D-Link®
Building Networks for People

DGS-1100 Series
Gigabit Ethernet Switches

Features

Physical
- Various selection of port counts, with or without PoE and fiber support
- Fanless design for silent operation (Non-PoE models)

Green Technology
- Link Status detection
- IEEE 802.3az compliant
- Time-based PoE (DGS-1100-24P only)

Advanced Features
- IGMP Snooping
- Bandwidth Control
- 802.1Q VLAN for traffic segregation
- Port-based VLAN
- 802.1p
- Surveillance VLAN
- Voice VLAN

Easy Troubleshooting
- Loopback Detection with auto disable
- Cable Diagnostics

Management Features
- Client-based utility or Web-based GUI
- Built-in SNMP MIB[1]

D-Link's DGS-1100 Series provide an affordable solution for SOHOs and Small and Medium Businesses as well as enterprise deployment, such as in branch offices and meeting rooms that require simple network management.

D-Link Green/Power Saving Performance

Compliant with IEEE802.3az Energy Efficient Ethernet, these switches consume less energy by cutting down on power consumption when port utilization is low. By deploying IEEE devices, users can cut operating costs and even cut down on necessary cooling equipment, helping small and medium-sized businesses stay within their budgets. The DGS-1100 Series also features D-Link Green Technology that helps save energy automatically. The switches monitor the link status of every port and will drastically reduce power consumption when a port link is down.

Easy to deploy

The DGS-1100 Series supports an intuitive Client-based utility (SmartConsole Utility or D-Link Network Assistant Utility) and a web-based management interface. The Client-based Utility allows customers to discover all switches in the D-Link Smart Switch family within the same L2 network segment. With this utility, users do not need to change the IP address of their PC, and this also makes initial setup of the Smart Switches quick and easy. Switches within the same L2 network segment that are connected to the user's PC are displayed on-screen for instant access. This allows for extensive switch configuration and basic setup of discovered devices, including password changes and firmware upgrades. The graphic web-based management interface provides a user-friendly interface that enables network administrators to remotely control their network down to the port level.

Auto Surveillance VLAN and Bandwidth Control

The DGS-1100 Series supports Surveillance VLAN for video surveillance deployment. Surveillance VLAN gives video traffic high priority and an individual VLAN, guaranteeing the quality of surveillance traffic through a single DGS-1100 switch, thus sparing businesses the added expenses required for dedicated hardware and facilities. Bandwidth Control can reserve bandwidth on a per port basis for important functions that require larger bandwidth or might have high priority.

Advanced Features

DGS-1100 Series is equipped with advanced security features such as Static MAC, Storm Control, and IGMP Snooping. Static MAC allows users to create a MAC whitelist for specific ports, helping administrators limit network access to authorized devices only. Storm Control monitors broadcast, multicast, or unknown unicast traffic and will start blocking or discarding packets which could flood the network when the defined threshold is exceeded. IGMP Snooping is able to reduce the loading of L3 multicast routers and save bandwidth in network throughput.

Easy Troubleshooting

The DGS-1100 Series features Loopback Detection and Cable Diagnostics to help network administrators find and solve network problems quickly and easily. Loopback Detection is used to detect loops created by a specific port and automatically shuts down the affected port. Cable Diagnostics helps network administrators quickly examine the quality of the copper cables, recognize the cable type, and detect cable errors.

PoE Support

The DGS-1100-24P and DGS-1100-08P provide support for Power over Ethernet (PoE), making deployment with IP cameras, VoIP phones, and access points much easier. Power cords will become a thing of the past, as the DGS-1100-24P complies with the 802.3af/802.3at standard for PoE and supports a 100 watt power budget. The DGS-1100-08P complies with the 802.3af standard for PoE and supports a 64 watt power budget. The Gigabit Ethernet ports mean that even high-quality video is no problem.

