D-Link
Building Networks for People

Highlights

Save Energy, Save Money

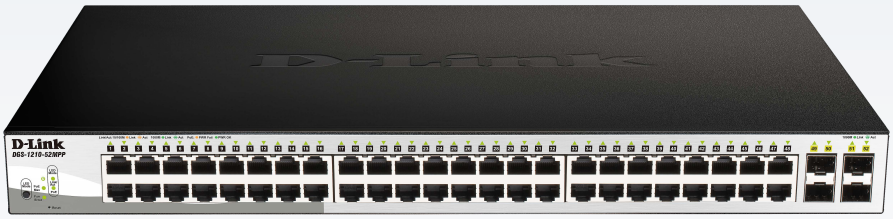
D-Link Green technology conserves energy by powering down unused ports, cutting operational costs while reducing your carbon footprint

Manageability

Advanced management functions make for a truly versatile series of switches that integrate performance and scalability

IPv6 Ready

Fully IPv6 compatible and ready for enterprise deployment, giving you a head start on the next Internet standards evolution



DGS-1210-52MPP

Smart Managed Switches

Features

Green Technology

- Power saving via the following features:
  - Link Status detection
  - LED Shut-Off
  - Port Shut-Off
  - System Hibernation
  - Time-based PoE (DGS-1210-52MPP)

Security Features

- Access Control List secures network
- D-Link Safeguard Engine protects the CPU from Broadcast/Multicast/Unicast Flooding
- Port Security supports 64 MACs per port
- ARP Spoofing Prevention

Intuitive Management

- D-Link Network Assistant Utility or web-based GUI
- Built-in SNMP MIB for remote NMS (D-View 6.0)
- Command Line Interface (CLI) through Telnet

Advanced Features

- Auto Surveillance VLAN
- Loopback Detection automatically disables a port when a loop is detected
- Cable Diagnostics allows administrators to determine cable status
- SFP ports for flexibility
- Auto MDI/MDIX

The D-Link DGS-1210-52MPP Smart Managed Switches are the latest generation of switches featuring D-Link Green Technology. The DGS-1210-52MPP integrates advanced management tools as well as security functions that provide superior performance and scalability. Management options for this series include SNMP, web management, D-Link's Network Assistant (DNA) utility, and a command line interface (CLI) through Telnet. The DGS-1210-52MPP uses Auto Voice VLAN, ensuring bandwidth is prioritized for smoother VoIP performance. The DGS-1210-52MPP feature a fanless design that allows for silent operation and helps to extend the device's lifetime, while the DGS-1210-52MPP feature a smart fan that dynamically powers on when the switch reaches a certain temperature threshold. With these features combined, the DGS-1210-52MPP provides a cost-efficient and flexible solution for expanding any business network.

Energy Efficient

Incorporating D-Link's Green technology, the DGS-1210-52MPP switches are capable of saving power without sacrificing operational performance or functionality. Link status drastically reduces power consumption by automatically toggling ports without a link into a sleep mode. The DGS-1210-52MPP takes the approach to green IT one step further by incorporating a special chipset with advanced silicon technology for efficient use of energy.

Extensive Management and Layer 2 Features

The DGS-1210-52MPP 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. At 2000 Mbps full-duplex, the Gigabit ports provide high-speed data pipes to servers with minimum impact to data transfer fidelity. Network maintenance features include loopback detection and cable diagnostics. Loopback detection significantly speeds up troubleshooting by automatically detecting and shutting down switching loops.

The cable diagnostics feature, designed primarily for administrators and customer service representatives, determines the cable quality and quickly discovers errors, allowing for hassle-free diagnostics and maintenance.

Quality of Service and Bandwidth Control

The DGS-1210-52MPP supports Auto Surveillance VLAN (ASV) and Auto Voice VLAN, which are best suited for VoIP and video surveillance deployments. Auto Surveillance VLAN is a new, industry-leading technology that consolidates data and surveillance video transmission through a single DGS-1210-52MPP switch, thus sparing businesses the expense of dedicated hardware and facilities. ASV also ensures quality real-time video monitoring and control without compromising the transmission of conventional network data. Auto Voice VLAN technology enhances the VoIP service by automatically placing voice traffic from IP phones to a designated VLAN. With higher priority and an individual VLAN, these features guarantee the quality and security of VoIP traffic. The Differentiated Service Code Point (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 higher priority or more bandwidth.

Secure your Network

D-Link's innovative Safeguard Engine protects the switches against traffic flooding caused by malicious attacks. The DGS-1210-52MPP supports 802.1X port-based authentication, allowing the network to be authenticated through external RADIUS servers. The Access Control List (ACL) feature enhances network security and helps to protect the internal IT network. The DGS-1210-52MPP also features Address Resolution Protocol (ARP) spoofing prevention, which provides protection from attacks on the network that could allow an intruder to sniff data frames, modify traffic, or bring traffic to a halt altogether by sending fake ARP messages. 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 filters DHCP replies on unauthorized ports to prevent them from being assigned an IP address.

