Highlights

Multi-Gigabit Ethernet Connection

Delivers fast 2.5 Gbps performance using existing cabling, suitable for Wi-Fi 6 network deployments

10G Uplink Connections

Two 10-Gigabit Ethernet or SFP+ uplink ports allow for additional connections to a storage device or uplink network

Power over Ethernet

PoE+ (30W) or PoE++ (90W) options to simultaneously power multiple types of PoE devices with various power draw requirements

Smart Managed Switches

DMS-1250 Series

Features

PoE Functionality[1]

- IEEE 802.3bt or IEEE 802.3af/at compliant
- Up to 475W PoE budget
- Fast and perpetual PoE

Enhanced Security Features

- Access Control Lists (ACLs)
- D-Link Safeguard Engine helps the CPU resist broadcast/multicast/unicast flooding
- Up to 64 MAC addresses per port

Smart Fan Design

- 5-speed smart fan design automatically adjusts according to operating temperature
- Quiet mode or noiseless Fan Off mode

Intuitive Management

- Multi-lingual Web UI
- Full command line support via console port[3]
- D-Link Nuclias Connect and D-Link Nuclias Connect Hub (version 1.3.0 or later)
- Built-in SNMP MIB for remote NMS (D-View 8)

Advanced Features

- Static routing
- Auto-surveillance and Voice VLAN
- Dual software images
- Dual configuration files
- 6kV surge protection on all 2.5GbE access ports
- Ethernet ring protection switching (ERPS)

Limitless Applications

- Ideal for SMB and MDU applications
- Small footprint to fit inside structured wiring media enclosures

The DMS-1250 Series is D-Link's newest family of Multi-Gigabit Ethernet smart switches. It provides multi-Gigabit connectivity, Power over Ethernet (PoE) capability, multiple management interfaces and advanced layer 2 features. The DMS-1250 Series provides a high-performace solution to expand your network and adapts to your business needs.

Multi-G Speeds for Wi-Fi 6 Networks

The DMS-1250 Series provides full 2.5 Gbps Ethernet ports to significantly upgrade network performance with increased bandwidth suitable for Wi-Fi 6 applications such as high-speed streaming environments. It also provides additional 10 Gbps Ethernet ports and SFP+ ports for high-speed uplink connections and increase overall efficiency of data network.

PoE+ Availability on All Ports

The DMS-1250 Series includes 8-port, 16-port, and 24-port PoE models. All models support the 802.3at standard, while the 18-port and 24-port models also support 802.3bt, providing a higher power budget of up to 475W to power devices such as video phones, cameras, and Wi-Fi APs to fulfill a wide range of business needs. PoE models also support innovative PoE functions such as Perpetual PoE, which delivers uninterrupted power to connected powered devices (PD) even when the power sourcing equipment (PSE) switch is booting. Fast PoE enables the switch to supply power to connected endpoint devices in a relatively short time without waiting for the operating system to boot up. Additionally, an extended Link Layer Discovery Protocol (LLDP) automatically negotiates and manages the power feed to IEEE 802.3at PoE+ and 802.3bt PoE++ powered devices for optimal power distribution.

Enhance Your Network Security

The D-Link's innovative Safeguard Engine™ helps protect the switches against traffic flooding caused by malicious attacks. 802.1X port-based and host-based authentication allows clients to be authenticated through external RADIUS servers and can provide a more secure network connection. The Access Control List (ACL) feature can help enhance network security and better control access between internal networks. The DHCP server screening feature can filter DHCP replies on unauthorized ports to prevent them from being assigned an IP address, which provides an additional security mechanism.

Intelligent Fan Operation

The DMS-1250-10SP, DMS-1250-12, DMS-1250-12TP, DMS-1250-18P, DMS-1250-28, and DMS-1250-28P models have built-in internal fans which can automatically start working to prevent the device from overheating. The fan speed will be gradually adjusted between 5 levels of cooling according to the operating temperature of the switch. Administrators can also configure the operation state of internal fans through Web UI or command line interface (CLI). The switch fans can be manually set to Fan Off mode or Quiet mode if the ambient temperature or PoE load do not exceed the critical level.

