D-Link



Product Highlights

Feature-rich Unified Image

An integrated software image that provides powerful L2 and L3 features to fulfill different applications' requirements, capable of building solid networks

Embedded 10G Ports

Six embedded high-speed 10GbE ports simplify the network deployment by providing versatile options for uplink connections

Scalability and High Availability

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



DGS-3130 Series

Lite Layer 3 Stackable Managed Switches

Features

High Availability and Flexibility

- 24 or 48 10/100/1000BASE-T PoE or non-PoE ports
- 24 or 48 SFP ports
- 2 10GBASE-T and 4 10G SFP+ embedded uplink ports

Reliability

- Redundant power supply (RPS) support
- Ethernet Ring Protection Switching (ERPS) for single ring topologies
- Embedded 6 kV surge protection on all Gigabit Ethernet ports
- IEEE 802.3D/802.1s Spanning Tree
- Loopback Detection (LBD)

L3 Features

- Static Route
- RIP
- RIPng

Overview

The DGS-3130 Series is a range of Lite Layer 3 Stackable Managed Switches designed to help connect end-users in a secure enterprise or metro Ethernet access network. These switches support multicast and enhanced security features, making them an ideal Gigabit access layer solution. The DGS-3130-30TS/54TS provide 24 or 48 10/100/1000 Mbps Gigabit Ethernet ports. The DGS-3130-30PS/54PS provide 24 or 48 10/100/1000 Mbps Power over Ethernet (PoE) Gigabit Ethernet ports. The DGS-3130-30S/54S provide 24 or 48 SFP Gigabit Ethernet ports. Each 10/100/1000 Mbps port on the DGS-3130-30PS/54PS supports the IEEE 802.3af and IEEE 802.3at PoE standards. The default power budget for these models is 370 watts and can be expanded to 740 watts with the DPS-700 redundant power supply. The switches are also equipped with a USB 2.0 port, allowing the user to boot images and upload configuration files directly, as well as conveniently save syslog files to an USB 2.0 storage device.

Enhanced Network Reliability

The DGS-3130 Series targets enterprises and metro Ethernet applications, and customers who require a high level of network security and maximum uptime. All the models in the DGS-3130 Series support an external redundant power supply to ensure continued operation. In addition, these switches incorporate essential reliability features to enhance network resilience, including 802.1D Spanning Tree (STP), 802.1w Rapid Spanning Tree (RSTP), and 802.1s Multiple Spanning Tree (MSTP), Loopback Detection (LBD), and Broadcast Storm Control. ITU-T G.8032 Ethernet Ring Protection Switching (ERPS) minimizes the recovery time to 50 ms. For load sharing and redundancy backup in a switch cascading/server attachment configuration, the DGS-3130 Series provides dynamic 802.3ad Link Aggregation Port Trunking.

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DGS-3130 Series Lite Layer 3 Stackable Managed Switches

Comprehensive Security Features

The DGS-3130 Series provides users with security features such as Multi-layer and Packet Content Access Control Lists (ACL), Storm Control, and IP-MAC-Port Binding (IMPB) with DHCP Snooping. The IP-MAC-Port Binding 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.

Easy Access Control Policies

The DGS-3130 Series supports authentication mechanisms such as 802.1X, Web-based Access Control (WAC), and MAC-based Access Control (MAC) for strict access control and easy deployment. After authentication, individual policies such as VLAN membership, QoS policies, and ACL rules can be assigned to each host. In addition, the switch also supports Microsoft[®] NAP (Network Access Protection). NAP is a policy enforcement technology that helps customers protect network assets from compromised computers by enforcing compliance with network health policies.

Power over Ethernet Support

The DGS-3130-30PS and DGS-3130-54PS support industry standard IEEE 802.3at power over Ethernet across all Gigabit copper ports. They feature a total power budget of 370 W, capable of supplying up to 30 W of power

per port to connected PoE-enabled devices. The PoE power budget can be increased to 740 W when the DPS-700 redundant power supply is used in conjunction. Power over Ethernet helps simplify deployment of surveillance devices and access point infrastructures by reducing cable clutter, eliminating the need for dedicated power supplies, and allowing PoE devices to be installed in remote locations.

