

## Product 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

### Improved Power Efficiency

Innovative D-Link Green features help conserve energy without sacrificing performance, reducing operating costs and protecting the environment

### Smart and Flexible Management

Powerful switch management functions can be performed through the intuitive web management interface or through the client-based utility



## DXS-1100 Series

# 10 Gigabit Ethernet Smart Managed Switches

## Features

### Green Technology

- Link Status Detection
- LED, Port Shut-off
- Port Standby
- System Hibernation

### Security

- Port Security
- D-Link Safeguard Engine
- ARP Spoofing Prevention
- SSL

### Traffic Monitoring & Bandwidth Control

- Port Mirroring/Bandwidth Control
- Broadcast/Multicast/Unicast Storm Control

### Advanced Features

- Traffic Segmentation
- Port-based VLAN
- 802.1p Priority Queue Mapping
- Auto Surveillance VLAN
- Voice VLAN
- Loopback Detection
- Cable Diagnostics
- LLDP-MED

The DXS-1100 Series 10 Gigabit Ethernet Smart Managed Switches are a set of Smart Layer 2 10 Gb Ethernet switches that provide an entry-level solution for Small and Medium Businesses (SMB) wishing to deploy 10 Gb Ethernet. These switches are ideal for server farms or as network aggregation devices, and provide a cost-effective and feature-rich solution to 10 Gb Ethernet requirements.

## Energy-Efficient

The DXS-1100 Series incorporates D-Link Green technology for increased energy efficiency. Smart fans and temperature sensors ensure that the fans are running at the optimum speed to keep the system cool. If the environment temperature is below a certain threshold or the switch is at low utilization, the smart fans will automatically slow down, resulting in lower power consumption and noise output. Meanwhile, the Link Status feature can reduce power utilization by powering down inactive ports and putting them into sleep mode. The DXS-1100 Series also takes its Green credentials one step further by incorporating a chipset with advanced silicon technology for reduced power usage.

## Easy to Deploy

The DXS-1100 Series supports an intuitive client-based utility (SmartConsole Utility or D-Link Network Assistant Utility) and a web-based management interface. The client-based utility allows customers to discover all switches in the D-Link Smart Switch family within the same L2 network segment. With this utility, users do not need to change the IP address of their PC, making initial setup of the Smart Switches quick and easy. Switches within the same L2 network segment that are connected to the user's PC are displayed on-screen for instant access. This allows for extensive switch configuration and basic setup of discovered devices, including password changes and firmware upgrades. The graphical web-based management interface provides a user-friendly interface that enables network administrators to remotely control their network down to the port level.

## 10 Gigabit Ethernet Smart Managed Switches

### Auto Surveillance VLAN and Bandwidth Control

The DXS-1100 Series supports Auto Surveillance VLAN (ASV), and Auto Voice VLAN, which are best suited for Voice over IP (VoIP) and video surveillance deployments. Auto Surveillance VLAN is a new, industry-leading technology that the DXS-1100 Series provides. This technology consolidates data and surveillance video transmission through a single unit, 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 VoIP functionality by automatically placing voice traffic from an IP phone onto an assigned VLAN. With higher priority and an individual VLAN, these features guarantee the quality and security of VoIP traffic across the network. In addition, with Bandwidth Control, network administrators can reserve bandwidth for important functions that require higher priority or more bandwidth.

### Advanced Features

The DXS-1100 Series is equipped with advanced security features such as Static MAC, Storm Control, and IGMP Snooping. Static MAC allows users to create a MAC whitelist for specific ports, helping administrators limit network access to authorized devices only. Storm Control monitors broadcast, multicast, or unknown unicast traffic and will start blocking or discarding packets which could flood the network when the defined threshold is exceeded. IGMP Snooping is capable of reducing the load of L3 multicast routers and save bandwidth in network throughput.

### Easy Troubleshooting

The DXS-1100 Series features Loopback Detection and Cable Diagnostics to help network administrators quickly find and solve network problems. Loopback Detection is used to detect loops created by a specific port and automatically shuts down the affected port. Cable Diagnostics helps network administrators quickly examine the quality of the copper cables, recognize the cable type, and detect cable errors.

