Flexible High Port Densities Choices

- 8, 24 or 48 10/100/1000BASE-T Ports
- 4 Combo SFP or 16 Dedicated SFP for Fiber Gigabit and 100BASE-FX Links
- 802.3af Power Over Ethernet Support[1]

High Bandwidth Physical Stacking

- 2 HDMI Ports Per Switch
- Up to 20 Gbps Full-Duplex Stacking Bandwidth
- Up to 6 Units (288 Gigabit Ports) Per Stack
- Linear or Fault Tolerant Ring Stacking Topology

Security

- Port Security
- ACL
- ARP Spoofing Prevention
- 802.1X Port-based/MAC-based Access Control
- Guest VLAN
- Traffic Segmentation
- 256 VLAN Groups
- D-Link Safeguard Engine

Traffic Monitoring & Bandwidth Control

- Port Mirroring
- Granular Bandwidth Control (Down to 64Kbps Per Port/Flow)
- Broadcast Storm Control

Resilience/Performance

- 802.1d, 802.1w and 802.1s Spanning Tree
- 802.3ad Link Aggregation (Port Trunks)
- Trunking/Mirroring across Multiple Units Within a Stack
- Jumbo Frames Up to 10,240 Bytes

Configuration/Management

- Web-based GUI
- Command Line Interface (CLI)
- Telnet Client/Server
- LLDP
- SNMP v1, v2c, v3 & RMON v1
- RADIUS/TACACS+ Authentication for Management Access
- SSH v1, v2, SSL v3

[1] Available on DGS-3100-24P and DGS-3100-48P only.

Managed L2 Stackable Gigabit Switches

The DGS-3100 series consists of managed Layer 2 Gigabit stackable switches designed as feature-rich, low-cost devices in the entry-level network management category. These switches provide wide-ranging port densities and up to 20 Gbps physical stacking. Outstanding features include scalable expansion, SFP fiber links, comprehensive network security, granular bandwidth control and extensive network management. The DGS-3100 series support a smart fan feature, which has heat sensors and a fan that maintains the temperature of the device for optimal performance. Small to medium businesses (SMBs) looking for a flexible, advanced and affordable solution can deploy these switches to set up Gigabit connections to their desktops or build up a company-wide network backbone.

Physical Stacking
Each of the DGS-3100 series switches comes with 2 dedicated HDMI stacking ports, each providing 5 Gbps stacking bandwidth (max 20 Gbps for the overall system in full-duplex mode, bi-directional). Up to 6 units, 288 10/100/1000Mbps ports can be stacked up in a linear or fault-tolerant Ring topology. A stack can consist of 10/100/1000Mbps switches, 10/100/1000Mbps PoE switches, or a combination of both types, with up to 96 SFP fiber links. Units can be gradually added to the stack to accommodate growth, while expansion beyond a single stack is possible using Gigabit port trunks between stacks, or from stack to network backbone and server paths.

Security & Availability
The DGS-3100 stack includes many security features including Access Control List (ACL), 802.1X Port-Based/MAC-Based Access Control and 802.1X Guest VLAN to make network access available to authorized users. To prevent malicious attacks and virus/worm affection from overwhelming the switch with unnecessary workload, the DGS-3100 series provides the D-Link Safeguard Engine function to increase the switch's reliability and availability.

Resilience/Performance Enhancement
To enhance network resilience, the DGS-3100 stack provides Spanning Tree protocols, including 802.1D, 802.1w and 802.1s for redundant bridge paths. 802.3ad Link Aggregation provides the aggregated bandwidth between switches or server. For Quality of Service (QoS), it supports 802.1p Priority Queues and packet classification based on TOS, DSCP, MAC, IP, VLAN ID and L4 protocol types, enabling Internet voice, video and streaming media applications to run smoothly.

Traffic Monitoring/Bandwidth Control
Network administrators can define throughput levels for each port to manage bandwidth. The bandwidth limiting feature provides fine granularity with the ability to define limits down to 64Kbps segments. Broadcast storm control can reduce the level of damage that a virus attack can do to the network. The switch provides IGMP snooping and MLD snooping to control multicast transmission, and port mirroring to facilitate diagnostics.

Management
The DGS-3100 stack supports standard-based management protocols such as SNMP, RMON, Telnet, Web GUI and SSH/SSL security authentication. With DHCP autoconfiguration, the administrator can pre-set configurations and save them in a TFTP server, and individual switches can boot their IP from the server and load in the pre-set configurations.

D-Link Green Technology
D-Link is striving to take the lead in developing innovative and power-saving technology that does not sacrifice operational performance or functionality. The DGS-3100 Series implement D-Link Green technology, which includes a power-saving mode, reduced power consumption, reduced heat dissipation, and cable length detection. The power saving feature automatically powers down ports that have no link or link partner.

