D-Link®
Building Networks for People

DIS-700G Series
Industrial Layer 2+ Gigabit Managed Switches

Features

Advanced QoS

Comprehensive Security Features

Multi-Layer ACL

IP-30 Ingress Protection

Operating Temperature
- -40°to 75°C

Power source
- Redundant Dual DC Power Inputs
- Reverse Polarity Protection

Ring Protection with < 20ms

Environmental Test
- Shock - IEC 60068-2-27
- Freefall - IEC 60068-2-32
- Vibration - IEC 60068-2-6

Safety Certifications
- UL compliance
- CE/FCC

Fan-less design

The DIS-700G Series Industrial Layer 2+ Gigabit Managed Switch is designed specifically to withstand temperature range, vibrations and shock. These rugged yet easy to deploy switches have superior environmental specifications compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity.

The DIS-700G-28XS L2+ Gigabit Managed Switch with 10 Gigabit uplinks is a 28-port aggregation switch. It provides high overall throughput and reduces the response time for time-sensitive video, voice and data applications. It offers advanced intelligent Quality of Service (QoS) features such as SPQ, WRR, SPQ+ WRR scheduling schemes with hierarchical per-port, per queue shaping & scheduling with bandwidth management.

Customers

The DIS-700G Series family of switches is ideal for customers looking for cost-effective and customisable networking solutions with redundancy, security and advanced QoS functionalities, designed for industrial environments.
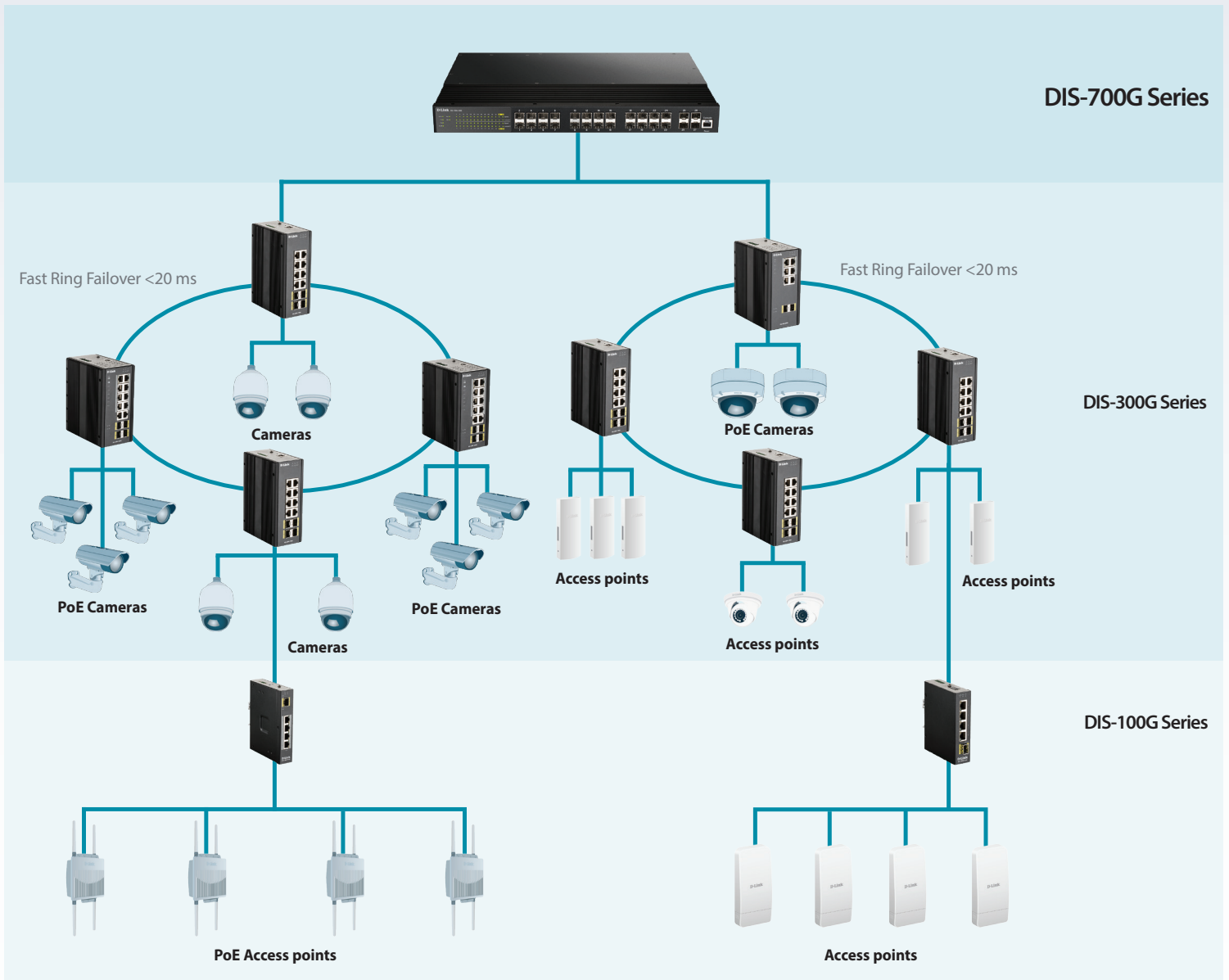
Application

