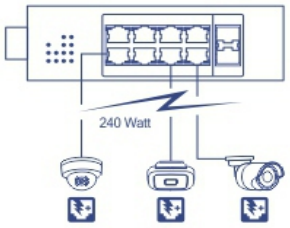
10-Port Industrial Gigabit L2 Managed PoE+ DIN-Rail Switch 24 – 57V

TI-PG102i (v1.xR)

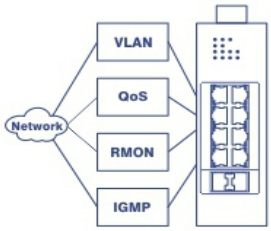
- 8 x Gigabit PoE+ ports
- 2 x SFP slots
- Supports 100/1000Base-FX fiber SFP modules
- PoE power budget: 240W@48VDC or 124W@24VDC
- PoE alive check restarts unresponsive PoE powered devices
- 20Gbps switching capacity
- Hardened IP30 rated metal housing
- Includes DIN-rail mounting bracket
- Operating temperature range of -40° – 75° C (-40° – 167° F)
- Supports LACP, STP/RSTP, VLAN, and IGMP Snooping
- IEEE 802.1p QoS with queue scheduling support
- Bandwidth control per port
- Dual redundant power inputs with overload current protection
- Alarm output triggered by power failure
- Power supply sold separately (models: TI-S24048, TI-S48048, TI-S12024)

TRENDnet's 10-Port Industrial Gigabit L2 Managed PoE+ DIN-Rail Switch, model TI-PG102i, features eight Gigabit PoE+ ports with a 240W PoE budget, and includes two SFP slots that support both 100Base-FX and 1000Base-FX modules for long distance fiber applications. The hardened switch is equipped with an IP30 rated metal enclosure, designed to withstand a high degree of vibration and shock, while operating within a wide temperature range of -40° – 75° C (-40° – 167° F) for industrial environments. Advanced traffic management controls, troubleshooting, and SNMP monitoring support make this a powerful solution for SMB networks.



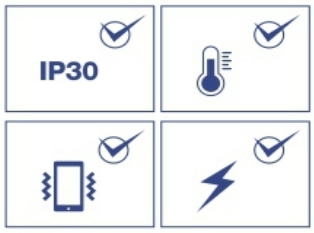
PoE Power

A 240W PoE power budget supplies up to eight Power over Ethernet devices, and includes advanced PoE port controls such as enabling / disabling PoE, power priority, PD alive check, and power scheduling.



Integration Flexibility

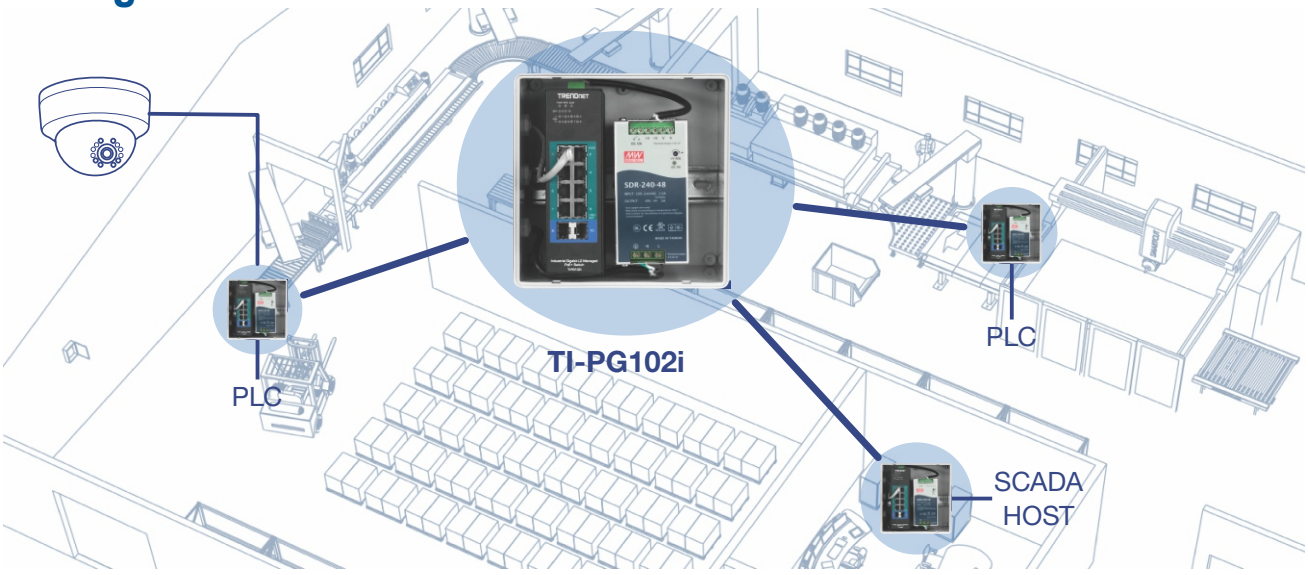
Managed features include access control lists, VLAN, IGMP snooping, QoS, RMON, SNMP trap, and syslog for monitoring and flexible network integration.



