IS-DX610 Series

10-port 10G DIN-Rail Managed Layer 2 Industrial Ethernet Switch

The IS-DX610 Series are 10G managed industrial switches featuring a fan-less/wide operating temperature (-40~75 °C) design supporting up to 8G TX ports and 2x 10G SFP's. These models are perfect for upgrading an existing network to a full Gigabit speed Infrastructure or access to core layer networks; a full Gigabit network plus 10G uplinks provides higher throughput than legacy Fast Ethernet network. The switches also include some Layer 2 functionality for higher level system integration and complex network projects. The IS-DX610 Series switches are suitable for specific vertical markets like ITS, Oil & Gas and Railway applications.

Key features

- 8x Gigabit Ethernet ports
- 2x 1/10 Gigabit Ethernet SFP+ Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 512
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP

Specification

Ethernet

Operating Mode	Store and Forward, L2 wire-speed/non-blocking switching engine
MAC addresses	16K
Packet Buffer	12 Mbits
Jumbo frame	16K
Switching Fabric / Back Plane	96Gbps

RJ45 Copper ports

Speed	10/100/1000 Mbps
MDI/MDIX Auto-crossover	Support straight or cross wired cables
Auto-negotiation/Duplex	10/100/1000 Mbps speed auto-negotiation; Full & Half Duplex
Ethernet Port Protection	1.5KV VRMS 1minute (Hipot), 2KV surge immunity on RJ45 Copper ports

Fiber Ports

Port Types supported	10G Base SFP+ Slot
Fiber port connector	LC/RJ45 connector for fiber ports
Optimal fiber cable	Typical 50 or 62.5/125 μm for multimode (mm) Typical 8 or 9/125 μm for single mode (sm)

Protocols & Standards

IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX , IEEE 802.3ab 1000BaseT , IEEE 802.3ae 10GBase over Fiber,
IEEE 802.3x Flow Control, IEEE 802.3ad/802.1AX LACP, IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid STP,
IEEE 802.1s Multiple STP, ITU - T G.8032 / Y.1344 ERPS, IEC 62439 - 2 Media Redundancy Protocol, IEEE 802.1Q VLAN Tagging
IEEE 802.1ad Stacked VLANs, IEEE 802.1p Class of Service, IEEE 802.1X Network Authentication, IEEE 802.1AB LLDP,
IEEE 1588 PTP

Network Redundancy

Spanning Tree Protocol	IEEE 802.1D/1w/1s, STP/RSTP/MSTP, G.8032 ERPSv2
Port Trunk / LACP	Static Trunk or LACP (Link Aggregation Control Protocol)

Bridge, VLANs, Protocols

Flow Control	IEEE 802.3x (Full Duplex) and Back-Pressure (Half Duplex)
VLAN Table Size	4094
VLAN Types	IEEE 802.1Q tag-based VLAN, IEEE 802.1ad Double Tagging (QinQ)
Multicast protocols	IGMP Snooping v1/v2/v3, IGMP Querier
LLDP	IEEE 802.1AB LLDP

Traffic management & QoS

Priority	IEEE 802.1p QoS
Number of queues per port	8
Scheduling schemes	SPQ, WRR

Security

Port Security	IEEE 802.1X Authentication Network Access Control / RADIUS / TACACS+ Server
Storm Protection	Yes

Management

User Management Interfaces	Cisco-Like CLI (Command Line Interface)
	Web-based Management
	SNMP v1, v2c, v3, RMON, Trap / Inform, Telnet
Management Security	HTTPs, SSH, Access Management
	RADIUS Client for Management
Upgrade & Restore	TFTP for Configuration Import / Export, TFTP for firmware update
	USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog
Diagnostic	Syslog, Port Mirror
DHCP	Client Mode, Server Mode, Relay Mode, Option 82
NTP	YES
System Status	Device info/status; Ethernet port status

Power

Power Input	Redundant Power Input, Removable Terminal Block
Input Voltage Range	12-48 VDC
Reverse power protection	YES
Power Consumption	15 Watt

