



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

Multi-layer Copper Gigabit Switch With GBIC Ports

The DGS-3308TG 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 cost-effective Gigabit high speed over your existing Cat. 5 twisted-pair network cable, flexible 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-3308TG 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-3308TG 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.

6 Gigabit Ports Over Existing Twisted-pair Cables

The DGS-3308TG provides 6 1000BASE-T copper Gigabit ports with full/half-duplex support. These ports transmit data at 1000Mbps over your existing Cat. 5 twisted-pair network cable, avoiding for you to the need to install expensive fiber cables. These ports, furthermore, support auto-sensing 10/100/1000Mbps speeds, allowing you to integrate with your existing Ethernet network then instantly upgrade to Gigabit anytime later.

2 GBIC Fiber Ports

For flexible fiber connection, 2 GBIC ports are provided for installation of 1000BASE-SX short/medium-distance and 1000BASE-LX long-distance fiber. An optional PHY module must be inserted in each of these ports.

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 10/100/1000Mbps copper 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-3308TG

Technical Specifications

Multi-layer Gigabit Switch

General

Standards

- IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.3x Flow Control
- IEEE 802.1Q VLANs
- IEEE 802.1P Priority Queues

Topology

Star

Protocol

CSMA/CD

Data Transfer Rates

- Ethernet:
 - 10Mbps (half duplex)
 - 20Mbps (full duplex)
- Fast Ethernet:
 - 100Mbps (half duplex)
 - 200Mbps (full duplex)
- Gigabit Ethernet:
 - 2000Mbps (full duplex)

Network Cables

- 10BASE-T:
 - 2-pair UTP Cat. 3, 4, 5 (100 m)
 - EIA/TIA-586 100-ohm STP (100 m)
- 100BASE-TX, 1000BASE-T:
 - UTP Cat. 5 (100 m)
 - EIA/TIA-568 100-ohm STP (100 m)
- 1000BASE-SX:
 - 62.5/125 micron multi-mode fiber (260 m)
 - 50/125 micron multi-mode fiber (550 m)
 - 9 micron single-mode fiber (5 Km)

Full/half Duplex

- Full/half duplex for 10/100Mbps speeds
- Full duplex only for Gigabit speed

Number of LAN Ports

- 6 10/100/1000Mbps ports (RJ-45 connectors)
- 2 GBIC ports

Diagnostic LEDs

- Link/Act (per port)
- 10/100/1000Mbps speed (per twisted-pair port)
- Full/half duplex (per twisted-pair 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

2.6kg

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-3308TG 6 10/100/1000Mbps copper Gigabit ports (RJ-45 Connectors)
2 GBIC fiber ports

Optional Redundant Power Supply

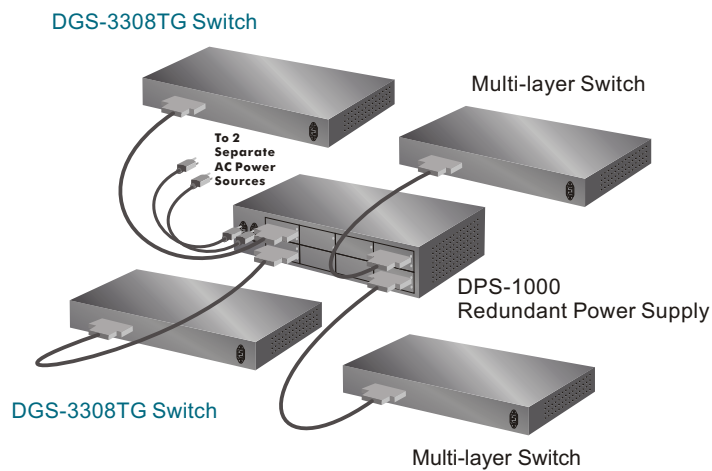
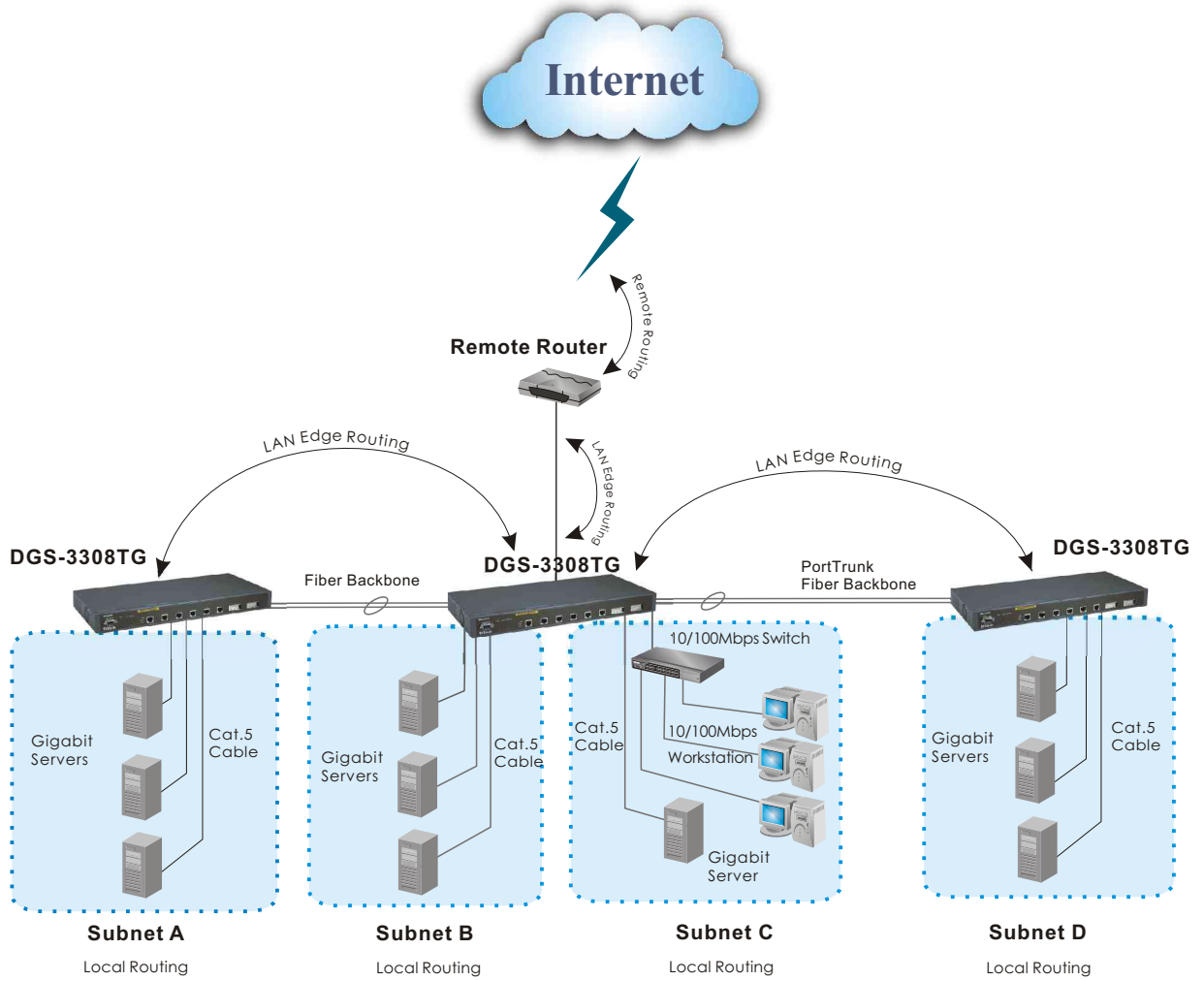
DPS-1000 Redundant power supply (chassis + 1 DPS-1001 module)
DPS-1001 Redundant power module for each switch

