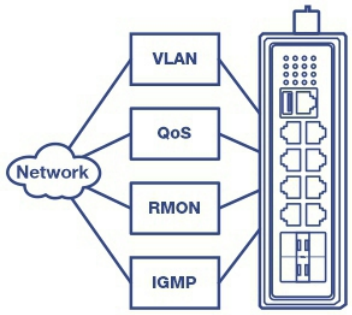
12-Port Industrial Gigabit L2+ Managed PoE+ DIN-Rail Switch

TI-PG1284i (v2.0R)

- 8 x Gigabit PoE+ ports
- 4 x SFP slots
- Supports 1000Base-FX fiber SFP modules
- 240W PoE power budget
- PoE alive check restarts unresponsive PoE powered devices
- 24Gbps 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
- 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
- Bandwidth control per port
- Dual inputs provide redundant power with overload current protection
- Alarm output triggered by power failure
- Supports Ethernet Ring Protection Switching (ERPSv2)
- Power supply sold separately (models: TI-S48048)

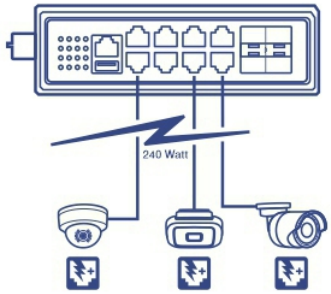
TRENDnet's Industrial Gigabit L2+ Managed DIN-Rail Switch series offers advanced layer 2 managed features with enhanced traffic controls to meet the evolving demands of today's SMB networks. Each industrial layer 2 managed switch is equipped with an IP30 rated metal enclosure, designed to withstand a high degree of vibration and shock, while operating within a wide temperature range of -40° – 75° C (-40° – 167° F) for industrial environments. Our industrial layer 2 managed switch models feature copper Gigabit ports for high-speed device connections, and SFP slots that support 1000Base-FX modules for long distance fiber networking applications.

These industrial layer 2 managed DIN-Rail switches provide an intuitive web-based management interface. Each TRENDnet industrial layer 2 managed switch supports advanced traffic management controls, troubleshooting, and SNMP monitoring. Advanced managed switch features include LACP to group ports together to increase bandwidth between switches, VLANs for segmenting and isolating virtual LAN groups, QoS for traffic prioritization, port bandwidth controls, and SNMP monitoring making each TRENDnet industrial layer 2 managed switch a powerful solution for SMB networks.



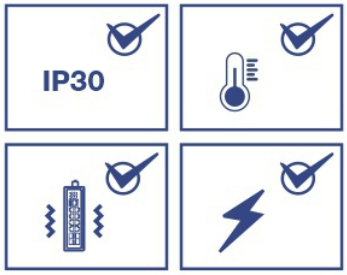
L2+ Management

Provides an easy to use web management interface for traffic management controls such as VLAN, QoS, access controls, link aggregation, troubleshooting, SNMP monitoring, and per port MAC restriction.



