

Product Highlights

10 Gigabit Connectivity

High bandwidth uplinks eliminate network bottlenecks and provide low-latency connections for network servers and storage

Superior Reliability

Per-port surge protection, Ethernet Ring Protection Switching and Redundant Power Supply features maximize service availability and increase uptime

Service Provider Features

Layer 2 multicast functions allow IPTV streams to be distributed efficiently and security features prevent network abuse



DGS-1510/ME Series

Metro Ethernet Switches

Features

Reliable Hardware and Software Features

- 6 kV Surge Protection for Ethernet Ports
- Real Time Clock (RTC)
- Dying Gasp
- Ethernet Ring Protection Switching (ERPS)
- Redundant Power Supply (RPS) Support

Advanced Switch Features

- Port-based Q-in-Q
- VLAN Trunking
- ISM VLAN (Multicast VLAN)
- Layer 3 Control Packet Filtering

Comprehensive Security Features

- Access Control Lists (ACLs)
- D-Link Safeguard Engine
- BPDU Attack Protection
- ARP Spoofing Prevention
- IP-MAC-Port Binding
- DoS Attack Prevention
- 802.1X
- MAC-based Access Control
- Guest VLAN

System Management

- 802.1ag CFM
- 802.3ah Ethernet Link OAM
- SNMP v1/v2c/v3
- RMON v1/v2
- LLDP/LLDP-MED

The DGS-1510/ME Series Metro Ethernet Switches are a family of Ethernet switches ideal for Metro Ethernet applications. They feature a variety of ports, including 10/100/1000BASE-T RJ-45 ports, 1G SFP ports, and 10G SFP+ ports for increased network bandwidth. Surge protection, advanced Layer 2 functions and a suite of security and management tools make the DGS-1510/ME Series Metro Ethernet Switches ideally suited for Metro Ethernet applications.

Multi-Gigabit Performance

The DGS-1510/ME Series Metro Ethernet Switches come with a variety of port types, including Gigabit Ethernet RJ-45, 1 Gigabit Ethernet SFP ports, or 10 Gigabit Ethernet SFP+ ports. All models offer a minimum of at least 2 Gigabit Ethernet SFP ports. The DGS-1510-28X/ME, DGS-1510-28XS/ME and DGS-1510-52/ME offer 4 10 Gigabit Ethernet SFP+ ports for improved uplink bandwidth. The DGS-1510-28LP/ME and DGS-1510-28XMP/ME switches feature PoE, allowing compatible devices to be installed in remote locations without immediate access to power outlets.

Efficient and Resilient Networking

All Ethernet ports in the DGS-1510/ME Series support 6 kV surge protection, protecting the switch from power surges due to lightning strikes or faulty electrical cabling. The switches can be used with a D-Link DPS-500A/DPS-500DC Redundant Power Supply (RPS) or a 12 VDC backup connection to ensure continuous operation. The DGS-1510/ME Series support ITU-T G.8032 Ethernet Ring Protection Switching (ERPS), which allows 50 millisecond failover in the event of a failure of one of the rings, minimizing service disruption. The switches also support IEEE 802.1AX and 802.3ad Link Aggregation, which allows grouping of multiple ports to provide redundancy and load balancing in mission-critical environments.

Triple Play Services

The DGS-1510/ME Series Metro Ethernet Switches feature a full suite of Layer 2 multicast functions, including IGMP snooping, IGMP filtering, fast leave, and multicast traffic configuration for specific ports. With L2 multicast support, the DGS-1510/ME Series is ready and capable of handling the growing demand for IPTV applications. Host-based IGMP/MLD Snooping allows for multiple multicast subscribers per physical interface, and an Internet Standard Multicast (ISM) VLAN separates multicast streams in a multicast VLAN, saving bandwidth on the backbone network. The ISM VLAN profiles allow users to bind the predefined multicast registration information to subscriber ports quickly and easily. The DGS-1510/ME Series also supports IGMP authentication, which can prevent rogue IPTV subscriptions by authenticating set-top boxes as well as channel switching to secure Internet Service Provider (ISP) revenues.

