

D-Link SmartPro DGS-1510-52X(DGS-1510-52X) 52-Port GigabitSmart Managed SW SFP+



The DGS-1510 series is the next generation of smart managed switch. It contains 16,24 or 48 10/100/1000 Mbps ports plus 2 Gigabit SFP ports and 2 10G SFP+ ports,24/48 10/100/1000 Mbps ports plus 4 10G SFP+ ports,as well as one 24 10/100/1000 Mbps PoE plus 2 Gigabit SFP ports and 2 10G ports smart managed switch. With it's 10G SFP+ ports,the DGS-1510 series is ideal for deployments in the SME/SMB core with its 10G uplinks connecting with servers equipped with 10G port connectivity. For medium to large scale enterprise deployment,it can serve as a good interconnection between the core switch and edge switch.

Key Selling Points

- 10G SFP+ stacking/uplink ports
- Flexibility and scalability
- Extensive Layer 2 features
- QoS,bandwidth control
- Secure your network
- IPv6 ready
- Versatile management
- Layer 3 traffic management
- Energy saving

Product Features

10G SFP+ stacking/uplink ports

Depending on whether linear or fault-tolerant ring stacking is implemented,users can use one or two 10-Gigabit SFP+ ports to create a physical stack. Six units or 288 Gigabit ports can be configured as a stack using optional direct attach cables to provide high bandwidth on the DGS-1510 series with cost efficiency. Users can mix from any of the DGS-1510 SmartPro series in a single stack to allow simultaneous and easy configuration,management and troubleshooting.

Flexibility and scalability

The DGS-1510 series supports virtual stacking via D-Link's Single IP Management (SIM),allowing up to 32 devices to be managed via a single IP. This simplifies management of small workgroups or wiring closets while allowing the network to be scaled to handle increased bandwidth demand. SIM reduces the number of IP address needed in the network and allows switches to be stacked together over Ethernet instead of using physical uplink or stacking ports. This eliminates the need for specialized stacking cables and removes distance barriers that can limit topology options when using other stacking technology.

Extensive Layer 2 features

The DGS-1510 series switches are equipped with a complete lineup of Layer 2 features including IGMP Snooping,Port Mirroring,Spanning Tree,and Link Layer Discovery Protocol (LLDP). The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast,reliable data transfer. At 2000 Mbps full duplex,the Gigabit ports provide high-speed data pipes to servers with minimum data transfer loss. Network maintenance features include loopback detection and cable diagnostics. Loopback detection is used to detect loops created by a specific port or VLAN and automatically shut down the affected port or VLAN. The cable diagnostics feature,designed primarily for administrators and customer service representatives,can quickly discover the type of error on cables and determine the cable quality.

QoS,bandwidth control

The DGS-1510 series supports Auto Surveillance VLAN (ASV) and Auto Voice VLAN,which are best suited for VoIP and video surveillance deployments. Auto Surveillance VLAN is an industry-leading technology built into D-Link smart switches. This technology consolidates data and surveillance video transmission through a single SmartPro switch,sparing businesses the expense of maintaining expensive dedicated hardware and facilities. ASV also ensures the quality of real-time video for monitoring and control without compromising the transmission of conventional network data. The Auto Voice VLAN technology enhances VoIP service by automatically placing voice traffic from an IP phone to an assigned VLAN. With higher priority and an individual VLAN,these features guarantee the quality and security of VoIP traffic. Furthermore,the DSCP markings on Ethernet packets enable different levels of service to be assigned to network traffic. As a result,these voice and video packets take precedence over other packets. In addition,with Bandwidth Control,network administrators can reserve bandwidth for important functions that require more bandwidth or might require high priority.

Secure your network

D-Link's innovative safeguard engine protects the switches against traffic flooding caused by virus attacks. The switches also support 802.1x port-based authentication,allowing the network to be authenticated through external RADIUS servers. In addition,the Access Control List (ACL) feature enhances network security and helps to protect the internal IT network by screening ingress traffic based on MAC or IP addresses. The DGS-1510 series includes ARP Spoofing Prevention,which protects from attacks on the Ethernet network that may allow an intruder to sniff data frames,modify traffic,or bring traffic to a halt altogether by sending fake ARP messages to the network. To prevent ARP spoofing attacks,the switch uses packet control ACLs to block invalid packets that contain fake ARP messages. For added security,the DHCP server screening feature screens rogue DHCP server packets from user ports to prevent unauthorized IP assignment.