# 10 Gigabit Ethernet Smart Managed Switches

Technical Specifications			
Model Number	• DXS-1100-10TS	• DXS-1100-16TC	• DXS-1100-16SC
General			
Hardware Version	• A1		
Size	• 17-inch rackmount width • 1U height		
Number of Ports	• 8 x 10GBASE-T ports • 2 x SFP+ ports	• 12 x 10GBASE-T ports • 2 x 10GBASE-T/SFP+ combo ports • 2 x SFP+ ports	• 14 x SFP+ ports • 2 x 10GBASE-T/SFP+ combo ports
Port Functions	<ul style="list-style-type: none"> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T Gigabit Ethernet               <ul style="list-style-type: none"> <li>• IEEE 802.3az compliance</li> </ul> </li> <li>• IEEE 802.3an 10GBASE-T 10GbE over copper               <ul style="list-style-type: none"> <li>• IEEE 802.3ae 10GbE over fiber</li> <li>• IEEE 802.3z 1000BASE-X</li> <li>• IEEE 802.3x Flow Control</li> </ul> </li> <li>• Auto-MDI/MDIX support for 1000/10GBASE-T</li> </ul>		
Performance			
Switching Capacity	• 200 Gbps	• 320 Gbps	• 320 Gbps
Maximum Forwarding Rate	• 148,801 Mpps	• 238,081 Mpps	• 238,096 Mpps
MAC Address Table Size	• 16,384 entries		
Packet Buffer	• 2 MB		
Flash Memory	• 128 MB		
Power Consumption			
Maximum Power Consumption	• 50.9 W	• 84.1 W	• 60.0 W
Standby Power Consumption	• 16.1 W	• 26.7 W	• 14.35 W
Physical			
Power Input	• 100 to 240 V AC		
MTBF	• 585,959 hours	• 489,221 hours	• 254,038 hours
Acoustics	• 46.4 dB(A)	• 45.9 dB(A)	• 48.0 dB(A)
Heat Dissipation	• 173.57 BTU/h	• 286.781 BTU/h	• 204.73 BTU/h
Weight	• 2.686 kg (5.93 lbs)	• 2.91 kg (6.42 lbs)	• 2.91 kg (6.42 lbs)
Dimensions (L x W x H)	• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)	• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)
Ventilation	• 2 x Smart Fans		
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		
EMI	• CE, FCC, RCM, VCCI, BSMI, CCC		
Safety	• cUL, CB, CE, CCC, BSMI		

# 10 Gigabit Ethernet Smart Managed Switches

Software Features		
VLAN	<ul style="list-style-type: none"> <li>• 802.1Q VLAN</li> <li>• Port-based VLAN</li> <li>• 128 VLAN groups</li> <li>• Configurable VID</li> <li>• 1-4094</li> </ul>	<ul style="list-style-type: none"> <li>• Voice VLAN</li> <li>• Auto Surveillance VLAN</li> <li>• Asymmetric VLAN</li> </ul>
L2 Features	<ul style="list-style-type: none"> <li>• MAC Address Table               <ul style="list-style-type: none"> <li>• Up to 16,384 entries</li> </ul> </li> <li>• Static MAC Address               <ul style="list-style-type: none"> <li>• 512 entries</li> </ul> </li> <li>• IGMP Snooping               <ul style="list-style-type: none"> <li>• IGMP v1/v2 Snooping</li> <li>• Supports up to 512 IGMP groups</li> <li>• Supports 512 static multicast addresses</li> </ul> </li> <li>• MLD Snooping               <ul style="list-style-type: none"> <li>• MLD v1 Snooping</li> <li>• MLD v2 Awareness</li> <li>• Supports up to 512 MLD groups</li> <li>• Supports 512 static multicast addresses</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> </ul> </li> </ul>	<ul style="list-style-type: none"> <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>• Support Mirroring for Tx/Rx/Both</li> </ul> </li> <li>• Link Aggregation               <ul style="list-style-type: none"> <li>• 802.1AX</li> <li>• 802.3ad</li> <li>• Maximum of 5 groups/ 4 ports per group</li> </ul> </li> <li>• Jumbo Frame               <ul style="list-style-type: none"> <li>• Up to 9,216 Bytes</li> </ul> </li> <li>• Loopback Detection</li> </ul>
Quality of Service (QoS)	<ul style="list-style-type: none"> <li>• CoS based on               <ul style="list-style-type: none"> <li>• 802.1p Priority</li> </ul> </li> <li>• 802.1p Priority Queue</li> <li>• 8 queues per port</li> </ul>	<ul style="list-style-type: none"> <li>• Queue Handling               <ul style="list-style-type: none"> <li>• Strict Priority Queue</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>• IPv6 Neighbor Discovery (ND)</li> </ul>	
Security	<ul style="list-style-type: none"> <li>• Broadcast/Multicast/Unicast Storm Control</li> <li>• D-Link Safeguard Engine</li> <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> </ul>	<ul style="list-style-type: none"> <li>• ARP Spoofing Prevention               <ul style="list-style-type: none"> <li>• Max. 128 entries</li> </ul> </li> <li>• DoS Attack Prevention               <ul style="list-style-type: none"> <li>• Port Security</li> </ul> </li> <li>• Supports up to 64 MAC addresses per port</li> <li>• Duplicate Address Detection (DAD)</li> </ul>
Operations, Administration, and Maintenance (OAM)	<ul style="list-style-type: none"> <li>• Cable Diagnostics</li> </ul>	
AAA	<ul style="list-style-type: none"> <li>• Authentication for management access</li> </ul>	
Management	<ul style="list-style-type: none"> <li>• Web-based GUI</li> <li>• D-Link Network Assistant Utility</li> <li>• TFTP client</li> <li>• SNMP               <ul style="list-style-type: none"> <li>• Support v1/v2c/v3</li> </ul> </li> <li>• SNMP trap</li> </ul>	<ul style="list-style-type: none"> <li>• LLDP</li> <li>• LLDP-MED</li> <li>• System Log</li> <li>• SNTP</li> <li>• ICMPv6</li> <li>• Dual Images</li> <li>• Dual Configurations</li> <li>• RMON v1/v2</li> </ul>
Green Technology	<ul style="list-style-type: none"> <li>• Power Saving by:               <ul style="list-style-type: none"> <li>• Link Status</li> <li>• Cable Length</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• LED Shutoff</li> <li>• Port Shutoff</li> <li>• System Hibernation</li> </ul>

