IGS-T9062DGP

Industrial 8-port TSN Managed Gigabit Switch

Features

- 6 x 1Gigabit copper ports and 2 × 2.5Gigabit SFP uplink ports
- Supports TSN and IEEE 1588v2 for precise clock synchronization
- Supports O-Ring, O-Chain, IEC 62439-2 MRP, ERPS, and RSTP/MSTP redundancy technologies
- Web-based, Telnet, Console (CLI), and Windows utility (Open-Vision) configuration
- Wide operating temperature range from –40 to 75°C

CE FC **EN 61000-6-2** Industrial Immunity **EN 61000-6-4** Industrial Emission **EN 62368-1** Safety Certified

Product Description

ORing's TSN series managed Gigabit Ethernet switches are engineered for demanding industrial applications, including manufacturing, transportation, medical systems, and smart city infrastructure. The IGS-T9062DGP is a full Layer-2 managed redundant ring Ethernet switch featuring 6x 10/100/1000Base-T(X) RJ45 ports and 2x 1G/2.5GBase-X SFP slots, delivering mission-critical performance with ultra-fast O-Ring redundancy (<30ms recovery over 250+ units), O-Chain, MRP, ERPS (G.8032 v1/v2), and MSTP (RSTP/STP compatible) to ensure zero network downtime in harsh environments.

Full IEEE TSN compliance—including 802.1AS time synchronization, 802.1Qbv time-aware shaper, 802.1Qbu frame preemption, and 802.3br enhancements—provides microsecond-level determinism, ultra-low latency, low jitter, and seamless real-time data delivery for industrial control and factory automation. Advanced Layer-2 management capabilities, including QoS, VLAN, IGMP snooping, ACL security, SNMPv1/v2c/v3, RMON, and Modbus TCP, CC-Link IE TSN support, integrate with the Open-Vision platform, Web, Telnet, and CLI interfaces for simplified centralized deployment and monitoring. Rugged DIN-rail design withstands shock/vibration (IEC 60068) and wide temperature operation (-40°C to 75°C) with robust EMC immunity, making the IGS-T9062DGP the pinnacle of industrial-grade managed Ethernet switching for applications demanding absolute network availability.

Specifications

Ethernet Interface	
10/100/1000BASE-T RJ45 Port	6 Ports Auto MDI/MDI-X
1000/2500BaseSFP Slot	2
Standard	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3ab for 1000Base-T IEEE 802.3ae for 1000Base-X IEEE 802.3bz for 2.5GBase-SR/LR IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1p for COS (Class of Service)

	IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP: 2004 (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
Switch Properties	
Processing	Store-and-Forward
Switching Bandwidth	22Gbps
MAC Table	8K
Packet Buffer	160K Byte
Priority Queues	8
Jumbo Frame Size	10K Bytes
Switching Latency	<7 us
Max. No. of VLANs	4096
VLAN ID Range	VID 0 to 4095
Max. IGMP Groups	128 for each VLAN
Ethernet Technologies	
Redundancy Protocol	MSTP (RSTP/STP compatible)/STP O-Ring/O-Chain IEC 62439-2 MRP v2.0 ITU-T G.8032 ERPS v1/v2 Link Aggregation (LACP) - Fast Recovery Technology
Industrial Protocol	Modbus TCP, CC-Link IE TSN
Management	Locate Function Multiple User Privilege WEB-GUI, Https, SSH, Telnet, Open-Vision (Windows Utility) TFTP Ipv4/Ipv6 IEEE 802.1AB LLDP, ANSI/TIA-1057 LLDP-MED SNMP v1/v2c/v3 and MIB, RMON, INTP UPnP DHCP Client/Server/Relay/Option82
Port Configuration	Port configuration, Flow Control, status, Trunking, statistics, monitoring, SFP DDM
VLAN	Port-Based VLAN, Tag VLAN, Q-in-Q VLAN, GARP, GVRP, Guest VLAN, Private VLAN
QoS	TOS/Diffserv, CoS, Application-Based QoS, Port Storm Control, IGMP v2/v3 Snooping, Static Multicast, MLD snooping
IGMP	IGMP Snooping v2/v3
Security	Device Binding, DOS/DDOS Auto Prevention, Access Management, IP Source Guard, ACL, TACACS+, RADIUS Client, IEEE 802.1X, MAC-Based Authentication, Port Security Limit,
System Alarm	Relay Output for Fault Event Alarming, Syslog Server/Client, SMTP
Time Management	NTP Server/Client, IEEE 1588 PTP Server/Client
SNMP	SNMP v1/ v2c/ v3, SNMP trap
Port Monitoring	Flow Control, SFP Monitor (DDM), Cable Diagnostic
TSN	Time sync - IEEE 802.1AS-2011 Latency - IEEE 802.1Qbv Latency - IEEE 802.1Qbu/IEEE 802.3br Reliability - IEEE 802.1Qci (TBD) Reliability - IEEE 802.1CB (TBD)
Energy Saving	IEEE 802.3az EEE
Other Interfaces	
Console Port	RS-232 in RJ45 connector with console cable. 115200bps, 8, N, 1
Fault Contact	Relay output to carry capacity of 1A at 24VDC
Reset Button	< 5 sec: System reboot, > 5 sec: Factory default

LED Display	
Power Indicator (PWR1/PWR2)	Green: Power LED x 2
Ring Master Indicator (R.M.)	Green: Indicates that the system is operating in O-Ring Master mode
O-Ring Indicator (Ring)	Green: Indicates that the system operating in O-Ring mode Green Blinking: Indicates that the Ring is broken.
Fault Indicator (Fault)	Red: Indicate unexpected event occurred
Product Status Indicator (Status)	Green LED: Slow blinking for system operating Fast blinking for USB reading/writing
10/100/1000Base-T(X) RJ-45 Port Indicator	Top Green LED for Link/Act indicator: Green for link-up, Off for link-down, Blinking for Act. Bottom dual color LED for Ethernet speed indicator: Green for 1000Mbps, Amber for 100Mbps, Off for 10Mbps
1G/2.5GBase-X SFP socket	Dual color LED for Link/Ack and speed indicator: Green for 2.5G speed indicator: On for link-up, Off for link-down, Blinking for Act. Amber for 1G speed indicator: On for link-up, Off for link-down, Blinking for Act.
Digital Input Contact	
D/I Interface	Power input 12-30 VDC Max. input current: 8 mA
Power Parameters	
Input Voltage	12-48VDC/1-0.3A Redundant Power Inputs
Power Connection	4-pin terminal block
Power consumption (Typ.)	<15 Watts
Overload current protection	Present
Reverse Polarity Protection	Present
Physical Characteristic	
Enclosure	IP-40
Housing	Metal
Installation	DIN-rail/Wall mounting
Dimension	45 (W) x 109 (D) x 147 (H) mm (1.77 x 4.29 x 5.79 inches)
Weight	733 g (NW) / 1106 g (GW)
Regulatory Approvals	
EMC	CE EMC (EN 55035, EN 55032), EN 61000-6-2&4, FCC Part 15B
EMI	CISPR32, FCC Part 15B class A
EMS	IEC/EN 61000-4-2 ESD IEC/EN 61000-4-3 RS IEC/EN 61000-4-4 EFT IEC/EN 61000-4-5 Surge IEC/EN 61000-4-6 CS IEC/EN 61000-4-8 PFMF
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-31
Vibration	IEC 60068-2-6
Safety	IEC/EN 62368-1
Environmental Limits	
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% (non-condensing)

