

## L2 Gigabit Switches

### With SNMP Management

- 24 or 48 Copper Gigabit Ports & 4 Combo SFP Slots
- Powerful Switching Capability
- Secure/Effective Standard-Based Management/Traffic Monitoring
- Advanced Enterprise Features & RADIUS/TACACS+ Support
- Redundant Power Support

#### FEATURES

##### Gigabit Connection to the Desktops

- 24 or 48 1000BASE-T Gigabit Ports Per Switch
- 4 Combo SFP for Server/Fiber Backbone Attachment

##### Redundancy

- Redundant Power Supply Support
- 802.1D Spanning Tree, 802.1w Rapid Spanning Tree, 802.1s Multiple Spanning Tree

##### Security

- 802.1Q VLAN, GVRP
- 802.1x Port-Based Access Control
- External RADIUS/TACACS+ Server Support
- SSL/SSH

##### Traffic Monitoring/Bandwidth Control

- 802.3ad Link Aggregation (Port Trunks)<sup>1</sup>
- GUI Traffic Monitoring
- RMON Support
- Port Mirroring
- Per-Port Bandwidth/Broadcast Storm Control<sup>2</sup>

##### Configuration/Management

- Web-Based
- Command Line Interface (CLI)
- SNMP v.1, v.2c, v3 Standard
- D-View SNMP Network Management Module Provided
- Telnet Server

<sup>1</sup> Function will be ready in future F/W release.

<sup>2</sup> Bandwidth control function available on 48-port DGS-3048 switch only.  
Bandwidth control for 24-port DGS-3024 switch available in future firmware upgrade.

The D-Link DGS-3000 series Layer 2 Gigabit switches are an entry-level SNMP management solution for departmental networks. With high densities of copper Gigabit ports and multiple combo SFP, these stand-alone switches provide users with gigabit-to-the-desktop connections with secure fiber access to the servers and network backbone. Powerful and versatile, these switches eliminate bottlenecks while giving users the capability to fine-tune performance. 1U height and standard rack-mount size is especially suitable for departmental environment, providing users the best performance/price ratio.

**Network Management.** The DGS-3000 series addresses today's diverse business and IT requirements through robust support of standards based network management protocols (SNMP/RMON/Bootp/Telnet/Web) and port mirroring. By supporting standards-based network management protocols, these devices can be easily integrated with most third-party network management products. Each switch provides full duplex forwarding, a large MAC address search table, and the ability to classify and mark traffic based on 802.1p into priority queues.

**Advanced Features.** The DGS-3000 series brings enterprise functions to a new level of affordability without compromising advanced features, such as QoS, Multicast, VLANs, Port Trunking, Port Mirroring, Spanning Tree, Security, and Network Management. These features facilitate the deployment of applications across an enterprise, including: VoIP, streaming media, and multicast content delivery (IP video, software deployment, etc.). Security features include 802.1x port based access control, and support for RADIUS and TACACS+ servers.

**Port Trunk & Redundancy Support.** The DGS-3000 series can be used as a cost-effective Gigabit to the desktop solution or high performance backbone aggregation devices. With 802.3ad Link Aggregation support<sup>1</sup>, multiple ports can be combined into a multi-link for higher bandwidth connections to servers or the network backbone. Each switch can be connected to redundant power supply to maximize network uptime. In case of a power failure, the external power unit will automatically provide the required power to ensure continuous operation.

**Investment Protection.** With 4 SFP modules, the DGS-3000 series can easily adapt to changes in customer media requirements without the need to perform an expensive upgrade. Users can migrate to more advanced solutions in the future, while still protecting a portion of their original investment.

DGS-3024

DGS-3048



**Technical Specifications**

**DGS-3024**

**DGS-3048**



**Interface**

10/100/1000BASE-T Ports	24	48
Combo SFP Slots	4	4
802.3 NWay Auto-Negotiation (Per RJ-45 Port)	√	√
802.3x Flow Control (Per Port)	√	√
RS-232 Console Port	√	√

**Performance**

Switch Fabric	48Gbps	96Gbps
64-Byte System Packet Forwarding Rate	35.7mpps	71.4mpps
MAC Address Table	8K	16K
Packet Buffer Size	512KB	1.5MB
Max. Jumbo Frame Size	9,216 Bytes	9,216 Bytes

**Diagnostic LED**

1000Mbps Speed, Link/Activity (Per RJ-45 Port)	√	√
Link/Activity (Per SFP Slot)	√	√
Power, Console, RPS (Per Device)	√	√