Quality of Service

The DGS-1510/ME Series supports advanced Quality of Service (QoS) functions to help ISPs reliably deliver high-quality triple play services. Flexible packet classification can be based on various header fields or user-defined packet content to help administrators prioritize network traffic. The Bandwidth Control feature allows ISPs to define the upstream/downstream throughput levels for each port with granularity down to 64 Kbps.

Robust Maintenance and Troubleshooting

The DGS-1510/ME Series feature a complete set of Operations, Administration, and Management (OAM) features to reduce maintenance costs and simplify management. Cable diagnostics display the status of Ethernet cables and allow support staff to detect cable errors remotely, reducing on-site support costs. The 802.3ah Ethernet Link OAM and 802.1ag Connectivity Fault Management (CFM) standards provide administrators with tools to effectively monitor and manage Ethernet networks. This allows service providers to monitor customer connectivity, isolate network issues and optimize network performance.

Security & Authentication

The DGS-1510/ME Series offer user and device authentication features such as 802.1X port-based access control and MAC address-based access control. This allows devices to be authenticated based on their MAC address, removing the need for client software and ensuring device compatibility. Host-based authentication and authorization provide the option to finely control network access for each device on the network. Advanced features such as RADIUS accounting allow the switches to be integrated with back-end systems for billing or advanced access control. The DGS-1510/ME Series support address and interface binding features such as IP-MAC-Port Binding and ARP Spoofing Prevention to protect against Man-in-the-Middle or ARP Spoofing attacks.



DGS-1510-10L/ME



DGS-1510-20L/ME



DGS-1510-28L/ME



DGS-1510-52L/ME



DGS-1510-28X/ME



DGS-1510-28XS/ME



DGS-1510-52X/ME



DGS-1510-28LP/ME



DGS-1510-28XMP/ME

Technical Specifications				
Model Number	DGS-1510-10L/ME	DGS-1510-20L/ME	DGS-1510-28L/ME	DGS-1510-52L/ME
Hardware Version	A1			
Interface				
Size	<ul style="list-style-type: none"> • 11-inch standard rack-mount width • 1U height 	<ul style="list-style-type: none"> • 11-inch standard rack-mount width • 1U height 	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height 	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height
Interface	• 8 10/100/1000 Mbps + 2 SFP	• 16 10/100/1000 Mbps + 4 SFP	• 24 10/100/1000 Mbps + 4 SFP	• 48 10/100/1000 Mbps + 4 SFP
Console Port	• RJ-45 Console Port			
Port Standards & Functions	<ul style="list-style-type: none"> • IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3ab 1000BASE-T Gigabit Ethernet • IEEE 802.3x Flow Control for full-duplex mode, auto-negotiation 			
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.); EIA/TIA-568 100-ohm STP (100 m max.)			
Full/Half-Duplex	• Full/half-duplex for 10/100 Mbps and Gigabit speed			
Media Interface Exchange	• Auto or configurable MDI / MDIX			
Performance				
Switching Capacity	20 Gbps	40 Gbps	56 Gbps	104 Gbps
Forwarding Method	Store-and-forward			
MAC Address Table Size	Up to 16K entries per device			
MAC Address Update	Up to 512 static MAC entries			
Maximum 64-byte Max. Packet Forwarding Rate	14.88 Mpps	29.76 Mpps	68.45 Mpps	104.16 Mpps
Packet Buffer	1.5 MB per device			3.0 MB per device
LEDs				
Power (per device)	✓	✓	✓	✓
Redundant Power Supply (RPS) (per device)	✓	✓	✓	✓
Console (per device)	✓	✓	✓	✓
Link/Active/Speed (per port)	✓	✓	✓	✓
Fan Error				✓
Physical/Environmental				
MTBF	841,608 hours	762,952 hours	635,099 hours	501,290 hours
Acoustic	N/A			47 dB(A)
Heat Dissipation	46.405 BTU/h	53.229 BTU/h	60.1 BTU/h	132.99 BTU/h
Power Input	AC Input: 100 to 240 VAC 50/60 Hz			