Versatile Traffic Management

The DGS-3130 Series implements a rich set of multi-layer QoS/CoS features to help ensure that critical network services such as VoIP, video conferences, IPTV, and IP surveillance are always given high priority. Traffic Shaping features guaranteed bandwidth for these services when the network is busy. L2 Multicast support enables the DGS-3130 Series to handle growing IPTV applications. Host-based IGMP/MLD Snooping allows multiple multicast subscribers per physical interface while ISM VLAN allows the switches to send multicast streams in a multicast VLAN to save bandwidth and to provide better security to the backbone network. The ISM VLAN profiles allow administrators to bind or replace the pre-defined multicast registration information to subscriber ports quickly and easily.

Lifetime Warranty and NBD Replacement

D-Link offers a Lifetime Warranty and Next Business Day (NBD) hardware replacement on the DGS-3130 Series Lite Layer 3 Stackable Managed Switches to further its commitment to product quality and long-term customer confidence.²



1	USB	USB 2.0 Type-A port provides additional storage space for portable firmware images and configuration files.
2	MGMT	RJ45 Management port. IP-based, 10/100/1000 Out-of-Band port for Telnet, web, or SNMP management. Can be used to configure the switch without being connected to the network.
3	3 Console RJ45 console port. Used to connect to the switch CLI for configuration, management, and monitoring. Special concept (included) with DB9 interface connects the switch to the PC serial port (COM).	
4	4 Gigabit Ports Depends on model: 24 or 48 x 10/100/1000 RJ45, PoE optional, or 24 or 48 x 100/1000 SFP	
5	10GbE RJ45 Ports	2 x 10GBASE-T RJ45 ports operate at 10 Gbps and 1 Gbps speeds
6	10GbE SFP+ Ports	4 x SFP/SFP+ ports can operate at 10 Gbps and 1 Gbps speeds.
7	Stack ID	Displays Switch stacking number.

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Technical Specifications			
General	DGS-3130-30TS	DGS-3130-30S	DGS-3130-30PS
Hardware version	A	A	A
Ports	24 x 10/100/1000BASE-T ports 2 x 10GBASE-T ports 4 x 10G SFP+ ports	24 x SFP ports 2 x 10GBASE-T ports 4 x 10G SFP+ ports	24 x 10/100/1000BASE-T PoE ports 2 x 10GBASE-T ports 4 x 10G SFP+ ports
Optional Redundant Power Supply	DPS-500A	DPS-500A	DPS-700
Console Port	10/100/1000BASE-T RJ-45 port for out- of-band CLI management	10/100/1000BASE-T RJ-45 port for out- of-band CLI management	10/100/1000BASE-T RJ-45 port for our of-band CLI management
Management Port	10/100/1000BASE-T RJ-45 port for out- of-band IP management	10/100/1000BASE-T RJ-45 port for out- of-band IP management	10/100/1000BASE-T RJ-45 port for ou of-band IP management
Stacking Ports	4	4	4
Stacking Cost ¹	1	1	1
USB Ports	1 x USB 2.0 Type A port	1 x USB 2.0 Type A port	1 x USB 2.0 Type A port
Performance			
Switching Capacity	168 Gbps	168 Gbps	168 Gbps
64-Byte Packet Forwarding Rate	125 Mpps	125 Mpps	125 Mpps
Packet Buffer Memory	2 MB	2 MB	2 MB
Power over Ethernet (PoE)			
PoE Standards	N/A	N/A	IEEE 802.3af / IEEE 802.3at
PoE Ports	N/A	N/A	Ports 1 to 24
PoE Budget	N/A	N/A	370 W (740 W with DPS-700 RPS)
Physical & Environmental			
MTBF (Hours)	900,546 hours	487,153 hours	409,054 hours
Acoustics	Max: 52.5 dB Min: 33.5 dB	Max: 54 dB Min: 41.1 dB	Max: 53.4 dB Min: 40.4 dB
Heat Dissipation	104.65 BTU/h	281.16 BTU/h	1609.41 BTU/h (with 370 W PoE load 3043.97 BTU/h (with 740 W PoE load
Power Input	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz
Max Power Consumption	30.76 W	82.4 W	471.67 W (with 370 W PoE load) 892.1 W (with 740 W PoE load)
Dimensions (W xD x H)	440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)	440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)	440 x 350 x 44 mm (17.32 x 13.78 x 1.73 in)
Weight	2.98 kg (6.57 lbs)	3.21 kg (7.08 lbs)	4.66 kg (10.27 lbs)
Ventilation	1 x Smart fan	3 x Smart fans	3 x Smart fans
Operation Temperature	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
Operating Humidity	10% to 90% RH	10% to 90% RH	10% to 90% RH
Storage Humidity	5% to 90% RH	5% to 90% RH	5% to 90% RH
Emission (EMI)	FCC Class A, CE Class A, VCCI Class A, IC, RCM, BSMI, CCC	FCC Class A, CE Class A, VCCI Class A, IC, RCM, BSMI, CCC	FCC Class A, CE Class A, VCCI Class A IC, RCM, BSMI, CCC
Safety	CB, cUL, BSMI, CCC	CB, cUL, BSMI, CCC	CB, cUL, BSMI, CCC

