D-Link®

Product Highlights

10 Gigabit Ethernet Connection

10 Gigabit Ethernet ensures that high-bandwidth demands can be fulfilled easily and allows for device flexibility across the network

Save Energy, Save Money

D-Link Green technology conserves energy by powering down unused ports, saving money while reducing carbon footprint

Layer 3 Lite Functions

Wired speed inter-VLAN routing helps by reducing the pressure on routers and backbone networks, improving the overall network efficiency

DXS-1210 Series

10 Gigabit Ethernet Smart Managed Switches

Features

Green Technology
- Power saving via the following features:
  - Link Status detection
  - LED Shut-Off
  - Port Shut-Off
  - System Hibernation

Security Features
- Access Control List
- IP-MAC-Port Binding
- Clientless MAC/Web access control
- D-Link Safeguard Engine
- Port Security
- ARP Spoofing Prevention

Intuitive Management
- Full CLI through console and Telnet
- Web-based GUI
- D-Link Network Assistant Utility
- Built-in SNMP MIB for remote NMS (D-View 7)

Advanced Features
- Auto Surveillance VLAN
- Auto Voice VLAN
- Loopback Detection
- Cable Diagnostics
- Static Route
- LLDP/LLDP-MED

Overview

D-Link's DXS-1210 series 10 Gigabit Ethernet Smart Managed Switches are cost effective 10 GbE switches capable of servicing a range of network needs in any business. With high performance and low latency, these switches can fulfill the needs for virtualization, cloud services and server-to-server applications, making them perfect for SMB networking applications.

DXS-1210 series switches offer a combination of 10GbE copper and fiber ports. The 10GBASE-T copper ports utilize RJ45 interfaces and support 10 Gigabit speeds over CAT6a/CAT7 LAN cabling up to 100m. The 10GbE fiber ports can be connected to other 10GbE ports with low cost Direct Attach Copper (DAC) cables, or with SFP+ optical transceivers on multimode or single-mode fiber optic cabling.

Energy Saving

Incorporating D-Link Green technology, these switches are capable of power-saving without sacrificing operational performance or functionality. They feature built-in smart fans with internal heat sensors that monitor and detect temperature changes and react accordingly by utilizing different fan speeds for different temperatures. At lower temperatures, the fans run slower, reducing the switch's power consumption and noise. Link status drastically reduces power consumption by automatically toggling all ports without a link to sleep mode. The DXS-1210 switches take the approach to green IT one step further by incorporating a special chipset with advanced silicon technology for efficient use of energy.

Extensive Layer 2 Features

The DXS-1210 Series comes with a complete lineup of L2 features, including port mirroring, Spanning Tree Protocol (STP), and Link Aggregation Control Protocol (LACP). Network maintenance features include loopback detection and cable diagnostics. Loopback detection significantly speeds up troubleshooting by automatically detecting and shutting down difficult to diagnose switching loops. The cable diagnostic feature, designed primarily for administrators and customer service representatives, determines the quality of connected cables, and quickly discovers errors, allowing hassle-free diagnostics and maintenance.

Quality of Service and Bandwidth Control

The DXS-1210 Series supports Auto Surveillance VLAN (ASV) and Auto Voice VLAN, which are best suited for video surveillance and VoIP deployments. Auto Surveillance VLAN consolidates data and surveillance video transmission through a single 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 DXS-1210 Series supports 802.1X port-based and host-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 DXS-1210 Series also features Address Resolution Protocol (ARP) spoofing prevention, which protects from attacks on the 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 prevent ARP spoofing attacks, the switches use 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 DXS-1210 Series supports a variety of management options. A web based Graphical User Interface (GUI) enables administrators to easily set up and remotely manage their networks, greatly reducing switch deployment time.

The DXS-1210 Series also features an extensive Command Line Interface (CLI) and SNMP support, allowing centralized management of a large number of devices. Out-of-band management of the switches is also available via a designated console port. This provides access to devices in the event that there is a loss of connectivity or that the switch is overloaded with bulk or malicious traffic.

The DXS-1210 Series comes with the D-Link Network Assistant (DNA) utility that simplifies the configuration of devices that support the D-Link Discovery Protocol. The D-Link Network Assistant utility allows customers to easily discover multiple D-Link Smart Managed Switches within the same L2 network segment and displays them on screen for instant access. With this utility, users do not need to change the IP address of their PC. This utility further allows for simultaneous configuration and basic setup of all discovered devices, including password changes and firmware upgrades.

Seamless Integration

The DXS-1210 Series switches' copper ports can support can support 10-Gigabit connections (10GBASE-T) to 100m over CAT6a and above LAN cabling. Distances up to 30m are supported over CAT6 cables. In addition, 1 Gigabit connections are supported over existing CAT5/5e cables. The DXS-1210-12TC has eight 10GBASE-T ports, two SFP+ ports and two 10GBASE-T/SFP+ combo ports. The DXS-1210-12SC has ten 10G SFP+ ports and two 10GBASE-T/ SFP+ combo ports. They provide a flexible solution for upstream or downstream server connections, making network administration easy.

