TRENDNET®

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

TI-PG1284i (v1.0R)

- Hardened IP30 rated metal enclosure with integrated DIN-Rail mount
- Wide operating temperature range - 40 to 75 °C (-40 to 167 °F)
- 8 x Gigabit PoE+ (802.3at) ports, 4 x Gigabit SFP slots, and 1 x console port
- 240 Watts total power budget
- Dual redundant power inputs and alarm relay output
- CLI (Console / Telnet / SSH), Web (HTTP / HTTPS), SNMP v1 / 2c / 3 management
- 802.1Q / Q-in-Q VLAN and IGMP Snooping / MLD / MVR support
- 802.1p / DSCP / Queue Scheduling (SPQ / WRR) QoS support
- Power supply sold separately (model: TI-S24048)

TRENDnet's 12-Port Hardened Industrial Gigabit PoE+ Layer 2+ Managed DIN-Rail Switch, model TI-PG1284i, has eight Gigabit PoE+ ports, four Gigabit SFP slots, and a 240 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 – 75 °C (- 40 - 167°F)) for harsh environments. L2+ management include features such as PoE port control, 802.1Q / Q-in-Q VLAN, multicast, spanning tree, link aggregation, QoS, IPv4 / IPv6 static routing, ACLs, and 802.1X which allow for network integration flexibility.

TRENDnet®

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 – 75 °C (- 40 - 167 °F)) for harsh environments.
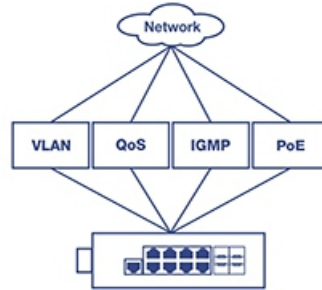
Integration Flexibility

Managed features include PoE control, IP static routing, access control lists, VLAN, IGMP snooping, QoS, RMON, SNMP trap, and syslog for monitoring and flexible network integration.
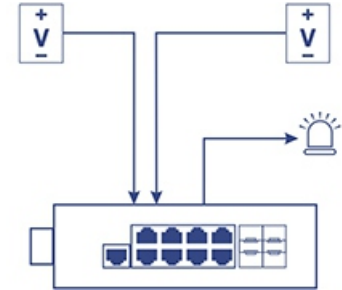
Fault Tolerance

Features dual 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
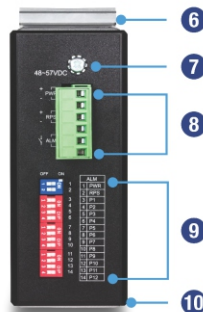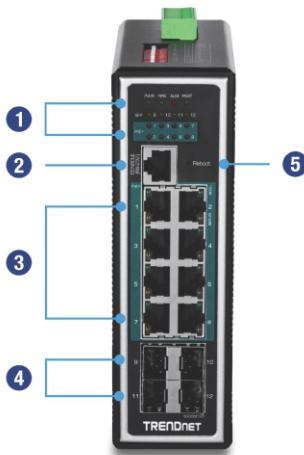
1. LED indicators
2. Console port
3. Gigabit PoE+ ports
4. Gigabit SFP slots
5. Reboot button
6. Integrated DIN-Rail mount
7. Grounding point
8. 6-pin terminal block (power supply sold separately: model TI-S24048)
9. DIP switches
10. Hardened IP30 rated metal switch

TRENDnet®

Full PoE+ Power Budget
Supplies up to 30 Watts of PoE / PoE+ power per port with a 240 Watts PoE power budget

Network Ports and Capacity
8 x Gigabit PoE+ ports and 4 x Gigabit SFP slots allow for a 24 Gbps switching capacity and 1 x console (RJ-45 to RS-232) for out-of-band management

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.

Traffic Management
Managed features include 802.1Q / Q-in-Q / GVRP / MAC & Protocol-Based VLAN, IGMP v1 / 2 / 3, IGMP Snooping, MLD, MVR, per port bandwidth control / 802.1p / DSCP / Queue Scheduling (SPQ / WRR), STP / RSTP / MSTP spanning tree, static and dynamic link aggregation, and Xpress Ring + ERPS protection for flexible network integration.

Layer 2+ Management
Offers IPv4 / IPv6 static or DHCPv4 / v6 assignment, IPv4 / IPv6 static routing and proxy ARP, DHCP server / relay / option 82, and DHCP server snooping / screening to filter out unauthorized DHCP servers

Access Controls
Management via HTTPS and SSH protocols and features such as trusted host, ACLs, IP-MAC-Port binding, ARP inspection, 802.1X RADIUS, MAC address learning, IP Source Guard provide layered network access controls.

