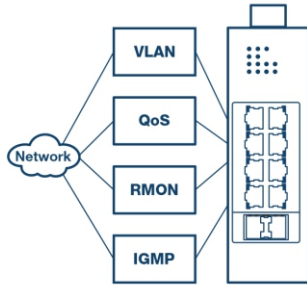


10-Port Industrial Gigabit L2 Managed PoE+ DIN-Rail Switch 24 – 57V

TI-PG102i-M (v1.0R)

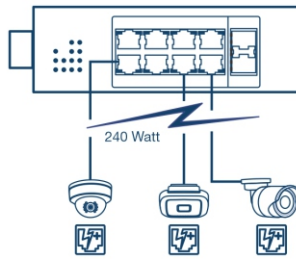
- 8 x Gigabit PoE+ ports
- 2 x SFP slots
- Supports 100/1000Base-FX fiber SFP modules
- PoE power budget: 240W@48VDC or 124W@24VDC
- PoE alive check restarts unresponsive PoE powered devices
- 20Gbps switching capacity
- Hardened IP30 rated metal housing
- Includes DIN-rail mounting bracket
- Operating temperature range of -10° – 75° C (14° – 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-M, 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 -10° – 75° C (14° – 167° F) for industrial environments. Advanced traffic management controls, troubleshooting, and SNMP monitoring support make this a powerful solution for SMB networks.



Integration Flexibility

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



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.



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 -10° – 75° C (14° – 167° F) for industrial environments.

NETWORKING SOLUTION



FEATURES



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



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



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



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 -10° – 75° C (14° – 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 802.3u
- 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: 128MB
- MAC address table: 8K entries
- Jumbo frames: 10KB
- Forwarding mode: store and forward
- Forwarding rate: 14.88Mpps (64-byte packet size)

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

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
- SNMP
- 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
- ERPS (Ethernet Ring Protection Switching) G8032v2
- SFP DDMI (Digital Diagnostic Monitoring Interface)

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 mm² to 2.5 mm²
- 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

- -10° – 75° C (14° – 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 year

Package Contents

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