Versatile Management Tools

The DMS-1250 Series supports various management tools to adapt to users' different needs. D-Link Nuclias Connect (DNC) can discover multiple D-Link devices and allow you to manage and configure the settings of the discovered devices. The DMS-1250 Series can also be managed by D-View 8, a central network management system. Full command line interface (CLI) is supported and IT personnel can directly configure the device through the console port[3] or via Telnet. SNMP allows for the central management of network assets, remote configuration, and logging functions.

Enhanced 6kV Surge Protection

The DMS-1250 Series switches offer enhanced 6kV surge protection on all 2.5-Gigabit Ethernet access ports. The 6kV surge protection helps shield the switches against sudden electrical surges, such as lightning strikes or unstable electrical current. Built-in 6kV surge protection helps reduce the chances of equipment being damanged from electrical surges, and effectively lowers maintenance costs by minimizing the need for expensive repairs and replacement.

Advanced L2/L2+ Features

The DMS-1250 series switches provides configurable L2 network features like VLANs, Quality of Services, Spanning Tree Protocol. The Auto Surveillance VLAN (ASV) and Voice VLAN function can guarantee the quality of video and voice services through the individual VLAN with higher priority. The Differentiated Service Code Point (DSCP) markings on Ethernet packets enable different levels of service to be assigned to network traffic. These voice and video packets thus can take precedence over other packets. It also supports Static route, IPv4/IPv6, LACP link aggregation and IGMP snooping, which can meet the needs of most business applications.

Technical Specifications

Model Number	DMS-1250-10S	DMS-1250-10SP	DMS-1250-12TP	DMS-1250-12
Hardware Version	A1			
General				
Interfaces	• 8 x 100/1000/2.5GBASE-T ports • 2 x 10G SFP+ ports	• 8 x 100/1000/2.5GBASE-T PoE ports • 2 x 10G SFP+ ports	• 8 x 100/1000/2.5GBASE-T PoE ports • 2 x 100/1000/2.5G/5G/ 10GBASE-T ports • 2 x 10G SFP+ ports	• 8 x 100/1000/2.5GBASE-T ports • 2 x 100/1000/2.5G/5G/ • 10GBASE-T ports • 2 x 10G SFP+ ports
Port Standards	• IEEE 802.3u 100BASE-TX • IEEE 802.3ab 1000BASE-T • IEEE 802.3bz 2.5GBASE-T and 5GBASE-T • IEEE 802.3an 10GBASE-T • IEEE802.3ae 10G Ethernet over fiber • IEEE802.3z 1000BASE-X • IEEE 802.3az Enerby-Efficient Ethernet (EEE) • IEEE 802.3af/at PoE			
Network Cables	• UTP Cat. 5e above cables for 2.5G/5GBASE-T (max 100m) • UTP Cat. 6A above cables for 10GBASE-T (max 100m)			
Media Interface Exchange	Auto MDI/MDIX			

DMS-1250 Series Smart Managed Switches

Performance				
Switching Capacity	80 Gbps	80 Gbps	120 Gbps	120 Gbps
Transmission Method	Store-and-forward			
MAC Address Table	16K			
Static MAC Addresses	256 entries			
Packet Forwarding Rate	59.53 Mpps	59.53 Mpps	89.29 Mpps	89.29 Mpps
Packet Buffer Memory	12 Mbits			
Flash Memory	32 MB			
DRAM Size	512 MB			
PoE				
PoE Standard	N/A	IEEE 802.3af/at (30W)	IEEE 802.3af/at (30W)	N/A
PoE Capable Ports	N/A	8	8	N/A
PoE Power Budget	N/A	240 W	240 W	N/A
LEDs				
Power (per device)	✓			
Link/Active/Speed (per RJ-45 port)	✓			
Link/Active/Speed (per 10G SFP+ port)	✓			
PoE Max and PoE Status[1]	✓			
Physical				
Power Input	100 to 240 V AC 50/60 Hz			
Surge Protection	• IEEE61000-4-5 surge protection compliance • 6kV surge protection on all 2.5-Gigabit Ethernet ports			
Fan	Fanless	2 internal fans	2 internal fans	1 internal fan
Operating Temperature	-5 to 50°C (23 to 122°F)			
Storage Temperature	-20 to 70°C (-4 to 158°C)			
Operating Humidity	0% to 95% relative humidity			
Storage Humidity	0% to 95% relative humidity			
Max Power Consumption	13.58 W	287.58 W (PoE on)	289.74 W (PoE on)	23.023 W
Dimensions (L x W x H)	330 x 200 x 44 mm	330 x 200 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm
Weight	1.877 kg (4.14 lbs)	2.377 kg (5.24 lbs)	3.24 kg (7.14 lbs)	2.58 kg (5.69 lbs)
Certifications				
Safety	CB, UL, BSMI			
EMI	CE Class A, VCCI Class A, FCC Class A, IC, BSMI, RCM			

