

Product Highlights

Flexibility and Reliability

A combination of RJ-45, SFP, and Combo ports provides the necessary flexibility to adapt to a wide range of applications and environments

Management made Easy

A multilingual Web UI, full CLI, SNMP, and a variety of management features allow the switches to integrate with your existing network

Power over Ethernet

Increased PoE capability and support for IEEE 802.3af/ at allow the PoE models in the series to power more devices with greater port density



DGS-2000 Series

Managed Access Switches

Features

Flexible Hardware Design

- Available in multiple configurations:
 - Different combinations of 1000BASE-T, 100/1000 Mbps GbE/SFP combo, and 10/1000 Mbps SFP
 - PoE and non-PoE variations
- Designed for standard 1U rack-mounting

Layer 2 Features

- 8K or 16K MAC address table
- IEEE 802.1D STP, 802.1w RSTP, and 802.1s MSTP
- · Loopback detection
- Supports IEEE 802.3ad Link Aggregation
- · Port-based Q-in-Q

Security and Authentication

- Access Control Lists (ACLs)
- Smart IP-MAC-Port Binding (Smart IMPB)
- D-Link Safeguard Engine helps the CPU resist broadcast/multicast/unicast flooding
- Port Security

Intuitive Management

- D-Link Network Assistant (DNA) utility or Web UI
- Command Line Interface (CLI) through Telnet or SSH
- RJ-45 Console Port

The DGS-2000 Series Managed Access Switches includes a range of models designed to provide increased Power over Ethernet (PoE) output, a variety of physical interface types, multiple management interfaces, and advanced Layer 2 features. With these features and more, the DGS-2000 Series provides a cost-efficient and flexible solution for expanding any business network.

Seamless Integration

The DGS-2000 Series includes a wide range of port and media types, including 10/100/1000BASE-T RJ-45 ports, 100/1000 Mbps GbE/SFP combo ports, and 100/1000 Mbps SFP ports. The DGS-2000-10, DGS-2000-26, DGS-2000-10P and DGS-2000-10MP models feature 2 100/1000 Mbps SFP ports, while all other DGS-2000 Series models feature 2 or 4 GbE/SFP combo ports, allowing you to choose the most suitable media type for your requirements. All DGS-2000 Series PoE switches include support for IEEE 802.3af/at and higher power budgets, allowing more PoE devices to be powered by the switch and for devices to be installed in remote locations without immediate access to power outlets. Additionally, an extended Link Layer Discovery Protocol - Media Endpoint Devices (LLDP-MED) automatically negotiates and manages power fed to IEEE 802.3at PoE+ powered devices for optimal power distribution.

Advanced Features

The DGS-2000 Series comes equipped with a complete lineup of L2 features, including IGMP snooping, port mirroring, Spanning Tree Protocol (STP), and Link Aggregation Control Protocol (LACP). The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast, reliable data transfers. Network maintenance features include loopback detection and cable diagnostics. Loopback detection significantly speeds up troubleshooting by automatically detecting and terminating switching loops. The cable diagnostics feature, designed primarily for administrators and customer service representatives, determines the cable quality and quickly discovers errors, allowing for effortless diagnostics and maintenance.



Efficient and Resilient Networking

The DGS-2000 Series supports 802.3ad Link Aggregation, which allows grouping of multiple ports to provide redundancy and load balancing in mission-critical environments. Additionally, these switches also support 802.3ah OAM Ethernet link layer remote loopback and discovery as well as D-Link's Unidirection Link Detection (DULD). Combined, the two Layer 2 protocols ensure the reliability of data transmission in your network.

Security & Authentication

The DGS-2000 Series supports Auto Voice VLAN and Auto Surveillance VLAN Mode, which allows voice and video traffic to be automatically identified and handled differently than regular network traffic. Auto Voice VLAN detects Voice over IP (VoIP) traffic and automatically segments it from the rest of the network, adding a layer of isolation and allowing Quality of Service (QoS) to be applied. DGS-2000 Series supports surveillance VLAN for IP surveillance deployments. This gives video trafc a dedicated VLAN and higher priority through the switch, separating surveillance trafc from the rest of the network.