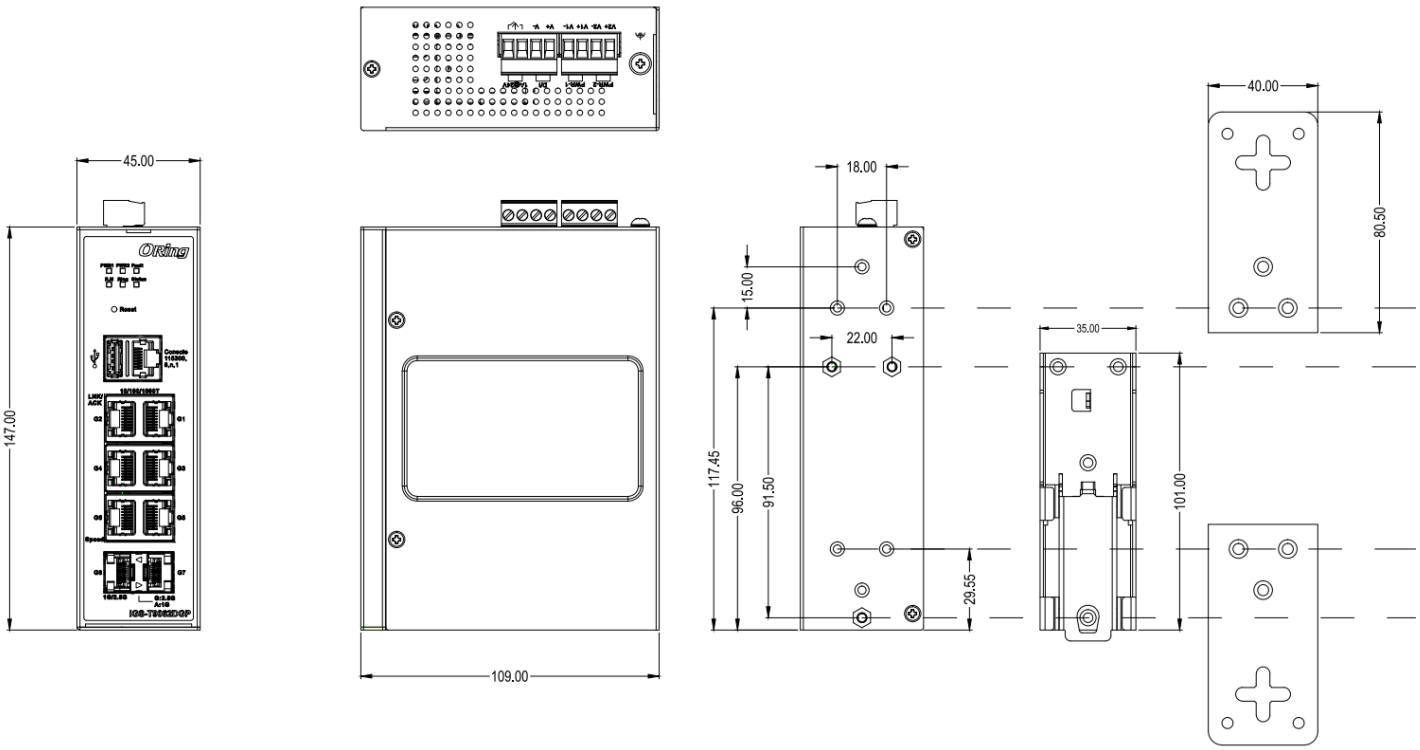
MTBF and Warranty	
MTBF Time	6,494,222hrs (Telcordia SR332 Issue 4)
MTBF Standard	5 years

Packing List

Device	1 x IGS-T9062DGP
Others	1 x Quick Installation Guide, English 1 x DIN-rail Kit (already affixed to the rear of the product) 2 x Wall-mount Kit 1 x Console Cable

Dimensions

Unit: mm



Ordering Information

IGS-T9062DGP	Industrial 8-port layer2 TSN managed Gigabit Ethernet switch with 6x10/100/1000Base-T(X) ports and 2x1G/2.5GBase-X, SFP socket