



### Advanced Dynamic IPv4/v6 L3 Routing:

- + Up to 256/128 Static Route Entries
- + Up to 12K/6K Dynamic Route Entries
- + RIP v1/2
- + OSPF/OSPF NSSA
- + DVMRP
- + VRRP
- + Multiple IP per VLAN
- + IPv4/IPv6 Floating Static Route
- + Policy Based Route
- + Jumbo Frames up to 9KB

### Advanced Switching:

- + 802.1p Priority (8 Queues)
- + Double VLAN Tagging
- + Bandwidth Control
- + QoS based on L2/3/4
- + 802.3ad (Link Aggregation)
- + 802.1w (Rapid Spanning Tree)
- + 802.1s (Multiple Spanning Tree)<sup>1</sup>
- + 802.1x (Port Based Authentication)
- + 802.1x (MAC Based Authentication)
- + 802.1q VLANs (Up to 4000 Groups)

### Network Management:

- + Console / Telnet / Web GUI / CLI
- + SNMPv1/v2/v3
- + RMON (4 Groups)
- + Port Mirroring
- + SYSLOG
- + Single IP Address Management
- + SSH2, TACACS+, SSL
- + Safeguard Engine
- + ACL L2/L3/L4
- + Dual Images
- + CPU Utilization Monitoring

## 12-Port 1000BASE-X SFP + 4 Combo 1000BASE-T Switch

For the SMB requiring a cost effective core switching solution, as well as for larger Enterprise and Metropolitan Service Provider (MSP) environments needing a managed, feature rich line aggregator, the xStack DGS-3612G is designed to meet the needs of the most demanding departmental and enterprise connectivity applications. The D-Link DGS-3612G Switch is a fully managed Layer 3 switch that provides 12 SFP ports and 4 Combo 1000BASE-T Gigabit Ethernet ports. The DGS-3612G also provides virtual stacking functionality via D-Link SIM technology allowing up to 32 units to be managed via single IP address. With support for IPv4/IPv6 static and dynamic routing and a plethora of advanced security and enhanced QoS features, the xStack DGS-3612G future proofs your network and provides a seamless migration path to IPv6.

### Advanced L3 Routing

xStack DGS-3612G is a high performance Layer 3 switch that provides advanced Layer 3 routing features such as RIP, OSPF, IPv4/IPv6, VRRP, up to 5 IP addresses per VLAN<sup>1</sup>, and floating static routes. Policy Based routing<sup>1</sup> (which forwards traffic based on L3/L4 SA/DA) and Multi Path Routing<sup>1</sup> (which is the method of establishing multiple paths between given source-destination nodes within a network) are also features supported on the DGS-3612G. These added routing features provide redundancy, improve network utilization, and provide load balancing for the network.

### Comprehensive Security

The DGS-3612G incorporates an advanced portfolio of security features designed to protect your network from malicious attacks. SSH & SSL encrypted management guarantee secure private configuration and monitoring when using the Graphical User Interface and Command Line. IP to MAC binding prevents unauthorized devices from accessing network resources, and also acts as an anti-spoofing tool. 802.1x port and MAC based authentication help provide added network security by requiring all users attempting to connect to your network to provide a username and password. This username and password must then be authenticated on a RADIUS or TACACS+ server, insuring only authorized users have access to the network. Access control lists based on Layers 2/3/4, Rate Limiting, and Guest VLANs provide even more control over what and how users access the network. Finally, with D-Link's CPU Safeguard Engine, the DGS-3612G is protected from Broadcast, Multicast, and Unicast flooding which in turn prevents the DGS-3612G from being crippled by DoS attacks .

### Enhanced Enterprise Features

The xStack DGS-3612G facilitates the deployment of enterprise applications such as VOIP, streaming media, and multicast content delivery such as IP video conferencing and software deployment with enhanced enterprise features such as L2/L3/L4 QoS, IGMP and MLD snooping, 802.1w Rapid Spanning Tree, 802.1s Multiple Spanning Tree group, 802.3ad Link Aggregation, and 802.1Q VLANs.