Versatile Management

The DGS-1210-52MPP 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 furthermore allows customers to easily discover multiple D-Link Smart Managed Switches within the same L2 network segment and display them on-screen for instant access. With this utility, users do not need to change the IP address of their PC. This allows for simultaneous configuration and basic setup of all discovered devices, including password changes and firmware upgrades. The DGS-1210-52MPP also supports D-View 6.0 and Command Line Interface (CLI) through Telnet. 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.

Seamless Integration

The DGS-1210-52MPP comes with Ethernet and Gigabit copper ports capable of connecting to existing Cat. 5 twisted-pair cables. With a large variety of port configurations, the DGS-1210-52MPP offers businesses a wide range of options, including PoE support and SFP ports, to build and expand a flexible and adaptive network that meets the network requirements of today and the future.

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DGS-1210-52MPP Smart Managed Switches

Model	• DGS-1210-52MPP
General	
Interfaces	• 48 x 10/100/1000 Mbps PoE ports • 4 x SFP ports
Port Standards & Functions	• Ports 1 to 48 compliant with 802.3at
Other Port Standards & Functions	• IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) • IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted- pair copper) • IEEE 802.3az compliance • Auto-negotiation • IEEE 802.3x Flow Control • IEEE 802.3z
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.)
Duplex Mode	• Full/Half-duplex for 10/100 Mbps • Full-duplex for 1000 Mbps
Media Interface Exchange	• Auto MDI/MDIX adjustment for all twisted-pair ports
Performance	
Switching Capacity	• 104 Gbps
Transmission Method	• Store-and-forward
MAC Address Table	• 16 ,000 entries per device
MAC Address Update	• Up to 256 static MAC entries
Maximum 64 bytes packet forwarding rate	• 77.4 Mpps
Packet Buffer Memory	• 3.0 MB
CPU Memory	• 256 MB DDR3
Flash Memory	• 32 MB
Physical/Environmental	
AC Input	• 100 to 240 VAC 50/60 Hz internal universal power supply
Maximum Power Consumption	• 967.5 W (PoE on) • 53.1 W (PoE off)
Maximum PoE Budget	• 740 W
Standby Power Consumption	• 100 V: 34.8 W • 240 V: 33.1 W
Acoustics	• Low speed: 49.3 dBA • High speed: 55.2 dBA
Heat Dissipation	• 3,301.08 Btu/hr
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

Dimensions (L x W x H)	• 440 x 430 x 44 mm (17.32 x 16.9 x 1.73 in)
Weight	• 6.52 kg (14.37 lbs)
Diagnostic LEDs	• Link/Activity/Speed (per 10/100/1000 Mbps port) • Power Fail/Power Ok (per PoE port)
Certifications	• BSMI • CCC • C-Tick
MTBF	• 350,728 hours

Software

L2 Features	• MAC Address Table
	  • 16K entries
	• IGMP Snooping
	  • IGMP v1/v2 Snooping
	  • Supports 256 IGMP groups
	  • Supports at least 64 static multicast addresses
	  • IGMP per VLAN
	  • Supports IGMP Snooping Querier
	• Loopback Detection
	• 802.3ad Link Aggregation:
	  • DGS-1210 28/28P: Maximum of 14 groups/8 ports per group
	  • DGS-1210 52/52MP/52P: Maximum of 26 groups/8 ports per group
	  • DGS-1210 -10/10P: Maximum of 5 groups/8 ports per group
	• LLDP
	• LLDP-MED
	• Jumbo Frame
	  • Up to 9,216 bytes
		• Spanning Tree Protocol
		  • 802.1D STP
		  • 802.1W RSTP
		  • 802.1s MSTP (for DGS-1210-28MP/52MPP only)
		• Flow Control
		  • 802.3x Flow Control
		  • HOL Blocking Prevention
		• Port Mirroring
		  • One-to-One
		  • Many-to-One
		  • Supports Mirroring for Tx/Rx/Both
		• Multicast Filtering
		  • Forwards all unregistered groups
		  • Filters all unregistered groups
		• Configurable MDI/MDIX
		  • MLD snooping v1/v2 (256 groups)

VLAN	• 802.1Q
	• VLAN Group
	  • Max. 256 static VLAN groups
	• Configurable VID from 1 - 4094
	• Asymmetric VLAN
		• Auto Voice VLAN
		  • Max. 10 user-defined OUI
		  • Max. 8 default OUI
		• Auto Surveillance VLAN