Comprehensive Security

The DGS-2000 Series provides users with the latest security features such as Packet Content Access Control Lists (ACL), Storm Control, and Smart IP-MAC-Port Binding (Smart IMPB) with DHCP Snooping. The Smart IMPB feature allows administrators to bind a source IP address with an associated MAC and define the port number to enhance user access control. With the DHCP Snooping feature, the switch automatically learns IP/MAC pairs by snooping DHCP packets and saving them to the IMPB white list.

Advanced Access Control

D-Link's innovative Safeguard Engine helps to protect the switches against traffic flooding caused by malicious attacks. DGS-2000 Series supports 802.1X port-based authentication, allowing the clients to be authenticated through external RADIUS servers.

Versatile Management

The DGS-2000 Series comes with the D-Link Network Assistant (DNA) utility that enables administrators to remotely control their network down to the port level. The D-Link Network Assistant utility allows customers to easily discover multiple D-Link Managed Access Switches within the same L2 network segment and display them on-screen for instant access so users do not need to change the IP address of their PC. This allows for simultaneous configuration and setup of all discovered devices, including password changes and firmware upgrades. The DGS-2000 Series also supports Command Line Interface (CLI) through Telnet, SSH and the console port.



Technical Specifications				
Model Number	DGS-2000-10	DGS-2000-10P	DGS-2000-10MP	
Hardware Version	• A1			
Interface				
Size	11-inch standard rack-mount width 1U height	19-inch standard rack-mount width 1U height		
Interfaces	• 8 x 10/100/1000BASE-T ports • 2 x 100/1000 Mbps SFP ports	• 8 x 10/100/1000BASE-T PoE ports • 2 x 100/1000 Mbps SFP ports		
Console Port	• RJ-45 Connector			
Port Standards & Functions	IEEE 802.3 for Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet Auto-negotiation IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X Gigabit Fiber	 IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet Auto-negotiation IEEE 802.3x Flow Control 		
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.)			
Full/Half-Duplex	Full/half-duplex for 10/100 Mbps speeds Full-duplex for 1000 Mbps speed			
Media Interface Exchange	Auto MDI/MDIX adjustment for all twiste	d-pair ports		
Performance				
Switching Capacity	• 20 Gbps			
Forwarding Method	Store-and-forward			
MAC Address Table Size	• 8K entries			
64-byte Max. Forwarding Rate	• 14.88 Mpps			
CPU Memory	• 256 MB DDR3			
Packet Buffer	• 4.1 MBits			
Flash Memory	• 32 MB			
LEDs				
Power (per device)	✓	✓	✓	
Link/Active/Speed (per port)	✓	√	✓	
PoE				
PoE Standard	• N/A	• IEEE 802.3af/at	• IEEE 802.3af/at	
PoE Capable Port	• N/A	• Ports 1 -8	• Ports 1 -8	
PoE Power Budget	• N/A	• 65W	• 130W	



Physical/Environmental			
MTBF	• 1,380,058 hours	• 729,258 hours	• 1,274,005 hours
Acoustic	• 0 dB(A)		
Heat Dissipation	• 21.59 BTU/hr	• 279.59 BTU/hr	• 519.51 BTU/hr
Power Input	AC Input: 100 to 240 V AC, 50/60 Hz internal universal power supply	AC Input: 54.0 V DC external power supply	AC Input: 100 to 240 V AC, 50/60 Hz internal universal power supply
Maximum Power Consumption	• 6.33 W	• 81.9 W (PoE on) • 7.6 W (PoE off)	• 152.3 W (PoE on) • 9.4 W (PoE off)
Standby Power Consumption	• 2.07 W	• 2.5 W	• 5.2 W
Dimensions (W x D x H)	• 280 x 126 x 44 mm (11.02 x 4.96 x 1.73 in)	• 280 x 126 x 44 mm (11.02 x 4.96 x 1.73 in)	• 330 x 180 x 44 mm (12.99 x 7.09 x 1.73 in)
Ventilation	• Fanless		
Weight	• 0.98 kg (2.16 lbs)	• 0.98 kg (2.16 lbs) • 0.95 kg (2.09 lbs) • 1.77 kg (3.90 lbs)	
Operating Temperature	• -5 to 50 °C (23 to 122 °F)		
Storage Temperature	• -40 to 70 °C (-40 to 158 °F)		
Operating Humidity	• 10% to 90% non-condensing		
Storage Humidity	• 5% to 90% non-condensing		
EMI	• FCC class A, CE class A, IC, VCCI, BSMI		
Safety Certifications	• cUL, UL, CB, BSMI		

