20-port L3 Managed Industrial Switch

TI-3008G-8GS4XS-D

20-port Managed Industrial Ethernet L3 Switch

L3 10Gbps fiber uplink interfaces with data & alarm output interfaces

Overview

Teroline's TI-3008G-8GS4XS-D is a L3 Managed Industrial Ethernet Switch with 8 x 10/100/1000Base-T ports, 8 x 100/1000Base-X ports, 4 x 1G/2.5G/10GbE SFP+ ports, DI/DO/RS485/Modbus data port as well as a USB port for configuration and firmware upgrade. It is featured with L3 static and dynamic routing with full L2 features as well as IPv4/6 based network management.

TI-3008G-8GS4XS-D is an ideal solution designed with input 12-75VDC, redundant inputs with polarity reverse and over-voltage protection, enclosed in a robust IP40 fan-less housing with DIN-rail installation clamp to support extended operation temperature from -40°C to 80°C as well as enhanced EMI/EMC capability. It is a powerful and easy-to-deploy solution for most industrial environment, such as manufacturing, transportation, electricity, oil & gas, chemistry, video surveillance and other various industry automation networks.

Key features

- 4 x 1G/2.5G/10GbE SFP+ interfaces + 8 x 100/1000Base-X SFP fiber interfaces and 8 x 10/100/1000BASE-T RJ45 LAN interfaces, 1 DI/DO/RS485/Modbus and 1 USB interface
- L3 static and dynamic routing, full L2 switching functions and network management
- ITU-T G.8032 standard ERPS Ring with sub-20ms switchover time
- Up to 10K Bytes Jumbo Frame support
- IP40 protection level, Fan-less design, and DIN-rail mounted
- 6KV surge protection; ESD: 8KV/contact, 15KV/air protection
- Dual redundant DC12-58V inputs, with reverse & over-voltage protection
- Operation temperature from -40 to +80°C