Maximum Power Consumption	13.6 W	15.6 W	17.6 W	39 W
Standby Power Consumption	9.4 W/100 V 9.6 W/240 V	9.8 W/100 V 10.5 W/240 V	10.1 W/100 V 10.6 W/240 V	22.7 W/100 V 22.8 W/240 V
Dimensions (W x D x H)	280 x 140 x 44mm	280 x 140 x 44mm	440 x 210 x 44 mm	440 x 210 x 44 mm
Weight	1.24 kg	1.42 kg	2.00 kg	2.40 kg
Ventilation	Fanless			2 x Smart Fan
Power Surge Protection	All Ethernet ports support IEC61000-4-5 6 kV surge protection			
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			
EMI	CE, FCC, C-Tick, VCCI, BSMI			
Safety Certifications	cUL, CB			

Technical Specifications

Model Number	DGS-1510-28X/ME	DGS-1510-28XS/ME	DGS-1510-52X/ME
Hardware Version	A1		
Interface			
Size	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height 	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height 	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height
Interface	• 24 10/100/1000 Mbps + 4 10G SFP+	• 24 SFP + 4 10G SFP+	• 48 10/100/1000 Mbps + 4 10G SFP+
Console Port	• RJ-45 Console Port		
Port Standards & Functions	<ul style="list-style-type: none"> • IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3ab 1000BASE-T Gigabit Ethernet • IEEE 802.3ae 10 GbE • IEEE 802.3x Flow Control for full-duplex mode, auto-negotiation 		
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.); EIA/TIA-568 100-ohm STP (100 m max.)		
Full/Half-Duplex	• Full/half duplex for 10/100 Mbps and Gigabit speed		
Media Interface Exchange	• Auto or configurable MDI/MDIX		
Performance			
Switching Capacity	128 Gbps		176 Gbps
Forwarding Method	Store-and-forward		
MAC Address Table Size	Up to 16K entries per device		
MAC Address Update	Up to 512 static MAC entries		
Maximum 64-byte Max. Packet Forwarding Rate	95.24 Mpps		130.95 Mpps
Packet Buffer	1.5 MB per device		3.0 MB per device

LEDs			
Power (per device)	✓	✓	✓
Redundant Power Supply (RPS) (per device)	✓	✓	✓
Console (per device)	✓	✓	✓
Link/Active/Speed (per port)	✓	✓	✓
Fan Error	✓	✓	✓
Physical/Environmental			
MTBF	652,062 hours	574,974 hours	465,240 hours
Acoustic	44 dB(A)	47.8 dB(A)	45.9 dB(A)
Heat Dissipation	75.361 BTU/h	157.94 BTU/h	145.948 BTU/h
Power Input	AC Input: 100 to 240 VAC 50/60 Hz		
Maximum Power Consumption	22.1 W	53.4 W	40.7 W
Standby Power Consumption	14.6 W/100 V 15.2 W/240 V	13.0 W/100 V 13.5 W/240 V	28.6 W/100 V 28.9 W/240 V
Dimensions (W x D x H)	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm
Weight	2.00 kg	2.10 kg	2.40 kg
Ventilation	1 x Smart Fan	2 x Smart Fan	
Power Surge Protection	All Ethernet ports support IEC61000-4-5 6 kV surge protection		
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		
EMI	CE, FCC, C-Tick, VCCI, BSMI		
Safety Certifications	cUL, CB		

