



## 6-Port Hardened Industrial Gigabit PoE+ Layer 2 Managed DIN-Rail Switch

TI-PG541i (v2.6R)

- Hardened IP30 rated metal enclosure with integrated DINRail mount
- Wide operating temperature range - 40 to 70 °C (-40 to 158 °F)
- 4 x Gigabit PoE+ (802.3at) ports, 1 x Gigabit port, and 1 x Gigabit SFP slot
- 120W total power budget
- Remote cloud management with TRENDnet Hive (Additional fee applies)
- Dual redundant power inputs and alarm relay output
  - CLI (Telnet), Web (HTTP), SNMP v1/2c management
  - 802.1Q/MAC-Based VLAN and IGMP Snooping support
- 802.1p/DSCP/Queue Scheduling (SP/WFQ/WRR) QoS support
- Power supply sold separately (models: 48VDC3000/TI-S24048)
- Lifetime Warranty
- NDAA / TAA compliant (U.S. and Canada only)

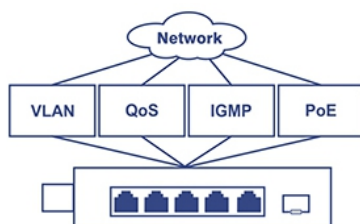
TRENDnet's 6-Port Hardened Industrial Gigabit PoE+ Layer 2 Managed DIN-Rail Switch, model TI-PG541i, has four Gigabit PoE+ ports, one Gigabit port, one Gigabit SFP slot and a 120 Watts PoE budget. The switch is equipped with an IP30 rated metal enclosure and designed to withstand a high degree of vibration, shock, protection against ESD / EMI / surge, and operate within a wide temperature range (- 40 – 70 °C (- 40 - 158 °F)) for harsh environments. L2 management include features such as PoE port control, VLAN, multicast, and QoS which allow for network integration flexibility.

Easily manage and configure TRENDnet's Web Smart PoE+ Managed Switch Series remotely by updating switches to the latest firmware for access to TRENDnet Hive. TRENDnet Hive is a network cloud manager that reduces management time and cost. No additional hardware, server, or personal cloud is required on these cloud managed switches with TRENDnet's reliable cloud service.



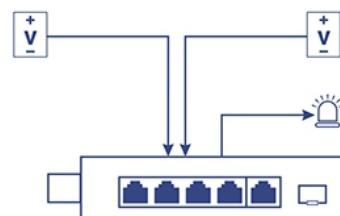
## Industrial Hardened Design

Equipped with a rugged IP30 rated enclosure and designed to withstand a high degree of vibration, shock, protection against ESD/EMI/surge, and operate with a wide temperature range (-40 – 70 °C (-40 - 158 °F)) for harsh environments.



## Integration Flexibility

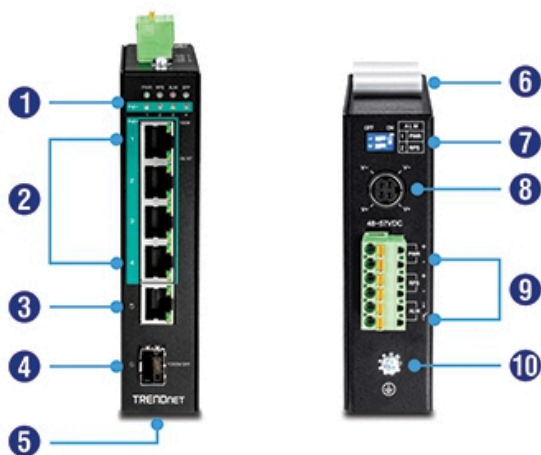
Managed features include PoE control, VLAN, IGMP snooping, QoS, RMON, SNMP trap, and syslog for monitoring and flexible network integration.



## Fault Tolerance

Features redundant power inputs (Primary and RPS) from external power sources and an output alarm relay to indicate the event of input power failure

## NETWORKING SOLUTION



- |                      |                             |
|----------------------|-----------------------------|
| ① LED indicators     | ⑥ Integrated DIN-Rail mount |
| ② Gigabit PoE+ ports | ⑦ DIP switches              |
| ③ Gigabit port       | ⑧ DC power connector        |
| ④ SFP slot           | ⑨ 6-pin terminal block      |
| ⑤ Reset button       | ⑩ Grounding point           |

## FEATURES



### Full PoE+ Power Budget

Supplies up to 30 Watts of PoE / PoE+ power per port (ports 1-4 802.3at / 802.3af) with a 120 Watt PoE power budget



### Network Ports and Capacity

4 x Gigabit PoE+ ports, 1 x Gigabit Port, and 1 x Gigabit SFP slot allow for a 12 Gbps switching capacity



### Integrated DIN-Rail Mount

IP30 rated metal enclosure with integrated DIN-Rail mounting hardware



### Full PoE Control Per Port

PoE control features include enabling / disabling PoE and class, power priority, PD alive check, scheduling, and power delay per port using CLI or web management.



### L2 Management

Managed features include 802.1Q, /MAC-Based VLAN, IGMP v1/2/3 Snooping, per port bandwidth control/802.1p/DSCP/Queue Scheduling (SP/WFQ/WRR), and Storm Control for flexible network integration.



### Hive Enabled

Remotely manage, configure, and diagnose this web smart switch via TRENDnet's cloud service (Additional fee applies)



### System Monitoring

Monitoring features include SNMPv1/v2c, MIB support, SNMP trap, RMON Groups (1, 2, 3, 9), SMTP alert, syslog, and port mirroring.