MIB/RFC Standards	<ul style="list-style-type: none"><li>• RFC783 TFTP</li><li>• RFC951 BootP/DHCP Client</li><li>• RFC1157 SNMP v1, v2, v3</li><li>• RFC1213 MIB II</li><li>• RFC1215 MIB Traps Convention</li><li>• RFC1350 TFTP</li><li>• RFC1493 Bridge MIB</li><li>• RFC1542 Bootp/DHCP Client</li><li>• RFC1769 SNTP</li><li>• RFC1901 SNMP v1, v2, v3</li><li>• RFC2131 Bootp/DHCP Client</li><li>• RFC2246 SSL</li><li>• RFC2461 Neighbor Discovery for IPv6</li><li>• RFC2570 SNMP v1, v2, v3</li><li>• RFC2575 SNMP v1, v2, v3</li><li>• RFC2598 CoS</li><li>• RFC2674 802.1p MIB</li><li>• RFC3164 System Log</li><li>• RFC3195 System Log</li><li>• RFC3411~17 SNMP</li><li>• RFC4213 IPv4/IPv6 dual stack</li><li>• RFC4293 IPv6 SNMP mgmt. Interface MIB</li><li>• RFC4363 802.1p MIB</li><li>• RFC4861 Neighbor Discovery for IPv6</li><li>• DLINK Private MIB</li><li>• LLDP MIB</li><li>• Zone Defense MIB</li><li>• Interface Group MIB</li></ul>
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# 10 Gigabit Ethernet Smart Managed Switches

Order Information	
<i>Part Number</i>	<i>Description</i>
DXS-1100-10TS	8-port 10GBASE-T and 2-port SFP+
DXS-1100-16TC	12-port 10GBASE-T and 2-port SFP+ and 2-port 10GBASE-T/SFP+ combo design
DXS-1100-16SC	14-port SFP+ and 2-port 10GBASE-T/SFP+ combo design
Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables	
DEM-CB100S	10GbE SFP+ 1 m Direct Attach Cable
DEM-CB300S	10GbE SFP+ 3 m Direct Attach Cable
DEM-CB700S	10GbE 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, 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-302S-BXD	1000BASE-BX-D Single-Mode, 2 km (TX-1550/RX-1310 nm)
DEM-302S-BXU	1000BASE-BX-U Single-Mode, 2 km (TX-1310/RX-1550 nm)
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-431XT-DD	10GBASE-SR Multi-Mode, OM1: 33m/OM2: 82m/OM3: 300m (with DDM)
DEM-432XT	10GBASE-LR Single-Mode, 10 km (w/o DDM)
DEM-432XT-DD	10GBASE-LR Single-Mode, 10 km (with DDM)
DEM-433XT	10GBASE-ER Single-Mode, 40 km (w/o DDM)
DEM-433XT-DD	10GBASE-ER Single-Mode, 40 km (with 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)

# DXS-1100 Series

## 10 Gigabit Ethernet Smart Managed Switches

Optional 10 Gigabit Ethernet Adapter	
DXE-810S	Single Port 10GbE SFP+ PCI Express Adapter
DXE-810T	Single Port 10GBASE-T RJ-45 PCI Express Adapter
DXE-820T	Dual Port 10GBASE-T RJ-45 PCI Express Adapter

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