Product Highlights

Comprehensive Security Solution

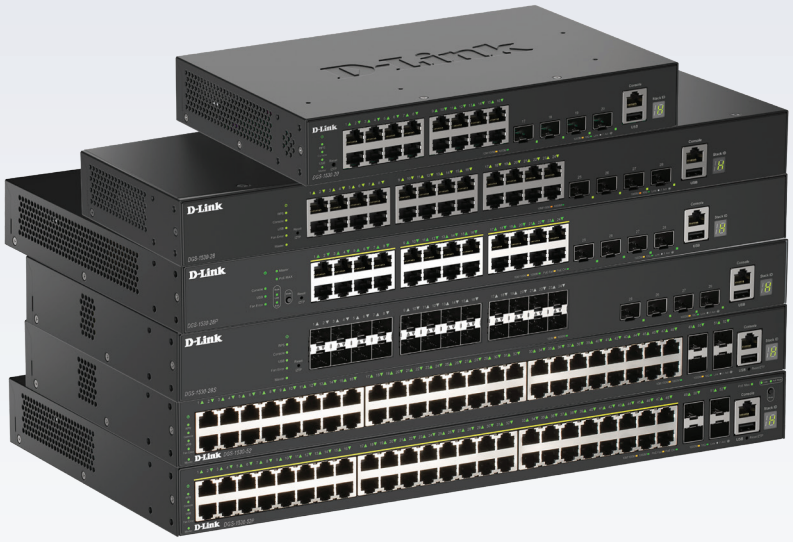
Support for Access Control Lists (ACLs), multiple user authentication methods, and IP-MAC-Port Binding ensures a secure network environment

Superior Reliability

Per-port surge protection, Ethernet Ring Protection Switching (ERPS), and redundant power supply (RPS) features all help to maximize service availability

Scalability and High Availability

Physical stacking provides agile expansion and redundancy while reliability through fault tolerant topologies ensures rock-solid connectivity



DGS-1530 Series

Stackable Smart Switches

Features

Reliable Hardware and Software Features

- 6 kV surge protection for Ethernet ports
- Real Time Clock (RTC)
- Dying Gasp
- Ethernet Ring Protection Switching (ERPS)
- Redundant power supply (RPS) support

High-Bandwidth Stacking

- Physical stack of up to 9 units via two/four 10G ports
- Supports long-distance stacking over fiber
- 80 Gbps per device physical stacking bandwidth

Comprehensive Security Features

- Access Control Lists (ACLs)
- D-Link Safeguard Engine
- BPDU attack protection
- ARP spoofing prevention
- IP-MAC-Port Binding (IMPB)
- DoS attack prevention
- IEEE 802.1X port-based Access Control
- WAC/MAC-based Access Control
- Guest VLAN

System Management

- 802.1ag CFM
- 802.3ah Ethernet Link OAM
- SNMP v1/v2c/v3
- RMON v1/v2
- LLDP/LLDP-MED

The DGS-1530 Series are part of the Layer 2 family of D-Link's Stackable Smart Switch product line that provides wired Gigabit speeds for Metro Ethernet and campus networks. They feature a variety of ports, including 10/100/1000BASE-T RJ-45 ports, 1G SFP ports, and 10G SFP+ ports for increased network bandwidth. Surge protection, advanced Layer 2 functions, and a suite of security and management tools make the DGS-1530 Series Stackable Smart Switch ideal for Metro Ethernet and campus applications.

Diverse Port Configuration and PoE Support

The DGS-1530-28P and DGS-1530-52P switches feature Power over Ethernet (PoE), delivering up to 30W per port for devices like IP cameras, VoIP phones, and access points, reducing deployment time and cabling costs. Both models support IEEE 802.3af PoE and 802.3at PoE+ standards. They offer Perpetual PoE for continuous power during switch boot-up and Fast PoE for quick power delivery without waiting for the system to fully start. The DGS-1530-52P has a 370W PoE budget, expandable to 740W with a redundant power supply, and uses extended LLDP to optimize power distribution to connected devices.