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DMS-1250 Series Smart Managed Switches

Technical Specifications				
Model Number	**DMS-1250-18**	**DMS-1250-18P**	**DMS-1250-28**	**DMS-1250-28P**
Hardware Version	A1			
General				
Interfaces	• 16 x 100/1000/2.5GBASE-T ports • 2 x 10G SFP+ ports	• 16 x 100/1000/2.5GBASE-T PoE ports • 2 x 10G SFP+ ports	• 24 x 100/1000/2.5GBASE-T ports • 4 x 10G SFP+ ports	• 24 x 100/1000/2.5GBASE-T PoE ports • 4 x 10G SFP+ ports
Port Standards	• IEEE 802.3u 100BASE-TX • IEEE 802.3ab 1000BASE-T • IEEE 802.3bz 2.5GBASE-T and 5GBASE-T • IEEE 802.3an 10GBASE-T • IEEE802.3ae 10G Ethernet over fiber • IEEE802.3z 1000BASE-X • IEEE 802.3az Enerby-Efficient Ethernet (EEE) • IEEE 802.3af/at/bt PoE			
Network Cables	• UTP Cat. 5e above cables for 2.5G/5GBASE-T (max 100m) • UTP Cat. 6A above cables for 10GBASE-T (max 100m)			
Media Interface Exchange	Auto MDI/MDIX			
Performance				
Switching Capacity	120 Gbps	120 Gbps	200 Gbps	200 Gbps
Transmission Method	Store-and-forward			
MAC Address Table	16K		32K	
Static MAC Addresses	256 entries			
Packet Forwarding Rate	89.29 Mpps	89.29 Mpps	148.81 Mpps	148.81 Mpps
Packet Buffer Memory	12 Mbits		16 Mbits	
Flash Memory	32 MB			
DRAM Size	512 MB			
PoE				
PoE Standard	N/A	IEEE 802.3af/at/bt (90W)	N/A	IEEE 802.3af/at/bt (90W)
PoE Capable Ports	N/A	IEEE 802.3bt 16 ports	N/A	IEEE 802.3bt 24 ports
PoE Power Budget	N/A	370 W	N/A	475 W
LEDs				
Power (per device)	✓			
Link/Active/Speed (per RJ-45 port)	✓			
Link/Active/Speed (per 10G SFP+ port)	✓			
PoE Max and PoE Status[1]	✓			

DMS-1250 Series Smart Managed Switches

Physical				
Power Input	100 to 240 V AC 50/60 Hz			
Surge Protection	• IEEE61000-4-5 surge protection compliance • 6kV surge protection on all 2.5-Gigabit Ethernet ports			
Fan	Fanless	3 internal fans	2 internal fans	4 internal fans
Operating Temperature	-5 to 50°C (23 to 122°F)			
Storage Temperature	-20 to 70°C (-4 to 158°C)			
Operating Humidity	0% to 95% relative humidity			
Storage Humidity	0% to 95% relative humidity			
Max Power Consumption	22 W	443.84 W (PoE on)	39.73 W (PoE on)	592.19W (PoE on)
Dimensions (L x W x H)	440 x 250 x 44 mm			
Weight	2.968 kg	3.524 kg	3.473 kg	4.165 kg

