

## **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 maximise 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

# Gigabit Stackable Smart Managed Switches with 10G Uplinks

#### **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 (except DGS-1530-28P)

### **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 optimise 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, minimising 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.

## **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 prioritise 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-1530-28P



DGS-1530-28S



DGS-1530-28SC



DGS-1530-52



DGS-1530-52P

Technical Specification  Model Number	DGS-1530-10	DGS-1530-20	DGS-1530-28
Interface			
Mounting Options	Des	ktop or 19" Rack Mount (mounting bracket:	s included)
Interfaces	• 8 x 10/100/1000 Mbps ports • 2 x 10G SFP+ ports	• 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)	
Optional Redundant Power Supply			DPS-200A
Port Standards & Functions	<ul> <li>IEEE 802.3 10BASE-T Ethernet</li> <li>IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> </ul>		
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	56 Gbps	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	41.67 Mpps	83.33 Mpps	95.24 Mpps
Packet Buffer		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	709,328 hours	630,098 hours	530,607 hours
Acoustic	_	_	40.9 dB(A)
Heat Dissipation	49.79 BTU/hr	87.64 BTU/hr	109.1 BTU/h
Power Input	AC Input: 100 to 240 VAC 50/60 Hz		
Max Power Consumption	14.6 W	26.1 W	32 W
Standby Power Consumption	5.6 W	7.7 W	8.4 W
Dimensions (W x D x H)	280 x 180 x 44 mm	280 x 180 x 44 mm	440 x 140 x 44 mm
Weight	1.7 kg	2 kg	2.15 kg
Ventilation	Fanless	Fanless	1 x Smart fan
Power Surge Protection	All Etherne	et RJ-45 ports support IEC61000-4-5 6 kV su	rge protection
Operating Temperature	-5 to 50 °C		
Storage Temperature	-20 to 70 °C		
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	

DGS-1530-28S	DGS-1530-28SC	DGS-1530-52
Desktop or 19" Back Mount (mounting brackets included)		
• 24 x SFP ports • 4 x 10G SFP+ ports	• 20 x SFP ports • 4 x GE/SFP combo ports • 4 x 10G SFP+ ports	• 48 x 10/100/1000 Mbps ports • 4 x 10G SFP+ ports
	RJ-45 console port	
	USB 2.0 (Type A)	
DPS-500A	DPS-500A	DPS-500A
• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet		
_	Half/full-duplex for 10/100 Mbps and full-duplex for 1000 Mbps speeds (Applicable only to copper ports)	
_	Auto or configurable MDI/MDI	X (Applicable only to copper ports)
128 Gbps	128 Gbps	176 Gbps
Store-and-forward		
16K entries per device		
1024 static MAC entries		
95.24 Mpps	95.24 Mpps	130.95 Mpps
1.5 MB	1.5 MB	1.5 MB x 2
√	√	✓
✓	✓	✓
✓	✓	√
✓	✓	✓
✓	✓	✓
446,328 hours	434,671 hours 392,556 hours	330,520 hours
52.4 dB(A)	52.4 dB(A)	54.7 dB(A)
154.13 BTU/h	154.13 BTU/hr	150.38 BTU/h
	AC Input: 100 to 240 VAC 50/60 Hz	
45.2 W	45.2 W	44.1 W
10.5 W	10.5 W	14.3 W
440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm
3.10 kg	3.15 kg	3.2 kg
	2 x Smart Fan	
	All Ethernet RJ-45 ports support I	EC61000-4-5 6 kV surge protection
-5 to 50 °C		
-20 to 70 °C		
0% to 95% non-condensing		
0% to 95% non-condensing		
BSMI, CE, FCC, IC, RCM, UKCA-EMC, VCCI		
	• 24 x SFP ports • 4 x 10G SFP+ ports  DPS-500A  • IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet  ———————————————————————————————————	- 4 x 10G SFP+ ports

