D-Link

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

2.5G Smart Managed Switches

DMS-1250Series

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 (version 1.3.0 or later), DNH-1000, DNH-3000 and Nuclias Hype

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)
- Sub-second link redundancy and convergence via Flex Link.
- Double VLAN Q-in Q and GVRP

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 , featuring a robust metal housing designed for long-lasting durability. 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. Furthermore, the PD-Alive feature enhances network reliability by automatically rebooting unresponsive devices. For ultimate management convenience, administrators can remotely enable, disable each PoE port individually, ensuring efficient and effortless remote maintenance.

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 Network Controller 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 DNH-1000, DNH-3000 and Nuclias Hyper, a central network management system. Full command line interface (CLI) is supported and IT personnel can directly configure the device through the console port3 or via Telnet. SNMP allows for the central management of network assets, remote configuration, and logging functions.

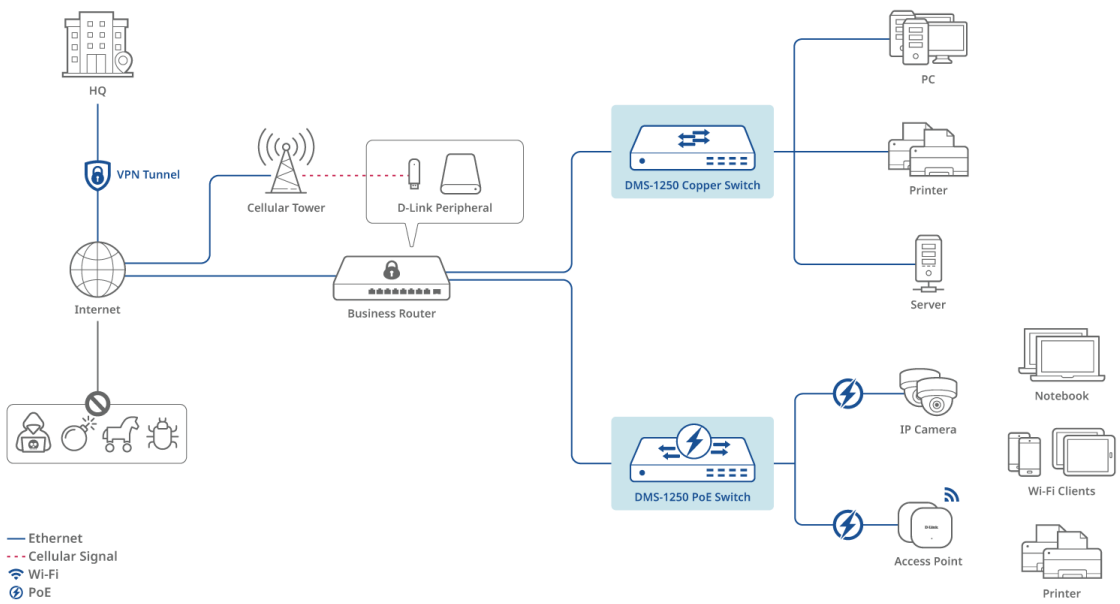
Enhanced 6kV Surge Protection

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.

Connection Diagram



Technical Specifications			
Model Number	**DMS-1250-10S**	**DMS-1250-10SP**	**DMS-1250-10SPL**
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 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 100/1G/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	80 Gbps	80 Gbps	80 Gbps
Transmission Method	Store-and-forward		
MAC Address Table	16K		
Static MAC Addresses	256 entries		
Packet Forwarding Rate	59.53 Mpps	59.53 Mpps	59.53 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 802.3bt (60W) • IEEE 802.3af/at (30W)
PoE Capable Ports	N/A	8	• Port 1-2: 802.3bt ports • Port 3-8: 802.3at ports
PoE Power Budget	N/A	240W	120W
LEDs			
Power (per device)	✓		
Link/Active/Speed (per RJ-45 port)	✓		
Link/Active/Speed (per 10G SFP+ port)	✓		
Console	✓	✓	
Fan error		✓	
PoE Max and PoE Status[1]		✓	✓
Physical			
Power Input	100 to 240V AC 50/60 Hz		DC 54V /2.78A (external power) AC 100-240V 50/60 Hz in external power
Surge Protection	• IEEE61000-4-5 surge protection compliance • 6kV surge protection on all 2.5-Gigabit Ethernet ports		
Fan	Fanless	2 internal fans	Fanless
Operating Temperature	-5 to 50°C (23 to 122°F)		0 to 40°C (32 to 104°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	13.58W	• 287.58W (PoE on) • 21.221W (PoE off)	• 147W (PoE on) • 18.84W (poE off)
Dimensions (L x W x H)	330 x 200 x 44 mm standard 19"(1U) rack- mountable	330 x 200 x 44 mm standard 19"(1U) rack- mountable	210 x 210 x 44 mm standard 19"(1U) rack and wall mountable
Weight	1.877 kg (4.14 lbs)	2.377 kg (5.24 lbs)	1.34 kg (2.95 lbs)
Certifications			
Safety	CB, UL, BSMI		
EMI	CE Class A, VCCI Class A, FCC Class A, IC, BSMI, RCM		