Technical Specifications			
Model Number	DGS-2000-20	DGS-2000-26	DGS-2000-28
Hardware Version	• A1		
Interface			
Size	19-inch standard rack-mount width 1U height		
Interfaces	16 x 10/100/1000BASE-T ports 4 x 100/1000 Mbps GbE/SFP combo ports	• 24 x 10/100/1000BASE-T ports • 2 x 100/1000 Mbps GbE/SFP ports	24 x 10/100/1000BASE-T ports 4 x 100/1000 Mbps GbE/SFP combo ports
Console Port	• RJ-45 Connector		
Port Standards & Functions	 IEEE 802.3 for Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet Auto-negotiation IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X Gigabit Fiber 		
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.)		
Full/Half-Duplex	Full/half-duplex for 10/100 Mbps speeds Full-duplex for 1000 Mbps speed		
Media Interface Exchange	Auto MDI/MDIX adjustment for all twister	d-pair ports	



Performance				
Switching Capacity	• 40 Gbps	• 52 Gbps	• 56 Gbps	
Forwarding Method	Store-and-forward			
MAC Address Table Size	• 8K entries			
64-byte Max. Forwarding Rate	• 29.8 Mpps	• 38.7Mpps	• 41.7 Mpps	
CPU Memory	• 256 MB DDR3			
Packet Buffer	• 4.1 MBits			
Flash Memory	• 32 MB			
LEDs				
Power (per device)	✓	√	✓	
Link/Active/Speed (per port)	✓	✓	✓	
Physical/Environmental				
MTBF	• 1,087,100 hours	• 1,082,534 hours	• 992,594 hours	
Acoustic	• 0 dB(A)			
Heat Dissipation	• 44.62 TU/hr	• 51.93 TU/hr	• 59.09 TU/hr	
Power Input	• AC Input: 100 to 240 V AC, 50/60 Hz inter	nal universal power supply		
Maximum Power Consumption	• 13.08 W	• 15.22 W		
Standby Power Consumption	• 5.56 W	• 5.06 W	• 6.55 W	
Dimensions (W x D x H)	• 280 x 180 x 44 mm (17.32 x 5.51 x 1.73 in) (11.02 x 4.96 x 1.73 in)			
Ventilation	• Fanless			
Weight	• 1.75 kg (3.86 lbs)	• 2.06 kg (4.54 lbs)	• 2.15 kg (4.74 lbs)	
Operating Temperature	• -5 to 50 °C (23 to 122 °F)			
Storage Temperature	• -40 to 70 °C (-40 to 158 °F)			
Operating Humidity	• 10% to 90% non-condensing			
Storage Humidity	• 5% to 90% non-condensing			
EMI	• FCC class A, CE class A, IC, VCCI, BSMI			
Safety Certifications	• cUL, UL, CB, BSMI			