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General	DGS-3130-54TS	DGS-3130-54S	DGS-3130-54PS
Hardware version	A	A	A
Ports	48 x 10/100/1000BASE-T ports 2 x 10GBASE-T ports 4 x 10G SFP+ ports	48 x SFP ports 2 x 10GBASE-T ports 4 x 10G SFP+ ports	48 x 10/100/1000BASE-T PoE ports 2 x 10GBASE-T ports 4 x 10G SFP+ ports
Optional Redundant Power Supply	DPS-500A	DPS-500A	DPS-700
Console Port	10/100/1000BASE-T RJ-45 port for out- of-band CLI management	10/100/1000BASE-T RJ-45 port for out- of-band CLI management	10/100/1000BASE-T RJ-45 port for out of-band CLI management
Management Port	10/100/1000BASE-T RJ-45 port for out- of-band IP management	10/100/1000BASE-T RJ-45 port for out- of-band IP management	10/100/1000BASE-T RJ-45 port for out of-band IP management
Stacking Ports	4	4	4
Stacking Cost ¹	2	2	2
USB Ports	1 x USB 2.0 Type A port	1 x USB 2.0 Type A port	1 x USB 2.0 Type A port
Performance			
Switching Capacity	216 Gbps	216 Gbps	216 Gbps
64-Byte Packet Forwarding Rate	161 Mpps	161 Mpps	161 Mpps
Packet Buffer Memory	4 MB	4 MB	4 MB
Power over Ethernet (PoE)			
PoE Standards	N/A	N/A	IEEE 802.3af / IEEE 802.3at
PoE Ports	N/A	N/A	Ports 1 to 48
PoE Budget	N/A	N/A	370 W (740 W with DPS-700 RPS)
Physical & Environmental			
MTBF (Hours)	478,258 hours	520,861 hours	356,876 hours
Acoustics	Max: 51.9 dB Min: 32.7 dB	Max: 54 dB Min: 37.5 dB	Max: 54.2 dB Min: 36.8 dB
Heat Dissipation	172.72 BTU/h	446.99 BTU/h	1662.6 BTU/h (with 370 W PoE load) 3097.24 BTU/h (with 740 W PoE load
Power Input	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz	3097.24 BTU/h (with 740 W PoE load
Max Power Consumption	50.62 W	131 W	487.26 W (with 370 W PoE load) 907.71 W (with 740 W PoE load)
Dimensions (W xD x H)	440 x 290 x 44 mm (17.32 x 11.42 x 1.73 in)	440 x 350 x 44 mm (17.32 x 13.78 x 1.73 in)	440 x 350 x 44 mm (17.32 x 13.78 x 1.73 in)
Weight	3.72 kg (8.20 lbs)	4.52 kg (9.96 lbs)	5.14 g (11.33 lbs)
Ventilation	2 x Smart fans	5 x Smart fans	4 x Smart fans
Operation Temperature	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
Operating Humidity	10% to 90% RH	10% to 90% RH	10% to 90% RH
Storage Humidity	5% to 90% RH	5% to 90% RH	5% to 90% RH
Emission (EMI)	FCC Class A, CE Class A, VCCI Class A, IC, RCM, BSMI, CCC	FCC Class A, CE Class A, VCCI Class A, IC, RCM, BSMI, CCC	FCC Class A, CE Class A, VCCI Class A IC, RCM, BSMI, CCC
Safety	CB, cUL, BSMI, CCC	CB, cUL, BSMI, CCC	CB, cUL, BSMI, CCC