Industrial Design

Equipped with an IP30 rated metal enclosure, designed to withstand a high degree of vibration and shock, while operating within a wide temperature range of -40° – 75° C (-40° – 167° F) for industrial environments.

Networking Solution



Network Ports
8 x Gigabit PoE+ ports, 2 x Gigabit SFP Slots

PoE Power
Supplies up to 30W of PoE+ power per port with a 240W power budget

Full PoE Control Per Port
Available PoE port controls include enabling / disabling PoE, power priority, PD alive check, and power scheduling

Traffic Management
Managed features include 802.1Q, MAC & Port Isolation VLAN, IGMP Snooping, per port bandwidth control / 802.1p / DSCP / Queue Scheduling (SPQ / WRR), STP / RSTP spanning tree, and link aggregation for flexible network integration

System Monitoring
Monitoring features include SNMP v1 / v2c / v3, MIB support, SNMP trap, RMON Groups (1, 2, 3, 9), SMTP alert, syslog, port mirroring, and SFP DDMI

DIN-Rail Mount
IP30 rated metal enclosure includes DIN-rail mounting bracket

Switching Capacity
20Gbps switching capacity

Access Control
Managed access control features include ACLs, IP-MAC-Port binding, ARP inspection, 802.1X RADIUS, MAC address learning, DHCP snooping and IP Source Guard provides layered network access controls

Redundant Power
Dual redundant power inputs with overload current protection (power supply sold separately: TI-S24048, TI-S48048, TI-S12024)

Alarm Relay
Alarm relay output triggered by power failure of primary and / or redundant power

Jumbo Frame
Sends larger packets, or Jumbo Frames (up to 10KB), for increased performance

Wide Temperature Range
A wide operating temperature range of -40° – 75° C (-40° – 167° F) allows for installations in extreme hot or cold environments

Shock and Vibration Resistant
Rated for shock (EN 60068-2-27), freefall (EN 60068-2-32), and vibration (EN 60068-2-6)

Grounding Point
Grounding point protects equipment from external electrical surges

Specifications

Standards	• IEEE 802.1d • IEEE 802.1p • IEEE 802.1Q • IEEE 802.1w • IEEE 802.1X • IEEE 802.1ab • IEEE 802.1ax • IEEE 802.3 • IEEE 802.3u • IEEE 802.3x • IEEE 802.3z • IEEE 802.3ab • IEEE 802.3ad • IEEE 802.3az • IEEE 802.3af • IEEE 802.3at
Device Interface	• 8 x Gigabit PoE+ ports • 2 x 100/1000Mbps SFP slots • 6-pin removable terminal block (primary/RPS power inputs & alarm relay output) • DIP switches • LED indicators • Reset button
Data Transfer Rate	• Ethernet: 10Mbps (half-duplex), 20Mbps (full-duplex) • Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex) • Gigabit Ethernet: 2000Mbps (full duplex)
Performance	• Switch fabric: 20Gbps • RAM buffer: 512KB • MAC address table: 8K entries • Jumbo frames: 10KB • Forwarding mode: store and forward • Forwarding rate: 14.88Mpps (64-byte packet size)
Management	• HTTP web-based GUI • CLI: Telnet / SSHv2 • SNMP v1, v2c, v3 • SNMP trap (up to 5 receivers) • RMON groups 1/2/3/9 • Device configuration backup & restore, upgrade firmware, reboot, and reset to default • Multiple administrative or read-only user accounts • Enable or disable power saving mode per port • Static MAC entries • LLDP (Link layer discovery protocol) • Netlite device map • ONVIF device discovery • SNTP • SMTP alert • Syslog • Port statistics/utilization • Traffic monitor • Port mirror: one to one, many to one • Storm control: Broadcast, multicast, destination lookup failure (Min. limit: 1pps) • Loopback detection • DHCP relay/option 82 • SFP DDMI (Digital Diagnostic Monitoring Interface)
MIB	• MIB II RFC 1213 • Bridge MIB RFC 1493 • RMON (Group 1,2,3,9) RFC 2819 RFC 1757