D-Link®

Technical Specifications

Model Number	DMS-1250-12TP	DMS-1250-12	DMS-1250-18
Hardware Version	A1		
General			
Interfaces	• 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	• 16 x 100/1000/2.5GBASE-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 100/1G/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	120 Gbps
Transmission Method	Store-and-forward		
MAC Address Table	16K		
Static MAC Addresses	256 entries		
Packet Forwarding Rate	89.29 Mpps	89.29 Mpps	89.29 Mpps
Packet Buffer Memory	12 Mbits		
Flash Memory	32 MB		
DRAM Size	512 MB		
PoE			
PoE Standard	IEEE 802.3af/at (30W)	N/A	N/A
PoE Capable Ports	8	N/A	N/A
PoE Power Budget	240W	N/A	N/A
LED			
Power (per device)	✓		
Link/Active/Speed (per RJ-45 port)	✓		
Link/Active/Speed (per 10G SFP+ port)	✓		
Console	✓	✓	✓
Fan error	✓	✓	
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	2 internal fans	1 internal fans	Fanless

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	• 289.74W (PoE on) • 28.33W (PoE off)	23.023W	22W
Dimensions (L x W x H)	440 x 210 x 44 mm standard 19"(1U) rack- mountable	440 x 210 x 44 mm standard 19"(1U) rack- mountable	440 x 250 x 44 mm standard 19"(1U) rack- mountable
Weight	3.04 kg (6.70 lbs)	2.58 kg (5.69 lbs)	2.973 kg (6.55 lbs)
Certifications			
Safety	CB, UL, BSMI		
EMI	CE Class A, VCCI Class A, FCC Class A, IC, BSMI, RCM		

Technical Specifications

Model Number	**DMS-1250-18P**	**DMS-1250-28**	**DMS-1250-28P**
Hardware Version	A1		
General			
Interfaces	• 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 PoE		
Network Cables	• UTP Cat. 5e above cables for 100/1G/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	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	148.81 Mpps	148.81 Mpps
Packet Buffer Memory	12 Mbits	16 Mbits	
Flash Memory	32 MB		
DRAM Size	512 MB		

PoE			
PoE Standard	IEEE 802.3af/at/bt (90W)	N/A	IEEE 802.3af/at/bt (90W)
PoE Capable Ports	IEEE 802.3bt 16 ports	N/A	IEEE 802.3bt 24 ports
PoE Power Budget	370W	N/A	475W
LED			
Power (per device)	✓		
Link/Active/Speed (per RJ-45 port)	✓		
Link/Active/Speed (per 10G SFP+ port)	✓		
Console	✓	✓	✓
Fan error	✓	✓	✓
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	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	• 443.84W (PoE on) • 31.45W (PoE off)	39.73 W	• 592.19W (PoE on) • 49.909W (PoE off)
Dimensions (L x W x H)	440 x 250 x 44 mm standard 19"(1U) rack- mountable		
Weight	3.592 kg (7.91 lbs)	3.498 kg (7.71 lbs)	4.179 kg (9.21 lbs)
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 (DMS-1250-10SP/10S/10SPL/12/12TP/18/18P)
	  • 32K entries (DMS-1250-28/28P)
	• 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
		• Prepetual PoE
		• Fast PoE
		• 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 (Multicast VLAN) • VLAN Translation • Selective Q-in-Q • Double VLAN Q-in-Q • Port-based VLAN • VLAN trunking • Guest VLAN

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

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
	• Port-based 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
		• SSH
		• SSL

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
		• RMONv2
		• Trusted host
		• Dual image
		• Dual configuration
		• Command logging
		• DHCP auto-image
		• DHCP/DHCPv6 local relay
		  • DHCP relay Option 82
		  • DHCP client Option 12
		• user name / password create
		• Firmware Upgrade
		• Reboot
		• Reset to the factory default
		• Enter and edit the IPv4/IPv6 address

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

Order Information	
DMS-1250-10S	8 Ports 2.5G + 2 Ports 10G SFP+ Standard Smart Switch
DMS-1250-10SP	8 Ports 2.5G PoE+ + 2 Ports 10G SFP+ Standard Smart Switch, 240W
DMS-1250-10SPL	6 Ports 2.5G PoE+ + 2 Ports 2.5G PoE++ + 2Ports 10G SFP + Standard Smart Switch, 120W
DMS-1250-12TP	8 Ports 2.5G PoE+ + 2 Ports 10G + 2 Ports 10G SFP+ Standard Smart Switch, 240W
DMS-1250-12	8 Ports 2.5G + 2 Ports 10G + 2 Ports 10G SFP+ Standard Smart Switch
DMS-1250-18	16 Ports 2.5G + 2 Ports 10G SFP+ Standard Smart Switch
DMS-1250-18P	16 Ports 2.5G PoE++ + 2 Ports 10G SFP+ Standard Smart Switch, 370W
DMS-1250-28	24 Ports 2.5G + 4 Ports 10G SFP+ Standard Smart Switch
DMS-1250-28P	24 Ports 2.5G PoE++ + 4 Ports 10G SFP+ Standard Smart Switch, 475W
Optional SFP Transceivers	
DGS-712[4]	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 DMS-1250 series supports the DEM-410T/A2 module only on the first SFP+ port, with an ambient temperature limit of 40°C (104°F). The DMS-1250-12TP is an exception, supporting up to two DEM-410T/A2 modules.
[3] The console port is available on the DMS-1250-10S, 10SP, 12TP, 12, 18, 18P, 28, and 28P models.
[4] The DMS-1250 series supports up to 2 DGS-712 units, and it is recommended to operate under an ambient temperature not exceeding 40°C (104 °F) to ensure stable performance.

Actual performances may vary due to settings, cabling, temperature, network configuration, interface, device compatibility, environmental and on-site conditions, and other similar factors. References to power capability, signal or processing speed, signal range or distance, data encryption, storage capacity, display properties, or other performance metrics are based on optimal conditions derived from industry standards and provided for informational purposes only. Specifications may be subject to change without prior notice.

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