Lifetime Warranty and NBD Replacement

D-Link offers a Lifetime Warranty and Next Business Day (NBD) hardware replacement on the DXS-1210 Series 10 Gigabit Ethernet Smart Managed switches to further its commitment to product quality and long term customer confidence.[2]

Technical Specifications

General

Model	DXS-1210-12TC	DXS-1210-12SC
Hardware Version	A2	A2
Interfaces	8 x 10GBASE-T copper ports 2 x 10G SFP+ optical ports 2 x 10GBASE-T/SFP+ combo ports	10 x 10G SFP+ optical ports 2 x 10GBASE-T/SFP+ combo ports
Console Port	RJ-45 console port	RJ-45 console port
Port Standard & Functions	IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3az compliance IEEE 802.3an 10GBASE-T 10GbE over copper IEEE 802.3ae 10GbE over fiber IEEE 802.3z 1000BASE-X Auto MDI/MDIX support for 1000/10GBASE-T	IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3az compliance IEEE 802.3an 10GBASE-T 10GbE over copper IEEE 802.3ae 10GbE over fiber IEEE 802.3z 1000BASE-X Auto MDI/MDIX support for 1000/10GBASE-T
Network Cables for 10GBASE-T	CAT-6 (30m max) CAT-6A or CAT-7 (100m max)	CAT-6 (30m max) CAT-6A or CAT-7 (100m max)
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports	Auto MDI/MDIX adjustment for all twisted-pair ports

Performance

Switching Capacity	240 Gbps	240 Gbps
Max. Packet Forwarding Rate	178.56 Mpps	178.56 Mpps
Transmission Method	Store-and-forward	Store-and-forward
MAC Address Table	Up to 16 ,000 entries per device	Up to 16 ,000 entries per device

Physical/Environmental

AC Input	100 to 240 VAC	100 to 240 VAC
Maximum Power Consumption	90.81 watts	43.81 watts
Standby Power Consumption	42.65 watts	25.22 watts
Operating Temperature	23°F to 122°F (-5°C to 50°C)	23°F to 122°F (-5°C to 50°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Operating Humidity	0% to 95% non-condensing	0% to 95% non-condensing
Storage Humidity	0% to 95% non-condensing	0% to 95% non-condensing
Dimensions (L x W x H)	17.36 x 8.26 x 1.73 inches (440 x 210 x 44 mm)	17.36 x 8.26 x 1.73 inches (440 x 210 x 44 mm)
Weight	6.94 lbs (3.15 kg)	6.02 lbs (2.73 kg)
Diagnostic LEDs	Link/Activity/Speed (per 10GBASE-T port) Link/Activity/Speed (per 10G SFP+ port) Power Console Fan error	Link/Activity/Speed (per 10GBASE-T port) Link/Activity/Speed (per 10G SFP+ port) Power Console Fan error
Certifications	CE FCC C-Tick VCCI BSMI CCC	CE FCC C-Tick VCCI BSMI CCC
Safety	cUL CB CE CCC BSMI	cUL CB CE CCC BSMI

Features

L2 Features	MAC Address Table • Up to 16K entries Static MAC Addresses • 1K IGMP Snooping • IGMP v1/v2 Snooping • IGMP v3 awareness • Supports 384 IGMP groups • Supports at least 128 static multicast addresses • Per VLAN IGMP Snooping • Support host-based fast leave MLD Snooping • MLD v1 Snooping • MLD v2 awareness • Support 384 groups • Support 128 static multicast addresses • Support host-based fast leave LLDP LLDP-MED	Spanning Tree Protocol • 802.1D STP • 802.1w RSTP • 802.1s MSTP Flow Control • 802.3x Flow Control • HOL Blocking Prevention Port Mirroring • One-to-One • Many-to-One • Supports Mirroring for Tx/Rx/Both 802.3ad Link Aggregation • Maximum of 8 groups/8 ports per group Jumbo Frame • Up to 9KB Loopback Detection ERPS (Ethernet Ring Protection Switching)
VLAN	802.1Q VLAN Port-based VLAN 4K VLAN Groups Configurable VID • 1-4094	Voice VLAN Auto Surveillance VLAN GVRP[1] Asymmetric VLAN
Quality of Service (QoS)	CoS based on • 802.1p Priority Queues • DSCP • ToS • IPv6 Traffic Class • TCP/UDP port • VLAN ID • MAC Address • Ether Type • IP Address • Protocol Type • IPv6 Flow Label	802.1p Priority Queue 8 queues per port Queue Handling • Strict • Weighted Round Robin (WRR) • Deficit Round Robin (DRR) • Weighted Deficit Round Robin (WDRR) • Strict + WDRR Bandwidth Control • Port-based (Ingress/Egress, min. granularity 64 Kbps) • iSCSI Awareness[1]
L3 Features	IP Interface • Supports 8 IPv4/v6 interfaces ARP • 768 Static ARP Default Route	IPv6 Neighbor Discovery (ND) Static Route • Max. 64 IPv4 entries • Max. 64 IPv6 entries
Access Control List (ACL)	Max. 50 access list Max. 256 ACL rules Max. 50 VLAN access map[1] ACL based on • 802.1p priority • VLAN[1] • MAC address • Ether type	• IP address • DSCP • Protocol type • TCP/UDP port number • IPv6 Traffic Class • IPv6 flow label
Security	Broadcast/Multicast/Unicast Storm Control D-Link Safeguard Engine DHCP Server Screening IP-MAC-Port Binding • DHCP Snooping[1] • IP Source Guard[1] • Dynamic ARP Inspection[1] • IPv6 Snooping[1] • IPv6 Source Guard[1] • DHCPv6 Guard[1] • IPv6 ND Inspection[1] • IPv6 Route Advertisement (RA) Guard[1]	Traffic Segmentation SSH[1] • Support v1/ v2 • Support IPv4/ IPv6 SSL • Support v1/v2/v3 • Support IPv4/IPv6 ARP Spoofing Prevention[1] • Max. 127 entries DoS Attack Prevention Port Security • Supports up to 6656 MAC addresses per port Duplicate Address Detection

