

Highlights

Easy Management

A multilingual Web UI, a compact CLI, and a variety of management features allow the switches to integrate with your existing network

IPv6 Ready

IPv6 compliance means that the switches are ready to meet future addressing standards, and are compatible with both your IPv4 and IPv6 network

Power over Ethernet

Increased PoE capability and support for IEEE 802.3af/at allow the PoE models in the series to power more devices with greater port density



DGS-1210 Series

Smart Managed Switches

Features

Green Technology

- Link status detection
- · Port shut-off
- System hibernation
- Time-based PoE (PoE models only)

Security Features

- Access Control Lists (ACLs)
- D-Link Safeguard Engine helps the CPU resist broadcast/multicast/unicast flooding
- Port Security supports up to 64 MAC addresses per port
- ARP Spoofing Prevention
- Smart Binding

Intuitive Management

- D-Link multi-lingual Web UI
- Built-in SNMP MIB for remote NMS (D-View 8)
- Compact Command Line Interface (CLI) through Telnet

Advanced Features

- · Static routing
- Auto IGMP
- Surveillance Mode
- Auto Voice VLAN
- · Dual software images
- Dual configuration files

The D-Link DGS-1210 Series Smart Managed Switches are the latest generation of switches to provide increased Power over Ethernet (PoE) output, a range of physical interface types, multiple management interfaces, and advanced Layer 2 features. With all of these features combined, the DGS-1210 Series provides a cost-efficient and flexible solution for expanding any business network.

Seamless Integration

The DGS-1210 Series includes a wide range of port and media types, including 10/100/1000BASE-T RJ-45 ports, 100/1000 Mbps combo ports, and 100/1000 Mbps SFP ports. The DGS-1210-10, DGS-1210-26, DGS-1210-10P, and DGS-1210-10MP models feature 2 100/1000 Mbps SFP ports, while all other DGS-1210 Series models feature 4 GbE/SFP combo ports, allowing you to choose the most suitable media type for your requirements. All DGS-1210 Series PoE switches include support for IEEE 802.3af/at and higher power budgets, allowing more PoE devices to be powered by the switch and for devices to be installed in remote locations without immediate access to power outlets.

Advanced Features

The DGS-1210 Series comes equipped with a complete lineup of L2 features, including IGMP snooping, port mirroring, Spanning Tree Protocol (STP), and Link Aggregation Control Protocol (LACP). The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast, reliable data transfers. The DGS-1210 Series also supports advanced features such as static routes, which allow network administrators to divide the network into VLANs, increasing network efficiency. Network maintenance features include loopback detection and cable diagnostics. Loopback detection significantly speeds up troubleshooting by automatically detecting and shutting down switching loops. The cable diagnostics feature, designed primarily for administrators and customer service representatives, determines the cable quality and quickly discovers errors, allowing for hassle-free diagnostics and maintenance.

Automatic Configuration

The DGS-1210 Series supports Auto Voice VLAN and Surveillance Mode, which allows voice and video traffic to be automatically identified and handled differently than regular network traffic. Auto Voice VLAN detects Voice over IP (VoIP) traffic and automatically segments it from the rest of the network, adding a layer of isolation and allowing Quality of Service (QoS) to be applied. Surveillance Mode detects compatible ONVIF cameras and places them in a surveillance VLAN, allowing a single switch to be used for voice, video, and data, removing the need for dedicated hardware and reducing maintenance costs. Surveillance Mode also includes its own Web UI, making surveillance features easily accessible and simplifying management of your surveillance network.