Technical Specifications		
Model Number	DGS-1510-28LP/ME	DGS-1510-28XMP/ME
Hardware Version	A1	
Interface		
Size	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height 	<ul style="list-style-type: none"> • 19-inch standard rack-mount width • 1U height
Interface	• 24 10/100/1000 Mbps PoE + 4 SFP	• 24 10/100/1000 Mbps PoE + 4 SFP+
Port Standards & Functions	• Ports 1 to 24 compliant with both 802.3af/802.3at	• Ports 1 to 24 compliant with both 802.3af/802.3at
Console Port	• RJ-45 Console Port	
Other Port Standards & Functions	<ul style="list-style-type: none"> • IEEE 802.3 10BASE-T Ethernet • IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3ab 1000BASE-T Gigabit Ethernet <ul style="list-style-type: none"> • IEEE 802.3ae 10 GbE • IEEE 802.3x Flow Control for full-duplex mode, auto-negotiation • IEEE 802.3af, 802.3at PoE 	
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.); EIA/TIA-568 100-ohm STP (100 m max.)	
Full/Half-Duplex	• Full/half duplex for 10/100 Mbps and Gigabit speed	
Media Interface Exchange	• Auto or configurable MDI/MDIX	
Performance		
Switching Capacity	56 Gbps	128 Gbps
Forwarding Method	Store-and-forward	
MAC Address Table Size	Up to 16K entries per device	
MAC Address Update	Up to 512 static MAC entries	
Maximum 64-byte Max. Packet Forwarding Rate	68.45 Mpps	95.24 Mpps
Packet Buffer	1.5 MB per device	
LEDs		
Power (per device)	✓	✓
Redundant Power Supply (RPS) (per device)	✓	✓
Console (per device)	✓	✓
Link/Active/Speed (per port)	✓	✓
Fan Error	✓	✓
Physical/Environmental		
MTBF	304,565 hours	268,693 hours
Acoustic	47.4 dB(A)	54.1 dB(A)
Heat Dissipation	840 BTU/h	1518.132 BTU/h

Power Input	AC Input: 100 to 240 VAC 50/60 Hz	
Maximum Power Consumption	246.5 W (PoE on) 28.4 W (PoE off)	445.2 W (PoE on) 31.8 W (PoE off)
Maximum PoE Budget	193 W	370 W
Standby Power Consumption	19.5 W/100 V 19 W/240 V	24.5 W/100 V 28.2 W/240 V
Dimensions (W x D x H)	440 x 210 x 44 mm	440 x 308 x 44 mm
Weight	2.54 kg	4.25 kg
Ventilation	2 x Smart Fan	
Power Surge Protection	All Ethernet ports support IEC61000-4-5 6 kV surge protection	
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	
EMI	CE, FCC, C-Tick, VCCI, BSMI	
Safety Certifications	cUL, CB	

Software Specifications (all models)

Virtual Stacking	<ul style="list-style-type: none"> D-Link Single IP Management Up to 32 units per Virtual Stack 	
L2 Features	<ul style="list-style-type: none"> MAC Address Table: Up to 16K Flow Control <ul style="list-style-type: none"> 802.3x Flow Control HOL Blocking Prevention Jumbo Frames up to 9216 Bytes Spanning Tree Protocols <ul style="list-style-type: none"> 802.1D STP 802.1w RSTP 802.1s MSTP BPDU Filtering 	<ul style="list-style-type: none"> Root Restriction Loopback Detection Link Aggregation <ul style="list-style-type: none"> Compliant with 802.1AX and 802.3ad Port Mirroring <ul style="list-style-type: none"> Supports 1 Mirroring group Supports One-to-One, Many-to-One, Flow-based (ACL) Mirroring Ethernet Ring Protection Switching (ERPS) L2 Protocol Tunneling (L2PT)
L2 Multicasting	<ul style="list-style-type: none"> IGMP Snooping <ul style="list-style-type: none"> IGMP v1/v2 Snooping, v3 awareness Supports 1024 groups Port/Host-based IGMP Snooping Fast Leave Report Suppression IGMP Authentication Limited IP Multicast (IGMP Filtering) 	<ul style="list-style-type: none"> MLD Snooping <ul style="list-style-type: none"> MLD v1, MLD v2 awareness Supports 1024 groups Port/Host-based MLD snooping Fast Leave
VLAN	<ul style="list-style-type: none"> VLAN Group <ul style="list-style-type: none"> Max. 4094 VLAN Port-based VLAN MAC-based VLAN GVRP <ul style="list-style-type: none"> Max. 255 dynamic VLANs 802.1v Protocol VLAN 	<ul style="list-style-type: none"> 802.1Q Tagged VLAN Double VLAN (Q-in-Q) <ul style="list-style-type: none"> Port-based Q-in-Q ISM VLAN VLAN Translation VLAN Trunking
L3 Features	<ul style="list-style-type: none"> Max. 1024 ARP entries <ul style="list-style-type: none"> Supports 255 static ARP entries Gratuitous ARP IPv6 Neighbor Discovery (ND) 16 IP interfaces 	<ul style="list-style-type: none"> Default Route Static Route¹ <ul style="list-style-type: none"> 64 IPv4 static routes¹ 32 IPv6 static routes¹

