
- ID-REC MIB
- IPMROUTE MIB
- PIM MIB
- DVMRP MIB

#### Priority Queues

4 queues

#### IP Number Self-identification

- Through DHCP client
- Through Bootp client

#### User IP Number Assignment

Through DHCP relay agent (user name to IP address mapping supported)

#### Redundant Backup Bridge Paths

IEEE 802.1D Spanning Tree standard

#### Firmware Upgrade

TFTP

#### Console Port

DB-9 RS-232

### Physical & Environmental

#### Power Supply

- 100 - 240VAC 50/60Hz internal universal power supply
- Socket for connection to RPS

#### Power Consumption

35 watts max.

#### Ventilation

3 40 x 40 x 10 mm DC fans

#### Dimensions

441 x 210 x 43 mm (17.3 x 53.3 x 1.7 inches)  
Standard 19-inch rack-mount width, 1 U height

#### Weight

2.5kg (6.2 lb.)

#### Operating Temperature

0° - 50°C (32° - 122°F)

#### Storage Temperature

-25° - 55°C (-13° - 131°F)

#### EMI Certification

- FCC Class A
- CE Class A (EN55022, EN50082-1)
- C-Tick (AS/NZS 3548)
- VCCI Class A ITE
- BSMI (CNS 13438)

#### Safety Certification

- UL/CUL
- TUV/GS

### Ordering Information

#### Multi-layer Routing Gigabit Switch

**DGS-3308FG** 6 1000BASE-SX fiber ports (SC connectors)  
2 GBIC fiber ports