Model Number	DGS-1530-28P	DGS-1530-52P	
Interface	DG3 1330 201	203 1330 321	
	Dulling 10//Dull Mark	Variation land at the land	
Mounting Options	Desktop or 19" Rack Mount (mounting brackets included)  • 24 x 10/100/1000 Mbps PoE ports  • 48 x 10/100/1000 Mbps PoE ports		
Interfaces	• 4x 10G SFP+ ports	• 4x 10/100/1000 Mbps Poe ports • 4x 10G SFP+ ports	
Console Port	RJ-45 Console Port		
USB Port	USB 2.0 (Type A)		
Optional Redundant Power Supply	_	DPS-700	
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	<ul><li>IEEE 802.3 10BASE-T Ethernet</li><li>IEEE 802.3u 100BASE-TX Fast Ethernet</li><li>IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li></ul>	<ul> <li>IEEE 802.3ae 10G Ethernet</li> <li>IEEE 802.3x Flow Control for full-duplex mode, auto-negotiat</li> <li>IEEE 802.3af/802.3at</li> </ul>	
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/MDI	X (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)	<b>√</b>	<b>√</b>	
Console (per device)	· · · · · · · · · · · · · · · · · · ·	<b>√</b>	
Link/Active/Speed (per port)		<b>√</b>	
Fan Error	<b>√</b>	V	
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  Maximum Poe Budget	456 W (PoE on) / 39.5 W (PoE off)	482 W (PoE on) / 59.2 W (PoE off)  370 W (740 W with DPS-700 RPS redundant power supply	
Maximum PoE Budget Standby Power Consumption	370 W 16.5 W	22.8 W	
Dimensions (W x D x H)	440 x 250 x 44 mm	440 x 250 x 44 mm	
Weight	3.75 kg	4.35 kg	
Ventilation		nart fan	
Power Surge Protection			
Operating Temperature	All Ethernet RJ-45 ports support IEC61000-4-5 6 kV surge protection -5 to 50 °C		
Storage Temperature	-5 to 50 °C		
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 Specificat	ions (air models)	
itackability	D-Link Single IP Management (SIM)     Up to 32 units per virtual stack	<ul> <li>Physical Stacking</li> <li>Up to 80 Gbps stacking bandwidth<sup>1</sup></li> <li>Up to 9 switches in a stack</li> <li>Ring/chain topology support</li> </ul>
L2 Features	<ul> <li>MAC Address Table: 16K</li> <li>Flow Control</li> <li>802.3x Flow Control</li> <li>HOL Blocking Prevention</li> <li>Jumbo Frames up to 10,240 bytes</li> <li>Spanning Tree Protocol</li> <li>802.1D STP</li> <li>802.1w RSTP</li> <li>802.1s MSTP</li> <li>BPDU filtering</li> <li>Root Restriction</li> <li>Loopback Detection</li> <li>Link Aggregation</li> <li>Compliant with 802.1AX and 802.3ad</li> <li>Max. 32 groups per device, 8 ports per group</li> </ul>	<ul> <li>Port Mirroring</li> <li>Supports One-to-One, Many-to-One,</li> <li>Supports Mirroring for Tx/Rx/Both</li> <li>Supports 4 mirroring groups</li> <li>Flow Mirroring</li> <li>Supports Mirroring for Rx</li> <li>VLAN Mirroring</li> <li>Supports Mirroring for Rx</li> <li>RSPAN</li> <li>Ethernet Ring Protection Switching (ERPS)</li> <li>L2 Protocol Tunneling (L2PT)</li> <li>Flex Link</li> </ul>
L2 Multicasting	<ul> <li>IGMP Snooping</li> <li>IGMP v1/v2 /v3</li> <li>Supports 1024 groups (shared with MLD snooping)</li> <li>Host-based IGMP Snooping Fast Leave</li> <li>Report suppression</li> <li>IGMP authentication</li> </ul>	<ul> <li>MLD Snooping</li> <li>MLD v1, MLD v2</li> <li>Supports 1024 groups (shared with IGMP snooping)</li> <li>Host-based MLD Snooping Fast Leave</li> </ul>
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	<ul> <li>802.1Q tagged VLAN</li> <li>ISM VLAN</li> <li>VLAN translation</li> <li>VLAN trunking</li> <li>Voice VLAN</li> <li>Private VLAN</li> </ul>
L3 Features	<ul> <li>Max. 1024 ARP entries</li> <li>Supports 255 static ARP entries</li> <li>Gratuitous ARP</li> <li>IPv6 Neighbor Discovery (ND)</li> <li>64 IP interfaces</li> </ul>	<ul> <li>Default route</li> <li>Static route</li> <li>64 IPv4 static routes</li> <li>32 IPv6 static routes</li> </ul>
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	<ul> <li>Max. ACL entries:</li> <li>Ingress (hardware entries): 2K</li> <li>Egress (hardware entries): 1K</li> <li>Time-based ACL</li> <li>CPU interface filtering</li> </ul>
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     Host-based Access Control     Host-based Access Control     Authentication database failover	<ul> <li>Microsoft® NAP (IPv4)</li> <li>Guest VLAN</li> <li>RADIUS</li> <li>RADIUS accounting</li> <li>TACACS+</li> <li>Trusted host</li> <li>Privilege level for management access: 4</li> <li>Compound authentication</li> </ul>
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	<ul> <li>Traffic segmentation</li> <li>D-Link Safeguard Engine</li> <li>L3 control packet filtering</li> <li>NetBlOS/NetBEUI filtering</li> <li>DHCP server screening</li> <li>ARP spoofing prevention</li> <li>BPDU attack protection</li> <li>DoS attack prevention</li> </ul>
Operations, Administration, and Management (OAM)	Cable diagnostics     802.3ah Ethernet Link OAM     Dying Gasp	<ul> <li>802.1ag Connectivity Fault Management (CFM)</li> <li>Y.1731 OAM</li> </ul>
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	<ul> <li>DHCP relay</li> <li>DHCP relay Option 60, 61, and 82</li> <li>DHCP client Option 12</li> <li>PPPoE circuit-ID tag insertion</li> <li>Multiple image</li> <li>Flash file system</li> <li>CPU utilization monitoring</li> <li>Memory usage monitoring</li> <li>SNTP (supports IPv4)</li> <li>Debug command</li> <li>Password recovery</li> <li>Password encryption</li> <li>Ping</li> <li>Traceroute</li> <li>Microsoft® NLB (Network Load Balancing) support (supports IPv4)</li> <li>Zero Touch Provisioning (ZTP)</li> <li>sFlow</li> <li>PD Alive</li> <li>D-Link Discovery Protocol (DDP)</li> </ul>



Redundant Power Supply and Cable		
DPS-200A	AC Redundant Power Supply	
DPS-500A	AC Redundant Power Supply	
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 Transceive	rs	
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 <sup>3</sup>	1000BASE-T to SFP transceiver	
Optional SFP+ Transceiv	vers	
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 <sup>1,2</sup>	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	

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).
 DGS-1530-20 can only support one DEM-410T transceiver at any given time.
 The DGS-1530 supports up to 12 DGS-712 units, and it is recommended to operate under an ambient temperature not exceeding 40°C (104 °F) to ensure stable performance.



For more information: www.dlink.com

