

# **Highlights**

### 10 Gigabit Ethernet Connection

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

### 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 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**

- D-Link Network Assistant utility or Web-based GUI
- Built-in SNMP MIB for remote NMS (D-View 7)
- CLI through Telnet

### **Advanced Features**

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

The D-Link DXS-1210 Series 10 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 fulfils the needs for virtualisation, cloud services, 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 utilising 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 putting ports without a link into a sleep mode. 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 line-up 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.



# **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 a prioritised and segmented VLAN, this feature guarantees 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 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 unauthorised ports to prevent them from being assigned an IP address.

## **Versatile Management**

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 easily allows customers to 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. The DXS-1210 Series also supports D-View 7 and a limited Command Line Interface (CLI) through Telnet. D-View 7 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 Series comes with both RJ-45 and SFP+ ports capable of connecting to Cat. 6 and fibre 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-1210-16TC 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.



If the worst should happen to your network you need the very best support and fast. Downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively. Our highly trained technicians are on standby around the clock, ensuring that award-winning support is only a phone call away.

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best:

## D-Link Assist Gold - for comprehensive 24-hour support

D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four hour around-the-clock response. Cover applies 24/7 for every day of the year including holidays.

### D-Link Assist Silver - for prompt same-day assistance

D-Link Assist Silver is designed for 'high availability' businesses that require rapid response within regular working hours. It provides a four hour response service Monday to Friday from 8am to 5pm, excluding holidays.

# D-Link Assist Bronze - for guaranteed response on the next business day

D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or IP Surveillance equipment from D-Link, your peace of mind is guaranteed. D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.