Technical Specifications

General	DGS-1100-05	DGS-1100-08	DGS-1100-08P
Hardware Version	• A1		
Size	• Desktop	• Desktop	• Desktop
Number of Ports	• 5 10/100/1000 Mbps	• 8 10/100/1000 Mbps	• 8 10/100/1000 PoE Mbps
Port Functions	• IEEE 802.3 compliant • IEEE 802.3u compliant • IEEE 802.3ab compliance • IEEE802.3af (Only DGS-1100-08P) • Auto-negotiation	• Supports half/full-duplex operation (half at 10/100 Mbps, full at 1000 Mbps) • Auto MDI/MDIX • IEEE 802.3x Flow Control supports Full-Duplex mode • IEEE 802.3az compliant	

Performance	DGS-1100-05	DGS-1100-08	DGS-1100-08P
Switching Capacity	• 10 Gbps	• 16 Gbps	• 16 Gbps
Maximum Forwarding Rate	• 7.44 Mpps	• 11.9 Mpps	• 11.9 Mpps
MAC Address Table Size	• 8K Entries		
Packet Buffer	• 1 Mbits	• 2 Mbits	• 2 Mbits
Flash Memory	• 2 Mbytes		

PoE	DGS-1100-05	DGS-1100-08	DGS-1100-08P
PoE Standard	-	-	• 802.3af
PoE Capable Ports	-	-	• Port 1 to 8 (15.4 W Max per PoE port)
PoE Power Budget	-	-	• 64 W

Power Consumption	DGS-1100-05	DGS-1100-08	DGS-1100-08P
Standby Mode	• 0.99 watts	• 1.23 watts	• 2.0 watts
Maximum Power Consumption	• 3.35 watts	• 4.89 watts	• 78.8 watts (PoE on) • 5.2 watts (PoE off)

Physical	DGS-1100-05	DGS-1100-08	DGS-1100-08P
Power Input	• 100 to 240 V AC	• 50 to 60 Hz External Power Adapter	
MTBF	• 532,838 hours	• 503,585 hours	• 708,219 hours
Acoustics	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)
Heat Dissipation	• 11.43 BTU/hr	• 16.68 BTU/hr	• 268.87 BTU/hr
Weight	• 0.32 kg (0.705 pounds)	• 0.42 kg (0.925 pounds)	• 0.706 kg (1.553 pounds)
Dimensions	• 141 x 85 x 28 mm (5.55 x 3.35 x 1.1 inches)	• 171 x 98 x 28 mm (6.7 x 3.85 x 1.1 inches)	• 190 x 120 x 38 mm (7.4 x 4.7 x 1.1 inches)
Ventilation	• Fanless		
Operating Temperature	• 0 to 40 ℃ (32 to 104 ℉)		
Storage Temperature	• -10 to 70 ℃ (14 to 158 ℉)		
Operating Humidity	• 10% to 95% non-condensing		
Storage Humidity	• 5% to 95% non-condensing		
EMI	• FCC Class A, CE Class A, VCCI Class A, C-Tick		
Safety	• cUL, CE LVD		

Technical Specifications

General	DGS-1100-16	DGS-1100-18	DGS-1100-24	DGS-1100-26	DGS-1100-24P
Hardware Version	• B1/B2				
Size	• 11-inch Desktop/Rackmount Size, 1U Height				
Number of Ports	• 16 10/100/1000 Mbps	• 16 10/100/1000 Mbps • 2 SFP 1000 Mbps	• 24 10/100/1000 Mbps	• 24 10/100/1000 Mbps • 2 SFP 1000 Mbps	• 24 10/100/1000 Mbps (Ports 1 to 12 are PoE)
Port Functions	• IEEE 802.3 compliant • IEEE 802.3u compliant • IEEE 802.3ab compliance • IEEE802.3af/802.3at (DGS-1100-24P Ports 1 through 12) • IEEE 802.3az compliant		• Auto-negotiation • Auto MDI/MDIX • IEEE 802.3x Flow Control supports Full-Duplex mode • Supports half/full-duplex operation (full/half at 10/100 Mbps, full at 1000 Mbps)		

Performance	DGS-1100-16	DGS-1100-18	DGS-1100-24	DGS-1100-26	DGS-1100-24P
Switching Capacity	• 32 Gbps	• 36 Gbps	• 48 Gbps	• 52 Gbps	• 48 Gbps
Maximum Forwarding Rate	• 23.81 Mpps	• 26.79 Mpps	• 35.71 Mpps	• 38.69 Mpps	• 35.71 Mpps
MAC Address Table Size	• 8K Entries	• 16K Entries	• 8K Entries	• 16K Entries	• 8K Entries
Packet Buffer	• 512 KBytes	• 1.5 MBytes	• 512 KBytes	• 1.5 MBytes	• 512 KBytes
Flash Memory	• 8 Mbytes				