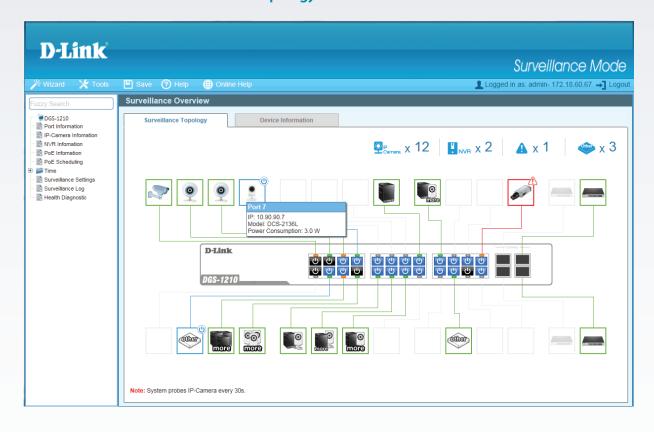
Advanced Access Control

D-Link's innovative Safeguard Engine helps to protect the switches against traffic flooding caused by malicious attacks. The DGS-1210 Series supports 802.1X port-based authentication, allowing the clients to be authenticated through external RADIUS servers. The Access Control List (ACL) feature helps to enhance network security and helps to protect the internal IT network. The DGS-1210 Series also features Address Resolution Protocol (ARP) spoofing prevention, which helps to provide protection from attacks on the network that could allow an intruder to sniff data frames, modify traffic, or bring traffic to a halt altogether by sending fake ARP messages. To help prevent ARP spoofing attacks, the switch uses packet control ACLs to block invalid packets that contain fake ARP messages. The DHCP server screening feature filters DHCP replies on unauthorized ports to prevent them from being assigned an IP address.

Versatile Management

The DGS-1210 Series supports various management tools to adapt to users' different needs. D-Link Network Controller (DNC) and D-Link Network Hub (DNH) can discover multiple D-Link devices and allow you to manage and configure the settings of the discovered devices. The DGS-1210 Series also supports D-View 8 and Command Line Interface (CLI) through Telnet. D-View 8 is a network management system that allows for the central management of network assets, remote configuration, and logging functions.

Surveillance Topology Web Interface Screenshot



Technical Specifica	ations					
Model Number	• DGS-1210-10	• DGS-1210-20	• DGS-1210-26	• DGS-1210-28	• DGS-1210-52	
Hardware Version		• Fx				
Mounting Options		• Desktop or 1	9" Rack Mount (mounting b	rackets included)		
General						
Interfaces	• 8 x 10/100/1000BASE-T • 2 x 100/1000 Mbps SFP ports	• 16 x 10/100/1000BASE-T • 4 x 100/1000 Mbps GbE/SFP combo ports	• 24 x 10/100/1000BASE-T • 2 x 100/1000 Mbps SFP ports	• 24 x 10/100/1000BASE-T • 4 x 100/1000 Mbps GbE/SFP combo ports	• 48 x 10/100/1000BASE-T • 4 x 100/1000 Mbps GbE/SFP combo ports	
Port Standards	• IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) • IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3u 100BASE-FX 100 Mbps over fiber optic • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted- pair copper) • IEEE 802.3z 1000BASE-X 1 Gbps over fiber optic • IEEE 802.3az Energy Efficient Ethernet (EEE) • IEEE 802.3x Flow Control					
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.)					
Duplex Mode	• Full/Half-duplex for 10/100 Mbps • Full-duplex for 1000 Mbps					
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports					
Performance						
Switching Capacity	• 20 Gbps	• 40 Gbps	• 52 Gbps	• 56 Gbps	• 104 Gbps	
Transmission Method	Store-and-forward					
MAC Address Table	• 8K entries • 16K entries				• 16K entries	
Static MAC Addresses	• 256 entries					
Maximum 64 Byte Packet Forwarding Rate	• 14.88 Mpps	• 29.8 Mpps	• 38.7 Mpps	• 41.7 Mpps	• 77.4 Mpps	
Packet Buffer Memory	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 12 Mbits	
CPU Memory	• DDR3 128 MB					
Flash Memory	• 32 MB					
LEDs						
Power (per device)			✓			
Link/Active/Speed (per port)	✓					