Technical Specifications				
Model Number	DGS-2000-28P	DGS-2000-28MP	DGS-2000-52	DGS-2000-52MP
Hardware Version	• A1			
Interface				
Size	19-inch standard rack-mount 1U height	19-inch standard rack-mount width 1U height		
Interfaces		• 24 x 10/100/1000BASE-T PoE ports • 4 x 100/1000 Mbps GbE/SFP combo ports • 4 x 100/1000 Mbps combo ports • 48 x 10/100/1000B. • 4 x 100/1000 Mbps combo ports		
Console Port	• RJ-45 Connector			
Port Standards & Functions	IEEE 802.3ab 1000BASE-T Giga Auto-negotiation IEEE 802.3x Flow Control	IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet Auto-negotiation		
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max	c.)		
Full/Half-Duplex	Full/half-duplex for 10/100 Mbps speeds Full-duplex for 1000 Mbps speed			
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports			
Performance				
Switching Capacity	• 56 Gbps • 104 Gbps			
64-byte Max. Forwarding Rate	• 41.7 Mpps • 77.4 Mpps			
MAC Address Table Size	• 8K entries • 16K entries			
CPU Memory	• 256 MB DDR3			
Packet Buffer	• 4.1 MBits		• 12 MBits	
Flash Memory	• 32 MB			
LEDs				
Power (per device)	✓	✓	✓	✓
Link/Active/Speed (per port)	✓	✓	✓	✓
PoE				
PoE Standard	• IEEE 802.3af/at	• IEEE 802.3af/at	• N/A	• IEEE 802.3af/at
PoE Capable Port	• Ports 1 -24	• Ports 1 -8	• N/A	• Ports 1 -48
PoE Power Budget	• 193W	• 370W	• N/A	• 370W



Physical/Environmental				
MTBF	• 469,262 hours	• 277,967 hours	• 400,667 hours	• 236,667 hours
Acoustic	High speed: 51.7 dB(A)Low speed: 44.9 dB(A)	'	• 0 dB(A)	High speed: 52.4 dB(A)Low speed: 47.6 dB(A)
Heat Dissipation	• 900.36 TU/hr	• 1521.99 TU/hr	• 118.92 TU/hr	• 1634.01 TU/hr
Power Input	• AC Input: 100 to 240 V A	C, 50/60 Hz internal universal pow	er supply	
Maximum Power Consumption	• 236.9 W (PoE on) • 30.6 W (PoE off)	• 446.1 W (PoE on) • 29.8 W (PoE off)	• 34.85 W	• 478.9 W (PoE on) • 54.4 W (PoE off)
Standby Power Consumption	• 19.6 W	• 18.5 W	• 13.9 W	• 32 W
Dimensions (W x D x H)	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)		• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)	• 440 x 430 x 44 mm (17.32 x 16.93 x 1.73 in)
Ventilation	• 2 x Smart fan		• Fanless	• 3 x Smart fan
Weight	• 3.75 kg (8.27 lbs)	• 3.94 kg (8.69 lbs)	• 3.46 kg (7.63 lbs)	6.26 kg (13.80 lbs)
Operating Temperature	• -5 to 50 °C (23 to 122 °F)	• -5 to 50 °C (23 to 122 °F)		
Storage Temperature	• -40 to 70 °C (-40 to 158 °F)			
Operating Humidity	• 10% to 90% non-condensing			
Storage Humidity	• 5% to 90% non-condensing			
EMI	• FCC class A, CE class A, VCCI, BSMI			
Safety Certifications	• CE, LVD, UL, CB			

Software		
L2 Features	 MAC address table: 8K or 16K entries Static mac address: 128 entries Spanning Tree Protocols 802.1D STP 802.1w RSTP 802.1s MSTP Loopback detection Jumbo Frame: 10000 Bytes 	 Mirroring Supports 1 mirroring groupSupports One-to-One, Many-to-One,Supports mirroring based on Tx and Rx Link aggregation Compliant with 802.3adSupports max. 8 groups, 8 ports per group
L2 Multicasting	 IGMP Snooping IGMP v1/v2/v3 snooping, v3 awareness Supports 512 groups, 4k groups for models DGS-2000-52/52MP IGMP authentication/filtering VLAN/host-based IGMP snooping fast leave Per VLAN IGMP Snooping 	 MLD Snooping MLD v1, MLD v2 Supports 512 groups, 4k groups for models DGS-2000-52/52MP Per VLAN MLD Snooping Fast Leave MLD Snooping Querier
VLAN	802.1Q tagged VLAN VLAN groups Max. 4094 VIDs Supports 256 static VLAN groups Port-based VLAN Asymmetric VLAN	 Port-based Q-in-Q ISM VLAN (multicast VLAN) Voice VLAN Auto surveillance VLAN VLAN Translation