PoE Power

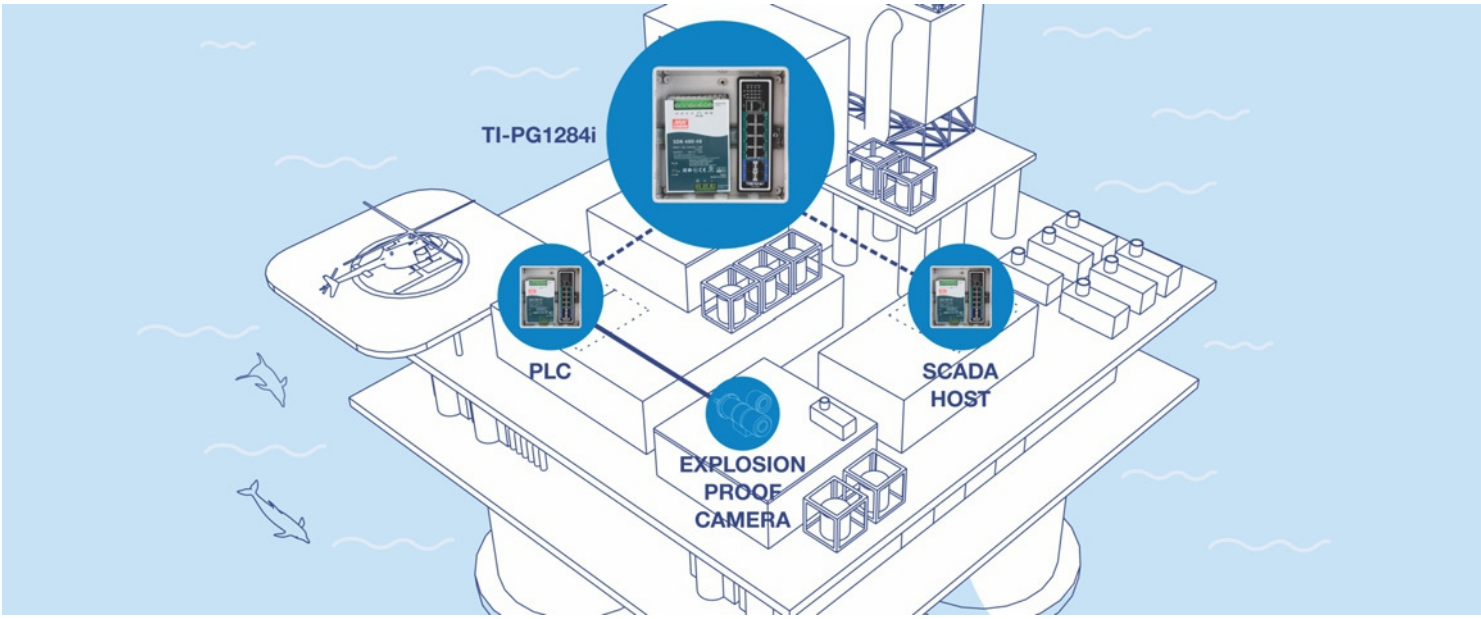
A 240W PoE power budget supplies up to eight Power over Ethernet devices, and includes advanced PoE port controls such as enabling / disabling PoE, power priority, PD alive check, and power scheduling.



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 -40° – 75° C (-40° – 167° F) for industrial environments.

NETWORKING SOLUTION



FEATURES

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

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

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

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

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, Xpress Ring, and ERPS for flexible network integration

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

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

DIN-Rail Mount
IP30 rated metal enclosure with integrated DIN-Rail mounting hardware