Physical/Environmental					
Power Input	• 100 to 240 V AC 50/60 Hz internal universal power supply				
Maximum Power Consumption	• 6.31 W/100 V • 6.33 W/240 V	• 13.08 W/100 V • 13.02 W/240 V	• 15.22 W/100 V • 15.11 W/240 V	• 17.32 W/100 V • 16.94 W/240 V	• 34.85 W/100 V • 34.2 W/240 V
Standby Power Consumption	• 2.03 W/100V • 2.07 W/240V	• 5.47 W/100 V • 5.56 W/240 V	• 5.01 W/100 V • 5.06 W/240 V	• 6.49 W/100 V • 6.55 W/240 V	• 13.7 W/100 V • 13.9 W/240 V
Acoustics	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)
Heat Dissipation	• 21.53 BTU/hr (100V) • 21.59 BTU/hr (240V)	• 44.62 BTU/hr (100V) • 44.41 BTU/hr (240V)	• 51.93 BTU/hr (100V) • 51.57 BTU/hr (240V)	• 59.09 BTU/hr (100V) • 57.79 BTU/hr (240V)	• 118.92 BTU/hr (100V) • 116.7 BTU/hr (240V)
Operating Temperature	• -5 to 50°C				
Storage Temperature	• -20 to 70°C				
Operating Humidity	• 0% to 95% relative humidity				
Storage Humidity	• 0% to 95% relative humidity				
Dimensions (L x W x H)	• 280 x 126 x 44 mm (11.02 x 4.96 x 1.73 in)	• 280 x 180 x 44 mm (11.02 x 7.09 x 1.73 in)	• 440 x 140 x 44 mm (17.32 x 5.51 x 1.73 in)	• 440 x 140 x 44 mm (17.32 x 5.51 x 1.73 in)	• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 in)
Weight	• 0.98 kg (2.16 lbs)	• 1.75 kg (3.86 lbs)	• 2.06 kg (4.54 lbs)	• 2.15 kg (4.74 lbs)	• 3.46 kg (7.63 lbs)
Certifications	EMI: CE Class A, VCCI Class A, FCC Class A, BSMI, CQC (only for specific models) Safety: CB, UL, BSMI, LVD, CQC (only for specific models)				
MTBF	• 1,380,058 hours	• 1,087,100 hours	• 1,082,534 hours	• 992,594 hours	• 400,667 hours

Technical Specificat	tions				
Model	• DGS-1210-10P	• DGS-1210-10MP	• DGS-1210-28P	• DGS-1210-28MP	• DGS-1210-52MP
Hardware Version	• Fx				
Mounting Options	Desktop or 19" Rack Mount (mounting brackets included)				
General					
Interfaces	• 8 10/100/1000BASE-T POE • 2 100/1000 Mbps SFP ports	• 8 10/100/1000BASE-T PoE • 2 100/1000 Mbps SFP ports	• 24 10/100/1000BASE-T POE • 4 100/1000 Mbps GbE/SFP combo ports	• 24 10/100/1000BASE-T POE • 4 100/1000 Mbps GbE/SFP combo ports	• 48 10/100/1000BASE-T POE • 4 100/1000 Mbps GbE/SFP combo ports
Port Standards	• IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) • IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3u 100BASE-FX 100 Mbps over fiber optic • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted- pair copper) • IEEE 802.3z 1000BASE-X 1 Gbps over fiber optic • IEEE 802.3az Energy Efficient Ethernet (EEE) • IEEE 802.3x Flow Control • IEEE 802.3af/at compliance (for PoE ports)				
Network Cables	• UTP Cat. 5, Cat. 5e (100 m max.)				
Duplex Mode	• Full/Half-duplex for 10/100 Mbps • Full-duplex for 1000 Mbps				
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports				
Performance					
Switching Capacity	• 20 Gbps	• 20 Gbps	• 56 Gbps	• 56 Gbps	• 104 Gbps
Transmission Method	Store-and-forward				
MAC Address Table	• 8K entries • 16K entrie			• 16K entries	
Static MAC Addresses	• 256 entries				
Maximum 64 Byte Packet Forwarding Rate	• 14.88 Mpps	• 14.88 Mpps	• 41.7 Mpps	• 41.7 Mpps	• 77.4 Mpps
Packet Buffer Memory	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 12 Mbits
CPU Memory	• DDR3 128 MB				
Flash Memory	• 32 MB				
PoE					
PoE Capable Ports	Ports 1 to 8 Ports		1 to 24	• Ports 1 to 48	
Power Budget	• 65 W	• 130 W	• 193 W	• 370 W	• 370 W