Spanning Tree	• IEEE 802.1d STP (spanning tree protocol) • IEEE 802.1w RSTP (rapid spanning tree protocol) • BPDU filter, guard, and root guard
Link Aggregation	• Static link aggregation and 802.3ad dynamic LACP (Up to 3 groups)
Quality of Service (QoS)	• 802.1p Class of service (CoS) • DSCP (Differentiated Services Code Point) • Bandwidth control per port • Queue Scheduling: strict priority (SP), weighted round robin (WRR), weighted fair queuing (WFQ)
VLAN	• 802.1Q tagged VLAN • MAC-based VLAN • Port isolation • Up to 256 VLAN groups, ID range 1-4094
Multicast	• IGMP snooping v1, v2, v3 • IGMP querier • IGMP fast leave • Up to 256 multicast groups • Static multicast entries
Access Control	• 802.1X authentication (Local user database, RADIUS, guest VLAN assignment) • DHCP snooping/screening • Trusted host/IP access list for management access • Port Security/MAC address learning restriction (Up to 100 entries per port) • Static/dynamic ARP inspection
ACL	• Source/Destination MAC address • Source/Destination IP address • Source Interface • VLAN ID • EtherType • TCP/UDP port 1-65535
Special Features	• Netlite device discovery and map display in GUI • Port security: MAC address learning restriction per port • DHCP relay/option 82 & DHCP server snooping/screening support • Wide operating temperature range • Dual redundant power inputs • Alarm relay triggered by power failure • Surge and ESD protection
Power	• PWR (Primary) terminal input: 24 – 57V DC • RPS (Redundant) terminal input: 24 – 57V DC • Compatible power supply: TI-S12024 (120W), TI-S24048 (240W), TI-S48048 (480W) sold separately • Max. Consumption: 13W (no PoE load), 253W (full PoE load)
PoE	• PoE budget: 240W@48V DC input, 124W@24V DC input • 802.3at: Up to 30W per port • PoE Mode A: Pins 1, 2, 3, and 6 for power • PoE auto classification • PoE port priority/power scheduling/PD alive check • Over current/short circuit protection
Terminal Block	• Redundant power inputs, alarm relay contact, 6 pin • Wire range: 0.5 mm^2 to 2.5 mm^2 • Solid wire (AWG): 12-26 • Stranded wire (AWG): 12-26 • Wire strip length: 10-11mm

Dip Switch	

Switch	Status	Function
1	OFF	Disable alarm relay for PWR power input
	ON	Enable alarm relay for power failure on PWR power input
2	OFF	Disable alarm relay for RPS power input
	ON	Enable alarm relay for power failure on RPS power input
3	OFF	Storm control managed by switch configuration
	ON	Enable storm control (Broadcast and DLF rate set to 300pps) Takes precedence over storm control switch configuration
4	OFF	802.1p QoS managed by switch configuration
	ON	Enable 802.1p QoS on ports 1 and 2 (Set CoS priority to tag 4 on ports 1 and 2) Takes precedence over 802.1p QoS switch configuration
5	OFF	Port 9 SFP set to Gigabit speed full duplex
	ON	Port 9 SFP set to 100Mbps speed full duplex
6	OFF	Port 10 SFP set to Gigabit speed full duplex
	ON	Port 10 SFP set to 100Mbps speed full duplex

Alarm Relay Output	• Relay output with current carrying capacity of 1A, 24V DC • Short circuit mode when one power source is connected • Open circuit mode when two power sources are connected

Enclosure	• IP30 rated metal enclosure • Fanless passive cooling • DIN-Rail mount • Grounding point • ESD (Ethernet) Protection: 8KV DC • Surge (Power) Protection: 6KV DC
MTBF	• 562,234 hours @ 25° C • 142,948 hours @ 75° C
Operating Temperature	• -40° – 75° C (-40° – 167° F)
Operating Humidity	• Max. 95% non-condensing
Dimensions	• 160 x 120 x 50mm (6.3 x 4.72 x 1.97 in.)
Weight	• 930g (2.05 lbs.)
Certifications	• CE • FCC • Shock (IEC 60068-2-27) • Freefall (IEC 60068-2-32) • Vibration (IEC 60068-2-6)
Warranty	• 3 years

PACKAGE CONTENTS

- TI-PG102i
- Quick Installation Guide
- Removable terminal block
- DIN rail mounting bracket

All references to speed are for comparison purposes only. Product specifications, size, and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.

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