Operations, Administration and Management (OAM)	Cable Diagnostics	
AAA	Web-based Access Control (WAC)[1] 　• Support local/RADIUS database 　• Support Port-based access control 　• Support Host-based access control 　• Support Dynamic VLAN Assignment 　• Identity-driven Policy (VLAN/ACL/QoS) Assignment 802.1X Authentication 　• Support Dynamic VLAN Assignment 　• Identity-driven Policy (VLAN/ACL/QoS) Assignment 　• Supports local/RADIUS database 　• Supports Port-based access control 　• Supports Host-based access control 　• Supports EAP, OTP, TLS, TTLS, PEAP	Support IPv4/IPv6 RADIUS Server Support IPv4/IPv6 TACACS+[1] Guest VLAN Compound Authentication[1] Authentication for management access Authentication Database Failover[1] MAC-based Access Control (MAC)[1] 　• Support local/RADIUS database 　• Support Port-based access control 　• Support Host-based access control 　• Support Dynamic VLAN Assignment 　• Identity-driven Policy (VLAN/ACL/QoS) Assignment
Management	Web-based GUI D-Link Network Assistant Utility Full CLI Telnet Server TFTP Client Configurable MDI/MDIX SNMP 　• Supports v1/v2c/v3 SNMP Trap Smart Wizard LLDP LLDP-MED DHCP Relay[1]	System Log BootP/DHCP Client SNTP ICMP v6 IPv4/v6 Dual Stack DHCP Auto Configuration[1] RMON v1/v2[1] Trusted Host Dual Images Dual Configurations DNS Client[1] Debug command
Green v3.0 Technology	Power Saving by: 　• LED Shutoff 　• System Hibernation 　• Port Shutoff	
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[1] 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[1] 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

Ordering Information

Model	Description	Warranty
DXS-1210-12TC	12-port 10GBASE-T Web Smart Switch including 8 10GBASE-T ports, 2 10G SFP+ ports, and 2 10GBASE-T/SFP+ combo ports	Lifetime[2]
DXS-1210-12SC	12-port 10G SFP+ Web Smart Switch including 10 10G SFP+ ports and 2 10GBASE-T/SFP+ combo ports	Lifetime[2]

Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables

DEM-CB100S	10GbE SFP+ to SFP+ 1m Direct Attach Cable
DEM-CB300S	10GbE SFP+ to SFP+ 3m Direct Attach Cable

Optional Gigabit Ethernet SFP Transceivers

DGS-712	1000BASE-T Copper SFP Transceiver
DEM-310GT	1000BASE-LX Single-mode SFP Optical Transceiver, 0 to 70C
DEM-311GT	1000BASE-SX Multimode SFP Optical Transceiver, 0 to 70C

Optional 10 Gigabit Ethernet SFP+ Transceivers

DEM-431XT	10GBASE-SR Multimode SFP+ Optical Transceiver, 0 to 70C
DEM-432XT	10GBASE-LR Single-mode SFP+ Optical Transceiver, 0 to 70C

Optional 10 Gigabit Ethernet Adapters

DXE-810S	Single port 10G SFP+ PCI-Express Adapter
DXE-820T	Dual port 10GBASE-T RJ45 PCI-Express Adapter

[1] This feature will be supported in a future firmware release.
[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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DXS-1210_REVA2_DATASHEET_1.15_EN_US.pdf

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