



DGS-3100-24



DGS-3100-24P

DGS-3100-48

DGS-3100-48P

High Performance:

- + Fixed-in 20Gig Full-duplex Stacking Ports
- + Up to 6 Units per Stack
- + Up to 288Gbps Bandwidth per Stack
- + Jumbo Frame Support (up to 10240 bytes)
- + HDMI Ports for High-speed Switch Stacking

Advanced Features:

- + IGMP Snooping
- + MLD Snooping
- + Spanning Tree 802.1d/802.1w/802.1s
- + 802.1p QoS (4 Queues)
- + RMON
- + SNMPv1/2/3
- + LAG (32 groups / 8 ports)
- + Rate Limiting Down to 64Kb
- + Support for 100FX or 1000X Fiber Options
- + Spanning Tree Loopback Detection
- + Cross Stack Port Mirroring and Trunking
- + Broadcast Storm Control
- + DHCP Automatic Firmware/Configuration Updates

Security:

- + 802.1X Authentication
- + Enhanced Access Control List
- + DoS Prevention
- + Port-based Security
- + Guest VLAN
- + 802.1Q VLANs
- + TACACS+ and RADIUS
- + SSH/SSL

Managed 24/48-port Gigabit Stackable L2 Switches with 4 Combo SFP Slots

Overview

The D-Link® DGS-3100 family of switches provides entry-level, Layer 2 managed performance at gigabit speeds. Each model provides 10/100/1000Base-T auto-sensing ports, in both 24 and 48-port options. Power over Ethernet (PoE) models are available with 24 or 48-ports, supplying up to 15.4 Watts of power to 802.3af-compliant devices, such as high-demand 802.11n Access Points, IP Phones and Cameras. Every model also comes equipped with 4 combo SFP ports, giving you greater network flexibility, and 2 HDMI ports for high-speed switch stacking. Up to 6 switches can be stacked under a single IP Address, providing up to 288Gbps total bandwidth for the ideal small-to-medium business backbone solution.

Management and security features round out these robust switches. An advanced Access Control List (ACL) and the D-Link Safeguard Engine provide security coverage from core to edge and protect against worms and viruses and Denial-of-Service attacks. Quality of Service (QoS) and IGMP Snooping move your data smoother and faster. And easy-to-use administration interfaces, along with SNMP and RMON, mean faster setup and configuration with less downtime.

High-Speed Switch Stacking

Each switch in the DGS-3100 family includes two HDMI stacking ports to provide up to 20Gbps in stacking backplane, or 10Gbps on each port. That's 5 times the speed of a gigabit port! These switches are also hot-swappable and can be replaced or removed without affecting the network. With cross stack port mirroring and port trunking to facilitate network administration, your network data will move more efficiently than ever before.

D-Link Safeguard Engine™ and Security

The DGS-3100 family incorporates advanced mechanisms to detect attacks and take corrective action on the attacking interface. When a Denial of Service (DoS) attack is waged,

the D-Link Safeguard Engine detects the threat and prevents overload of the central processor to insure network integrity and help maintain open network bandwidth channels.

In addition, the switches support 802.1x authentication, which is used in conjunction with a RADIUS server to require a username and password before access to the network is allowed. Granular management can even be based on the MAC Address, for those clients that are not 802.1x-compliant. Other security features include an access control list, which restricts network access through such means as a MAC address, IP, UDP/TCP, and even VLAN ID. Future firmware downloads will also include time-based ACLs, especially useful for educational infrastructures that provide time-limited access.

Advanced Enterprise Features

With voice, data and video often on the same network, today's businesses often need to prioritize network traffic. The DGS-3100 family meets this challenge with a variety of advanced features, beginning with 4 queue 802.1p QoS. This feature allows the administrator to prioritize traffic based on IP or MAC address, for voice data that is always clear and jitter free. Video traffic can also be assigned as a priority.

The switches also utilize IGMP Snooping to analyze data packets and forward them through only where appropriate. This means that multicast packets, such as streaming audio and video or other bandwidth hogs, get through without creating extra network congestion. This smart packet management also reduces the workload of other devices further down the line, making your entire network function more efficiently. With these advanced features used in conjunction with 802.1Q VLANs, Quality of Service and greater security can be achieved on your network.

The DGS-3100 family also supports 802.1Q VLANs, for greater QoS and security on the most data-laden networks. IPv6 traffic will move even more efficiently with MLD Snooping. DGS-3100 also supports IEEE 802.1AB LLDP, so administrators can easily find other devices attach to the network and manage them.