LEDs	_	_	_	_	_
Power (per device)	✓	✓	✓	✓	✓
Link/Active/Speed (per port)	√	√	✓	√	√
PWR Max	✓	✓	✓	✓	✓
Fan Error	• N/A	• N/A	✓	✓	✓
Physical/Environmer	ntal				
Power Input	• 54.0 V DC external power adapter			/ AC 50/60 Hz sal power supply	
Maximum Power Consumption (PoE enabled)	• 81.9 W/100 V • 80.6 W/240 V	• 152.3 W/100 V • 148.7 W/240 V	• 263.9 W/100 V • 247.4 W/240 V	• 446.1 W/100 V • 424.8 W/240 V	• 478.9 W/100 V • 454.1 W/240 V
Maximum Power Consumption (PoE disabled)	• 7.6 W/100 V • 7.5 W/240 V	• 8.5 W/100 V • 9.4 W/240 V	• 30.6 W/100 V • 28.1 W/240 V	• 29.8 W/100 V • 29.0 W/240 V	• 54 W/100 V • 54.4 W/240 V
Standby Power Consumption	• 2.5 W/100 V • 2.5 W/240 V	• 4.3 W/100 V • 5.2 W/240 V	• 19.6 W/100 V • 16.6 W/240 V	• 18.5 W/100 V • 17.1 W/240 V	• 32 W/100 V • 31.6 W/240 V
Acoustics	• 0 dB(A)	• 0 dB(A)	High speed: 51.7 dB(A) Low speed: 44.9 dB(A)	High speed: 51.7 dB(A) Low speed: 44.9 dB(A)	• High speed: 52.4 dB(A) • Low speed: 47.6 dB(A)
Heat Dissipation	• 279.59 BTU/hr (100 V) • 275.04 BTU/hr (240 V)	• 519.51 BTU/hr (100 V) • 507.23 BTU/hr (240 V)	• 900.36 BTU/hr (100 V) • 844.23 BTU/hr (240 V)	• 1521.99 BTU/hr (100 V) • 1449.49 BTU/hr (240 V)	• 1634.01 BTU/hr (100 V) • 1549.29 BTU/hr (240 V)
Fans	• N/A	• N/A	• 2	• 2	• 3
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% relative humidity				
Storage Humidity	• 0% to 95% relative humidity				
Dimensions (L x W x H)	• 280 x 126 x 44 mm (11.02 x 4.96 x 1.73 in)	• 330 x 180 x 44 mm (12.99 x 7.09 x 1.73 in)	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)	• 440 x 250 x 44 mm (17.32 x 9.84 x 1.73 in)	• 440 x 430 x 44 mm (17.32 x 16.93 x 1.73 in)
Weight	• 0.95 kg (2.10 lbs)	• 1.77 kg (3.90 lbs)	• 3.75 kg (8.27 lbs)	• 3.94 kg (8.69 lbs)	• 6.26 kg (13.80 lbs)
Certifications	EMI: CE Class A, VCCI Class A, FCC Class A, BSMI, CQC (only for specific models) Safety: CB, UL, BSMI, LVD, CQC (only for specific models)				
MTBF	• 729,258 hours	• 1,274,005 hours	• 469,262 hours	• 277,967 hours	• 236,406 hours

