

## Product Highlights

### 10 Gigabit Ethernet Connection

The DXS-1210-28T/28S are both high-port 10G switches, perfect choices for an SMB core switch or an Enterprise aggregation switch

### Server Farm

The DXS-1210-28T features 4 x 10 G/25 Gbps uplink ports, ideal for a server farm top-of-rack(ToR)

### Layer 3 Lite Functions

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



## DXS-1210 Series

# 10 Gigabit Ethernet Smart Managed Switches

## Features

### 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)
- Full CLI through console and Telnet

### Advanced Features

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

### Green Technology

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

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 environment. Supporting a combination of 10GBASE-T and SFP ports, the DXS-1210 Series provides connection flexibility across a network, allowing easier network integration. The DXS-1210-28T is equipped with 4 x 10/25G SFP28 ports, enabling this series to serve as either an aggregation / access switch in larger Enterprise environments or alternatively be employed at the center of a Small-to-Medium-Business (SMB) network. With high performance and low latency, this pair of 10G smart managed switches fulfills the needs of virtualization, cloud services, and server-to-server applications.

## Extensive Management and 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 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, 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

## 10 Gigabit Ethernet Smart Managed Switches

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.

### 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 a comprehensive 10 language multi-lingual web UI, a full command line interface (CLI) through Telnet, a console port, as well as D-View 7; a network management system (NMS) that allows central management of critical network characteristics such as availability, reliability, resilience, and security.

### 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 unauthorized ports to prevent them from being assigned an IP address.

**Technical Specifications**

**General**

Model	• DXS-1210-28T	• DXS-1210-28S
Interfaces	• 24 x 10G BASE-T ports • 4 x 10/25G SFP28 ports	• 24 x 10G SFP+ ports • 4 x 10G BASE-T ports
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 802.3az Energy Efficiency Ethernet (EEE)</li> <li>• IEEE 802.3an 10GBASE-T 10 Gigabit Ethernet               <ul style="list-style-type: none"> <li>• IEEE 802.3ae 10GbE over fiber</li> <li>• IEEE 802.3z 1000BASE-X</li> </ul> </li> <li>• Auto MDI/MDIX support for 1000/10GBASE-T</li> </ul>	
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	• Auto MDI/MDIX adjustment for all twisted-pair ports	

**Performance**

Switching Capacity	• 680 Gbps	• 560 Gbps
Maximum Packet Forwarding Rate	• 505.92 Mpps	• 416.64 Mpps
Transmission Method	• Store-and-forward	
MAC Address Table	• Up to 32,000 entries per device	

**Physical/Environmental**

Acoustic	<ul style="list-style-type: none"> <li>• Fan at high speed: 51.9 dB(A)</li> <li>• Fan at low speed: 40.0 dB(A)</li> </ul>	<ul style="list-style-type: none"> <li>• Fan at high speed: 52.3 dB(A)</li> <li>• Fan at low speed: 40.2 dB(A)</li> </ul>
Fans	• 2 x Smart Fan	
AC Input	• 100 to 240 VAC	
Maximum Power Consumption	<ul style="list-style-type: none"> <li>• 100 V / 60 Hz: 90 W</li> <li>• 240 V / 60 Hz: 87.3 W</li> </ul>	<ul style="list-style-type: none"> <li>• 100 V / 60 Hz: 87.7 W</li> <li>• 240 V / 60 Hz: 85.7 W</li> </ul>
Standby Power Consumption	<ul style="list-style-type: none"> <li>• 100 V / 60 Hz: 33.3 W</li> <li>• 240 V / 60 Hz: 33 W</li> </ul>	<ul style="list-style-type: none"> <li>• 100 V / 60 Hz: 27.6 W</li> <li>• 240 V / 60 Hz: 27.7 W</li> </ul>
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)	• 441 x 209.5 x 44 mm (17.36 x 8.28 x 1.73 in)	
Weight	• 3.07 kg	• 3.27 kg