Efficient and Resilient Networking

The DGS-1530 Series supports up to 6 kV surge protection on all Ethernet RJ-45 ports, protecting the switch from power surges due to lightning strikes or faulty electrical cabling. The DGS-1530 Series supports ITU-T G.8032 Ethernet Ring Protection Switching (ERPS), which allows 50 millisecond failover in the event of a failure of one of the rings, minimizing service disruption. The switches also support IEEE 802.1AX and 802.3ad Link Aggregation, which allows grouping of multiple ports to provide redundancy and load balancing in mission-critical environments.

High Availability and Flexibility

The DGS-1530 Series allows multiple switches to be combined to form a single physical or virtual stack. This increases redundancy over multiple physical units, simplifies management, and provides a single IP address to manage all members in the stack. Up to 9 switches can be combined using DACs/Fibers to make up to 432 Gigabit Ethernet ports available, allowing switching capacity to be increased with demand.

DGS-1530 Series Stackable Smart Switches

Quality of Service

The DGS-1530 Series implements a rich set of multilayer QoS/CoS features to ensure that critical network services such as VoIP, video conferencing, IPTV, and IP surveillance are given high priority. Flexible packet classification can be based on various header fields to help administrators prioritize network traffic. Traffic shaping features guarantee bandwidth for these critical services when the network is busy. Multilayer QoS/CoS features let IT managers arrange network resources more efficiently in enterprise environments.

Identity-Driven Network Policies

The DGS-1530 Series supports authentication types such as 802.1X port-based Access Control, Web-based Access Control (WAC), and MAC-based Access Control (MAC) for strict access control to network resources. After authentication, individual policies such as VLAN membership, QoS policies, and ACL rules can be assigned to each host. Additionally, the switches support Microsoft® NAP (Network Access Protection), which allows network assets to be protected from compromised computers by enforcing compliance with network health policies.

Manageability

D-Link Single IP Management (SIM) simplifies and speeds up management tasks, allowing multiple switches to be configured, monitored, and maintained from any running a web browser and with network connectivity. All switches can be managed as a virtual stack, allowing physically separate switches to be managed using a single IP address. The DGS-1530 Series also supports management tools such as a Web UI, SSH, Telnet, and console, and standards-based protocols such as SNMP, RMON, and TLS.

Security & Authentication

The DGS-1530 Series offers user and device authentication, including host-based authentication and authorization, which provides the option to finely control network access for each device on the network. Advanced features such as RADIUS accounting allow the switches to be integrated with back-end systems for billing or advanced access control. The DGS-1530 Series also supports address and interface binding features such as IP-MAC-Port Binding and ARP Spoofing Prevention to help protect against Man-in-the-Middle or ARP Spoofing attacks.



DGS-1530-20



DGS-1530-28



DGS-1530-28S



DGS-1530-52



DGS-1530-28P



DGS-1530-52P

Technical Specifications		
Model Number	DGS-1530-20	DGS-1530-28
Hardware Version	A1	
Interface		
Mounting Options	Desktop or 19″ Rack Mount (mounting brackets included)	
Interfaces	• 16 x 10/100/1000 Mbps ports • 4 x 10G SFP+ ports	• 24 x 10/100/1000 Mbps ports • 4 x 10G SFP+ ports
Console Port	RJ-45 console port	
USB Port	USB 2.0 (Type A)	
Port Standards & Functions	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3ab 1000BASE-T Gigabit Ethernet • IEEE 802.3ae 10G Ethernet • IEEE 802.3x Flow Control for full-duplex mode, auto-negotiation	
Full/Half-duplex	Half/full-duplex for 10/100 Mbps and full-duplex for 1000 Mbps speeds (Applicable only to copper ports)	
Media Interface Exchange	Auto or configurable MDI/MDIX (Applicable only to copper ports)	
Performance		
Switching Capacity	112 Gbps	128 Gbps
Forwarding Method	Store-and-forward	
MAC Address Table Size	16K entries per device	
MAC Address Update	1024 static MAC entries	
Maximum 64-byte Max. Packet Forwarding Rate	83.33 Mpps	95.24 Mpps
Packet Buffer	1.5 MB	1.5 MB
LEDs		
Power (per device)	✓	✓
Redundant Power Supply (per device)	✓	✓
Console (per device)	✓	✓
Link/Active/Speed (per port)	✓	✓
Fan Error	—	✓
Physical/Environmental		
MTBF	630,098 hours	530,607 hours
Acoustic	—	40.9 dB(A)
Heat Dissipation	89 BTU/h	109.1 BTU/h
Power Input	AC Input: 100 to 240 VAC 50/60 Hz	
Max Power Consumption	26.1 W	32 W