Quality of Service (QoS)	<ul style="list-style-type: none"> • CoS based on <ul style="list-style-type: none"> - Switch Port - 802.1p Priority - VLAN ID - MAC Address - Ether Type - IPv4/IPv6 address - DSCP - ToS - Protocol Type - TCP/UDP Port - IPv6 Traffic Class - IPv6 Flow Label - User Defined Packet Content 	<ul style="list-style-type: none"> • Bandwidth Control <ul style="list-style-type: none"> - Port-based (Ingress, Min. Granularity 64 Kbps) - Flow-based (Ingress, Min. Granularity 64 Kbps) - Egress queue bandwidth control (Min. Granularity 64 Kbps) • Queue Handling <ul style="list-style-type: none"> - Strict Priority Queue (SPQ) - Weighted Round Robin (WRR) - SPQ + WRR • 8 queues per port
Access Control List (ACL)	<ul style="list-style-type: none"> • ACL based on <ul style="list-style-type: none"> - Switch Port - 802.1p Priority - VLAN ID - MAC Address - Ether Type - IPv4/IPv6 Address - IPv6 Traffic Class - IPv6 Flow Label - DSCP - ToS - Protocol Type - TCP/UDP Port - User-defined Packet Content 	<ul style="list-style-type: none"> • Up to 1024 ingress access rules • Time-based ACL • ACL Statistics • CPU Interface Filtering
AAA	<ul style="list-style-type: none"> • 802.1X <ul style="list-style-type: none"> - Port-based Access Control - Host-based Access Control - Dynamic VLAN Assignment • MAC-based Access Control (MAC) <ul style="list-style-type: none"> - Port-based Access Control - Host-based Access Control - Dynamic VLAN Assignment • Microsoft® NAP (IPv4) 	<ul style="list-style-type: none"> • Guest VLAN • RADIUS (IPv4) • TACACS (IPv4) • TACACS+ (IPv4) • XTACACS+ (IPv4) • Trusted Host • RADIUS Accounting • Four-level User Account
Security	<ul style="list-style-type: none"> • SSH v1/v2 • SSL v1/v2/v3 • Port Security <ul style="list-style-type: none"> - Up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control • IP-MAC-Port Binding (IMPB) <ul style="list-style-type: none"> - ARP Inspection - IP Inspection - DHCP Snooping - DHCPv6 Snooping¹ - DHCPv6 Guard¹ - IPv6 Route Advertisement (RA) Guard¹ - IPv6 ND Snooping¹ - IPv6 ND Inspection¹ 	<ul style="list-style-type: none"> • Traffic Segmentation • D-Link Safeguard Engine • L3 Control Packet Filtering • NetBIOS/NetBEUI Filtering • DHCP Server Screening • DHCP Client Filtering • ARP Spoofing Prevention • BPDU Attack Protection • DoS Attack Prevention
OAM	<ul style="list-style-type: none"> • Cable Diagnostics • 802.3ah Ethernet Link OAM 	<ul style="list-style-type: none"> • Dying Gasp • 802.1ag Connectivity Fault Management (CFM)

Management	<ul style="list-style-type: none"> • Web-based GUI (Supports IPv4/v6) • Command Line Interface (CLI) • Telnet Server/Client (Supports IPv4) • TFTP/FTP Client (Supports IPv4) • ZModem • Command Logging • SNMP v1/v2c/v3 (Supports IPv4) • SNMP Traps • System Log • SMTP (IPv4) • RMON v1: <ul style="list-style-type: none"> - Supports 1,2,3,9 groups • RMON v2: <ul style="list-style-type: none"> - Supports Probe Config group • 802.1AB LLDP <ul style="list-style-type: none"> - LLDP-MED • BootP/DHCP Client (Supports IPv4) • DHCP Auto-Configuration¹ • DHCP Relay (Supports IPv4) <ul style="list-style-type: none"> - DHCP Relay Option 60, 61 and 82 - DHCP Client Option 12 	<ul style="list-style-type: none"> • PPPoE Circuit-ID Tag Insertion¹ • Multiple Image • Flash File System • CPU Monitoring • Memory Monitoring • SNMP (Supports IPv4) • Debug Command • Password Recovery • Password Encryption • Ping • Traceroute • Microsoft® NLB (Network Load Balancing) Support (Supports IPv4) • Zero Touch Provisioning (ZTP)¹ • sFlow¹ • D-Link Network Assistant¹
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Order Information