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

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

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

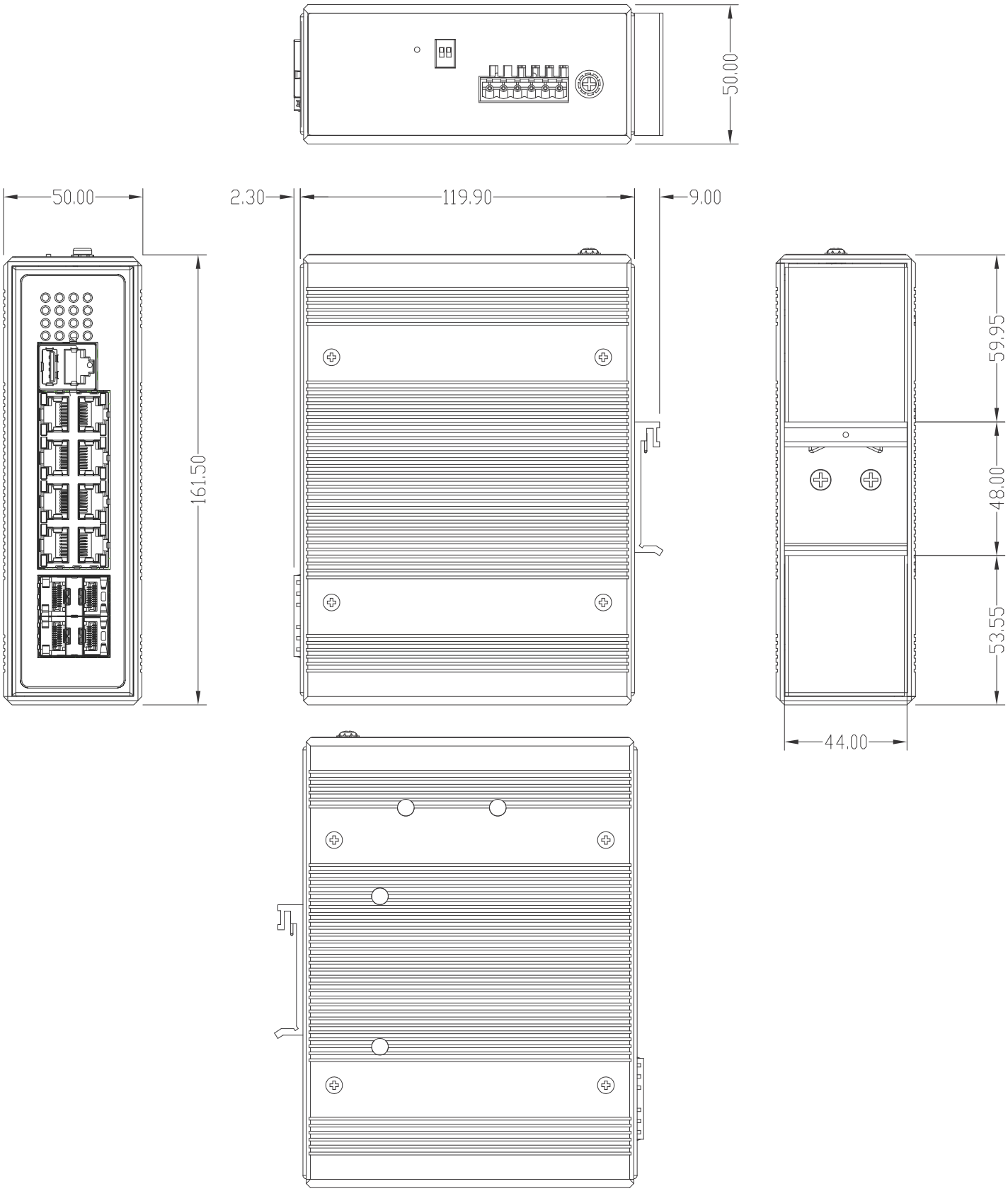
Access Control
Managed access control featues include ACLs, IP-MAC-Port binding, ARP inspection, 802.1X RADIUS, MAC address learning, DHCP snooping and IP Source Guard provides layered network access controls

Switching Capacity
24Gbps switching capacity

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

Grounding Point
Grounding point protects equipment from external electrical surges

DIMENSIONS (mm)



SPECIFICATIONS

Standards
- IEEE 802.1d
- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.1s
- IEEE 802.1w
- IEEE 802.1X
- IEEE 802.1ab
- IEEE 802.1ax
- 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
- 4 x Gigabit SFP slots
- 1 x Console port (RJ-45)
- 1 x USB Port (firmware update, logs, configuration)
- 6-pin removable terminal block (primary/RPS power inputs & alarm relay output)
- DIP switches
- LED indicators
- Reboot button

Data Transfer Rate
- Ethernet: 10Mbps (half-duplex), 20Mbps (full-duplex)
- Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex)
- Gigabit Ethernet: 2000Mbps (full duplex)
- SFP: 2000Mbps (full duplex)

Performance
- Switch fabric: 24Gbps
- RAM buffer: 1.5MB
- MAC address table: 16K entries
- Jumbo frames: 10KB
- Forwarding mode: store and forward
- Forwarding rate: 17.9Mpps (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
- Xpress Ring
- ERPS (Ethernet Ring Protection Switching) G8032v2
- 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)
- IEEE 802.1s MSTP (multiple 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

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 Relay / Option 82

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: 48 – 57V DC
- RPS (Redundant) terminal input: 48 – 57V DC
- Compatible power supply: TI-S48048 (480W) sold separately
- Max. Consumption: 15W (no PoE load); 258W (full PoE load)

PoE
- PoE budget: 240W@48V 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

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
- 562,234 499,126 hours @ 25° C
- 142,948 104,194hours @ 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
- 964g (2.12 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-PG1284i
- Quick Installation Guide
- Removable terminal block
- Console cable (RJ-45 to RS-232)
- 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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