Technical Specifications		DGS-3100-24TG	DGS-3100-24	DGS-3100-24P
Interface	10/100/1000BASE-T Ports	8	24	24
	Combo SFP	-	4	4
	Dedicate SFP	16	-	-
	RS-232 Console Port	Yes	Yes	Yes
	Optional Redundant Power Supply	DPS-200	DPS-200	DPS-600
Stacking	HDMI Stacking Ports	2	2	2
	Number of Unit Per Stack (Max)	6	6	6
	Bandwidth Topology	Up to 10 Gbps (Linear Topology) Up to 20 Gbps (Bi-Directional Redundant Ring Topology)		
Power Over Ethernet	802.3af PoE Support	-	-	Per 10/100/1000BASE-T Port
	Power Provision Per Port (Max.)	-	-	15.4 W
	System PoE Power Budget	-	-	370 W
	Auto Power/Device Discovery	-	-	√
	Over-Current Protection	-	-	√
Performance	Switch Capacity	68 Gbps	68 Gbps	68 Gbps
	64-Byte Packet Forwarding Rate	50.60 Mpps	50.60 Mpps	50.60 Mpps
	MAC Address Table Size	8K	8K	8K
	Packet Buffer	768 KB	768 KB	768 KB
	Jumbo Frame (Max.)	10,240 Bytes	10,240 Bytes	10,240 Bytes
Physical & Environmental	Power Input	100 to 240 V AC, 50-60 Hz Internal		
	Power Consumption	26.5 W[2]	37.9 W[2]	482 W
	Dimensions	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 inches)	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 inches)	440 x 310 x 44 mm (17.32 x 12.20 x 1.73 inches)
	Weight	2.95 kg (6.50 pounds)	3.04 kg (6.70 pounds)	5.58 kg (12.30 pounds)
	Heat Dissipation	90.4 BTU/hr[2]	129.2 BTU/hr[2]	1643.6 BTU/hr
	MTBF	195,655 hrs	212,377 hrs	117,136 hrs
	Operating Temperature	0 to 45 °C (32 to 113 °F)	0 to 45 °C (32 to 113 °F)	0 to 40 °C (32 to 104 °F)
	Storage Temperature	-10 to 70 °C (-14 to 158 °F)		
	Operating Humidity	10% to 90% non-condensing		
	Storage Humidity	5% to 90% non-condensing		
	EMI/EMC	FCC Class A, ICES-003 Class A, CE, C-Tick, VCCI Class A		
	Safety	cUL, CB		

[2] The value is based on the B1 hardware version.

Technical Specifications		DGS-3100-48	DGS-3100-48P
Interface	10/100/1000BASE-T Ports	48	48
	Combo SFP	4	4
	Dedicate SFP	-	-
	RS-232 Console Port	√	√
	Optional Redundant Power Supply	DPS-500	DPS-600
Stacking	HDMI Stacking Ports	2	2
	Number of Unit Per Stack (Max)	6	6
	Bandwidth Topology	Up to 10 Gbps (Linear Topology) Up to 20 Gbps (Bi-Directional Redundant Ring Topology)	
Power Over Ethernet	802.3af PoE Support	-	Per 10/100/1000BASE-T Port
	Power Provision Per Port (Max.)	-	15.4W
	System PoE Power Budget	-	370W
	Auto Power/Device Discovery	-	√
	Over-Current Protection	-	√
Performance	Switch Capacity	116 Gbps	116 Gbps
	64-Byte Packet Forwarding Rate	86.31Mpps	86.31 Mpps
	MAC Address Table Size	8K	8K
	Packet Buffer	1.5 MB	1.5 MB
	Jumbo Frame (Max.)	10,240 Bytes	10,240 Bytes
Physical & Environmental	Power Input	100 to 240 VAC, 50-60 Hz Internal	
	Power Consumption	77.4 W[2]	539 W
	Dimensions	440 x 310 x 44 mm (17.32 x 12.20 x 1.73 inches)	440 x 430 x 44 mm (17.32 x 16.92 x 1.73 inches)
	Weight	5.50 kg (12.13 pounds)	7.43 kg (16.38 pounds)
	Heat Dissipation	263.9 BTU/hr[2]	1838 BTU/hr
	MTBF	103,924 hrs	96,648 hrs
	Operating Temperature	0 to 45 °C (32 to 113 °F)	0 to 40 °C (32 to 104 °F)
	Storage Temperature	-10 to 70 °C (-14 to 158 °F)	
	Operating Humidity	10% to 90% non-condensing	
	Storage Humidity	5% to 90% non-condensing	
	EMI/EMC	FCC Class A, ICES-003 Class A, CE, C-Tick, VCCI Class A	
	Safety	cUL, CB	

[2] The value is based on the B1 hardware version

Software Features

L2 Features
- MAC Address Table: 8K
- Flow Control
    - 802.3x Flow Control
    - HOL Blocking Prevention
- Jumbo Frames up to 10,240 Bytes
- IGMP Snooping
    - IGMP v1/v2 Snooping
    - Support 256 groups
    - IGMP Snooping Fast Leave
- MLD Snooping
    - MLD v1/v2 Snooping
    - Support 128 groups
- Spanning Tree
    - 802.1D STP
    - 802.1w RSTP
    - 802.1s MSTP
    - Per port/per device BPDU filtering
- Loopback Detection
- 802.3ad Link Aggregation
    - Max. 32 Groups per device/8 Ports per group
- Port Mirroring
    - Support One-to-One
    - Many-to-One