<i>Part Number</i>	<i>Description</i>
DGS-1510-10L/ME	8 10/100/1000 Mbps ports + 2 SFP ports Metro Ethernet Switch
DGS-1510-20L/ME	16 10/100/1000 Mbps ports + 4 SFP ports Metro Ethernet Switch
DGS-1510-28L/ME	24 10/100/1000 Mbps ports + 4 SFP ports Metro Ethernet Switch
DGS-1510-28LP/ME	24 10/100/1000 Mbps PoE ports + 4 SFP ports Metro Ethernet Switch
DGS-1510-28X/ME	24 10/100/1000 Mbps ports + 4 10G SFP+ ports Metro Ethernet Switch
DGS-1510-28XMP/ME	24 10/100/1000 Mbps PoE ports + 4 10G SFP+ ports Metro Ethernet Switch
DGS-1510-28XS/ME	24 SFP ports + 4 10G SFP+ ports Metro Ethernet Switch
DGS-1510-52L/ME	48 10/100/1000 Mbps ports + 4 SFP ports Metro Ethernet Switch
DGS-1510-52X/ME	48 10/100/1000 Mbps ports + 4 10G SFP+ ports Metro Ethernet Switch

Redundant Power Supply and Cable

DPS-500A	140 W Redundant Power Supply (Alternating Current)
DPS-500DC	140 W Redundant Power Supply (Direct Current)
DPS-CB150-2PS v.B1	150 cm RPS cable for connecting the DGS-1510/ME Series with the DPS-500A and DPS-500DC

Optional 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

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DEM-314GT	1000BASE-LHX, single-mode, 50 km
DEM-315GT	1000BASE-ZX, single-mode, 80 km
DGS-712	1000BASE-T to SFP transceiver
Optional WDM SFP Transceivers	
DEM-331T	1000BASE-LX, wavelength Tx: 1550 nm, Rx: 1310 nm, single-mode, 40 km
DEM-331R	1000BASE-LX, wavelength Tx: 1310 nm, Rx: 1550 nm, single-mode, 40 km
DEM-330T	1000BASE-LX, wavelength Tx 1550 nm, Rx 1310 nm, single-mode, 10 km
DEM-330R	1000BASE-LX, wavelength Tx 1310 nm, Rx 1550 nm, single-mode, 10 km
DEM-302S-BXD	1000BASE-LX, wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 2 km
DEM-302S-BXU	1000BASE-LX, wavelength Tx:1310 nm Rx:1550 nm, Single-mode, 2 km
Optional SFP+ Transceivers	
DEM-431XT	10GBASE-SR SFP+ Transceiver (without DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF
DEM-431XT-DD	10GBASE-SR SFP+ Transceiver (with DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF
DEM-432XT	10GBASE-LR SFP+ Transceiver (without DDM), 10 km
DEM-432XT-DD	10GBASE-LR SFP+ Transceiver (with DDM), 10 km
DEM-433XT	10GBASE-ER SFP+ Transceiver (without DDM), 40 km
DEM-433XT-DD	10GBASE-ER SFP+ Transceiver (with DDM), 40 km
DEM-434XT	10GBASE-ZR SFP+ Transceiver (without DDM), 80 km
DEM-436XT-BXD	10GBASE-LR BiDi SFP+ Transceiver (without DDM), Wavelength Tx 1330 nm, Rx: 1270 nm, 20 km
DEM-436XT-BXU	10GBASE-LR BiDi SFP+ Transceiver (without DDM), Wavelength Tx 1270 nm, Rx: 1330 nm, 20 km
Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables (DGS-1510-28X/ME, 28XMP/ME, 28XS/ME and 52X/ME only)	
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

¹ Feature available in a future software release

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