D-Link®

Specifications subject to change without prior notice.
D-Link is a registered trademark of D-Link Corporation/D-Link System Inc. All other trademarks belong to their proprietors.

U.S.A.	TEL: 1-949-788-0805	FAX: 1-949-753-7033	www.dlink.com
Canada	TEL: 1-905-8295033	FAX: 1-905-8295095	www.dlink.ca
Europe	TEL: 44-20-8731-5555	FAX: 44-20-8731-5511	www.dlink.co.uk
U.K.	TEL: 44-20-8731-5555	FAX: 44-20-8731-5511	www.dlink.co.uk
Germany	TEL: 49-6196-77990	FAX: 49-6196-7799300	www.dlink.de
France	TEL: 33-1-30238688	FAX: 33-1-30238689	www.dlink-france.fr
Benelux	TEL: 31-40-2668713	FAX: 31-40-2668666	www.dlink-benelux.nl
Italy	TEL: 39-02-2900-0676	FAX: 39-02-2900-1723	www.dlink.it
Iberia	TEL: 34-93-4090770	FAX: 34-93-4910795	www.dlinkiberia.es
Sweden	TEL: 46-(0)8564-61900	FAX: 46-(0)8564-61901	www.dlink.se
Norway	TEL: 47-22-991890	FAX: 47-22-207039	www.dlink.no
Denmark	TEL: 45-43-969040	FAX: 45-43-424347	www.dlink.dk
Finland	TEL: 358-9-622-91660	FAX: 358-9-622-91661	www.dlink-fi.com
Singapore	TEL: 65-774-6233	FAX: 65-774-6322	www.dlink-intl.com
Australia	TEL: 61-2-94177100	FAX: 61-2-94171077	www.dlink.com.au
Japan	TEL: 81-3-5434-9678	FAX: 81-3-5434-9868	www.dlink.co.jp
China	TEL: 86-10-8809-7777	FAX: 86-10-8809-6789	www.dlink.cn
India	TEL: 91-22-652-6696	FAX: 91-22-652-8914	www.dlink-india.com
Middle East	TEL: 202-6356176	FAX: 202-6356192	www.dlink-me.com
South America	TEL: 56-2-232-3185	FAX: 56-2-232-0923	www.dlink.cl
South Africa	TEL: 27(0)126652165	FAX: 27(0)126652186	www.d-link.co.za
Russia	TEL: 7-095-737-3389	FAX: 7-095-737-3390	www.dlink.ru
Taiwan	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515	www.dlinktw.com.tw
D-Link Corp.	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299	www.dlink.com.tw


RECYCLABLE
Rev. 01 (Apr. 2002)
Printed in Taiwan



Using Redundant Power Supply With D-Link Switches

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