- Challenging environmental conditions
- High-end network redundancy topologies
- High ambient temperatures

Market

- Heavy industrial / factory automation
- Intelligent transport system (ITS) / railway applications
- City surveillance / smart cities

Deployment Scenario

DIS-700G Series

Fast Ring Failover <20 ms

Fast Ring Failover <20 ms

DIS-300G Series

Cameras

PoE Cameras

PoE Cameras

Cameras

Access points

PoE Cameras

Access points

PoE Cameras

Access points

Access points

DIS-100G Series

PoE Access points

Access points

Technical Specifications

General	DIS-700G-28XS
Hardware Version	• A1
Number of Ports	• 24 x SFP ports • 4 x SFP+ ports • 1 x RJ-45 Console port
Port Functions	• IEEE 802.3 for Ethernet • IEEE 802.3u for Fast Ethernet • IEEE 802.3ab for Gigabit Ethernet • IEEE 802.3z for Gigabit fiber • IEEE 802.3az-compliant
Media Interface Exchange	• Auto-MDI/MDIX adjustment for all twisted pair ports
Performance	
Switching Capacity	• 128 Gbps
Maximum Forwarding Rate	• 95.2 Mpps
MAC Address Table Size	• Up to 8K entries
Transmission Method	• Store-and-forward
Physical	
Diagnostic LEDs	• SYS • ALM • PWR1/2 • Link/Activity/Speed • RR: Ring Role • RS: Ring Status
Power Input	• Dual 20-57 V DC
Power Consumptions	• Maximum: 35 W
Alarm Relay	• 2 A at 24 V
Heat Dissipation	• 119.42 BTU/hr
Weight	• 4.5 kg (9.92 lbs)
Dimensions	• 440 x 44 x 318.5 mm (17.32 x 1.73 x 12.54 in)
Ventilation	• Fanless
Operating Temperature	• -40 to 75 °C (-40 to 167°F)
Storage Temperature	• -40 to 85 °C (-40 to 185 °F)
Operating Humidity	• 5% to 95% RH, non-condensing
Storage Humidity	• 5% to 95% RH, non-condensing
Material	• IP30-rated metal casing
Installation	• Rack mountable
MTBF	• > 25 years
Certifications	• CE • FCC
Safety	• UL61010-1
EMI	• CISPR 22 • FCC Part 15B Class A

EMS	• EN 61000-4-2 ESD • EN 61000-4-3 RS • EN 61000-4-4 EFT • EN 61000-4-5 • EN 61000-4-6 CS • EN 61000-4-8
Environmental Tests	• IEC 60068-2-27 Shock • IEC 60068-2-32 Freefall • IEC 60068-2-6 Vibration