Standby Power Consumption	• 5.8 W/100 V • 7.7 W/240 V	• 7.7 W/100 V • 8.4 W/240 V
Dimensions (W x D x H)	280 x 180 x 44 mm (11.02 x 5.51 x 1.73 in)	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)
Weight	2 kg (4.41 lb)	2.15 kg (4.74 lb)
Ventilation	Fanless	1 x Smart fan
Power Surge Protection	All Ethernet RJ-45 ports support IEC61000-4-5 6 kV surge protection	
Operating Temperature	-5 to 50 ˚C (23 to 122 ˚F)	
Storage Temperature	20 to 70 ˚C (-4 to 158 ˚F)	
Operating Humidity	0% to 95% non-condensing	
Storage Humidity	0% to 95% non-condensing	
EMI	BSMI, CE, FCC, IC, RCM, UKCA-EMC, VCCI	
Safety Certifications	BSMI, CB, cUL, LVD	

Technical Specifications		
Model Number	DGS-1530-28S	DGS-1530-52
Hardware Version	A1	
Interface		
Mounting Options	Desktop or 19" Rack Mount (mounting brackets included)	
Interfaces	• 24 x SFP ports • 4 x 10G SFP+ ports	• 48 x 10/100/1000 Mbps ports • 4 x 10G SFP+ ports
Console Port	RJ-45 console port	
USB Port	USB 2.0 (Type A)	
Port Standards & Functions	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3ab 1000BASE-T Gigabit Ethernet • IEEE 802.3ae 10G Ethernet • IEEE 802.3x Flow Control for full-duplex mode, auto-negotiation	
Full/Half-duplex	—	Half/full-duplex for 10/100 Mbps and full-duplex for 1000 Mbps speeds (Applicable only to copper ports)
Media Interface Exchange	—	Auto or configurable MDI/MDIX (Applicable only to copper ports)
Performance		
Switching Capacity	128 Gbps	176 Gbps
Forwarding Method	Store-and-forward	
MAC Address Table Size	16K entries per device	
MAC Address Update	1024 static MAC entries	
Maximum 64-byte Max. Packet Forwarding Rate	95.24 Mpps	130.95 Mpps
Packet Buffer	1.5 MB	1.5 MB

LEDs		
Power (per device)	✓	✓
Redundant Power Supply (per device)	✓	✓
Console (per device)	✓	✓
Link/Active/Speed (per port)	✓	✓
Fan Error	—	✓
Physical/Environmental		
MTBF	446,328 hours	330,520 hours
Acoustic	52.4 dB(A)	54.7 dB(A)
Heat Dissipation	154.13 BTU/h	150.38 BTU/h
Power Input	AC Input: 100 to 240 VAC 50/60 Hz	
Max Power Consumption	45.2 W	44.1 W
Standby Power Consumption	• 9.8 W/100 V • 10.5 W/240 V	• 13.7 W/100 V • 14.3 W/240 V
Dimensions (W x D x H)	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)
Weight	3.10 kg (6.83 lb)	3.2 kg (7.05 lb)
Vendilation	2 x Smart Fan	2 x Smart fan
Power Surge Protection	—	All Ethernet RJ-45 ports support IEC61000-4-5 6 kV surge protection
Operating Temperature	-5 to 50 ˚C (23 to 122 ˚F)	
Storage Temperature	20 to 70 ˚C (-4 to 158 ˚F)	
Operating Humidity	0% to 95% non-condensing	
Storage Humidity	0% to 95% non-condensing	
EMI	BSMI, CE, FCC, IC, RCM, UKCA-EMC, VCCI	
Safety Certification	BSMI, CB, cUL, LVD	

