D-Link®
Building Networks for People

DXS-1210-10TS/12TC/12SC
10 Gigabit Ethernet Smart Switch

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

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

D-Link's DXS-1210 Series 10 Gigabit Ethernet Smart Switches are a cost effective 10 GbE switch series capable of servicing a range of network needs in any business. Supporting 10GBASE-T/SFP+ combo ports, they provide connection flexibility across a network allowing easier network integration. With high performance and low latency the DXS-1210-10TS/12TC/12SC can fulfill the needs for virtualization, cloud services and server-to-server applications making it perfect for SMB customers.

Energy Saving

Incorporating D-Link Green technology, the switch is capable of power-saving without sacrificing operational performance or functionality. The switches feature built-in smart fans; internal heat sensors monitor and detect temperature changes, and react accordingly by utilizing different fan speeds for different temperatures. At lower temperatures, the fans will run slower, reducing the switch's power consumption and noise. Link status drastically reduces power consumption by automatically toggling ports without a link to sleep mode. The DXS-1210-10TS/12TC/12SC 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

Equipped with a complete lineup of L2 features, the DXS-1210-10TS/12TC/12SC includes port mirroring, Spanning Tree Protocol and Link Aggregation Control Protocol (LACP). Network maintenance features include loopback detection and cable diagnostics. Loopback detection is used to detect loops created by a specific port and automatically shut down the affected port. The cable diagnostic feature, designed primarily for administrators and customer service representatives, can rapidly discover errors and determine the cable quality, allowing the switch to manage itself for you.

QoS, Bandwidth Control

The DXS-1210-10TS/12TC/12SC 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 the DXS-1210-10TS/12TC/12SC 10 Gigabit Ethernet Smart Switch provides. This technology consolidates data and surveillance video transmission through a single unit thus sparing businesses the expense of 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 the VoIP service by automatically placing voice traffic from an IP phone to an assigned VLAN. With higher priority and 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 a larger bandwidth or might have high priority.

Secure your Network

D-Link's innovative Safeguard Engine™ protects the switches against traffic flooding caused by malicious attacks. The DXS-1210-10TS/12TC/12SC supports 802.1X port based and host 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. The DXS-1210-10TS/12TC/12SC includes 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 switch uses packet control ACLs to block invalid packets that contain fake ARP messages. For added security, the DHCP server screening feature rogue DHCP server packets from user ports to prevent unauthorized IP assignment.

Versatile Management

The DXS-1210-10TS/12TC/12SC provides a D-Link Network Assistant Utility that simplifies the configuration for devices supporting D-Link Discovery Protocol. The D-Link network assistant utility easily allows customers to discover multiple D-Link Smart 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 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 DXS-1210-10TS/12TC/12SC 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 DXS-1210-10TS/12TC/12SC comes with Ethernet copper ports capable of connecting to existing CAT5 twisted-pair cables, supporting CAT6 for 10GBASE-T. The DXS-1210-10TS has 8 10GBASE-T ports and 2 SFP+ ports and the DXS-1210-12TC has an additional 2 10GBASE-T/SFP+ combo port design while the DXS-1210-12SC has 10 10G SFP+ ports and 2 10GBASE-T/SFP+ combo port design. This means they provide a more flexible solution for upstream or downstream server connections, making network administration easy.

Technical Specifications

General

Model	• DXS-1210-10TS	• DXS-1210-12TC	• DXS-1210-12SC
Interfaces	• 8-port 10GBASE-T • 2-port SFP+	• 8-port 10GBASE-T • 2-port SFP+ • 2-port 10GBASE-T/SFP+ combo design	• 10-port 10G SFP+ • 2-port 10GBASE-T/SFP+ combo design
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		
Network Cables for 10GBASE-T	• CAT-6 (30 m max) • CAT-6A or CAT-7(100 m max)		
Media Interface Exchange	• Auto MDI/MDIX adjustment for all twisted-pair ports		

Performance			
Switching Capacity	• 200 Gbps	• 240 Gbps	• 240 Gbps
Maximum Packet Forwarding Rate	• 148.8 Mpps	• 178.56 Mpps	• 178.56 Mpps
Transmission Method	• Store-and-forward		
MAC Address Table	• Up to 16,000 entries per device		

Physical/Environmental			
AC Input	• 100 to 240 VAC		
Maximum Power Consumption	• 68.67 watts	• 90.81 watts	• 43.81 watts
Standby Power Consumption	• 31.59 watts	• 42.65 watts	• 25.22 watts
Operating Temperature	• -5 to 50 ˚C (23 to 122 ° F)		
Storage Temperature	• -40 to 70 ˚C (-40 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 210 x 44 mm (17.36 x 8.26 x 1.73 inches)		
Weight	• 3.1 kg	• 3.15 kg	• 2.73 kg
Diagnostic LEDs	• Link/Activity/Speed (Per 10GBASE-T port) • Link/Activity/Speed (Per 10G SFP+ port) • Power/Fan (Per device)		
Certifications	• CE • FCC • C-Ticket • VCCI • BSMI • CCC		
Safety	• cUL • CB • CE • CCC • BSMI		

