D-Link
Building Networks for People

Product Highlights

Rugged, Hardened Design

Design to operate in wide temperature ranges, vibration, shock, allowing the switches to be deployed in enclosures or cabinets in outdoor locations

High Availability

Comprehensive network redundancy features with fast fault recovery, together with advanced security features provides industrial-grade reliability and protection

Multi-layer ACL Support

Flexible combination of Layer 2/3/4 support for VLAN ID, MAC address, Ether type, source/destination IP address, UDP/TCP, DSCP or TsS value

DIS-700G Series

Industrial Layer 2+ Gigabit Managed Switch

Features

Advanced QoS

Comprehensive Security Features

Multi-Layer ACL

IP-30 Ingress Protection

Operating Temperature
- -10°to 65°C

Power source
- Single AC input

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 are designed specifically to withstand temperature range, vibrations and shock. These rugged, yet easy to deploy, switches have superior environmental specification 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

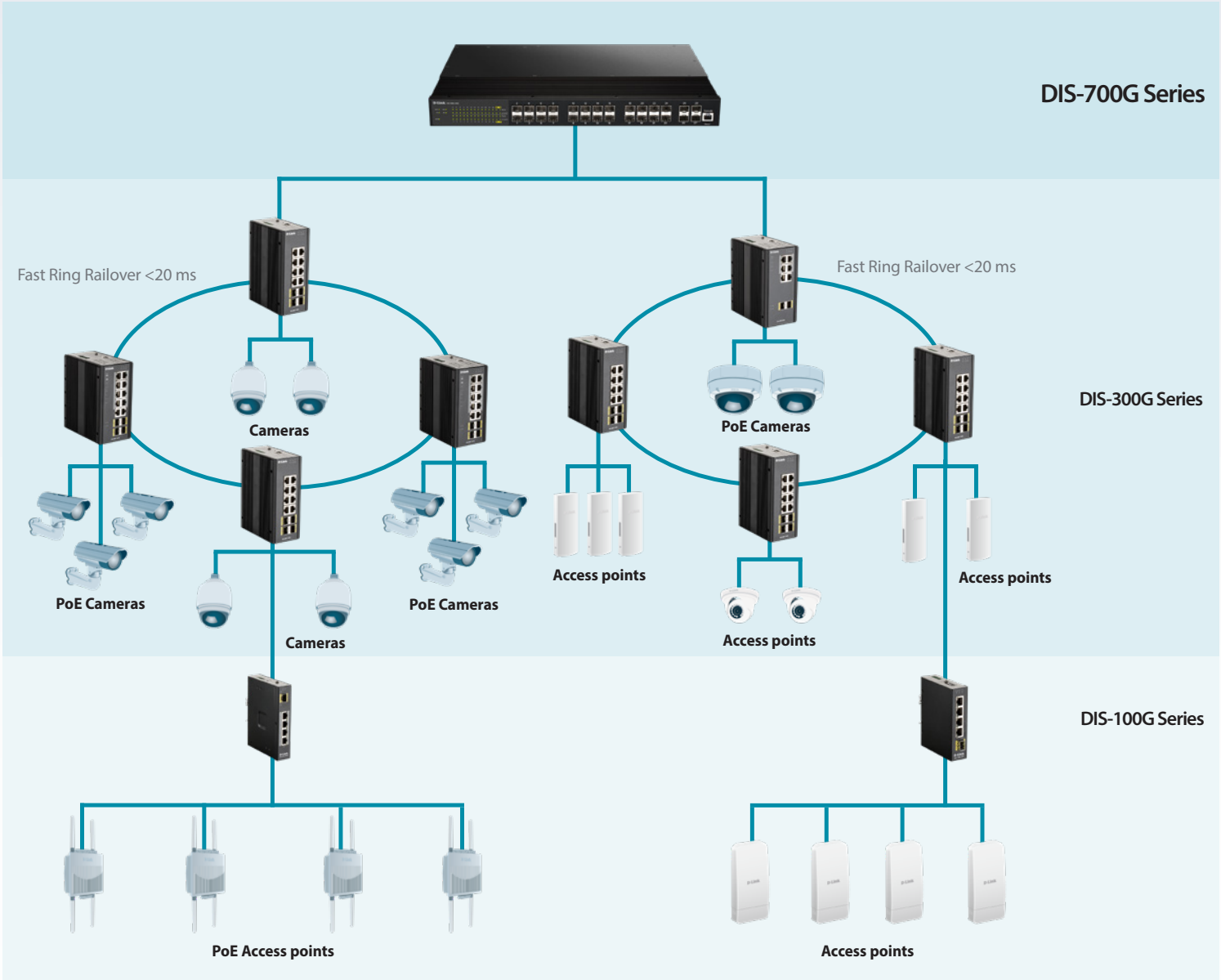
- Challenging environmental conditions
- High-end network redundancy topologies
- High ambient temperatures