Technical Specifications		
Model Number	DGS-1530-28P	DGS-1530-52P
Hardware Version	A1	
Interface		
Mounting Options	Desktop or 19" Rack Mount (mounting brackets included)	
Interfaces	• 24 x 10/100/1000 Mbps PoE ports • 4 x 10G SFP+ ports	• 48 x 10/100/1000 Mbps PoE ports • 4 x 10G SFP+ ports
Console Port	RJ-45 Console Port	
USB Port	USB 2.0 (Type A)	
Port Standards & Functions	• Ports 1 to 24 compliant with both IEEE 802.3af/802.3at	• Ports 1 to 48 compliant with both IEEE 802.3af/802.3at
Other Port Standards & Functions	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3ab 1000BASE-T Gigabit Ethernet • IEEE 802.3ae 10G Ethernet • IEEE 802.3x Flow Control for full-duplex mode, auto-negotiation • IEEE 802.3af/802.3at	
Full/Half-duplex	Half/full-duplex for 10/100 Mbps and full-duplex for 1000 Mbps speeds (Applicable only to copper ports)	
Media Interface Exchange	Auto or configurable MDI/MDIX (Applicable only to copper ports)	
Performance		
Switching Capacity	128Gbps	176 Gbps
Forwarding Method	Store-and-forward	
MAC Address Table Size	16K entries per device	
MAC Address Update	1024 static MAC entries	
Maximum 64-byte Max Packet Forwarding Rate	95.24 Mpps	130.95 Mpps
Packet Buffer	1.5 MB	1.5 MB
LEDs		
Power (per device)	✓	✓
Redundant Power Supply (RPS) (per device)	✓	✓
Console (per device)	✓	✓
Link/Active/Speed (per port)	✓	✓
Fan Error	✓	✓

Physical/Environmental		
MTBF	330,520 hours	230,300 hours
Acoustic	54.7 dB(A)	52.7 dB(A)
Heat Dissipation	1554.96 BTU/h	1643.62 BTU/h
Power Input	AC Input: 100 to 240 VAC 50/60 Hz	
Max Power Consumption	• 456 W (PoE on) • 39.5 W (PoE off)	• 482 W (PoE on) • 59.2 W (PoE off)
Maximum PoE Budget	370 W	370 W (740 W with DPS-700 RPS redundant power supply)
Standby Power Consumption	• 16.2 W/100 V • 16.5 W/240 V	• 22 W/100 V • 22.8 W/240 V
Dimensions (W x D x H)	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)	440 x 308 x 44 mm (17.32 x 12.13 x 1.73 in)
Weight	3.7 kg (8.15 lb)	4.35 kg (9.59 lb)
Ventilation	3 x Smart fan	
Power Surge Protection	All Ethernet RJ-45 ports support IEC61000-4-5 6 kV surge protection	
Operating Temperature	-5 to 50 ˚C (23 to 122 ˚F)	
Storage Temperature	-20 to 70 ˚C (-4 to 158 ˚F)	
Operating Humidity	0% to 95% non-condensing	
Storage Humidity	0% to 95% non-condensing	
EMI	BSMI, CE, FCC, IC, RCM, UKCA-EMC, VCCI	
Safety Certifications	BSMI, CB, cUL, LVD	

Software Specifications (all models)		

Stackability	• D-Link Single IP Management (SIM)
	  • Up to 32 units per virtual stack
		• Physical Stacking
		  • Up to 80 Gbps stacking bandwidth[1]
		  • Up to 9 switches in a stack
		  • Ring/chain topology support

L2 Features	• MAC Address Table: 16K
	• Flow Control
	  • 802.3x Flow Control
	  • HOL Blocking Prevention
	• Jumbo Frames up to 10,240 bytes
	• Spanning Tree Protocol
	  • 802.1D STP
	  • 802.1w RSTP
	  • 802.1s MSTP
	• BPDU filtering
	• Root Restriction
	• Loopback Detection
	• Link Aggregation
	  • Compliant with 802.1AX and 802.3ad
	  • Max. 32 groups per device, 8 ports per group
		• Port Mirroring
		  • Supports One-to-One, Many-to-One,
		  • Supports Mirroring for Tx/Rx/Both
		  • Supports 4 mirroring groups
		• Flow Mirroring
		  • Supports Mirroring for Rx
		• VLAN Mirroring
		  • Supports Mirroring for Rx
		• RSPAN
		• Ethernet Ring Protection Switching (ERPS)
		• L2 Protocol Tunneling (L2PT)
		• Flex Link