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

Redundant Power
Dual 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 and failure per port (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 75 °C (-40 to 167 °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 802.1d
- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.1s
- IEEE 802.1w
- IEEE 802.1X
- IEEE 802.1ab
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3z
- IEEE 802.3ab
- IEEE 802.3ad
- IEEE 802.3af
- IEEE 802.3at

Device Interface
- 8 x Gigabit PoE+ ports
- 4 x Gigabit SFP slots
- 1 x Console port (RJ-45)
- 6-pin removable terminal block (Primary / RPS power inputs & alarm relay output)
- DIP switch (Alarm for primary / RPS power and ports / slots failure)
- 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: 24 Gbps
- RAM buffer: 128 MB
- MAC address table: 16K entries
- Jumbo frames: 10 KB
- Forwarding rate: 17.86 Mpps (64-byte packet size)

Management
- CLI (Console, Telnet, SSH)
- HTTP / HTTPS (SSL) web based GUI
- SNMP v1, v2c, 3
- SNMP trap
- RMON groups 1, 2, 3, 9
- LLDP
- SNTP
- SMTP alert
- Syslog
- Port statistics / utilization
- Traffic monitor
- Port mirror (Ingress, Egress, Both)
- Storm control (Multicast, DLF, Broadcast)
- Modbus / TCP
- IPv6 static IP address, DHCPv6 client
- Dual Image
- Auto Provision via FTP / TFTP / HTTP Server
- Xpress Ring
- ERPS (Ethernet Ring Protection Switching) G8032v2
- SFP DDMI (Digital Diagnostic Monitoring Interface)

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

Spanning Tree
- STP (Spanning Tree protocol)
- RSTP (Rapid Spanning Tree protocol)
- MSTP (Multiple Spanning Tree protocol)

Link Aggregation
- Static link aggregation
- 802.3ad dynamic LACP
- Up to 6 link aggregation 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)

VLAN
- 802.1Q tagged VLAN
- MAC-based VLAN
- Dynamic GVRP
- Protocol-based (Ethernet II, Non-LLC-SNAP, LLC-SNAP)
- Q-in-Q VLAN stacking / double VLAN (port-based, selective)
- Port isolation
- Up to 256 VLAN groups, ID range 1-4094

Multicast
- IGMP snooping v1, v2, v3
- MVR
- MLD v1, v2
- IGMP filtering / querier / proxy
- Static multicast address
- Up to 256 multicast entries

Access Control
- 802.1X port-based network access control RADIUS
- Local dial-in user authentication
- DHCP snooping / screening
- Loopback detection
- ARP inspection
- IP Source Guard
- IP-MAC-Port binding
- Trusted host
- MAC address learning

ACL IPv4
- MAC Address
- VLAN ID
- Ethernet Type
- IP Protocol 0-255
- TCP / UDP Port 1-65535
- DSCP

Layer 3 Features
- IPv4 / IPv6 static routing
- IPv4 / IPv6 proxy ARP
- IP interfaces: Up to 16
- Routing table entries: Up to 500 (IPv4: 400 / IPv6: 100)
- DHCP Server / Relay / Option 82

Special Features
- CLI & web based management
- Full power PoE+
- Wide operating temperature range
- Dual redundant power inputs
- Alarm relay triggered by power and ports / slots failure
- Surge / ESD protection
- L2+ management features

Power
- PWR (Primary) terminal input: 48 – 57V DC (TI-S24048 sold separately)
- RPS (Redundant) terminal input: 48 – 57V DC (TI-S24048 sold separately)
- Consumption: 18 W (max.), 260 W (max.) with PoE+ fully loaded

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: 240W
- 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

MTBF
- 99,992 hrs @ 75 °C
- 322,805 hrs @ 25 °C

Operating Temperature
- - 40 to 75 °C (-40 to 167 °F)

Operating Humidity
- Max. 95% non-condensing

Dimensions
- 170 x 132 x 50 mm (6.69 x 5.2 x 1.97 in.)

Weight
- 920 g (2.03 lbs.)

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

Warranty
- 3 year limited

Package Contents
- TI-PG1284i
- Quick Installation Guide
- CD-ROM (User's Guide)
- Console cable (RJ-45 to RS-232)