Software				
L2 Features	MAC Address Table 8K entries 16K entries (DGS-1210-52/52MP only) IGMP Snooping IGMP v1/v2 Snooping IGMP v3 awareness Supports 256 IGMP groups Supports at least 64 static multicast addresses IGMP per VLAN Auto IGMP Supports IGMP Snooping Querier Loopback Detection 802.3ad Link Aggregation: DGS-1210-10/10P/10MP: Supports maximum 4 groups per device and 8 ports per group DGS-1210-20/26/28/28P/28MP: Supports maximum 8 groups per device and 8 ports per group DGS-1210-52/52MP: Supports max 16 groups per device and 8 ports per group LLDP	 LLDP-MED Jumbo Frame Up to 10,000 bytes 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 unregistered groups Filters all unregistered groups Configurable MDI/MDIX MLD snooping v1/v2 (256 groups) 		
VLAN	802.1Q VLAN Group Max. 256 static VLAN groups Configurable VID from 1 - 4094 Asymmetric VLAN	 Auto Voice VLAN Max. 10 user-defined OUI Max. 8 default OUI Auto Surveillance VLAN 		
Quality of Service (QoS)	 802.1p Quality of Service 8 queues per port Queue Handling Strict 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 MAC address EtherType IP address Protocol type ToS IP preference IPv6 Traffic Class TCP/UDP port 		
L3 Features	IP interface Supports 4 interfaces IPv6 Neighbor Discovery (ND)	Static routing 124 IPv4 static route entries 50 IPv6 static route entries		
Access Control List (ACL)	 Max. 50 access lists Max. 768 rules shared by IPv4, MAC, and IPv6 Each rule can only be associated with a single port ACL based on MAC address 802.1p priority mask VID mask Source/destination MAC address mask EtherType mask IP address Source/destination IP address mask DSCP mask Protocol type mask TCP/UDP port number mask 	IPv6 address Source/destination IP address mask DSCP mask Protocol type mask TCP/UDP port number mask IPv6 traffic class mask		

Security Features	Broadcast/Multicast/Unicast Storm Control D-Link Safeguard Engine Traffic segmentation SSH v2 TLS v.1.3 DoS attack prevention 802.1X Port-based Access Control Port Security Supports up to 64 MAC addresses per port ARP Spoofing Prevention Max. 127 entries	 DHCP Server Screening IP-MAC-Port Binding (Smart Binding) ARP Inspection Max. 256 entries IPv4 Inspection Max. 127 entries IPv6 Inspection Max. 63 entries DHCP Snooping Max. 512 entries
AAA	802.1X Authentication Supports local/RADIUS database Supports port-based access control Supports EAP, OTP, TLS, TTLS, PEAP Max. 128 entries when using local database	IPv6 RADIUS server Support MD5 authentication
OAM	Cable diagnostics	Factory reset
Management	Web-based GUI D-Link Network Assistant Utility Compact CLI Telnet Server TFTP Client Configurable MDI/MDIX SNMP Supports v1/v2c/v3 SNMP Trap Backup/upgrade firmware Smart Wizard Upload/download configuration file BootP/DHCP Client	 System Log Max. 500 log entries SNTP ICMP v6 IPv4/v6 Dual Stack DHCP Auto Configuration Time setting SNTP RMONv1 Trusted host Dual image Dual configuration
Green V3.0 Technology	 Power Saving by: Link Status Time-based PoE: PoE ports can be turned on/off by port or system through schedule 	 System hibernation Port shut off Cable length detection
MIBs	RFC1212 Concise MIB Definitions RFC1213 MIBII RFC1215 MIB Traps Convention RFC1493 Bridge MIB RFC1157, RFC2573, RFC2575, RFC2576 SNMP MIB RFC1157, RFC2573, 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 • RFC2389 MIB for Diffserv. • 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 Autoconfiguration (SLAAC) RFC2464 IPv6 over Ethernet and definition RFC4291 IPv6 Addressing Architecture RFC2893, RFC4213 IPv4/IPv6 dual stack function

