

## Highlights

### 10 Gigabit Ethernet Connection

Each copper interface supports 10 GBASE-T Multi-Gigabit (100M/1G/2.5G/5G/10G) speeds with auto-negotiation for use in various scenarios

### Save Energy, Save Money

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

### Layer 3 Lite Functions

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



## DXS-1210 Series

# 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches

## Features

### 10 Gigabit/Multi-Gigabit

- 10G / 5G / 2.5G / 1G / 100M

### Green Technology

- Power saving via the following features:
  - Energy Efficiency Ethernet (EEE)
  - LED Shut-Off
  - Port Shut-Off
  - System Hibernation

### Security Features

- Access Control List
- D-Link Safeguard Engine
- Port Security

### Intuitive Management

- Web-based GUI
- Built-in SNMP MIB for remote NMS (D-View)
- Full CLI through console and Telnet
- D-Link Nuclias Connect

### Advanced Features

- Auto Surveillance VLAN
- Auto Voice VLAN
- Loopback Detection
- Cable Diagnostics
- Static Route
- LLDP/LLDP-MED
- Multi-Process RSTP

The D-Link DXS-1210 Series 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches are a cost-effective 10 Gigabit switch series capable of servicing a range of network needs in any business. Supporting 10GBASE-T/SFP+ combo ports, this series provides connection flexibility across a network allowing easier network integration. With high performance and low latency, the DXS-1210 Series fulfills the needs for virtualization and server-to-server applications, making it perfect for Small-to-Medium-Business (SMB) customers.

## Energy Efficient

By incorporating D-Link Green technology, this series of switches is capable of saving power without sacrificing operational performance or functionality. The switches 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 will run slower, reducing the switch's power consumption and noise. The DXS-1210 Series 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 DXS-1210 Series comes with a complete lineup of L2 features, includes 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 cable quality and quickly discovers errors, allowing hassle-free diagnostics and maintenance.

# 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches

## Quality of Service and Bandwidth Control

The DXS-1210 Series 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 DXS-1210 Series 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.

## Seamless Integration

The DXS-1210 Series comes with both RJ-45 and SFP+ ports capable of connecting to Cat. 6 and fiber for 10G Ethernet. The DXS-1210-10TS has 8 10GBASE-T ports and 2 SFP+ ports, the DXS-1210-12TC has an additional 2 10GBASE-T/SFP+ combo ports, while the DXS-1210-12SC has 10 10G SFP+ ports and 2 10GBASE-T/SFP+ combo ports. The DXS-1210-16TC also has 12 10GBASE-T ports, 2 SFP+ ports, and 2 10GBASE-T/SFP+ combo ports. This means the DXS-1210 Series can provide a flexible solution for upstream or downstream server connections, making network administration easy.

## Versatile Management

The DXS-1210 Series also supports D-View, Nuclias Connect, and a full Command Line Interface (CLI) through the console port and Telnet. D-View is a network management system that allows for the central management of critical network characteristics such as availability, reliability, resilience, and security. Nuclias Connect is D-Link's centralized management solution for Small-to-Medium-Sized Business (SMB) networks. Nuclias Connect makes it easier to analyze, automate, configure, optimize, scale, and secure your network — delivering the convenience of an Enterprise-wide management solution, at an SMB price.

## 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. For added security, the DHCP server screening feature filters DHCP replies on unauthorized ports to prevent them from being assigned an IP address.

## Technical Specifications

### General

Model	• DXS-1210-10TS	• DXS-1210-12TC	• DXS-1210-12SC	• DXS-1210-16TC
HW Version	B1			
Interfaces	<ul style="list-style-type: none"> <li>• 8 x 100M/1G/2.5G/5G/10G BASE-T ports</li> <li>• 2 x SFP+ ports</li> </ul>	<ul style="list-style-type: none"> <li>• 8 x 100M/1G/2.5G/5G/10G BASE-T ports</li> <li>• 2 x SFP+ ports</li> <li>• 2 x 1G/10GBASE-T / SFP+ combo ports</li> </ul>	<ul style="list-style-type: none"> <li>• 10 x SFP+ ports</li> <li>• 2 x 1G/10GBASE-T / SFP+ combo ports</li> </ul>	<ul style="list-style-type: none"> <li>• 12 x 100M/1G/2.5G/5G/10G BASE-T ports</li> <li>• 2 x SFP+ ports</li> <li>• 2 x 1G/10GBASE-T / SFP+ combo ports</li> </ul>
Console Port	• RJ-45 console port			
Port Standard & Functions	<ul style="list-style-type: none"> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>• IEEE 802.3bz 5Gbps and 2.5Gbps Ethernet Over Copper Twisted Pair Cable</li> <li>• IEEE 802.3an 10GBASE-T 10 Gigabit Ethernet</li> <li>• IEEE 802.3ae 10GbE over fiber</li> <li>• IEEE 802.3z 1000BASE-X</li> <li>• Auto MDI/MDIX support for 100BASE-T/1GBASE-T/2.5GBASE-T/5GBASE-T/10GBASE-T</li> </ul>			