Quality of Service (QoS)	• 802.1p Quality of Service
	• 8 queues per port
	• Queue Handling
	  • Strict
	  • Weighted Round Robin (WRR)
	• Bandwidth Control
	  • Port-based (Ingress/Egress, min granularity 10/100/1000 is 64 Kbps)
		• QoS based on:
		  • 802.1p Priority Queues
		  • DSCP
		  • ToS
		  • IPv6 Traffic Class
		  • TCP/UDP port

L3 Features	• IP Interface
	  • Supports 1 interface
	• IPv6 Neighbor Discovery (ND)
		• Static Routing (for DGS-1210-28MP/52MPP only)
		  • 64 IPv4 Static Route Entries
		  • 32 IPv4 Static Route Entries

Access Control List (ACL)	• Max. 50 access list
	• Max. 768 rules shared by IPv4, MAC and IPv6
	• Each rule can only be associated with a single port
	• ACL based on
	  • 802.1p priority
	  • VLAN
	  • MAC address
		• Ether type
		  • IP address
		  • DSCP
		  • Protocol type
		  • TCP/UDP port number
		  • IPv6 Traffic Class

Security	• Broadcast/Multicast/Unicast Storm Control
	• D-Link Safeguard Engine
	• DHCP Server Screening
	• IP-MAC-Port Binding (Smart Binding)
	  • Supports 512 address binding entries
	  • ARP Inspection
	  • ARP + IP Inspection
	  • Supports DHCP Snooping
	• 802.1X Port-based Access Control
		• ARP Spoofing Prevention
		  • Max. 64 entries
		• Traffic Segmentation
		• SSH v2
		• SSL
		  • Supports v1/v2/v3
		• Port Security
		  • Supports up to 64 MAC addresses per port
		• Duplicate address detection

AAA	• 802.1X Authentication
	  • Supports local/RADIUS database
	  • Supports port-based access control
	  • Supports EAP, OTP, TLS, TTLS, PEAP
		• IPv6 RADIUS Server
		• Support MD5 authentication

MIB/RFC Standards	• RFC 783 TFTP • RFC 951 BootP/DHCP Client • RFC 1157 SNMP v1, v2, v3 • RFC 1213 MIB II • RFC 1215 MIB Traps Convention • RFC 1350 TFTP • RFC 1493 Bridge MIB • RFC 1769 SNTP • RFC 1542 BootP/DHCP Client • RFC 1901 SNMP v1, v2, v3 • RFC 1907 SNMP v2 MIB • RFC 1908 SNMP v1, v2, v3 • RFC 2131 BootP/DHCP Client • RFC 2138 RADIUS Authentication • RFC 2139 RADIUS Authentication • RFC 2233 Interface Group MIB	• RFC-2246 SSL • RFC 2475 • RFC 2570 SNMP v1, v2, v3 • RFC 2575 SNMP v1, v2, v3 • RFC 2598 CoS • RFC 2618 RADIUS Authentication • RFC 2819 RMON v1 • RFC 2865 RADIUS Authentication • RFC 3164 System Log • RFC 3195 System Log • RFC 3411-17 SNMP • D-Link Private MIB • LLDP MIB • Zone Defense MIB • 2233 Interface Group MIB
OAM	• Cable Diagnostics	• Factory Reset

Management	• Web-based GUI
	• D-Link Network Assistant Utility
	• Compact CLI
	• Telnet Server
	• TFTP Client
	• Configurable MDI/MDIX
	• SNMP
	  • Supports v1/v2c/v3
	• SNMP Trap
	• Backup/Upgrade firmware
	• Smart Wizard
	• Upload/Download Configuration file
		• System Log
		  • Max. 500 log entries
		• BootP/DHCP Client
		• SNTP
		• ICMP v6
		• IPv4/v6 Dual Stack
		• DHCP Auto Configuration
		• Time Setting
		  • SNTP
		• RMONv1
		• Trusted Host
		• Dual Image (for DGS-1210-28MP/52MPP only)

Green V3.0 Technology	• Power Saving by:
	  • Link Status
	  • Time-based PoE: PoE ports can be turned on/off by port or system through schedule
		• LED Shutoff
		• System Hibernation
		• Port Shutoff

Optional SFP Transceivers	
DGS-712	1000BASE-T copper
DEM-302S-LX	1000BASE-LX, single-mode, 2 km
DEM-302S-BXD/BXU	Gigabit WDM transceiver, single-mode, 2 km
DEM-310GT	1000BASE-LX, single-mode, 10 km
DEM-311GT	1000BASE-SX, multi-mode, 550 m
DEM-312GT2	1000BASE-SX, multi-mode, 2 km
DEM-314GT	1000BASE-LHX, single-mode, 50 km
DEM-315GT	100BASE-ZX, single-mode, 80 km
DEM-330T/R	Gigabit WDM transceiver, single-mode 10 km
DEM-331T/R	Gigabit WDM transceiver, single-mode 40 km

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