L3 Features	Max. 128 ARP entries Supports 128 static ARP entries IPv4/v6 Interface Max. 4 IPv4/IPv6 interfaces Max. 1 IP interface per VLAN Static Route Max. 128 IPv4 entries Max. 128 IPv6 entries	 Default route IPv6 Neighbor Discovery (ND) 256 Entries ARP 128 Entries
Quality of Service (QoS)	CoS based on: Switch port DSCP Bandwidth control Port-based (ingress, egress, min. granularity 16 Kbps)	 Queue handling Strict priority (SPQ) Weighted Round Robin (WRR) 8 outbound queues
Access Control List (ACL)	ACL based on MAC address TOS IPv4/v6 address DSCP TCP/UDP port Protocol	 Up to 200 ingress access rules Up to 150 ingress access profiles ACL action (permit/deny)
Authentication, Authorization, and Accounting (AAA)	802.1X Host-based access control Port-based access control Port default 802.1p priority setting Ingress/egress bandwidth control Dynamic VLAN assignment Ping Guest VLAN RADIUS accounting	 Trusted Host Supports IPv4/v6 host Max trusted host (IP range) Telnet SNMP HTTP SSH Authentication for management access Local, RADIUS
Security	Port security (Up to 64 MAC addresses per port) Smart IP-MAC-Port Binding (Smart IMPB) ARP Inspection Max. 256 entries IPv4 Inspection Max. 127 entries IPv6 Inspection Max. 63 entries DHCP Snooping Max. 512 entries	Broadcast/Multicast/Unicast storm control IP Inspection (IP source Guard) Duplicate Address Detection (DAD) D-Link Safeguard Engine DoS attack prevention Traffic segmentation SSH SSHv2 Support IPv4 Support IPv6 Configurable TCP port number
Operations, Administration, and Maintenance (OAM)	802.3ah Ethernet Link OAM Supports 802.3ah link layer remote loopback and discovery (System log and SNMP) 802.3ah D-Link extension: D-Link Unidirectional Link Detection (DULD), (System log and SNMP)	Cable diagnostics Diagnostic RJ-45 cables of copper ports
Management	Web-based GUI (IPv4/IPv6) Command Line Interface (CLI) through Telnet or SSH Telnet Server/Client (Support IPv4/IPv6) TFTP client (IPv4) Command logging SNMP v1/v2c/v3 SNMP traps System log RMON v1 LLDP BootP/DHCP client DHCP auto-configuration	Text-editable config file Trusted host DHCP relay (IPv4/IPv6) DHCP relay agent/local relay DHCP relay option 82 PPPoE Circuit-ID tag insertion SNTP LLDP-MED (for PoE models only) Password encryption Dual Image Ping Traceroute
MIB	RFC1213 MIB II RFC1065, 1151, 2578 MIB Structure RFC1493 Bridge MIB RFC1157, 2573, 2575, 2576 SNMP MIB RFC1907 SNMPv2 MIB	RFC1398, 1643, 2665 Ether-like MIB RFC2674 802.1p MIB RFC 2233 Interface Group MIB RFC2925 Ping & Traceroute MIB