#### Optional Redundant Power Supply

**DPS-1000** Redundant power supply (chassis + 1 DPS-1001 module)  
**DPS-1001** Redundant power module for each switch

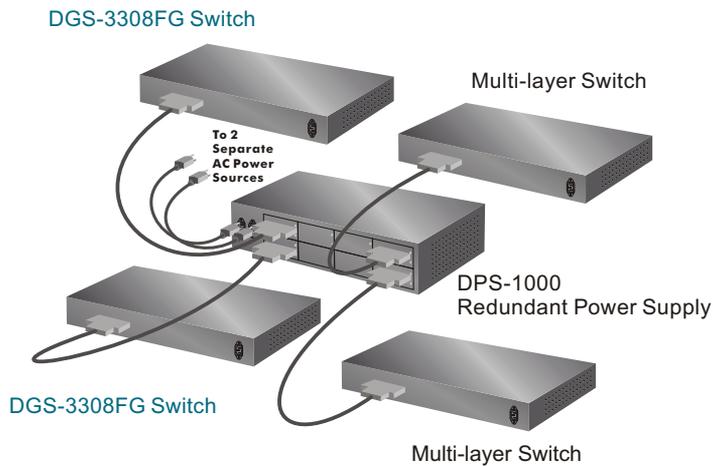
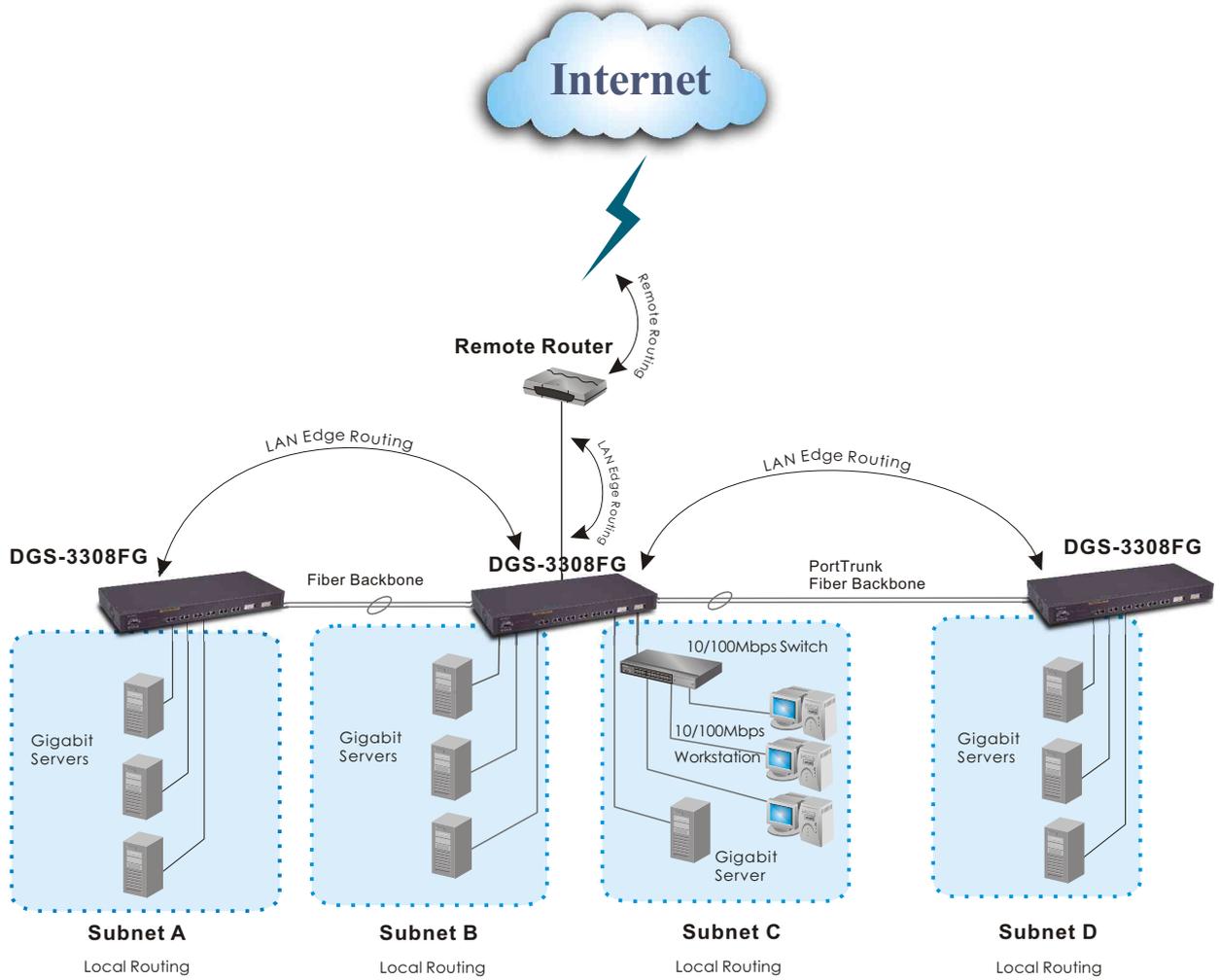
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<b>U.S.A.</b>	TEL: 1-949-788-0805	FAX: 1-949-753-7033	www.dlink.com
<b>Canada</b>	TEL: 1-905-8295033	FAX: 1-905-8295095	www.dlink.ca
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<b>Denmark</b>	TEL: 45-43-969040	FAX: 45-43-424347	www.dlink.dk
<b>Finland</b>	TEL: 358-9-622-91660	FAX: 358-9-622-91661	www.dlink-fi.com
<b>Singapore</b>	TEL: 65-774-6233	FAX: 65-774-6322	www.dlink-intl.com
<b>Australia</b>	TEL: 61-2-94177100	FAX: 61-2-94171077	www.dlink.com.au
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<b>Russia</b>	TEL: 7-095-737-3389	FAX: 7-095-737-3390	www.dlink.ru
<b>Taiwan</b>	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515	www.dlinktw.com.tw
<b>D-Link Corp.</b>	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299	www.dlink.com.tw



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### Using Redundant Power Supply With D-Link Switches

A single DPS-1000 can provide redundant power supply to 8 LAN switches