L2 Multicasting	• IGMP Snooping
	  • IGMP v1/v2 /v3
	  • Supports 1024 groups (shared with MLD snooping)
	  • Host-based IGMP Snooping Fast Leave
	  • Report suppression
	  • IGMP authentication
		• MLD Snooping
		  • MLD v1, MLD v2
		  • Supports 1024 groups (shared with IGMP snooping)
		  • Host-based MLD Snooping Fast Leave

VLAN	• VLAN group
	  • Max. 4094 VLAN
	• Port-based VLAN
	• MAC-based VLAN
	• GVRP
	  • Max. 255 dynamic VLANs
	• 802.1v Protocol VLAN
	• Double VLAN (Q-in-Q)
	  • Port-based Q-in-Q
	  • Selective Q-in-Q
		• 802.1Q tagged VLAN
		• ISM VLAN
		• VLAN translation
		• VLAN trunking
		• Voice VLAN
		• Private VLAN

L3 Features	• Max. 1024 ARP entries
	  • Supports 255 static ARP entries
	• Gratuitous ARP
	• IPv6 Neighbor Discovery (ND)
	• 64 IP interfaces
		• Default route
		• Static route
		  • 64 IPv4 static routes
		  • 32 IPv6 static routes

Quality of Service (QoS)	• CoS based on
	  • Switch port
	  • 802.1p priority
	  • Outter VID
	  • MAC address
	  • EtherType
	  • IP address
	  • DSCP
	  • ToS/IP preference
	  • Protocol type
	  • TCP/UDP port
	  • IPv6 traffic class
	  • IPv6 Flow Label
		• Bandwidth control
		  • Port-based (ingress/egress, min. granularity 64 Kbps)
		  • Flow-based (ingress/egress, min. granularity 64 Kbps)
		• 802.1p
		• 8 queues per port
		• Queue Handling
		  • Strict Priority (SP)
		  • Weighted Round Robin (WRR)
		  • Strict + WRR
		  • Deficit Round Robin (DDR)
		  • Weighted Deficit Round Robin (WDRR)

Access Control List (ACL)	• ACL based on
	  • 802.1p priority
	  • VLAN ID
	  • MAC address
	  • EtherType
	  • IPv4/IPv6 address
	  • IPv6 traffic class
	  • IPv6 Flow Label
	  • DSCP
	  • IP preference/ToS
	  • Protocol type
	  • TCP/UDP port
	  • User-defined packet content
		• Max. ACL entries:
		  • Ingress (hardware entries): 2K
		  • Egress (hardware entries): 1K
		• Time-based ACL
		• CPU interface filtering

Authentication, Authorization, and Accounting (AAA)	• 802.1X
	  • Port-based Access Control
	  • Host-based Access Control
	  • Dynamic VLAN assignment
	• MAC-based Access Control (MAC)
	  • Port-based Access Control
	  • Host-based Access Control
	  • Dynamic VLAN assignment
	• Web-based Access Control (WAC)
	  • Port-based Access Control
	  • Host-based Access Control
	  • Identity Driven WAC policy assignment
	  • Authentication database failover
		• Microsoft® NAP (IPv4)
		• Guest VLAN
		• RADIUS
		• RADIUS accounting
		• TACACS+
		• Trusted host
		• Privilege level for management access: 4
		• Compound authentication