Power over Ethernet

In networks where Power over Ethernet (PoE) is required, the DGS-3100-24P and DGS-3100-48P provide power to all of your PoE products on every port. A total power budget of up to 370 Watts of PoE power, up to 15.4 Watts per port, ensures that all of your PoE access points, cameras, phones and other devices will get all the power they need. A generous PoE budget is important when using devices with greater power demands or those further from the switch, as distance can increase the PoE power draw. D-Link can even supply power and add PoE operability to non-PoE products with the DWL-P50 adapter.

User-Friendly Design

The DGS-3100 family supports a variety of user-friendly features to make switch management easier than ever. SNMP v1/2/3 support enables the switches to be polled for valuable status information and send traps on abnormal events. This sharing of vital management information saves time and money. Other user-friendly features include 802.1d Spanning Tree and RMON, for remote network monitoring.

All interaction with the DGS-3100 switches can be performed through an intuitive browser-based Graphical User Interface (GUI) or an industry-standard Command Line Interface (CLI), protected through SSL and SSH encryptions. The D-Link GUI is easier to use than ever before, making tasks that were once complicated require less of your time and fewer resources. This makes the entire DGS-3100 family of switches the ideal solution for your networking environment.

Technical Specifications

Interface	DGS-3100-24	DGS-3100-24P	DGS-3100-48	DGS-3100-48P
10/100/1000BASE-T Ports	24	24	48	48
Combo SFP Slots	4	4	4	4
RS-232 Console Port	Yes	Yes	Yes	Yes
Optional Redundant Power Supply	DPS-200	DPS-600	DPS-500	DPS-600

Stacking

HDMI Stacking Ports	2	2	2	2
Number of Unit Per Stack (Max)	6	6	6	6
Stacking Bandwidth	Up to 10Gbps with Linear, Topology Up to 20Gbps with Bi-Directional Redundant Ring Topology			

Power Over Ethernet

802.3af PoE Support	-	Per 10/100/1000BASE-T Port	-	Per 10/100/1000BASE-T Port
Power Provision Per Port (Max.)	-	15.4W	-	15.4W
System PoE Power Budget	-	370W	-	370W
Auto Power/Device Discovery	-	Yes	-	Yes
Over-Current Protection	-	Yes	-	Yes

Performance

Switch Capacity	68Gbps	68Gbps	116Gbps	116Gbps
64-Byte Packet Forwarding Rate	50.6Mpps	50.6Mpps	86.3Mpps	86.3Mpps
MAC Address Table Size	8K	8K	8K	8K
Packet Buffer	768KB	768KB	1.5MB	1.5MB
Jumbo Frame (Max.)	10,240 Bytes	10,240 Bytes	10,240 Bytes	10,240 Bytes