IPv6 ready

The DGS-1510 series is IPv6 ready and supports various IPv6 functions such as MLD Snooping,IPv6 ACL/QoS,and IMPBv6 to ensure seamless integration of next generation networks. The DGS-1510 series also supports an IPv4/v6 dual stack function that allows the switch to act as a bridge between IPv4 and IPv6 networks. Finally,all DGS-1510 series are certified to be IPv6 ready logo phase 2,which guarantees interoperability for IPv6 environments.

Versatile management

The DGS-1510 series provides a D-Link network assistant utility and a web based management interface 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 SmartPro switches within the same L2 network segment. With this utility, users do not need to change the IP address of their PC. It also simplifies the initial setup of the SmartPro Switches. Switches within the same L2 network segment that are connected to the user's PC are displayed on screen for instant access. This allows extensive switch configuration and basic setup of discovered devices including password changes and firmware upgrades. The DGS-1510 series also supports D-View 6.0 and a fully featured Command Line Interface (CLI) via dedicated out-of-band console port. D-View 6.0 is a network management system that allows for the central management of critical network characteristics such as availability, reliability, resilience, and security. CLI management of the switches is possible via console port and Telnet interfaces. This makes it possible to adjust basic settings, passwords, configuration files, and firmware with ease.

Layer 3 traffic management

The DGS-1510 series supports advanced traffic management features, including static routing. In static routing, IP routes are manually entered into a routing table, which allows for communication between different user groups in different VLAN segments in a network. The switch can directly handle inter VLAN routing using multiple interfaces, making the network run faster and more efficiently. Because the switches can manage internal routing, the network router can be assigned to handle external traffic routing only.

Energy saving

DGS-1510 switches are capable of conserving power without sacrificing operational performance or functionality by using D-Link Green 3.0 technology. Using the 802.3az Energy Efficient Ethernet standard, the network will automatically decrease the power usage when traffic is low with no setup required. For environments not fully supporting the standard, DGS-1510 switches offer advanced power-saving settings including port shutoff, LED shutoff, and system hibernation based on custom scheduling profiles. The profiles can also be applied to the PoE switch so that there is no unnecessary power consumption during off hours.

Main Specifications

Product Description	D-Link SmartPro DGS-1510-52X - switch - 52 ports - Managed - rack-mountable
Device Type	Switch - 52 ports - L3 - Managed - stackable
Enclosure Type	Rack-mountable 1U
Subtype	Gigabit Ethernet
Ports	48 x 10/100/1000 + 4 x 10 Gigabit SFP+
Performance	Switching capacity: 176 Gbps Forwarding performance (64-byte packet size): 130.95 Mpps Stacking bandwidth: 20 Gbps
Capacity	ARP entries: 256 IPv6 routing table entries: 32 IPv4 routing table entries: 64 ACL entries: 256 ACL rules: 768 IGMP groups: 512 Layer 2 multicast addresses: 128
MAC Address Table Size	16000 entries
Jumbo Frame Support	9000 bytes
Routing Protocol	Static IPv4 routing, static IPv6 routing
Remote Management Protocol	SNMP 1, RMON 1, Telnet, SNMP 3, SNMP 2c, HTTP, TFTP, CLI
Features	Flow control, full duplex capability, auto-negotiation, ARP support, VLAN support, auto-uplink (auto MDI/MDI-X), IGMP snooping, Syslog support, DoS attack prevention, port mirroring, Weighted Round Robin (WRR) queuing, store and forward, Broadcast Storm Control, IPv6 support, Multicast Storm Control, Unicast Storm Control, STNP support, Spanning Tree Protocol (STP) support, Rapid Spanning Tree Protocol (RSTP) support, Multiple Spanning Tree Protocol (MSTP) support, DHCP snooping, Access Control List (ACL) support, Quality of Service (QoS), RADIUS support, DHCP server, MLD snooping, Dynamic ARP Inspection (DAI), Safeguard Engine, Cable Diagnostics Function, bandwidth control, D-Link Green Technology, Deficit Weighted Round Robin (DWRR), LLDP support, IP-MAC binding, SNMP trap, DHCP client, Energy Efficient Ethernet, Strict Priority Queuing (SPQ), Class of Service (CoS), tagged VLAN, Generic VLAN Registration Protocol (GVRP), D-Link Single IP Management (SIM), DiffServ Code Point (DSCP) support
Compliant Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.1D, IEEE 802.1Q, IEEE 802.3ab, IEEE 802.1p, IEEE 802.3x, IEEE 802.3ad (LACP), IEEE 802.1w, IEEE 802.1x, IEEE 802.3ae, IEEE 802.1s, IEEE 802.3az
Power	AC 120/230 V (50/60 Hz)
Dimensions (WxDxH)	44 cm x 25 cm x 4.4 cm
Weight	2.4 kg