# 10 Gigabit Ethernet Smart Managed Switches

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) <ul style="list-style-type: none"> <li>• Power</li> <li>• Console</li> <li>• Fan error</li> </ul> </li> </ul>
Certifications	<ul style="list-style-type: none"> <li>• CE Class A</li> <li>• FCC Class A</li> <li>• VCCI Class A <ul style="list-style-type: none"> <li>• IC</li> <li>• BSMI</li> </ul> </li> </ul>
Safety	<ul style="list-style-type: none"> <li>• UL</li> <li>• CB</li> <li>• BSMI</li> </ul>
<b>Software</b>	
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>• 256</li> </ul> </li> <li>• IGMP Snooping <ul style="list-style-type: none"> <li>• IGMP v1/v2/v3 Snooping</li> <li>• Supports 512 groups (shared between dynamic and static, with a max of 128 static)</li> <li>• Per VLAN IGMP Snooping</li> <li>• Support port-based fast leave</li> <li>• Report Suppression</li> </ul> </li> <li>• MLD Snooping <ul style="list-style-type: none"> <li>• MLD v1/v2 Snooping</li> <li>• Supports 256 groups (shared between dynamic and static, with a max of 128 static)</li> <li>• Support port-based fast leave</li> </ul> </li> <li>• LLDP</li> <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 12,288 Bytes</li> </ul> </li> <li>• Loopback Detection</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> <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>• CoS based on <ul style="list-style-type: none"> <li>• Switch port</li> <li>• 802.1p Priority Queues</li> <li>• Outer 802.1p priority</li> <li>• DSCP</li> <li>• ToS</li> <li>• IPv6 Traffic Class</li> <li>• TCP/UDP port</li> <li>• MAC Address</li> <li>• Ether Type</li> <li>• IP Address</li> <li>• Protocol Type</li> <li>• IPv6 Flow Label/ Traffic Class</li> </ul> </li> <li>• 802.1p Priority Queue</li> <li>• 8 queues per port</li> <li>• Queue Handling <ul style="list-style-type: none"> <li>• Strict Priority Que (SPQ)</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> <li>• Queue-based (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 4 IPv4/v6 interfaces</li> </ul> </li> <li>• ARP <ul style="list-style-type: none"> <li>• 384 Static ARP</li> </ul> </li> <li>• Default Route</li> <li>• IPv6 Neighbor Discovery (ND)</li> <li>• Static Route <ul style="list-style-type: none"> <li>• Max. 128 IPv4 entries</li> <li>• Max. 64 IPv6 entries</li> </ul> </li> </ul>