Physical & Environmental	DGS-3100-24	DGS-3100-24P	DGS-3100-48	DGS-3100-48P
Power Input	100 to 240 VAC, 50 to 60 Hz Internal Universal Power Supply			
Power Consumption (Max)	49.4W	555.5W	102.6W	619.3W
Dimensions	17.3" x 8.3" x 1.7" (440mm x 210mm x 44mm)	17.3" x 12.2" x 1.7" (440mm x 310mm x 44mm)	17.3" x 12.2" x 1.7" (440mm x 310mm x 44mm)	17.3" x 16.9" x 1.7" (440mm x 430mm x 44mm)
	19-inch Rack Mount Width, 1U Height			
Weight	6.7 lbs (3.0 kg)	12.3 lbs (5.6 kg)	12.1 lbs (5.5 kg)	16.4 lbs (7.4 kg)
Heat Dissipation	168.5 BTU/hr	1895.5 BTU/hr	350.2 BTU/hr	2113.2 BTU/hr
Operating Temperature	32°F to 104°F (0°C to 40°C)			
Storage Temperature	14°F to 158°F (-10°C to 70°C)			
Operating Humidity	10% ~ 90% Non-condensing			
Storage Humidity	5% ~ 90% Non-condensing			
EMI/EMC	FCC Class A, ICES-003 Class A, CE, C-Tick, VCCI Class A			
Safety	cUL, CB			
Software Functions				
L2 Features	<ul style="list-style-type: none"> + IGMP snooping v1, v2 <ul style="list-style-type: none"> - Up to 256 IGMP snooping groups - Up to 64 static multicast address - IGMP Per VLAN - IGMP snooping fast leave + MLD snooping + Spanning Tree <ul style="list-style-type: none"> - 802.1D STP - 802.1w RSTP - 802.1s MSTP 		<ul style="list-style-type: none"> + STP Loopback Detection + BPDU filtering + 802.3ad Link Aggregation: max. 32 groups per device, 8 ports per group + Mirroring <ul style="list-style-type: none"> - One-to-one mode - Many-to-one mode 	
VLAN	<ul style="list-style-type: none"> + 802.1Q + VLAN Groups: total 256 VLAN groups, max. 256 static - VLAN groups, max. 256 dynamic VLAN groups 		+ GVRP	
ACL (Access Control List)	<ul style="list-style-type: none"> + Maximum Mask/Profiles: 15 profiles, 240 rules per profile + Time Based ACL 		<ul style="list-style-type: none"> + Content-based ACL according to: <ul style="list-style-type: none"> - 802.1p priority - MAC address - IP address - L4 Protocol type - VID - Ether type - DSCP - TCP/UDP port number 	
QoS (Quality of Service)	<ul style="list-style-type: none"> + Priority queues number: 4 queues + 802.1p standard + Queue handling: WRR/Strict/ST+WRR modes + Bandwidth Control: <ul style="list-style-type: none"> - Port and Flow based bandwidth control - Granularity: down to 64Kbps 		<ul style="list-style-type: none"> + Class of Service based on: <ul style="list-style-type: none"> - 802.1p priority - Ether type - DSCP - TCP/UDP port number - VLAN MAC address - IP address - Protocol type 	
Security	<ul style="list-style-type: none"> + D-Link Safeguard Engine + SSH v2 + SSL v3 		<ul style="list-style-type: none"> + Port Security: 16 MACs per port + Broadcast Storm Control 	
AAA	<ul style="list-style-type: none"> + Port/MAC-Based 802.1X Authentication + Guest VLAN + MAC-Based Access Control 		<ul style="list-style-type: none"> + TACACS+ Auth. for Mgmt Access + RADIUS Auth. for Management Access 	



Management	<ul style="list-style-type: none"> + Web-based GUI + CLI + Device Locator + Telnet Server + Telnet Client + TFTP Client + SNMP v1, v2c, v3 + SNMP Traps + Dual Image Support 	<ul style="list-style-type: none"> + System Log + RMON v1 + BootP/DHCP Client + DHCP Auto-configuration + SNTP + Port Description + CPU Monitoring + Web GUI Traffic Monitoring + LLDP
MIB	<ul style="list-style-type: none"> + MIB II (RFC 1213) + Bridge MIB (RFC 1493) + SNMP v2 MIB (RFC 1907) + RMON MIB (RFC 1757, 2819) + Ether-like MIB (RFC 2021) 	<ul style="list-style-type: none"> + 802.1p MIB (RFC 1643, 2358, 2665) + IF MIB (RFC 2674) + RADIUS Authentication Client MIB (RFC 2233, 2863) + RADIUS Accounting Client MIB (RFC 2618) + Private MIB

Warranty Information

Warranty	Limited Lifetime ²
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Ordering Information

<i>Part Number</i>	Description
DGS-3100-24	Managed 24-Port Gigabit Stackable L2 Switch, 4 Combo SFP, 20Gig Stacking
DGS-3100-24P	Managed 24-Port Gigabit Stackable L2 PoE Switch, 4 Combo SFP, 20Gig Stacking
DGS-3100-48	Managed 48-Port Gigabit Stackable L2 Switch, 4 Combo SFP, 20Gig Stacking
DGS-3100-48P	Managed 48-Port Gigabit Stackable L2 PoE Switch, 4 Combo SFP, 20Gig Stacking
DEM-211	100BASE-FX Multimode LC SFP Transceiver, Up to 2Km
DEM-310GT	1000BASE-LX SFP Module, Up to 10Km
DEM-311GT	1000BASE-SX SFP Module, Up to 550m
DPS-200	Redundant Power Supply Unit, 60 Watt RPSU (for DGS-3100-24)
DPS-500	Redundant Power Supply Unit 140 Watt RPSU (for DGS-3100-48)
DPS-600	Redundant Power Supply Unit 500 Watt RPSU (for DGS-3100-24P and DGS-3100-48P)

¹ Available only in the USA and Canada.

All references to speed are for comparison purposes only. Product specifications, size and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.