PoE	DGS-1100-16	DGS-1100-18	DGS-1100-24	DGS-1100-26	DGS-1100-24P
PoE Standard	-	-	-	-	• 802.3af/ 802.3at
PoE Capable Ports	-	-	-	-	• Port 1 to 12
PoE Power Budget	-	-	-	-	• 100 W (30W max. per PoE port)

Power Consumption	DGS-1100-16	DGS-1100-18	DGS-1100-24	DGS-1100-26	DGS-1100-24P
Standby Mode	• 7.96 watts	• 10.83 watts	• 10.37 watts	• 12.94 watts	• 12.94 watts
Maximum Power Consumption	• 9.31 watts	• 14.88 watts	• 13.94 watts	• 19.04 watts	• 128.3 watts (PoE on) • 21.24 watts (PoE off)

Physical	DGS-1100-16	DGS-1100-18	DGS-1100-24	DGS-1100-26	DGS-1100-24P
Power Input	• 100 to 240 V AC		• 50 to 60 Hz Internal Power Supply		
MTBF	• 2,827,541 hours	• 2,671,256 hours	• 2,406,109 hours	• 2,277,645 hours	• 563,292 hours
Acoustics	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)	• B1: 44.5 dB(A) • B2: 27.6 dB(A)
Heat Dissipation	• 31.77 BTU/hr	• 50.77 BTU/hr	• 47.57 BTU/hr	• 64.97 BTU/hr	• 437.85 BTU/hr
Weight	• 1.53 kg (3.37 lbs)	• 1.56 kg (3.44 lbs)	• 1.63 kg (3.59 lbs)	• 1.66 kg (3.66 lbs)	• 2.15 kg (4.74 lbs)
Dimensions	• 280x 180x 44 mm (11.02 x 7.08 x 1.73 inches)	• 280x 180x 44 mm (11.02 x 7.08 x 1.73 inches)	• 280x 180x 44 mm (11.02 x 7.08 x 1.73 inches)	• 280x 180x 44 mm (11.02 x 7.08 x 1.73 inches)	• 280x 230x 44 mm (11.02 x 9.05 x 1.73 inches)
Ventilation	• Fanless	• Fanless	• Fanless	• Fanless	• 1 Fan
Operating Temperature	-5 to 50 °C (23 to 122 °F)				
Storage Temperature	-40 to 70 °C (-40 to 158 °F)				
Operating Humidity	0% to 95% non-condensing				
Storage Humidity	0% to 95% non-condensing				
EMI	FCC Class A, CE Class A, VCCI Class A, C-Tick, BSMI, CCC				

Software Features (DGS-1100-05/08/08P)

VLAN	• Port-based VLAN
	• 802.1Q Tagged VLAN
	• Surveillance VLAN
	• Voice VLAN
	• Management VLAN
		• VLAN Group
		  • Supports 32 static VLAN groups
		  • Max. 4094 VIDs

L2 Features	• Flow Control
	  • 802.3x Flow Control
	  • HOL Blocking Prevention
	• Jumbo Frames up to 9216 Bytes (DGS-1100-05/08/08P)
	• IGMP Snooping
	  • IGMP v1/v2 Snooping
	  • Supports 32 Groups
	• Static Trunk
	  • DGS-1100-05: 1 group, 2-4 ports per group
	  • DGS-1100-08/08P: 2 groups, 2-4 ports per group
		• Loopback Detection
		• Cable Diagnostics
		• Port Mirroring
		  • One-to-One
		  • Many-to-One (DGS-1100-16/24)
		• Statistics
		  • Tx Ok
		  • Tx Error
		  • Rx Ok
		  • Rx Error

Quality of Service (QoS)	• 802.1p Quality of Service
	• 4 queues per port
	• Queue Handling
	  • Strict
	  • Weighted Round Robin (WRR)
		• Bandwidth Control
		  • DGS-1100-05/08/08P: Port-based (Ingress/Egress, min. granularity 8 Kb/s)
		  • DGS-1100-16/24: Port-based (Ingress/Egress, min. granularity 64 Kb/s)

Security	• Static MAC Address
	  • DGS-1100-05/08/08P: up to 32 entries
	  • DGS-1100-16/24: up to 128 entries
		• Broadcast/Multicast/Unknown Unicast Storm Control

Management	• Web-based GUI (Supports IPv4)	• Client-based Utility (SmartConsole Utility)