Certifications	
Safety	CB, UL, BSMI
EMI	CE Class A, VCCI Class A, FCC Class A, IC, BSMI, RCM

Software		

L2 Features	• MAC Address Table
	  • 16K entries
	• IGMP Snooping
	  • IGMP v1/v2/v3 awareness
	  • Supports 256 IGMP groups
	  • IGMP per VLAN
	  • Supports IGMP Snooping Querier
	  • MLD snooping v1/v2 awareness (256 groups)
	• Loopback Detection
	• 802.3ad Link Aggregation:
	  • Supports maximum 8 groups per per device and 8 ports per group
	• LLDP
	• LLDP-MED
	• Jumbo Frame
	  • Up to 12,000 bytes
	• Ethernet ring protection switching (ERPS)
		• 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
		• Multicast Filtering
		  • Forwards all registered groups
		  • Filters all unregistered groups
		• Auto MDI/MDIX
		• PD-Alive
		• DDM support for optics

VLAN	• 802.1Q
	• VLAN Group
	  • Max. 4094 static VLAN groups
	• Configurable VID from 1 - 4094
	• Asymmetric VLAN
	• Auto Voice VLAN
	• Auto Surveillance VLAN
		• GVRP
		• ISM VLAN
		• VLAN Translation
		• Double VLAN (Q-in-Q)
		  • Port-based Q-in-Q
		  • Selective Q-in-Q

Quality of Service (QoS)	• 802.1p Quality of Service
	• 8 queues per port
	• Queue Handling
	  • Strict
	  • WFQ
	  • Weighted Round Robin (WRR)
	• Bandwidth Control
	  • Port-based (ingress/egress, min granularity 10/100/1000 is 16 Kbps)
		• QoS based on:
		  • 802.1p priority queues
		  • DSCP

L3 Features	• IP interface
	  • Supports IPv4 interface
	  • Supports IPv6 interface
	• IPv6 Neighbor Discovery (ND)
		• Static route
		  • 128 IPv4 static route entries
		  • 64 IPv6 static route entries

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Access Control List (ACL)	• ACL based on
	  • MAC address
	  • 802.1p priority
	  • VID
	  • Source/destination IP address wildcard
	  • EtherType mask
	  • IP address
	  • Source/destination IP address wildcard
	  • DSCP
	  • Protocol type
	  • TCP/UDP port number
		• IPv6 address
		  • Source/destination IP address prefix length
		  • DSCP
		  • Protocol type
		  • TCP/UDP port number
		  • IPv6 traffic class
		• Max. 50 access lists
		• Max. 768 entries shared by IPv4 and MAC
		• Max. 384 entries for IPv6
		• Each rule can only be associated with a single port

Security Features	• Broadcast/Multicast/Unicast Storm Control
	• D-Link Safeguard Engine
	• Traffic segmentation
	• TLS v1.3
	• DoS attack prevention
	• Port Security
	  • Up to 64 MAC addresses per port
		• DHCP Server Screening
		• IP-MAC-Port Binding (Smart Binding)
		  • ARP Inspection
		  • Max. 64 entries
		  • DHCP Snooping
		  • AAA support for RADIUS/TACACS+
		  • Password encryption

AAA	• 802.1X Authentication
	  • Supports local/RADIUS database
	  • Supports port-based access control
	  • Supports host-based access control
	  • Supports EAP, OTP, TLS, TTLS, PEAP
		• IPv6 RADIUS server
		• Support MD5 authentication

OAM	Cable diagnostics	

Management	• Web-based GUI
	• Full CLI
	• Telnet Server
	• TFTP Client
	• Auto MDI/MDIX
	• SNMP
	  • Supports v1/v2c/v3
	• SNMP Trap
	• Backup/upgrade firmware
	• Smart Wizard
	• Upload/download configuration file
	• BootP/DHCP Client
	• System Log
	• SNTP
	• ICMP v6
	• IPv4/v6 Dual Stack
		• DHCP Auto Configuration
		• Time setting
		  • SNTP
		• RMONv1
		• Trusted host
		• Dual image
		• Dual configuration
		• Command logging
		• DHCP auto-image
		• DHCP/DHCPv6 local relay
		  • DHCP relay Option 82
		  • DHCP client Option 12