IETF Standard	• RFC768 UDP • RFC791 IP • RFC792 ICMPv4 • RFC2463, 4443 ICMPv6	 RFC793 TCP RFC826 ARP RFC1321, 2284, 2865, 2716, 3580 Extensible Authentication Protocol (EAP) 		
IPv6	RFC1981 Path MTU Discovery RFC2460 IPv6 RFC2461, 4861 Neighbor Discovery	 RFC2462, 4862 IPv6 Stateless Address Auto-configuration RFC2893, 4213 IPv4/IPv6 dual stack function 		
Order Information				
Part Number	Description			
DGS-2000-10	8-Port 10/100/1000BASE-T + 2-Port 100/1000 Mbp	s SFP Ports Managed Access Switch		
DGS-2000-10P	8-Port 10/100/1000BASE-T PoE + 2-Port 100/1000 I	Mbps SFP Ports Managed Access Switch		
DGS-2000-10MP	8-Port 10/100/1000BASE-T PoE + 2-Port 100/1000 I	Mbps SFP Ports Managed Access Switch		
DGS-2000-20	16-Port 10/100/1000BASE-T+ 4-Port 100/1000 Mbp	os GbE/SFP Combo Ports Managed Access Switch		
DGS-2000-26	24-Port 10/100/1000BASE-T + 2-Port 100/1000 Mb	ps GbE/SFP Ports Managed Access Switch		
DGS-2000-28	24-Port 10/100/1000BASE-T + 4-Port 100/1000 Mb	ps GbE/SFP Combo Ports Managed Access Switch		
DGS-2000-28P	24-Port 10/100/1000BASE-T PoE + 4-Port 100/1000	Mbps GbE/SFP Combo Ports Managed Access Switch		
DGS-2000-28MP	24-Port 10/100/1000BASE-T PoE + 4-Port 100/1000	24-Port 10/100/1000BASE-T PoE + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Managed Access Switch		
DGS-2000-52	48-Port 10/100/1000BASE-T + 4-Port 100/1000 Mb	48-Port 10/100/1000BASE-T + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Managed Access Switch		
DGS-2000-52MP	48-Port 10/100/1000BASE-T PoE + 4-Port 100/1000	48-Port 10/100/1000BASE-T PoE + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Managed Access Switch		
Optional SFP Transo	ceivers			
DEM-210	100BASE-FX, single-mode, 15 km			
DEM-211	100BASE-FX, multi-mode, 2 km			
DEM-220T	100BASE-BX-D , single-mode, 20 km	100BASE-BX-D , single-mode, 20 km		
DEM-220R	100BASE-BX-U , single-mode, 20 km	100BASE-BX-U , single-mode, 20 km		
DGS-712	1000BASE-T copper, 100 m	1000BASE-T copper, 100 m		
DEM-310GT	1000BASE-LX, single-mode, 10 km			
DEM-311GT	1000BASE-SX, multi-mode, 550 m	1000BASE-SX, multi-mode, 550 m		
DEM-312GT2	1000BASE-SX, multi-mode, 2 km	1000BASE-SX, multi-mode, 2 km		
DEM-314GT	1000BASE-LHX, single-mode, 50 km	1000BASE-LHX, single-mode, 50 km		
DEM-315GT	1000BASE-ZX, single-mode, 80 km	1000BASE-ZX, single-mode, 80 km		
DEM-330T	1000BASE-BX-D, single-mode, 10 km			
DEM-330R	1000BASE-BX-U, single-mode, 10 km	1000BASE-BX-U, single-mode, 10 km		
DEM-331T	1000BASE-BX-D, single-mode, 40 km	1000BASE-BX-D, single-mode, 40 km		
DEM-331R	1000BASE-BX-U, single-mode, 40 km	1000BASE-BX-U, single-mode, 40 km		



Optional Management Software		
DV-700-N25-LIC	D-View 7 - 25 Node License	
DV-700-N50-LIC	D-View 7 - 50 Node License	
DV-700-N100-LIC	D-View 7 - 100 Node License	
DV-700-N250-LIC	D-View 7 - 250 Node License	
DV-700-N500-LIC	D-View 7 - 500 Node License	
DV-700-N1000-LIC	D-View 7 - 1000 Node License	
DV-700-P5-LIC	D-View 7 - 5 Probe License	
DV-700-P10-LIC	D-View 7 - 10 Probe License	
DV-700-P25-LIC	D-View 7 - 25 Probe License	
DV-700-P50-LIC	D-View 7 - 50 Probe License	
DV-700-P100-LIC	D-View 7 - 100 Probe License	

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