Extended Specification

General

Device Type	Switch - 52 ports - L3 - Managed - stackable
Enclosure Type	Desktop,rack-mountable 1U
Subtype	Gigabit Ethernet
Ports	48 x 10/100/1000 + 4 x 10 Gigabit SFP+
Performance	Switching capacity:176 Gbps Forwarding performance (64-byte packet size):130.95 Mpps Stacking bandwidth:20 Gbps
Capacity	ARP entries:256 IPv6 routing table entries:32 IPv4 routing table entries:64 ACL entries:256 ACL rules:768 IGMP groups:512 Layer 2 multicast addresses:128
MAC Address Table Size	16000 entries
Jumbo Frame Support	9000 bytes
Max Units In A Stack	6
Routing Protocol	Static IPv4 routing,static IPv6 routing
Remote Management Protocol	SNMP 1,RMON 1,Telnet,SNMP 3,SNMP 2c,HTTP,TFTP,CLI
Encryption Algorithm	SSL,TLS,SSL 3.0,SSL 2.0,PEAP,TTLS
Authentication Method	RADIUS,Secure Shell v.2 (SSH2)
Features	Flow control,full duplex capability,auto-negotiation,ARP support,VLAN support,auto-uplink (auto MDI/MDI-X),IGMP snooping,Syslog support,DoS attack prevention,port mirroring,Weighted Round Robin (WRR) queuing,store and forward,Broadcast Storm Control,IPv6 support,Multicast Storm Control,Unicast Storm Control,SNTP support,Spanning Tree Protocol (STP) support,Rapid Spanning Tree Protocol (RSTP) support,Multiple Spanning Tree Protocol (MSTP) support,DHCP snooping,Access Control List (ACL) support,Quality of Service (QoS),RADIUS support,DHCP server,MLD snooping,Dynamic ARP Inspection (DAI),Safeguard Engine,Cable Diagnostics Function,bandwidth control,D-Link Green Technology,Deficit Weighted Round Robin (DWRR),LLDP support,IP-MAC binding,SNMP trap,DHCP client,Energy Efficient Ethernet,Strict Priority Queuing (SPQ),Class of Service (CoS),tagged VLAN,Generic VLAN Registration Protocol (GVRP),D-Link Single IP Management (SIM),DiffServ Code Point (DSCP) support
Compliant Standards	IEEE 802.3,IEEE 802.3u,IEEE 802.1D,IEEE 802.1Q,IEEE 802.3ab,IEEE 802.1p,IEEE 802.3x,IEEE 802.3ad (LACP),IEEE 802.1w,IEEE 802.1x,IEEE 802.3ae,IEEE 802.1s,IEEE 802.3az

Expansion / Connectivity

Interfaces	48 x 1000Base-T RJ-45 4 x 10GBase-X SFP+ 1 x console RJ-45 management
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Power

Power Device	Internal power supply
Voltage Required	AC 120/230 V (50/60 Hz)
Power Consumption Operational	44.2 Watt

Miscellaneous

Compliant Standards	VCCI,C-Tick,BSMI,cUL,CB,CCC,FCC
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Dimensions &Weight

Width	44 cm
Depth	25 cm
Height	4.4 cm
Weight	2.4 kg

Environmental Parameters

Min Operating Temperature	-5 °C
Max Operating Temperature	50 °C
Humidity Range Operating	0 - 95% (non-condensing)
Min Storage Temperature	-20 °C
Max Storage Temperature	70 °C
Humidity Range Storage	0 - 95% (non-condensing)

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