Software Features

VLAN	• IEEE 802.1Q tagged VLAN
	• Port-based VLAN
	• Protocol-based VLAN
	• 802.1ad Double Tagging (Q in Q)
	• VLAN translation
		• VLAN group
		  • Supports 1024 VLAN groups
		  • Max. 4094 VIDs

L2 Features	• Flow Control
	  • IEEE 802.3x Flow Control
	• Jumbo frames up to 9216 bytes
	• IGMP Snooping
	  • IGMP v1/v2
	  • Supports 32 IGMP snooping groups
	  • Support port-based fast leave
	• MLD Snooping
	  • MLD snooping v1/v2
	  • Supports 32 MLD snooping groups
	  • Support port-based fast leave
	• Static trunk
	  • Supports 2 groups per device, 4 ports per group
		• Loopback detection
		• Port mirroring
		  • One-to-One
		  • Many-to-One
		• Spanning Tree Protocol (STP)
		  • IEEE 802.1D STP
		  • IEEE 802.1w RSTP
		  • IEEE 802.1s MSTP
		• Rapid Recovery Ring
		  • Link loss recovery < 20ms
		  • Support single ring
		  • Support multiple rings

Quality of Service (QoS)	• IEEE 802.1p Quality of Service (QoS)
	  • 8 queues per port
	  • Queue handling
	  • Strict Priority Queue (SPQ)
	  • Weighted Round Robin (WRR)
	  • Deficit Round Robin (DRR)
	  • Weighted Deficit Round Robin (WDRR)
	  • Port-based bandwidth control (rate limiting)
	    • Ingress: 1 kbps
		• Port Shaping
		• Queue Shaping

Security	• Broadcast/Multicast/Unknown Unicast Storm Control • SSH • DHCP snooping	• SSL • Port security
AAA	• Web-based access control • TACACS+	• RADIUS

Management	• Web-based UI (supports IPv4/IPv6)
	• Industry-standard CLI
	• SNTP
	• SNMP v1/v2c/v3
	• SNMP trap
	• Telnet server
	• Password encryption
		• System Log
		• DHCP client
		• FTP client
		• Dual images
		• Dual configurations
		• Policy/Profile-based Access Control List (ACL)
		  • Max. number of profiles per switch: 20
		  • Max. number of rules per profile: 32

OAM	• Optical transceiver Digital Diagnostics Monitoring (DDM)	

Green Technology	• Power saving by:
	  • Link status detection
	  • IEEE 802.3az Energy-Efficient Ethernet (EEE)	

MIB/RFC Standards	• RFC768 UDP • RFC791 IP • RFC792 ICMP • RFC793 TCP • RFC826 ARP • RFC1213 MIB II • RFC1493 Bridge MIB	• RFC1907 SNMPv2 MIB • RFC2668 802.3 MAU MIB • RFC4133 Entity MIB • RFC4363 IEEE 802.1p MIB • Private MIB

Order Information	
Part Number	*Description*
DIS-700G-28XS	24 x SFP ports + 4 x SFP+ ports switch with -40 to 75 ℃ operating range
Optional SFP Transceivers	
DIS-S310LX	1000BASE-LX, single-mode, 10 km, -40 to 85 ℃ operating temperature
DIS-S301SX	1000BASE-SX, multi-mode, 550 m, -40 to 85 ℃ operating temperature
DIS-S302SX	1000BASE-SX, multi-mode, 2 km, -40 to 85 ℃ operating temperature
DIS-S330EX	1000BASE-EX, single-mode, 30 km, -40 to 85 ℃ operating temperature
DIS-S350LHX	1000BASE-LHX, single-mode, 50 km, -40 to 85 ℃ operating temperature
DIS-S380ZX	1000BASE-ZX, single-mode, 80 km, -40 to 85 ℃ operating temperature

Updated 2019/07/15

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