## 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches

Network Cables for 10GBASE-T	<ul style="list-style-type: none"> <li>• Cat. 6 (30 m max)</li> <li>• Cat. 6A or Cat. 7 (100 m max)</li> </ul>			
Media Interface Exchange	<ul style="list-style-type: none"> <li>• Auto MDI/MDIX adjustment for all twisted-pair ports</li> </ul>			
<b>Performance</b>				
Switching Capacity	• 200 Gbps	• 240 Gbps	• 240 Gbps	• 320Gbps
Maximum Packet Forwarding Rate	• 148.8 Mpps	• 178.56 Mpps	• 178.56 Mpps	• 238.08 Mpps
Transmission Method	<ul style="list-style-type: none"> <li>• Store-and-forward</li> </ul>			
MAC Address Table	<ul style="list-style-type: none"> <li>• Up to 32,000 entries per device</li> </ul>			
<b>Physical/Environmental</b>				
AC Input	<ul style="list-style-type: none"> <li>• 100 to 240 VAC</li> </ul>			
Maximum Power Consumption	• 43.26 W	• 59.1 W	• 27.4 W	• 64.2 W
Standby Power Consumption	• 19.39 W	• 21.1 W	• 11.2 W	• 31.7 W
Operating Temperature	<ul style="list-style-type: none"> <li>• -5 to 50 °C (23 to 122 °F)</li> </ul>			
Storage Temperature	<ul style="list-style-type: none"> <li>• -40 to 70 °C (-40 to 158 °F)</li> </ul>			
Operating Humidity	<ul style="list-style-type: none"> <li>• 0% to 95% non-condensing</li> </ul>			
Storage Humidity	<ul style="list-style-type: none"> <li>• 0% to 95% non-condensing</li> </ul>			
Dimensions (L x W x H)	<ul style="list-style-type: none"> <li>• 330 x 200 x 44 mm (12.99 x 7.87 x 1.73 in)</li> </ul>	<ul style="list-style-type: none"> <li>• 440 x 210 x 44 mm (17.36 x 8.26 x 1.73 in)</li> </ul>		
Weight	• 2.165 kg (4.77 lbs)	• 3.041 kg (6.70 lbs)	• 2.718 kg (5.99 lbs)	• 3.123 kg (6.89 lbs)
Diagnostic LEDs	<ul style="list-style-type: none"> <li>• Link/Activity/Speed (Per 10GBASE-T port)</li> <li>• Link/Activity/Speed (Per 10G SFP+ port)</li> <li>• Power</li> <li>• Console</li> <li>• Fan error</li> </ul>			
EMI/EMC Certifications	<ul style="list-style-type: none"> <li>• CE</li> <li>• FCC</li> <li>• IC</li> <li>• RCM</li> <li>• VCCI</li> <li>• BSMI</li> </ul>			
Safety Certifications	<ul style="list-style-type: none"> <li>• cUL</li> <li>• CB</li> <li>• BSMI</li> </ul>			