Green Technology	• Power Saving by:
	  • Link Status
	  • Time-based PoE: PoE ports can be turned on/off by port or system through schedule
		• Port shut off

MIBs	• RFC1212 Console MIB Definitions • RFC1213 MIBII • RFC1215 MIB Traps Convention • RFC1493 Bridge MIB • RFC1157, RFC2573, RFC2575, RFC2576 SNMP MIB • RFC1442, RFC1901, RFC1902, RFC1903, RFC1904, RFC1905, RFC1906, RFC1907, RFC1908, RFC2578, RFC3418 SNMPv2 MIB • RFC271, RFC1757, RFC2819 RMON MIB • RFC2021 RMONv2 MIB • RFC1398, RFC1643, RFC1650, RFC2358, RFC2665 Ether-like MIB	• RFC2674 802.1p MIB • Interface Group MIB • RFC2618 RADIUS Authentication Client MIB • RFC4022 MIB for TCP • RFC4113 MIB for UDP • RFC2620 RADIUS Accounting Client MIB • Private MIB • PoE MIB • DDP MIB • LLDP-MED MIB
RFC Standards	• RFC791 IP • RFC768 UDP • RFC793 TCP • RFC792 ICMPv4 • RFC2463, RFC4443 ICMPv6 • RFC826 ARP • RFC1321, RFC2284, RFC2865, RFC2716, RFC3580 Extensible Authentication Protocol (EAP)	• RFC2573 SNMP Applications • RFC2461, RFC4861 Neighbor Discovery for IPv6 • RFC2462, RFC4862 IPv6 Stateless Address Auto-configuration (SLAAC) • RFC2464 IPv6 over Ethernet and definition • RFC4291 IPv6 Addressing Architecture • RFC2893, RFC4213 IPv4/IPv6 dual stack function

DMS-1250 Series Smart Managed Switches

Order Information	
DMS-1250-10S	Multi-Gigabit Smart Switch with 8-port 2.5GBASE-T and 2-port 10G SFP+
DMS-1250-10SP	Multi-Gigabit Smart Switch with 8-port 2.5GBASE-T PoE+ and 2-port 10G SFP+
DMS-1250-12TP	Multi-Gigabit Smart Switch with 8-port 2.5GBASE-T PoE+, 2-port 10GBASE-T, and 2-port 10G SFP+
DMS-1250-12	Multi-Gigabit Smart Switch with 8-port 2.5GBASE-T, 2-port 10GBASE-T, and 2-port 10G SFP+
DMS-1250-18	Multi-Gigabit Smart Switch with16-port 2.5GBASE-T and 2-port 10G SFP+
DMS-1250-18P	Multi-Gigabit Smart Switch with 16-port 2.5GBASE-T PoE++ and 2-port 10G SFP+
DMS-1250-28	Multi-Gigabit Smart Switch with 24-port 2.5GBASE-T and 4-port 10G SFP+
DMS-1250-28P	Multi-Gigabit Smart Switch with 24-port 2.5GBASE-T PoE++ and 4-port 10G SFP+
Optional 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-314GT	1000BASE-LHX single-mode, 50 km
Optional SFP+ Transceivers	
DEM-410T[2]	10GBASE-T copper SFP+ transceiver, 30 m
DEM-431XT	10GBASE-SR multi-mode SFP+ transceiver
DEM-432XT	10GBASE-LR single-mode SFP+ transceiver
DAC Cables	
DEM-CB100S	1 meter 10G 30AWG Passive SFP+ to SFP+ direct attach cable
DEM-CB300S	3 meter 10G 30AWG Passive SFP+ to SFP+ direct attach cable

[1] Available on PoE models only.

[2] The DEM-410T can only be used in environments not exceeding an ambient temperature of 40°C (104°F) and a total of up to 2 DEM-410T transceivers can be insatalled for DMS-1250-12TP.

[3] Console port is only available on the DMS-1250-10S, DMS-1250-10SP, and DMS-1250-12TP models.

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