Market

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

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

Deployment Scenario



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

Technical Specifications	DIS-700G-28XS
Ethernet	
Ethernet Interfaces	24 x SFP ports 4 x 10G SFP+ slots (1G SFP backwards compatible)
Operating Mode	Store and forward, L2 wire-speed/non-blocking switching engine
MAC Addresses	8K
Jumbo Frames	9K Bytes
SFP/SFP+ (pluggable) Ports	
Port Types Supported	Gigabit fibre multimode, fibre single mode, fibre long-haul single mode 100/1000BaseF (SX/LX/LH)
Fibre Port Connector	LC typically for fibre (depends on module)
10G SFP+	10G SFP+ slots (1G SFP backwards compatible)
Network Redundancy	
Fast Failover Protection Rings	Link loss recovery < 20ms Single & Multiple rings supported
Spanning Tree Protocol	IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP BPDU forwarding and filtering
IEEE 802.3ad Port Trunk with LACP	Static trunk or Dynamic via LACP (Link Aggregation Control Protocol)
Bridge, Virtual Local Area Networks (VLANs) & Protocols	
Flow Control	IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex)
Max VLANs	2048
VLAN Types	Port-based VLANs, IEEE 802.1Q tag-based VLANs, IEEE 802.1v protocol-based VLANs, IEEE 802.1ad Double Tagging (Q in Q) Private VLAN
VLAN Operations	Attach/Remove/Replacement VLAN tag
MVR (Multicast VLAN Registration)	Yes
Multicast Protocols	IGMP v1, v2 and v3 with up to 512 multicast groups IGMP snooping and querying Immediate leave and leave proxy
Traffic management engine & QoS	
Policy-Based Access Control Engine	Policy/profile-based Access Control List (ACL) Multi-layer ACL support Flexible combination of well-known fixed Layer 2/3/4 fields: • VLAN ID, Source/Destination MAC address, EtherType • Source/Destination IP address, IP protocol number • UDP or TCP, Source/Destination port number of TCP/UDP • DSCP or ToS value Actions per rule: Deny, Allow, Queue mapping, rate limit, mirror, CoS remark Max number of profiles per switch: 20 Max number of rules per profile: 32
Number of Queues per Port	8
Scheduling Schemes	SPQ, WRR, SPQ + WRR
Traffic Shaper	Hierarchical per port and per queue shaping & scheduling with bandwidth management
Traffic Policer	Ingress rate limit in 1K bps granularity TrTCM (Two Rate Three Color Marker) policer engine
Security	
Port Security	IP and MAC-based Access control; Policy-based Access control IEEE 802.1X authentication Network Access Control RADIUS Client for IEEE 802.1X
Storm Control	Multicast/Broadcast/Flooding Storm Control on per port and per VLAN basis

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

Technical Specifications	DIS-700G-28XS
Management	
User Management Interfaces	Industrial-like CLI (command line interface) WEB-based Management SNMP v1, v2c, v3 Telnet (5 sessions)
Management Security	HTTPs, SSH
Upgrade & Restore	TFTP/FTP for Configuration Import/Export, TFTP/FTP for Firmware Upgrade
Diagnostic	Syslog Policy-based stream mirroring Ethernet Copper connection diagnostic tool
NTP/SNTP	Yes
Power	
AC Inputs	100/240 VAC, 50Hz ~ 60Hz
Power Consumption	35 W
Indicators	
Power Status	Indication of power input status
Ethernet Port	Link & Speed
Environmental and Compliances	
Operating Temperature Range	-10 to +65°C
Storage Temperature Range	-40 to +85 °C
Humidity (Non-Condensing)	5 to 95% RH
Vibration, Shock & Freefall	Vibration: IEC60068-2-6; Shock: IEC60068-2-27; Free Fall: IEC60068-2-32
Certification Compliance	UL 61010-1 comliance, CE, FCC, EN 61000-6-2, EN 61000-6-4
EMI	Radiated Emission: CISPR 22, EN55022 Class A Conducted Emission: EN55022 Class A
EMS	ESD: IEC61000-4-2 Radiated RF (RS): IEC61000-4-3 EFT: IEC61000-4-4 Surge: IEC61000-4-5 Conducted RF (CS): IEC61000-4-6
RoHS & WEEE	RoHS (Pb free) and WEEE compliant
MTBF	> 25 years
Mechanical	
Ingress Protection	IP30
Dimensions	440 x 44 x 318.5 mm
Weight	4.5 kg
Installation Option	19" rack mounting

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

Accessories	
SFP Transceivers	
DIS-S301SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 550 m • -40~85°C operating temperature
DIS-S302SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 2 km • -40~85°C operating temperature
DIS-S310LX	1-port Mini-GBIC SFP to 1000BaseLX Single-Mode Fibre Transceiver • up to 10 km • -40~85°C operating temperature

For more information: www.dlink.com

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