Stackability	Physical stacking	Virtual stacking	
Stackasing	Stacking Lite Up to 9 units per stack or up to 12 stacking cost per stack ¹	• D-Link Single IP Management (SIM) • Up to 32 units per virtual stack	
L2 Features	MAC Address Table: 16K (16,384) entries Flow Control • 802.3x Flow Control • HOL Blocking Prevention Jumbo Frames up to 9 Kbytes 802.3ad Link Aggregation • Max. 32 groups per device, 8 Gigabit ports per group	Spanning Tree Protocols • 802.1D STP • 802.1w RSTP • 802.1s MSTP • BPDU Filtering • Root Restriction Loopback Detection	Port Mirroring • One-to-One • Many-to-One • Flow-based • RSPAN Mirroring Ethernet Ring Protection Switching (ERPS) • Single ring topology
L2 Multicasting	IGMP Snooping • IGMP v1/v2/v3 Snooping • Supports 1024 IGMP groups • Port/Host-based IGMP Snooping Fast Leave	Limited IP Multicast • Up to 24 IGMP filtering profiles, 128 ranges per profile Double VLAN Q-in-Q • Port-based Q-in-Q • Selective Q-in-Q	MLD Snooping • MLD v1/v2 Snooping • Support 1024 MLD Groups • Host-based MLD Snooping Fast Leave
VLAN	VLAN Group • Max. 4K VLAN groups GVRP • Max. 4K dynamic VLAN groups 802.1Q Tagged VLAN	Port-based VLAN 802.1v Protocol VLAN Voice VLAN MAC-based VLAN VLAN translation	ISM VLAN Asymmetric VLAN Private VLAN VLAN Trunking Super VLAN
QoS (Quality of Service)	802.1p 8 queues per port Queue Handling • Strict Priority • Weighted Round Robin (WRR) • Strict + WRR Supports following actions for flows • Remark 802.1p Priority Tag • Remark TOS/DSCP Tag • Bandwidth Control	CoS based on • Switch port • VLAN ID • 802.1 p priority queues • MAC address • IPv4 address • DSCP • Protocol type • TCP/UDP port • User-defined packet content • IPv6 address • IPv6 traffic class • IPv6 flow label	 Bandwidth Control Port-based (ingress/egress, min. granularity 8 Kbps) Flow-based (ingress/egress, min. granularity 8 Kbps) Three Color Marker CIR/PIR minimum granularity: 8 kbps Two Rate Three Color Marker (trTCM), CBS/PBS Single Rate Three Color Marker (srTCM), CBS/EBS
Access Control List (ACL)	ACL based on • 802.1 p priority • VLAN ID • MAC address • Ether Type • IPv4 address • DSCP • Protocol type • TCP/UDP port number • User-defined packet content • IPv6 address • IPv6 flow label • IPv6 traffic class	Supports up to 2048 ingress access entries Supports up to 512 egress access entries Time-based ACL CPU Interface Filtering	
Security Features	SSH v2 SSL v1/v2/v3 Port Security • Up to 64 MAC addresses per port IP-MAC Port Binding DHCP Snooping Supports up to 500 address binding entries	Broadcast/Multicast/Unicast Storm Control Traffic segmentation D-Link Safeguard Engine NetBIOS/NetBEUI Filtering IPv6 ND Snooping	DHCP Server Screening ARP Spoofing Prevention DoS Attack Prevention BPDU Attack Protection ARP Packet Inspection IP Packet Inspection