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### Technical Specifications

#### Product/Performance Specifications

DGS-3612G	Managed Layer 2/3/4 Switch with (12) 1000BASE-X SFP Ports and (4) Combo 1000BASE-T Ports
Packet Buffer	2MB
MAC address Table	16K
IP Routing	256 Static/ 16k Dynamic Total
Aggregated Bandwidth	24Gbps
Throughput	17.86Mpps
Transmission Method	Store-and-Forward
Forwarding Rate	14,880pps (10M) 148,800pps (100M) 1,488,000pps (1000M)
VLANs	Support up to 4K Static, 255 Dynamic 802.1p VLAN Groups Priority Queues 8 Queues - Strict Priority or Weight Round Robin Queue Scheduling
Classification ACLs	Switch Port, VLAN ID, IEEE802.1p, MAC Address, DSCP, Protocol Type, IPv6 Traffic Class, IPv6 Flow Label, TCP/UDP Port, User Defined Packet Content, Time Based ACL, CPU Interface Filtering
Classification QoS	Switch Port, VLAN ID, IEEE802.1p Priority, MAC Address, IP Address, DSCP, Protocol Type, IPv6 Traffic Class, IPv6 Flow Label, TCP/UDP Port, User Defined Packet Content
Multicast Support	IGMP v1/2/3*, IGMP Snooping
Jumbo Frames	Up to 9216Bytes

#### Interface Options

RJ-45	10BASE-T, 100BASE-TX & 1000BASE-T
LC	With Optional Standard Small Form-factor Pluggable (SFP) Gigabit Transceivers
RPS	Redundant Power Option Via Optional DPS-500

#### Network Management

In Band & Out of Band	Telnet, CLI/Console, RMON, Web-based HTTP, SNMPv1/v2/v3, Syslog, Port Mirroring, TFTP Client, BootP Client, DHCP Client, BootP/DHCP Client
IEEE	802.3 Ethernet, 802.3u Fast Ethernet, 802.3ab Gigabit Ethernet, 802.3z Gigabit Ethernet, 802.1d Spanning Tree, 802.1w Rapid Spanning Tree, 802.1p Priority Tags, 802.1q VLANs (4K static/255 dynamic), 802.3ad Link Aggregation (32 Groups/8 ports), 802.3x Flow Control, 802.1x Port-based/MAC Based Authentication, 802.1s (Multiple Spanning Tree)
IETF	RFC 1157 SNMP, RFC 1112/2236 IGMPv1/2 IGMPv3, RFC 1757/2021/2819 RMON (4 Groups), RFC 1493 Bridge MIB, RFC 1213 MIB II, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, and DiffServ, RFC 1724 RIP v1/2, RFC 1850 OSPF, DVMRP, RFC 2934 PIM DM, PIM-SM, RFC 2932 Multicast Routing, RFC 2787 VRRP, RFC 2096 IP Forwarding Table MIB (CIDR), RFC 2787 VRRP MIB, RFC 2618/2620 RADIUS Accounting Client, RFC2618 RADIUS Authentication Client MIB, RFC 2863 IF MI B, RFC 2674 802.1p MIB, RFC 2668 802.3 MAU MIB, RFC 2665 Ether-like MIB, SSH2, SSLv3, TACACS+

#### Electrical & Emissions Summary

Emissions	CE class A, FCC Class A, VCCI Class A, C-Tick Class A
Power Supply	AC Input: 100 - 240 VAC, 50/60 Hz Internal Universal Power Supply
Power Consumption	60 Watts (maximum)



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#### Safety Agency Certifications and Environmental

Safety	CSA International, CB Report
Temperature	Operating: 0° to 40° C (32° to 104° F)
	Storage: -40° to 70° C (-40° to 158° F)
Humidity	Operating: 10% to 85% RH, Non-condensing
	Storage: 5% to 95% RH, Non-condensing

#### Physical Specifications

Dimensions (W x D x H)	441mm(W) x 310mm(D) x 44mm(H) (17.36 x 12.2 x 1.73 in.) 19-inch, 1U Rack-mount size
Weight	9.35lbs

#### Warranty and Support Information

Warranty	Limited Lifetime Warranty
Support	Free Technical Support

#### Ordering Information

Part Number	Description
DGS-3612G	Standalone Managed Layer 2/3/4 Switch with (12) SFP Ports, (4) Combo Gigabit Copper Ports
DEM-310GT	Mini-GBIC/SFP 1000BASE-LX (up to 10Km)
DEM-311GT	Mini-GBIC/SFP 1000BASE-SX (up to 550m)
DEM-210	Mini-GBIC/SFP 100BASE-FX SMF (up to 15Km)
DEM-211	Mini-GBIC/SFP 100BASE-FX MMF (up to 2Km)
DPS-500	Redundant Power Supply
DPS-800	2 slot Redundant Power Supply Unit Chassis

<sup>1</sup> To be supported via free future firmware upgrades