Security	• SSH v2
	• TLS 1.2
	• Port Security
	  • Up to 6656 MAC addresses per port
	• Broadcast/multicast/unicast storm control
	  • IP-MAC-Port Binding (IMPB)
	  • ARP inspection
	  • IP inspection
	  • DHCP snooping
	  • DHCPv6 Snooping
	  • DHCPv6 Guard
	  • IPv6 Route Advertisement (RA) Guard
	  • IPv6 ND snooping
	  • IPv6 ND inspection
		• Traffic segmentation
		• D-Link Safeguard Engine
		• L3 control packet filtering
		• NetBIOS/NetBEUI filtering
		• DHCP server screening
		• ARP spoofing prevention
		• BPDU attack protection
		• DoS attack prevention

Operations, Administration, and Management (OAM)	• Cable diagnostics • 802.3ah Ethernet Link OAM • Dying Gasp	• 802.1ag Connectivity Fault Management (CFM) • Y.1731 OAM

Management	• Web-based GUI (supports IPv4/v6)
	• Command Line Interface (CLI)
	• Telnet server/client
	• TFTP client
	• FTP client (supports IPv4)
	• ZModem
	• Command logging
	• SNMP v1/v2c/v3 (supports IPv4)
	• SNMP Traps
	• System log
	• SMTP (supports IPv4)
	• RMON v1:
	  • Supports 1, 2, 3, 9 groups
	• RMON v2:
	  • Supports Probe Config group
	• 802.1AB LLDP
	  • LLDP-MED
	• DHCP client (supports IPv4)
	• DNS client
	• DHCP auto-configuration
	  • Supports Option 6, 66, 67, and 150
	• DHCP auto-image
	• DHCP relay
	  • DHCP relay Option 60, 61, and 82
	  • DHCP client Option 12
	• PPPoE circuit-ID tag insertion
	• Multiple image
	• Flash file system
	• CPU utilization monitoring
	• Memory usage monitoring
	• SNTP (supports IPv4)
	• Debug command
	• Password recovery
	• Password encryption
	• Ping
	• Traceroute
	• Microsoft® NLB (Network Load Balancing) support (supports IPv4)
	• Zero Touch Provisioning (ZTP)
	• sFlow
	• PD Alive
	• D-Link Discovery Protocol (DDP)

Order Information

Part Number	*Description*
DGS-1530-20	16 Ports 1G + 4 Ports 10G SFP+ Stackable Smart Switch
DGS-1530-28	24 Ports 1G + 4 Ports 10G SFP+ Stackable Smart Switch
DGS-1530-28P	24 Ports 1G PoE+ + 4 Ports 10G SFP+ Stackable Smart Switch, 370W
DGS-1530-28S	24 Ports 1G SFP + 4 Ports 10G SFP+ Stackable Smart Switch
DGS-1530-52	48 Ports 1G + 4 Ports 10G SFP+ Stackable Smart Switch
DGS-1530-52P	48 Ports 1G PoE+ + 4 Ports 10G SFP+ Stackable Smart Switch, 370W

Redundant Power Supply and Cable

DPS-200A	AC Redundant Power Supply
DPS-500A	AC Redundant Power Supply
DPS-500DC	DC Redundant Power Supply for non-PoE Models
DPS-700	AC Redundant Power Supply for DGS-1530-52P
DPS-CB150-2PS v.B1	150 cm RPS cable for connecting the DGS-1530 Series with DPS-200A, DPS-500A and DPS-500DC

Optional SFP Transceivers

DEM-310GT	1000BASE-LX, Single-mode, 10 km
DEM-311GT	1000BASE-SX, Multi-mode, 550 m
DEM-314GT	1000BASE-LHX, Single-mode, 50 km
DGS-712	1000BASE-T to SFP transceiver

Optional SFP+ Transceivers

DEM-431XT	10GBASE-SR SFP+ transceiver (without DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF
DEM-432XT	10GBASE-LR SFP+ transceiver (without DDM), 10 km
DEM-410T[1,2]	10G Copper CAT6A 30m

Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables	
DEM-CB100S	10G SFP+ 1 m Direct Attach Cable
DEM-CB300S	10G SFP+ 3 m Direct Attach Cable

[1] Only HW version A2 DEM-410T transceivers are compatible with the DGS-1530 A1 Series switches, and within environments not exceeding an ambient temperature of 40 °C (104 °F).
[2] DGS-1530-20 only support 1 port with DEM-410T.

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