Technical Specifications				
General				
Model	• DXS-1210-10TS	• DXS-1210-12TC	• DXS-1210-16TC	
Interfaces	• 8 x 10GBASE-T ports • 2 x SFP+ ports	• 8 x 10GBASE-T ports • 2 x SFP+ ports • 2 x 10GBASE-T/SFP+ combo ports	<ul><li>12 x 10GBASE-T ports</li><li>2 x SFP+ ports</li><li>2 x 10GBASE-T/SFP+ combo ports</li></ul>	
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 10 Gigabit Ethernet • 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	• 320Gbps	
Maximum Packet Forwarding Rate	• 148.8 Mpps	• 178.56 Mpps	• 238.08 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 W	• 90.81 W	• 90.81 W	
Standby Power Consumption	• 31.59 W	• 42.65 W	• 43.65 W	
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 in)			
Weight	• 3.10 kg (6.83 lbs)	• 3.15 kg (6.94 lbs)	• 3.15 kg (6.94 lbs)	
Diagnostic LEDs	<ul> <li>Link/Activity/Speed (Per 10GBASE-T port)</li> <li>Link/Activity/Speed (Per 10G SFP+ port)</li> <li>Power/Fan (Per device)</li> </ul>			
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 IK  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 802.1s MSTP 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	<ul> <li>802.1Q VLAN</li> <li>Port-based VLAN</li> <li>4K VLAN Groups</li> <li>Configurable VID</li> <li>1~4094</li> </ul>	<ul> <li>Voice VLAN</li> <li>Auto Surveillance VLAN</li> <li>GVRP<sup>1</sup></li> <li>Asymmetric VLAN</li> </ul>
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	<ul> <li>802.1p Priority Queue</li> <li>8 queues per port</li> <li>Queue Handling</li> <li>Strict</li> <li>Weighted Round Robin (WRR)</li> <li>Deficit Round Robin (DRR)</li> <li>Weighted Deficit Round Robin (WDRR)</li> <li>Strict + WDRR</li> <li>Bandwidth Control</li> <li>Port-based (Ingress/Egress, min. granularity 64 Kbps)</li> <li>iSCSI Awareness¹</li> </ul>
L3 Features	IP Interface     Supports 8 IPv4/v6 interfaces     ARP     768 Static ARP     Default Route	<ul> <li>IPv6 Neighbor Discovery (ND)</li> <li>Static Route</li> <li>Max. 64 IPv4 entries</li> <li>Max. 64 IPv6 entries</li> </ul>
Access Control List (ACL)	<ul> <li>Max. 50 access list</li> <li>Max. 256 ACL rules</li> <li>Max. 50 VLAN access map<sup>1</sup></li> <li>ACL based on</li> <li>802.1 p priority</li> <li>VLAN<sup>1</sup></li> <li>MAC address</li> <li>Ether type</li> </ul>	<ul> <li>IP address</li> <li>DSCP</li> <li>Protocol type</li> <li>TCP/UDP port number</li> <li>IPv6 Traffic Class</li> <li>IPv6 flow label</li> </ul>
Security	Broadcast/Multicast/Unicast Storm Control D-Link Safeguard Engine DHCP Server Screening IP-MAC-Port Binding DHCP Snooping¹ IP Source Guard¹ Dynamic ARP Inspection¹ IPv6 Snooping¹ IPv6 Source Guard¹ DHCPv6 Guard¹ DHCPv6 Guard¹ IPv6 ND Inspection¹ IPv6 Route Advertisement (RA) Guard¹	Traffic Segmentation SSH SSH Support v1/ v2 Support IPv4/ IPv6 SSL Support IPv4/IPv6 SUPPORT Support IPv4/IPv6 ARP Spoofing Prevention 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		
Authentication, Authorization, and Accounting (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	<ul> <li>Support IPv4/IPv6 RADIUS Server</li> <li>Support IPv4/IPv6 TACACS+<sup>1</sup></li> <li>Guest VLAN</li> <li>Compound Authentication<sup>1</sup></li> <li>Authentication for management access</li> <li>Authentication Database Failover<sup>1</sup></li> <li>MAC-based Access Control (MAC)<sup>1</sup></li> <li>Support local/RADIUS database</li> <li>Support Port-based access control</li> <li>Support Host-based access control</li> <li>Support Dynamic VLAN Assignment</li> <li>Identity-driven Policy (VLAN/ACL/QoS) Assignment</li> </ul>	
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 <sup>1</sup>	<ul> <li>System Log</li> <li>BootP/DHCP Client</li> <li>SNTP</li> <li>ICMP v6</li> <li>IPv4/v6 Dual Stack</li> <li>DHCP Auto Configuration<sup>1</sup></li> <li>RMON v1/v2<sup>1</sup></li> <li>Trusted Host</li> <li>Dual Images</li> <li>Dual Configurations</li> <li>DNS Client<sup>1</sup></li> <li>Debug command</li> </ul>	
Green V3.0 Technology	Power Saving by:     LED Shutoff	System Hibernation     Port Shutoff	
MIB/RFC Standards	<ul> <li>RFC 783 TFTP</li> <li>RFC 951 BootP/DHCP Client</li> <li>RFC 1157 SNMP v1, v2, v3</li> <li>RFC 1213 MIB II</li> <li>RFC 1215 MIB Traps Convention</li> <li>RFC 1350 TFTP</li> <li>RFC 1493 Bridge MIB</li> <li>RFC 1769 SNTP</li> <li>RFC 1542 BootP/DHCP Client</li> <li>RFC 1901 SNMP v1, v2, v3</li> <li>RFC 1907 SNMP v2 MIB</li> <li>RFC 1908 SNMP v1, v2, v3</li> <li>RFC 2131 BootP/DHCP Client</li> <li>RFC 2138 RADIUS Authentication¹</li> <li>RFC 2139 RADIUS Authentication</li> <li>RFC 2233 Interface Group MIB</li> </ul>	• RFC-2246 SSL • RFC 2475 • RFC 2570 SNMP v1, v2, v3 • RFC 2575 SNMP v1, v2, v3 • RFC 2598 CoS • RFC 2618 RADIUS Authentication¹ • 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	

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	
Optional Gigabit Ethernet SFP Transceivers		
DEM-310GT	1000BASE-LX Single-Mode, 10 km	
DEM-311GT	1000BASE-SX Multi-mode, 550 m	
DEM-312GT2	1000BASE-SX Multi-mode, 2 km	
Optional 10 Gigabit Ethernet SFP+ Transceivers		
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)	
Optional 10 Gigabit Ethernet Adapters		
DXE-820T	Dual port 10GBASE-T RJ45 PCI-Express Adapter	
Optional Management Software		
DV-700-N25-LIC	• D-View 7 - 25 Node License	
DV-700-N250-LIC	• D-View 7 - 250 Node License	
DV-700-P10-LIC	• D-View 7 - 10 Probe License	

 $<sup>^{\</sup>rm I}\, {\mbox{This}}$  feature will be supported in a future firmware release



For more information: www.dlink.com