AAA	802.1X: • Port-based Access Control • Host-based Access Control • Identity-driven Policy (VLAN, ACL or QoS) Assignment • Authentication Database Failover Web-based Access Control (WAC): • Port-based Access Control • Host-based Access Control • Identity-driven Policy (VLAN, ACL or QoS) Assignment • Authentication Database Failover	MAC-based Access Control (MAC): • Port-based Access Control • Host-based Access Control • Identity-driven Policy (VLAN, ACL or QoS) Assignment • Authentication Database Failover Guest VLAN	Microsoft® NAP • Support 802.1X NAP • Support DHCP NAP RADIUS Accounting RADIUS and TACACS+ authentication for switch access Four levels of User Account Control
Green Features	Compliant with RoHS Power saving by Link Status	Power saving by cable length Time-based PoE	IEEE 802.3az Energy-Efficient Ethernet (EEE)
OAM	Cable diagnostics	Hardware-based Dying Gasp	802.3ah Ethernet Link OAM
Management	Web-based GUI Command Line Interface (CLI) Telnet Server Telnet Client TFTP Client DNS Client Secure FTP Server ZModem SNMP v1/v2c/v3 SNMP Traps System Log sFlow Multiple images	Multiple Configurations RMON v1: • Supports 1,2,3,9 groups RMON v2: • Supports ProbeConfig group LLDP BootP/DHCP Client DHCP Auto-Configuration DHCP Relay DHCP Client Option 12 DHCP Relay Option 18, 37, 82 Flash File System PPPoE Circuit-ID Tag Insertion	CPU monitoring Debug command SNTP NTP Password recovery Password encryption Trusted Host ICMPv6 DHCP server
L3 Features	Max. 16 IP interfaces ARP Proxy	IPv6 Neighbour Discovery (ND)	VRRP
L3 Routing	Static Route • Max. 512 IPv4 entries • Max. 512 IPv6 entries	RIPv1/v2/ng	
L3 Multicasting	IGMP Filtering • Port-based filtering • VLAN-based filtering		
MIB	RFC 1213 MIB II RFC 4188 Bridge MIB RFC 1157, 2571-2576 SNMP MIB RFC 1907 SNMPv2 MIB RFC 1757, 2819 RMON MIB RFC 2021 RMONv2 MIB RFC 1398, 1643, 1650, 2358, 2665 Ether- like MIB RFC 2674 802.1p MIB	RFC 2233, 2863 IF MIB RFC 2618 RADIUS Authentication Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2925 PING & TRACEROUTE MIB RFC 2674, 4363 802.1p MIB RFC 1065, 1066, 1155, 1156, 2578 MIB Structure	RFC 1215 MIB Traps Convention RFC 1212 Concise MIB Definitions RFC 1215 MIB Traps Convention RFC 1157, 2571-2576 SNMP MIB RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4293 IPv6 SNMP Mgmt Interface MIB RFC 2737 Entity MIB (version 2)
RFC Standard Compliance	RFC 768 UDP RFC 791 IP RFC 792, 2463, 4443 ICMP RFC 793 TCP RFC 826 ARP RFC 3513, 4291, IPv6 Addressing Architecture RFC 2893, 4213 IPv4/IPv6 dual stack function RFC 2463, 4443 ICMPv6	RFC 2462, 4862 IPv6 Stateless Address Auto Configuration RFC 2464 IPv6 Ethernet and definition RFC 1981 Path MTU Discovery for IPv6 RFC 2460 IPv6 RFC 2461, 4861 Neighbor Discovery for IPv6 RFC 783 TFTP	RFC 2068 HTTP RFC 1492 TACACS RFC 2866 RADIUS Accounting RFC 2474, 3260 DiffServ RFC 1321, 2284, 2865, 3580, 3748 Extensible Authentication Protocol (EAP) RFC 2571, 2572, 2573, 2574, SNMP RFC 854 Telnet RFC 951, 1542 BootP