Software

L2 Features	• MAC Address Table
	  • Up to 16K entries
	• Static MAC Addresses
	  • 1K
	• IGMP Snooping
	  • IGMP v1/v2/v3 Snooping
	  • Supports 1000 IGMP groups
	  • Supports at least 128 static multicast addresses
	  • Per VLAN IGMP Snooping
	  • Support host-based fast leave
	• MLD Snooping
	  • MLD v1/v2 Snooping
	  • Support 1000 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

VLAN	• 802.1Q VLAN • Port-based VLAN • 4K VLAN Groups • Configurable VID • 1~4094	• Voice VLAN[1] • Auto Surveillance VLAN[1] • 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)
		• Bandwidth Control
		  • Port-based (Ingress/Egress, min. granularity 64 Kbps)

L3 Features	• IP Interface
	  • Supports 16 IPv4/v6 interfaces
	• ARP[1]
	  • 128 Static ARP
	• Default Route[1]
		• IPv6 Neighbor Discovery (ND)[1]
		• Static Route[1]
		  • Max. 64 IPv4 entries
		  • Max. 64 IPv6 entries

Access Control List (ACL)	• Max. 512 access list
	• Max. 512 ACL rules
	• Max. 50 VLAN access map
	• ACL based on
	  • 802.1p priority
	  • VLAN
	  • 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 64 MAC addresses per port
		• Duplicate Address Detection

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[1]
	  • 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[1]
		• Support IPv4/IPv6 TACACS+[1]
		• Guest VLAN[1]
		• Compound Authentication[1]
		• Authentication for management access
		• Authentication Database Failover
		• 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/Q

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 • 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

Order Information

DXS-1210-10TS	8-port 10GBASE-T and 2-port SFP+
DXS-1210-12TC	8-port 10GBASE-T and 2-port SFP+ and 2-port 10GBASE-T/SFP+ combo design
DXS-1210-12SC	10-port 10G SFP+ and 2-port 10GBASE-T/SFP+ combo design

Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables

DEM-CB100S	10GbE SFP+ to SFP+ 1 m Direct Attach Cable
DEM-CB300S	10GbE SFP+ to SFP+ 3 m Direct Attach Cable
DEM-CB700S	10GbE SFP+ to SFP+ 7 m Direct Attach Cable

Optional Gigabit Ethernet SFP transceivers	
DGS-712	1000BASE-T Copper SFP Transceiver
DEM-302S-LX	1000BASE-LX Single-Mode, 2KM
DEM-310GT	1000BASE-LX Single-Mode, 10KM
DEM-311GT	1000BASE-SX Multi-mode, 550M
DEM-312GT2	1000BASE-SX Multi-mode, 2KM
DEM-314GT	1000BASE-LHX Single-mode, 50KM
DEM-315GT	1000BASE-ZX Single-mode, 80KM
DEM-302S-BXD	1000BASE-BX-D Single-Mode, 2KM(TX-1550/RX-1310 nm)
DEM-302S-BXU	1000BASE-BX-U Single-Mode, 2KM(TX-1310/RX-1550 nm)
DEM-330T	1000BASE-BX-D Single-Mode, 10KM(TX-1550/RX-1310 nm)
DEM-330R	1000BASE-BX-U Single-Mode, 10KM(TX-1310/RX-1550 nm)
DEM-331T	1000BASE-BX-D Single-Mode, 40KM(TX-1550/RX-1310 nm)
DEM-331R	1000BASE-BX-U Single-Mode, 40KM(TX-1310/RX-1550 nm)
Optional 10 Gigabit Ethernet SFP+ transceivers	
DEM-431XT	10GBASE-SR Multi-Mode, OM1:33M/OM2:82M/OM3:300M (w/o DDM)
DEM-431XT-DD	10GBASE-SR Multi-Mode, OM1:33M/OM2:82M/OM3:300M (with DDM)
DEM-432XT	10GBASE-LR Single-Mode, 10KM (w/o DDM)
DEM-432XT-DD	10GBASE-LR Single-Mode, 10KM (with DDM)
DEM-433XT	10GBASE-ER Single-Mode, 40KM (w/o DDM)
DEM-433XT-DD	10GBASE-ER Single-Mode, 40KM (with DDM)
DEM-434XT	10GBASE-ZR Single-Mode, 80km (w/o DDM)
DEM-436XT-BXD	10GBASE-LR Single-Mode, 20KM(TX-1330/RX-1270 nm) (w/o DDM)
DEM-436XT-BXU	10GBASE-LR Single Mode, 20KM(TX-1270/RX-1310 nm) (w/o DDM)

[1] This feature will be supported in the next firmware release

Updated 2014/09/11

D-Link
Building Networks for People