VLAN
- LAN Group
    - Max. 256 Static VLAN Groups
- 802.1Q Tagged VLAN
- GVRP
    - Max. 256 Dynamic VLAN Groups
- VLAN Trunking

QoS (Quality of Service)
- 802.1p Class of Service
    - 4 queues
- Queue Handling
    - Strict
    - Weighted Round Robin (WRR)
    - Strict + WRR
- CoS based on
    - Switch Port
    - VLAN ID
    - 802.1p Priority Queues
    - MAC Address
    - Ether Type
    - IPv4 Address

- DSCP
- TCP/UDP Port
- Bandwidth Control
    - Port-based (Ingress, min. granularity 3500Kbps; Egress, min. granularity 64Kbps)
    - Flow-based (Ingress, min. granularity 64Kbps)

Access Control List (ACL)
- Max. 15 profiles
- Max. 240 rules shared by all profiles
- ACL Based on
    - 802.1p Priority
    - VLAN ID
    - Ether Type
    - MAC Address
    - IPv4 Address
    - DSCP
    - Protocol Type
    - TCP/UDP Port Number
- Time-based ACL

Security
- SSH v2
- SSL v3
- ARP Spoofing Prevention
- Port Security: up to 16 MAC address per port
- Broadcast/Multicast/Unicast Storm Control
- D-Link Safeguard Engine

AAA
- Microsoft® NAP
    - Support DHCP NAP
- 802.1X
    - Port-Based Access Control
- MAC-Based Access Control (MAC)
- Guest VLAN
- Authentication for Management Access Support
    - RADIUS/TACACS+

D-Link Green
- Power Savings by Link Status
- Power Savings by Cable Length

Management
- Web-based GUI
- Command Line Interface (CLI)
- Telnet Server/Client
- TFTP Client

- LLDP
- DHCP Relay Option 82
- SNMP v1/v2c/v3
- SNMP Trap
- System Log
- RMON v1
    - Support 1,2,3,9 Groups
- BootP/DHCP Client
- DHCP Auto-Configuration
- Dual Image
- CPU Monitoring
- SNTP
- Trusted Host
- Debug Command

MIB/IETF Standard
- RFC1213 MIB-II
- RFC1493 Bridge MIB
- RFC1907 SNMPv2 MIB
- RFC1757, 2819 RMON MIB
- RFC1643,2358,2665 Ether-like MIB
- RFC2674 802.1p MIB
- RFC2233, 2863 IF MIB
- RFC2618 RADIUS Authentication Client MIB
- RFC2925 Ping & Traceroute MIB
- RFC768 UDP
- RFC783 TFTP
- RFC791 IP
- vRFC792 ICMP
- RFC793 TCP
- RFC826 ARP
- RFC854 Telnet
- RFC951, 1542 BOOTP
- RFC2068 HTTP
- RFC2138 RADIUS
- RFC2139,2866 RADIUS Accounting
- RFC1492 TACACS
- RFC1157 SNMPv1
- RFC1901, 1908 SNMPv2c
- RFC2570,2575 SNMPv3
- RFC2598 DiffServ Expedited Forwarding
- D-Link Private MIB

Optional Products

Optional SFP Transceivers

DEM-310GT	(1000BASE-LX, Single-mode, 10 km)
DEM-311GT	(1000BASE-SX, Multi-mode, 550 m)
DEM-312GT2	(1000BASE-SX, Multi-mode, 2 km)
DEM-314GT	(1000BASE-LX, Single-mode, 50 m)
DEM-315GT	(1000BASE-LX, Single-mode, 80 m)
DEM-210	(100BASE-FX, Single-mode, 15 km)
DEM-211	(100BASE-FX, Multi-mode, 2 km)
DEM-220T	(100BASE-BX, Single-mode, 20 km)
DEM-220R	(100BASE-BX, Single-mode, 500 m)

Optional WDM SFP Transceivers

DEM-330T	1000BASE-LX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 10 km
DEM-330R	1000BASE-LX, Wavelength Tx:1310 nm Rx:1550 nm, Single-mode, 10 km
DEM-331T	1000BASE-LX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 40 km
DEM-331R	1000BASE-LX, Wavelength Tx:1310 nm Rx:1550 nm, Single-mode, 40 km

Optional Redundant Power Supply

DPS-200	60-Watt Redundant Power Supply
DPS-500	140-Watt Redundant Power Supply
DPS-600	500-Watt Redundant Power Supply
DPS-800	2-slot redundant power supply chassis
DPS-900	8-slot redundant power supply chassis

Management Software

DV-600S	D-View 6.0 Network Management System (Standard Edition)
DV-600P	D-View 6.0 Network Management System (Professional Edition)