**Physical/Environmental**

Power Input: 100 to 240 VAC, 50/60 Hz,	100 to 240 VAC, 50/60 Hz	100 to 240 VAC, 50/60 Hz
Power Supply Type: Internal Universal Power Supply	Internal Universal Power Supply	Internal Universal Power Supply
Optional Redundant Power Supply	DPS-300	DPS-500
Power Consumption	45 watts (max.)	86.4 watts (max.)
BTU/Hr.	153.36	294.8
Operating Temperature	0° to 40°C	0° to 40°C
Storage Temperature	-10° to 70°C	-10° to 70°C
Operating Humidity:	10% to 90% RH Non-Condensing	10% to 90% RH Non-Condensing
Storage Humidity	5% to 90% RH Non-Condensing	5% to 90% RH Non-Condensing
Dimensions	441 (W) x 309 (D) x 44 mm (H)	441 (W) x 309 (D) x 44 mm (H)
Size	19-Inch Rack-Mount Width, 1 U Height	19-Inch Rack-Mount Width, 1 U Height
Weight	4 kg	5 kg
Emission (EMI)	FCC Class A, CE, VCCI, C-Tick	FCC Class A, CE, VCCI, C-Tick
Safety	CSA International, CB	CUL, CB



## Software Functions

### VLAN

- IEEE 802.1Q Tagged VLAN
- GVRP
- Max. number of VLANs: total 255 VLANs

### QoS (Quality of Service)

- 802.1p Priority Queues
- CoS based on switch port
- Max. No. of queues per port: 4 for DGS-3024, 8 for DGS-3048

### Security

- 802.1X port-based access control
- External RADIUS, TACACS+ server support
- Broadcast storm control: per port granularity 10 packets per second for DGS-3024, 1 Kbits per second for DGS-3048
- SSL
- SSH

### Bandwidth Control

Per port granularity 64 Kbits per second<sup>1</sup>

### IGMP Snooping

- Max. No. of multicast groups: 64 for DGS-3024, 1K for DGS-3048
- Multicast traffic modes: flooding, filtering

### Port Mirroring

- One-to-one<sup>2</sup>
- Many-to-one<sup>2</sup>

### Spanning Tree

- 802.1D Spanning Tree
- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree

### Port Trunk

- Standard: 802.3ad Link Aggregation<sup>3</sup>
- Max. No. of trunk groups: 4 for DGS-3024, 8 for DGS-3048
- Max. No. of ports per trunk: 8
- Operation mode: load sharing

### Management Support

- SNMP v.1, v.2c, v.3
- Web-based management
- CLI (command line interface)
- RMON monitoring
- SNTIP
- SYSLOG
- Web GUI traffic monitoring
- DHCP/Bootp client<sup>2</sup>
- SNMP trap on MAC notification<sup>2</sup>
- Telnet server

### MIB

- RFC 1213 MIB-II
- RFC 1493 Bridge MIB
- RFC 1907 SNMP v.2 MIB
- RFC 2819 RMON MIB (previous 1757)
- RFC 2665 Ether-like MIB (previous 1643, 2358)<sup>3</sup>
- RFC 2674 802.1p MIB
- RFC 2233 IF MIB\*
- RFC 2618 RADIUS Authentication Client MIB
- RFC 2620 RADIUS Accounting Client MIB
- Private MIB

### RMON Groups

1, 2, 3, 9 (Alarm, Statistics, History, Event)

### Firmware Upgrade

TFTP

### Optional SFP Transceivers

- DEM-310GT** SFP transceiver for 1000BASE-LX, single-mode fiber, max. distance 10 km, 3.3V
- DEM-311GT** SFP transceiver for 1000BASE-SX, multi-mode fiber, max. distance 550 m, 3.3V
- DEM-312GT2** SFP transceiver for 1000BASE-SX, multi-mode fiber, max. distance 2 km, 3.3V
- DEM-314GT** SFP transceiver for 1000BASE-LHX, single-mode fiber, max. distance 50 km, 3.3V
- DEM-315GT** SFP transceiver for 1000BASE-LX, single-mode fiber, max. distance 80 km, 3.3V
- DEM-330T** SFP transceiver for 1000BASE-LX, single-mode fiber, max. 10 km, 3.3V, WDM (Tx: 1550 nm, Rx: 1310 nm)
- DEM-330R** SFP transceiver for 1000BASE-LX, single-mode fiber, max. 10 km, 3.3V, WDM (Tx: 1310 nm, Rx:1550 nm)
- DEM-331T** SFP transceiver for 1000BASE-LX, single-mode fiber, max. 40 km, 3.3V, WDM (Tx: 1550 nm, Rx: 1310 nm)
- DEM-331R** SFP transceiver for 1000BASE-LX, single-mode fiber, max. 40 km, 3.3V, WDM (Tx: 1310 nm, Rx:1550 nm)

### Optional Redundant Power Supply

- DPS-300** 90-watt redundant power supply
- DPS-500** 140-watt redundant power supply

### Management Software

- DS-510** D-View 5.1 SNMP Network Management Program

### Optional Management Software

- DS-510S** D-View 5.1 SNMP Network Management Program (standard version)
- DS-510P** D-View 5.1 SNMP Network Management Program

<sup>1</sup> Bandwidth control function available on 48-port DGS-3048 switch only.  
<sup>2</sup> Bandwidth control for 24-port DGS-3024 switch available in future firmware upgrade.  
<sup>3</sup> For DGS-3048 only.  
<sup>4</sup> For DGS-3024 only.

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