DGS-3130 Series Lite Layer 3 Stackable Managed Switches

Ordering Information				
Model number	Description	Warranty		
DGS-3130-30TS	24 10/100/1000BASE-T ports, 2 10GBASE-T ports, and 4 10G SFP+ port Lite L3 Stackable Managed Switch	Lifetime ²		
DGS-3130-30S	24 SFP ports, 2 10GBASE-T ports, and 4 10G SFP+ port Lite L3 Stackable Managed Switch	Lifetime ²		
DGS-3130-30PS	24 10/100/1000BASE-T PoE ports, 2 10GBASE-T ports, and 4 10G SFP+ port Lite L3 Stackable Managed Switch	Lifetime ²		
DGS-3130-54TS	48 10/100/1000BASE-T ports, 2 10GBASE-T ports, and 4 10G SFP+ port Lite L3 Stackable Managed Switch	Lifetime ²		
DGS-3130-54S	48 SFP ports, 2 10GBASE-T ports, and 4 10G SFP+ port Lite L3 Stackable Managed Switch	Lifetime ²		
DGS-3130-54PS	48 10/100/1000BASE-T PoE ports, 2 10GBASE-T ports, and 4 10G SFP+ port Lite L3 Stackable Managed Switch	Lifetime ²		
Optional 10Gb	E SFP+ Transceivers			
DEM-431XT	10GBASE-SR Multimode SFP+ Optical Transceiver, 0 to 70C			
DEM-432XT	DEM-432XT 10GBASE-LR Single-mode SFP+ Optical Transceiver, 0 to 70C			
Optional Gigal	pit SFP Transceivers			
DEM-310GT	1000BASE-LX Single-mode SFP Optical Transceiver, 0 to 70C			
DEM-311GT	-311GT 1000BASE-SX Multimode SFP Optical Transceiver, 0 to 70C			
DGS-712	DGS-712 1000BASE-T to SFP Transceiver			
Optional 10GbE SFP+ Direct Attach Copper Cables				
DEM-CB100S	10GbE SFP+ 1m Direct Attach Cable			
DEM-CB300S	10GbE SFP+ 3m Direct Attach Cable			
Optional Redundant Power Supplies				
DPS-500A	DPS-500A AC Redundant Power Supply			
DPS-700	DPS-700 AC Redundant Power Supply for PoE Models			

¹ When stacking the DGS-3130-30TS/30S/30PS models, the stacking cost is 1 per unit. The maximum units per stack is 9.
 When stacking the DGS-3130-54TS/54S/54PS models, the stacking cost is 2 per unit. The maximum units per stack is 6.
 When stacking different models in the same stack, switches can be stacked up to a maximum of 12 stacking cost per stack. For example: 2 x DGS-3130-30TS (2 stacking cost) + 2 x DGS-3130-30S (2 stacking cost) + 4 x DGS-3130-54TS (8 stacking cost) consumes a total stacking cost of 12 (2+2+8).

² Lifetime Warranty available in U.S.A. only. Lifetime Warranty void when not purchased from Authorized US D-Link Reseller. Please visit us.dlink.com for list of Authorized US Resellers.

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FOR MORE INFORMATION

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