# 10 Gigabit Ethernet Smart Managed Switches

Access Control List (ACL)	<ul style="list-style-type: none"> <li>• ACL based on <ul style="list-style-type: none"> <li>• IPv4 address: Source/destination IP Address mask, IP preference/ ToS mask, DSCP mask, Protocol</li> <li>• MAC address: 802.1p priority mask, VID mask, Source/destination MAC address mask, Ether type mask</li> <li>• IPv6 address: Source/destination IP Address mask, DSCP mask, Protocol type mask, TCP/UDP port number mask, IPv6 traffic class mask, IPv6 flow label mask</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Max. 1536 ingress ACL entries</li> <li>• Max. 1024 egress ACL entries</li> <li>• Max. 1024 Access List Numbers</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>• IP-MAC-Port Binding <ul style="list-style-type: none"> <li>• DHCP Snooping</li> <li>• DHCPv6 Guard</li> <li>• IPv4/v6 Source Guard</li> <li>• Dynamic ARP Inspection</li> <li>• IPv6 ND Inspection</li> <li>• IPv6 Route Advertisement (RA) Guard</li> <li>• Duplicate Address Detection (DAD)</li> </ul> </li> <li>• Broadcast/Multicast/Unicast Storm Control <ul style="list-style-type: none"> <li>• Min. granularity per port: 16 Kbps</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Traffic Segmentation</li> <li>• SSH <ul style="list-style-type: none"> <li>• Support v2</li> <li>• Support IPv4/ IPv6</li> </ul> </li> <li>• SSL <ul style="list-style-type: none"> <li>• Support TLS 1.0/1.1/1.2</li> <li>• Support IPv4/IPv6</li> </ul> </li> <li>• ARP Spoofing Prevention<sup>1</sup> <ul style="list-style-type: none"> <li>• Max. 128 entries</li> </ul> </li> <li>• DoS Attack Prevention</li> <li>• Port Security <ul style="list-style-type: none"> <li>• Supports up to 64 MAC addresses per port</li> </ul> </li> <li>• Duplicate Address Detection</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>• Supports Dynamic VLAN 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, 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>• Trusted Host <ul style="list-style-type: none"> <li>• Support IPv4/v6 host</li> <li>• Trusted host for Telnet, HTTP, HTTPS, SSH, Ping</li> </ul> </li> </ul>
Management	<ul style="list-style-type: none"> <li>• Web-based GUI</li> <li>• D-Link Network Assistant Utility</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>• Smart Wizard</li> <li>• LLDP</li> <li>• LLDP-MED</li> <li>• ICMP v4</li> </ul>	<ul style="list-style-type: none"> <li>• DHCP Relay</li> <li>• DHCP Auto-image</li> <li>• System Log</li> <li>• BootP/DHCP Client</li> <li>• SNMP</li> <li>• ICMP v6</li> <li>• IPv4/v6 Dual Stack</li> <li>• DHCP Auto Configuration</li> <li>• RMON v1/v2</li> <li>• Dual Images</li> <li>• Dual Configurations</li> <li>• DNS Client</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>• RFC 783/1350 TFTP Client</li> <li>• RFC 951/1542/2131 BootP/DHCP Client</li> <li>• RFC 1213 MIB II</li> <li>• RFC 1215 MIB Traps Convention</li> <li>• RFC 3612 Power-Ethernet MIB</li> <li>• RFC 3418 SNMPv2-MIB</li> <li>• RFC 2863 Interface Group MIB</li> <li>• RFC 3635 Ethernet-Like MIB</li> <li>• RFC 4293 IP-MIB</li> <li>• RFC 2819 RMON v1</li> <li>• RFC 4502 RMON2-MIB</li> <li>• RFC 4188 Bridge MIB</li> <li>• RFC 4363(6) P-Bridge-MIB</li> <li>• RFC 4363(7) Q-Bridge-MIB</li> <li>• RFC 4668 RADIUS Authentication Client MIB</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 4292 IP Forward MIB</li> <li>• RFC 4836 MAU MIB</li> <li>• RFC 4133 Entity MIB</li> <li>• RFC 4560(80) PING-MIB</li> <li>• RFC 4560(81) Traceroute-MIB</li> <li>• RFC 3411 SNMP-Framework-MIB</li> <li>• RFC 3414 SNMP-User-Based-MIB</li> <li>• RFC 3412 SNMP-MPD-MIB</li> <li>• RFC 3413(12) SNMP-Target-MIB</li> <li>• RFC 3413(13) SNMP-Notification-MIB</li> <li>• RFC 3415 SNMP-View-Based-ACM-MIB</li> <li>• RFC 3584 SNMP-Community-MIB</li> <li>• D-Link Private MIBs</li> <li>• LLDP MIB</li> <li>• Zone Defense MIB</li> </ul>

Order Information	
Part Number	Description
DXS-1210-28T	24-port 10GBASE-T + 4-port 10/25G SFP28 Smart Managed Switch
DXS-1210-28S	24-port 10G SFP+ + 4-port 10GBASE-T Smart Managed Switch
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 25 Gigabit Ethernet SFP28 Direct Attach Cables <sup>1</sup>	
DEM-CB100S28	25G SFP28 to SFP28 1m Direct Attach Cable
Optional Gigabit Ethernet SFP Transceivers	
DGS-712	1000BASE-T Copper SFP Transceiver
DEM-302S-LX	1000BASE-LX 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	1000BASE-ZX Single-mode, 80 km
DEM-330T	1000BASE-BX-D Single-Mode, 10 km (TX-1550/RX-1310 nm)
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)
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)
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)
Optional 25 Gigabit Ethernet SFP28 Transceivers <sup>1</sup>	
DEM-S2801SR	25G SFP28 Multi-Mode, 100m transceiver
DEM-S2810LR	25G SFP28 Single-Mode 10km transceiver

# DXS-1210 Series 10 Gigabit Ethernet Smart Managed Switches

Optional Management Software	
DV-700-N25-LIC	D-View 7 - 25 Node License
DV-700-N50-LIC	D-View 7 - 50 Node License
DV-700-N100-LIC	D-View 7 - 100 Node License
DV-700-N250-LIC	D-View 7 - 250 Node License
DV-700-N500-LIC	D-View 7 - 500 Node License
DV-700-N1000-LIC	D-View 7 - 1000 Node License
DV-700-P5-LIC	D-View 7 - 5 Probe License
DV-700-P10-LIC	D-View 7 - 10 Probe License
DV-700-P25-LIC	D-View 7 - 25 Probe License
DV-700-P50-LIC	D-View 7 - 50 Probe License
DV-700-P100-LIC	D-View 7 - 100 Probe License

<sup>1</sup> Only compatible with the DXS-1210-28T

Updated 2020/06/11