Order Information		
DGS-1210-10	8 10/100/1000 Mbps ports and 2 100/1000 Mbps SFP ports	
DGS-1210-10P	8 10/100/1000 Mbps PoE ports and 2 100/1000 Mbps SFP ports	
DGS-1210-10MP	8 10/100/1000 Mbps PoE ports and 2 100/1000 Mbps SFP ports	
DGS-1210-20	16 10/100/1000 Mbps ports and 4 100 Mbps/1 Gbps combo ports	
DGS-1210-26	24 10/100/1000 Mbps ports and 2 100 Mbps/1 Gbps SFP ports	
DGS-1210-28	24 10/100/1000 Mbps ports and 4 100 Mbps/1 Gbps combo ports	
DGS-1210-28P	24 10/100/1000 Mbps PoE ports and 4 100 Mbps/1 Gbps combo ports	
DGS-1210-28MP	24 10/100/1000 Mbps PoE ports and 4 100 Mbps/1 Gbps combo ports	
DGS-1210-52MP	48 10/100/1000 Mbps PoE ports and 4 100 Mbps/1 Gbps combo ports	
DGS-1210-52	48 10/100/1000 Mbps ports and 4 100 Mbps/1 Gbps combo ports	
Optional SFP Transceivers		
DGS-712	1000BASE-T copper	
DEM-302S-LX	1000BASE-LX, single-mode, 2 km	
DEM-302S-BXD/BXU	Gigabit WDM transceiver, 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	100BASE-ZX, single-mode, 80 km	
DEM-330T/R	Gigabit WDM transceiver, single-mode 10 km	
DEM-331T/R	Gigabit WDM transceiver, single-mode 40 km	
DEM-210	100BASE-FX, single-mode, 15 km	
DEM-211	100BASE-FX, multi-mode, 2 km	
DEM-220T/R	Fast Ethernet WDM transceiver, single-mode, 20 km	

D-View 8 Order Information		
Part Number	Description	
DV-800S-LIC	D-View 8 Standard License	
DV-800E-LIC	D-View 8 Enterprise License	
DV-800SE-LIC	Upgrade License from Standard to Enterprise Edition	
D-View 8 (v2.00) now offers ar	nnual maintenance service licenses for Standard and Enterprise editions, as shown below:	
DV-800MS-Y1-LIC	D-View 8 Standard Maintenance License (Y1=365 days)	
DV-800MS-Y2-LIC	D-View 8 Standard Maintenance License (Y2=730 days)	
DV-800MS-Y3-LIC	D-View 8 Standard Maintenance License (Y3=1095 days)	
DV-800MS-Y4-LIC	D-View 8 Standard Maintenance License (Y4=1460 days)	
DV-800MS-Y5-LIC	D-View 8 Standard Maintenance License (Y5=1825 days)	
DV-800ME-Y1-LIC	D-View 8 Enterprise Maintenance License (Y1=365 days)	
DV-800ME-Y2-LIC	D-View 8 Enterprise Maintenance License (Y2=730 days)	
DV-800ME-Y3-LIC	D-View 8 Enterprise Maintenance License (Y3=1095 days)	
DV-800ME-Y4-LIC	D-View 8 Enterprise Maintenance License (Y4=1460 days)	
DV-800ME-Y5-LIC	D-View 8 Enterprise Maintenance License (Y5=1825 days)	

DV-800MS-Yn-LIC is a maintenance license applicable to D-View 8 Standard edition, and DV-800ME-Yn-LIC is a maintenance license applicable to the Enterprise edition. The applicable annual maintenance service can only be activated after D-View 8 has been activated as Standard or Enterprise Edition.

After the first-year or annual maintenance expires, functions such as device view, topology map, firmware management, and configuration management will be limited to only 30 devices that can fully operate, and other devices cannot use these common functions.

Updated 04/17/2024