D-Link Green	• Power Saving by
	  • Link Status
	  • Cable Length
		• Compliant with IEEE 802.3az Energy Efficient Ethernet
		• Compliant with RoHS 6

RFC Standard List	• RFC 768 UDP • RFC 791 IP • RFC 792 ICMP • RFC 793 TCP • RFC 826 ARP	• RFC 951 BootP Client • RFC 1542 BootP/DHCP client • RFC 1945 HTTP/1.0 • RFC 2647 802.1p • RFC 2236, 4451 IGMP Snooping

Software Features (DGS-1100-16/18/24/26/24P)

VLAN	• Port-based VLAN
	• 802.1Q Tagged VLAN
	• Auto Surveillance VLAN
	• Voice VLAN
	• Management VLAN
		• Asymmetric VLAN
		• VLAN Group
		  • Supports 128 static VLAN groups
		  • Max. 4094 VIDs

L2 Features	• Flow Control
	  • 802.3x Flow Control
	  • HOL Blocking Prevention
	• Jumbo Frames up to 9216 Bytes
	• IGMP Snooping
	  • IGMP v1/v2/v3 awareness Snooping
	  • Supports 64 Groups
	  • IGMP Snooping Querier
	• 802.3ad Link Aggregation:
	  • DGS-1100-16: Support max 8 groups per device and 8 ports per group
	  • DGS-1100-18: Support max 9 groups per device and 8 ports per group
	  • DGS-1100-24P: Support max 12 groups per device and 8 ports per group
	  • DGS-1100-26: Support max 13 groups per device and 8 ports per group
		• Loopback Detection
		• Cable Diagnostics
		• LLDP
		• Port Mirroring
		  • One-to-One
		  • Many-to-One
		• Statistics
		  • Tx Ok
		  • Tx Error
		  • Rx Ok
		  • Rx Error
		• Spanning Tree Protocol
		  • 802.1D STP
		  • 802.1w RSTP

Quality of Service (QoS)	• 802.1p Quality of Service
	• 4 queues per port
	• Queue Handling
	  • Strict
	  • Weighted Round Robin (WRR)
		• Port-based Bandwidth Control (Rate Limiting)
		  • Ingress : 8Kbps, Egress : 64Kbps

Security	• D-Link Safeguard • Traffic Segmentation • Broadcast/Multicast/Unknown Unicast Storm Control	• DoS Attack Prevention • SSL
Management	• Web-based GUI (Supports IPv4/IPv6)	• Client-based Utility (D-Link Network Assistant Utility)

Green Technology	• Power Saving by
	  • Link Status
	  • LED Shut-Off
	  • Port Shut-Off
	  • System Hibernation
		• Compliant with IEEE 802.3az Energy Efficient Ethernet

MIB/RFC Standards	• RFC 768 UDP • RFC 791 IP • RFC 792 ICMP • RFC 793 TCP • RFC 826 ARP • RFC 1213 MIB II • RFC1493 Bridage MIB • RFC1907 SNMPv2 MIB • RFC1215 MIB Traps Convention	• RFC2233 Interface Group MIB • RFC2665 Ether-like MIB • 802.1p MIB RFC4363 • ZoneDefense MIB • Private MIB • RFC 951 BootP Client • RFC 1542 BootP/DHCP client • RFC 4363 802.1p • RFC 2236 IGMP Snooping

Order Information	
Part Number	*Description*
DGS-1100-05	5-port 10/100/1000 Mbps
DGS-1100-08	8-port 10/100/1000 Mbps
DGS-1100-08P	8-port PoE 10/100/1000 Mbps
DGS-1100-16	16-port 10/100/1000 Mbps
DGS-1100-18	16-port 10/100/1000 Mbps and 2-port SFP 1000 Mbps
DGS-1100-24	24-port 10/100/1000 Mbps
DGS-1100-26	24-port 10/100/1000 Mbps and 2-port SFP 1000 Mbps
DGS-1100-24P	12-port 10/100/1000 Mbps PoE and 12-port 10/100/1000 Mbps
Optional SFP Transceivers	
DGS-712	1000 Base-T copper
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-LHX, single-mode, 50 km
DEM-315GT	100BASE-ZX, single-mode, 80 km
DEM-330T/R	Gigabit WDM transceiver, single-mode 10 km
DEM-331T/R	Gigabit WDM transceiver, single-mode 40 km

[1] Supported by the DGS-110-16/18/24/26/24P

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