## 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches

Software		
L2 Features	<ul style="list-style-type: none"> <li>• MAC Address Table <ul style="list-style-type: none"> <li>• Up to 32K entries</li> </ul> </li> <li>• Static MAC Addresses <ul style="list-style-type: none"> <li>• 128</li> </ul> </li> <li>• IGMP Snooping <ul style="list-style-type: none"> <li>• IGMP v1/v2 Snooping</li> <li>• IGMP v3 awareness</li> <li>• Supports 384 IGMP groups</li> <li>• Supports at least 128 static multicast addresses</li> <li>• Per VLAN IGMP Snooping</li> <li>• Support host-based fast leave</li> </ul> </li> <li>• MLD Snooping <ul style="list-style-type: none"> <li>• MLD v1 Snooping</li> <li>• MLD v2 awareness</li> <li>• Support 384 groups</li> <li>• Support 128 static multicast addresses</li> <li>• Support host-based fast leave</li> </ul> </li> <li>• LLDP</li> </ul>	<ul style="list-style-type: none"> <li>• LLDP-MED</li> <li>• Spanning Tree Protocol <ul style="list-style-type: none"> <li>• 802.1D STP</li> <li>• 802.1w RSTP</li> <li>• 802.1s MSTP</li> </ul> </li> <li>• Flow Control <ul style="list-style-type: none"> <li>• 802.3x Flow Control</li> <li>• HOL Blocking Prevention</li> </ul> </li> <li>• Port Mirroring <ul style="list-style-type: none"> <li>• One-to-One</li> <li>• Many-to-One</li> <li>• Supports Mirroring for Tx/Rx/Both</li> </ul> </li> <li>• 802.3ad Link Aggregation: <ul style="list-style-type: none"> <li>• Maximum of 8 groups/8 ports per group</li> </ul> </li> <li>• Jumbo Frame <ul style="list-style-type: none"> <li>• Up to 10KB</li> </ul> </li> <li>• Loopback Detection</li> <li>• ERPS (Ethernet Ring Protection Switching)</li> </ul>
VLAN	<ul style="list-style-type: none"> <li>• 802.1Q VLAN</li> <li>• Port-based VLAN</li> <li>• Configurable VID <ul style="list-style-type: none"> <li>• 1~4094</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Voice VLAN</li> <li>• Auto Surveillance VLAN</li> <li>• Asymmetric VLAN</li> <li>• 4K VLAN Groups</li> </ul>
Quality of Service (QoS)		<ul style="list-style-type: none"> <li>• 802.1p Priority Queue</li> <li>• 8 queues per port</li> <li>• Queue Handling <ul style="list-style-type: none"> <li>• Strict</li> <li>• Weighted Round Robin (WRR)</li> </ul> </li> <li>• Bandwidth Control <ul style="list-style-type: none"> <li>• Port-based (Ingress/Egress, min. granularity 64 Kbps)</li> </ul> </li> </ul>
L3 Features	<ul style="list-style-type: none"> <li>• IP Interface <ul style="list-style-type: none"> <li>• Supports 8 IPv4/v6 interfaces</li> </ul> </li> <li>• ARP <ul style="list-style-type: none"> <li>• 768 Static ARP</li> </ul> </li> <li>• Default Route</li> </ul>	<ul style="list-style-type: none"> <li>• IPv6 Neighbor Discovery (ND)</li> <li>• Static Route <ul style="list-style-type: none"> <li>• Max. 64 IPv4 entries</li> <li>• Max. 64 IPv6 entries</li> </ul> </li> </ul>
Access Control List (ACL)	<ul style="list-style-type: none"> <li>• Max. 50 access list</li> <li>• Max. 256 ACL rules</li> <li>• ACL based on <ul style="list-style-type: none"> <li>• 802.1p priority</li> <li>• VLAN</li> <li>• MAC address</li> <li>• Ether type</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• IP address</li> <li>• DSCP</li> <li>• Protocol type</li> <li>• TCP/UDP port number</li> <li>• IPv6 flow label</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Broadcast/Multicast/Unicast Storm Control</li> <li>• D-Link Safeguard Engine</li> <li>• DHCP Server Screening</li> <li>• Port Security <ul style="list-style-type: none"> <li>• Supports up to 6656 MAC addresses per port</li> </ul> </li> <li>• Duplicate Address Detection</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic Segmentation</li> <li>• SSL <ul style="list-style-type: none"> <li>• Support v1/v2/v3</li> <li>• Support IPv4/IPv6</li> </ul> </li> <li>• DoS Attack Prevention</li> <li>• SSH</li> </ul>
Operations, Administration, and Management (OAM)	<ul style="list-style-type: none"> <li>• Cable Diagnostics</li> </ul>	
Authentication, Authorization, and Accounting (AAA)	<ul style="list-style-type: none"> <li>• 802.1X Authentication <ul style="list-style-type: none"> <li>• Support Dynamic VLAN Assignment</li> <li>• Identity-driven Policy (VLAN/ACL/QoS) Assignment</li> <li>• Supports local/RADIUS database</li> <li>• Supports Port-based access control</li> <li>• Supports Host-based access control</li> <li>• Supports EAP, OTP, TLS, TTLS, PEAP</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Support IPv4/IPv6 RADIUS Server</li> <li>• Guest VLAN</li> <li>• Authentication for management access</li> </ul>