### Redundant Power

Redundant power inputs (primary and RPS) with overload current protection



### Alarm Output

Alarm relay output triggered by power failure of primary and / or redundant power (DIP switch)



### Jumbo Frame

Sends larger packets, or Jumbo Frames (up to 10 K)



### Wide Temperature

Hardened switch is rated for an operating temperature range of -40 to 70 °C (-40 to 158 °F)



### Electro Magnetic Compliance

Complies with IEC61000-6-2 EMC generic standard immunity for industrial environments



### Shock and Vibration Resistant

Rated for shock (IEC 60068-2-27), freefall (IEC 60068-2-32), and vibration (IEC 60068-2-6)



### LED Indicators

LED indicators convey power, redundant power, alarm, SFP, PoE, and network port status



### Grounding Point

Grounding point protects equipment from external electrical surges

## SPECIFICATIONS

### Standards

- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.1ab
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3z
- IEEE 802.3ab
- IEEE 802.3af
- IEEE 802.3at
- IEEE 802.3az

### Device Interface

- 4 x Gigabit PoE+ ports
- 1 x Gigabit port
- 1 x Gigabit SFP slot
- 6-pin removable terminal block (primary/RPS power inputs & alarm relay output)
- Optional power adapter input (adapter sold separately)
- DIP switch (Alarm for Primary/RPS power)
- LED indicators

### Data Transfer Rate

- Ethernet: 10 Mbps (half-duplex), 20 Mbps (full-duplex)
- Fast Ethernet: 100 Mbps (half-duplex), 200 Mbps (full-duplex)
- Gigabit Ethernet: 2000 Mbps (full-duplex)
- SX/LX: 2000 Mbps (full-duplex)

### Performance

- Switch fabric: 12 Gbps
- RAM buffer: 128 MB
- MAC address table: 8K entries
- Jumbo frames: 10 KB
- Forwarding rate: 8.93 Mpps (64-byte packet size)

### Management

- CLI (Telnet)
- HTTP web based GUI
- SNMP v1, v2c
- SNMP trap
- RMON groups 1, 2, 3, 9
- Enable/disable 802.3az power saving
- LLDP
- STNP
- SMTP alert
- Syslog
- Port statistics/utilization
- Traffic monitor
- Trusted host
- Port mirror (Ingress, Egress, Both)
- Storm control (Multicast, DLF, Broadcast)

### Hive Enabled Management

- Configure, monitor, and manage through the TRENDnet Hive Cloud Management Portal remotely via PC or Mac web browser
- Multi-device management
- Provisioning through scheduled batch firmware or configuration updates for multiple switches
- Event/hardware network monitoring (CPU/memory utilization)
- Enable & disable PoE, set PD (powered device) alive check, configure PoE scheduling, and monitor PoE budget utilization (for PoE switches only)
- Configure features such as IP address settings, VLANs, spanning tree, loopback detection, IGMP snooping, link aggregation, and bandwidth control through cloud management

### MIB

- MIB II RFC 1213
- Bridge MIB RFC 1493
- Ethernet Interface MIB RFC 1643
- RMON MIB RFC 1757
- Power Ethernet MIB RFC 3621

### 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 Fair Queuing (WFQ), Weighted Round Robin (WRR)

### MTBF

- 180,136 hrs @ 65 °C
- 435,905 hrs @ 25 °C

### Operating Temperature

- - 40 – 70 °C (- 40 - 158 °F)

### Operating Humidity

- Max. 95% non-condensing

### Power

- PWR (Primary) terminal input: 48 – 57V DC (TI-S12048 sold separately)
- RPS (Redundant) terminal input: 48 – 57V DC (TI-S12048 sold separately)
- Consumption: 10 W (max.), 130 W (max.) with PoE+ fully loaded

### Optional Power Adapter (48VDC3000 sold separately)

- Input: 100 – 240 V AC, 50/60 Hz, 2 A
- Output: 48 V DC, 3.34 A 160 watts max.

### Optional Power Supply (TI-S24048 sold separately)

- Input: 100 – 240 V AC, 50/60 Hz, 1.8 A 125 – 370 V DC
- Output: 240 Watts, 48 V, 5 A
- DIN-rail: TS-35/7.5 or 15
- Operating Temperature: - 25 to 70 °C (- 13 to 158 °F)

### PoE

- PoE budget: 120W
- Up to 15W per port for PoE
- Up to 30W per port for PoE+
- Mode A: Pins 1, 2 (V+) and pins 3, 6 (V-)
- PoE enable/disable per port setting, priority, scheduling, power delay, and PD alive check

### Enclosure

- IP30 rated metal enclosure
- DIN-Rail Mount
- Grounding Point
- ESD (Ethernet) Protection: 8KV DC
- Surge (Power) Protection: 6KV DC

### Dimensions

- 135 x 120 x 31 mm (5.31 x 4.72 x 1.22 in.)

### Weight

- 528 g (1.17 lbs.)

### Certifications

- CE
- FCC
- Shock (IEC 60068-2-27)
- Freefall (IEC 60068-2-32)
- Vibration (IEC 60068-2-6)

## VLAN

- 802.1Q tagged VLAN
- MAC-based VLAN
- Port isolation
- Up to 256 VLAN groups, ID range 1-4094

## Warranty

- Lifetime Warranty

## Multicast

- IGMP snooping v1, v2, v3
- Static multicast address
- Up to 256 multicast entries

## Package Contents

- TI-PG541i
- Quick Installation Guide
- CD-ROM (User's Guide)

## Special Features

- CLI & web based management
- Full power PoE+
- Wide operating temperature range
- Dual redundant power inputs
- Alarm relay triggered by power failure
- Surge/ESD protection

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.

TRENDnet offers a lifetime warranty for all of its metal-enclosed network switches that have been purchased in the United States/Canada on or after 1/1/2015. Cooling fan and internal power supply carry a one-year warranty.