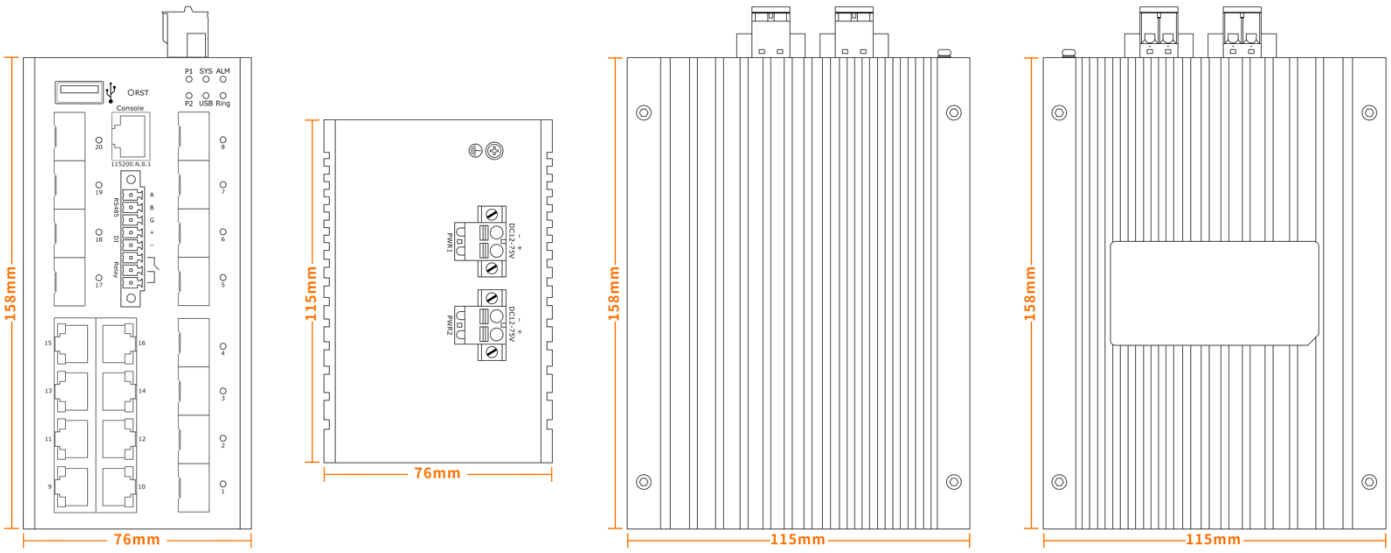
Specifications

Interface Specifications	Fiber port	4 * 1G/2.5G/10GbE SFP+ (Port 17 – 20) 8 * 100/1000Base-X SFP (Port 1 – 8)
	Copper port	8 * 10/100/1000Base-T (RJ45)
	Management Port	1 * RJ45 Console 1 * USB 2.0 for configuration & upgrade
	Data Port	1 * RS-485 1 * Digital Input 1 * Digital Output
Power Specifications	Input voltage	12-75VDC, redundant inputs
	Input current	2.5A max
	Power consumption	≤ 27W (full load)
	Power interface	2 * 2-pin terminal block
	Reverse polarity protection	Supported
	Over-voltage protection	Supported
	Over-current protection	Supported
LED Indicators	1 – PWR (Green)	Power on indicator
	2 – SYS (Green)	PoE working status indicator
	3 – USB (Green)	USB port working status indicator
	4 – ALM (Red)	Fault alarm indicator
	5 – Ring (Green)	Ring network status indicator
	6 – LNK/ACT (Green)	RJ45 port link up/down/act indicator per port
	7 – SPEED (Yellow)	RJ45 port speed indicator per port
	8 – LNK/ACT (Green)	SFP port link up/down/act indicator per port
Specifications	Switching capacity	112Gbps
	Packet forwarding rate	166.6Mpps
	MAC address table	16K
	VLAN	4K
	Buffer	12Mb
	Forwarding delay	< 5us
	Jumbo frame	10K bytes
	Auto MDI/MDIX	Supported
	Watchdog	Supported
L2 Switching	Link Aggregation	Static and dynamic Link Aggregation
	Port-based Features	IEEE 802.3x flow control Port-based traffic statistics Port isolation Broadcast storm control
	VLAN	Access, trunk and hybrid mode Port-based Q-in-Q Flexible Q-in-Q
	Port Mirroring	Multiple to one port mirroring
	Ring Protection	STP/RSTP/MSTP ITU-T G.8032 ERPS, sub-20ms switchover time
	DHCP	DHCP Client DHCP Snooping
	Multicast	IGMPv1, v2 & v3 IGMP Snooping

	ACL	ACL policies based on MAC/IP
	Quality of Service (QoS)	Ingress port-based rate-limiting Egress port-based rate-limiting QoS class remarking Support policy-based QoS SP and WRR queue scheduling
	Security	IEEE 802.1x port/MAC authentication RADIUS IP Source Guard, port/MAC/IP binding ARP inspection and filtering
	Management and Maintenance	HTTP/HTTPS web management SNMPv1/v2c/v3 support Support IPv6 for management Syslog and alarm classification Support RMON Support LLDP Support NTP Support optic transceiver DDM Support Ping/Tracert for diagnosis Support Telnet and SSH connection Support TFTP and web for upgrade Support USB based configuration and upgrade
L3 Routing	ARP	ARP table aging
	Routing entry	13K
	IPv4/IPv6	Static routing
	ECMP	ECMP ECMP max next-hop configuration Capacity balanced configuration
	Route policy	IPv4 prefix-list
	Redundancy	Support VRRP
	IP Routing Protocol	RIP v1/v2 OSPF v2 IS-IS v4 BGP4, supporting routing recursive ECMP Viewing the number of neighbors and states
Standards	IEEE 802.3	10BASE-T
	IEEE 802.3u	100BASE-TX
	IEEE 802.3ab	1000BASE-T
	IEEE 802.3z	1000Base-X
	IEEE 802.3ae	10Gb/s Ethernet
	IEEE 802.3x	Full-duplex flow control
	IEEE 802.1d/w	Spanning Tree/Rapid Spanning Tree
	IEEE 802.1Q	VLAN
	IEEE 802.1X	Port Authentication
	IEEE 802.1ab	LLDP
	IEEE 802.3ad	LACP
	ITU-T G.8032	ERPS
Environment	Operating temperature	-40°C to +80°C
	Storage temperature	-40°C to +85°C
	Relative humidity	5% to 95% (non-condensing)
	Thermal design	Fan-less, natural heat dissipation
	MTBF	100,000 hours

Standards compliance	Power surge protection	IEC 61000-4-5 (6KV/6KV) (8/20us)
	Ethernet port surge protection	IEC 61000-4-5 (6KV/2KV) (10/700us)
	ESD	IEC 61000-4-2 (contact 8K, air 15K)
	RS	IEC 61000-4-3 80MHz-1GHz: 10V/m
	EFT	IEC 61000-4-4 4K/2K
	CS	IEC 61000-4-6 10V
	Shock	IEC 60068-2-27
	Free fall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
	EMI	FCC Part 15B Class A
	Certifications	CE, FCC, RoHS
Physical parameters	Dimensions	76(W)*115(D)*158(H)mm
	Weight	Net weight 1.9KG
	Protection Level	IP40
	Installation Method	DIN-Rail
Warranty	Standard Warranty	5 years

Physical dimensions



Ordering information

Model	Description
TI-3008G-8GS4XS-D	L3 Managed Industrial Ethernet Switch, 8x10/100/1000Base-T RJ45 + 8x100/1000Base-X and 4x1G/2.5G/10GbE SFP+ ports, supporting DI/DO/RS485/Modbus, DC12-75V dual redundant power inputs, Din-rail, operation temperature: -40°C to +80°C