## 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches

Management	<ul style="list-style-type: none"> <li>• D-Link Nuclias Connect</li> <li>• Web-based GUI</li> <li>• Full CLI</li> <li>• Telnet Server</li> <li>• TFTP Client</li> <li>• Configurable MDI/MDIX</li> <li>• SNMP <ul style="list-style-type: none"> <li>• Supports v1/v2c/v3</li> </ul> </li> <li>• SNMP Trap</li> <li>• LLDP</li> <li>• LLDP-MED</li> </ul>	<ul style="list-style-type: none"> <li>• System Log</li> <li>• BootP/DHCP Client</li> <li>• SNTP</li> <li>• ICMP v6</li> <li>• IPv4/v6 Dual Stack</li> <li>• RMON v1</li> <li>• Trusted Host</li> <li>• Dual Images</li> <li>• Dual Configurations</li> <li>• Debug command</li> </ul>
Green V3.0 Technology	<ul style="list-style-type: none"> <li>• Power Saving by: <ul style="list-style-type: none"> <li>• LED Shutoff</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• System Hibernation</li> <li>• Port Shutoff</li> </ul>
MIB/RFC Standards	<ul style="list-style-type: none"> <li>• RFC2021 RMONv2 MIB</li> <li>• RFC2460 IPv6</li> <li>• RFC2461, RFC4861 Neighbor Discovery for IPv6</li> <li>• RFC2462, RFC4862 IPv6 Stateless Address Auto-configuration (SLAAC)</li> <li>• RFC2463, RFC4443 ICMPv6</li> <li>• RFC2464 IPv6 over Ethernet and definition</li> <li>• RFC2465 IPv6 MIB</li> <li>• RFC2466 ICMPv6 MIB</li> <li>• RFC2474, RFC3168, RFC3260 Definition of the DS Field in the IPv4 and IPv6 Headers</li> <li>• RFC2571 SNMP Framework</li> <li>• RFC2572 SNMP Message Processing and Dispatching</li> <li>• RFC2573 SNMP Applications</li> <li>• RFC2574 User-based Security Model for SNMPv3</li> </ul>	<ul style="list-style-type: none"> <li>• RFC2618 RADIUS Authentication Client MIB</li> <li>• RFC2668 802.3 MAU MIB</li> <li>• RFC2674, RFC4363 802.1p MIB</li> <li>• RFC271, RFC1757, RFC2819 RMON MIB</li> <li>• RFC2893, RFC4213 IPv4/IPv6 dual stack function</li> <li>• RFC2925 Ping &amp; TRACEROUTE MIB</li> <li>• RFC3513, RFC4291 IPv6 Addressing Architecture</li> <li>• RFC4022 MIB for TCP</li> <li>• RFC4113 MIB for UDP</li> <li>• RFC4293 IPv6 SNMP Mgmt Interface MIB</li> <li>• RFC4884 Extended ICMP to Support Multi-Part Messages</li> <li>• RFC768 UDP</li> <li>• RFC792 ICMPv4</li> <li>• RFC793 TCP</li> <li>• RFC826 ARP</li> </ul>

## Order Information

Part Number	Description
DXS-1210-10TS	10G Smart Switch with 8-port 10GBASE-T and 2-port SFP+
DXS-1210-12TC	10G Smart Switch with 8-port 10GBASE-T and 2-port 10G SFP+ and 2-port 10GBASE-T/SFP+ combo port
DXS-1210-12SC	10G Smart Switch with 10-port 10G SFP+ and 2-port 10GBASE-T/SFP+ combo port
DXS-1210-16TC	10G Smart Managed Switch with 12-port 10GBASE-T and 2-port 10G SFP+ and 2-port 10GBASE-T/SFP+ combo port

## 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-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	1000BASE-ZX Single-mode, 80 km
DEM-330T	1000BASE-BX-D Single-Mode, 10 km (TX-1550/RX-1310 nm)

# DXS-1210 Series

## 10 Gigabit/Multi-Gigabit Ethernet Smart Managed Switches

DEM-330R	1000BASE-BX-U Single-Mode, 10 km (TX-1310/RX-1550 nm)
DEM-331T	1000BASE-BX-D Single-Mode, 40 km (TX-1550/RX-1310 nm)
DEM-331R	1000BASE-BX-U Single-Mode, 40 km (TX-1310/RX-1550 nm)
<b>Optional 10 Gigabit Ethernet SFP+ Transceivers</b>	
DEM-431XT	10GBASE-SR Multi-Mode, OM1: 33 m/OM2: 82 m/OM3: 300 m (w/o DDM)
DEM-432XT	10GBASE-LR Single-Mode, 10 km (w/o DDM)
DEM-433XT	10GBASE-ER Single-Mode, 40 km (w/o DDM)
DEM-434XT	10GBASE-ZR Single-Mode, 80 km (w/o DDM)
DEM-436XT-BXD	10GBASE-LR Single-Mode, 20 km (TX-1330/RX-1270 nm) (w/o DDM)
DEM-436XT-BXU	10GBASE-LR Single Mode, 20 km (TX-1270/RX-1310 nm) (w/o DDM)
<b>Optional Management Software</b>	
DV-800-LIC	D-View 8 Standard License
DV-800E-LIC	D-View 8 Enterprise License
DV-800SE-LIC	D-View 8 Upgrade License from Standard to Enterprise Edition

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