Indicators

Power status indication	Power Input status
Ethernet port indication	Link & speed

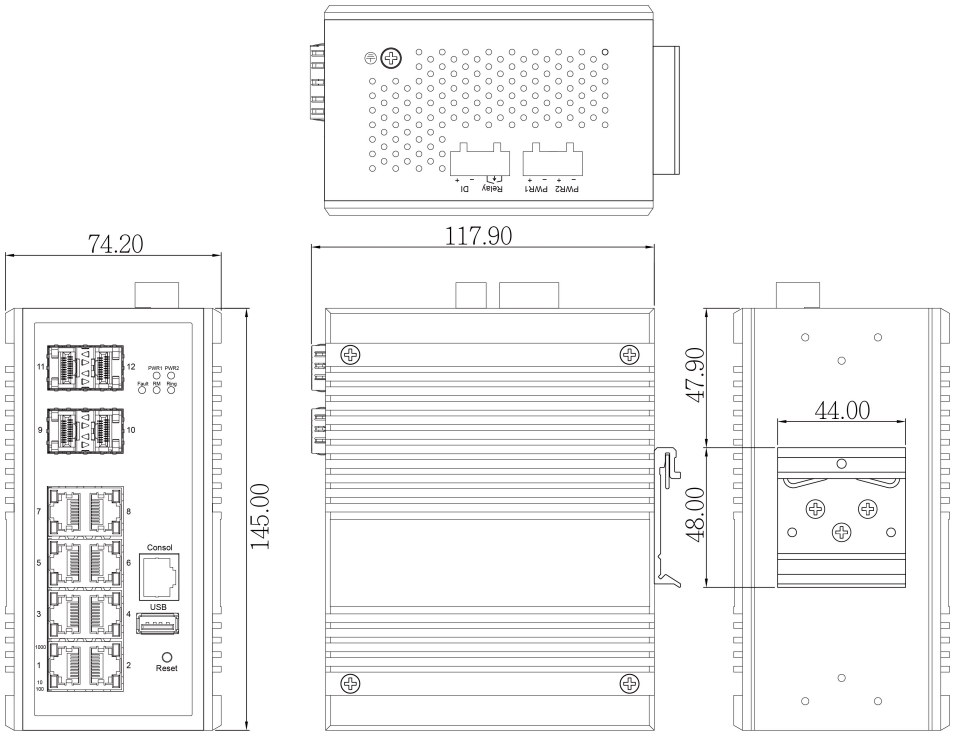
Environmental and Compliances

Operating Temperature	-40~75ºC (Cold startup at -40ºC)
Storage Temperature	-40~85ºC
Humidity	5~95% (Non-Condensing)
Vibration, shock, free fall	IEC-60068-2-6, -27, -32
Certification Compliance	CE, FCC
Electrical safety	CE
EMC	FCC Part 15, CISPR 22 (EN55022) Class A IEC-61000-4-2, -3, -4, -5, -6, -8 (Level 3), IEC-61000-6-2, -4
RoHS & WEEE	RoHS (Pb free) and WEEE Compliant
MTBF	> 220,000 hrs

Mechanical

Protection	IP30
Dimension	74x145x118 mm (WxHxD)
Weight	880 g
Installation	DIN-Rail Mount, Wall mount
Relay Output	1A, 24VDC

Dimension Diagram



Ordering Information

Available Models	Description	10/100/1000Mb TX	1G/10G FX
IS-DX610-2XG	8+2 Port Industrial Managed Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) + 2x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) For 10G SFP+: -40 ~ 60°C (-40°F ~ 140°F)	8	4

Accessories

1. Gigabit SFP Modules
2. 10 Gigabit SFP+ Modules

Package Checklist

- IS-DX610 Switch
- Quick Installation Guide (Printed)
- Documentation & Software CD
- RS232 Console Cable
- RJ45 / SFP Cap / Wall Mount kit DIN-Rail kit