# TRENDnet®

Quick Installation Guide

PoE Unmanaged Industrial Switch (V1.1)

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https://www.trendnet.com/qig/1260

# 1. Before You Start

- **Package Contents**
  - TI-BG104 / TI-PE50 / TI-PE80 / TI-PG102 / TI-PG160 / TI-PG162 / TI-PG262 / TI-PG50 / TI-PG62 / TI-PG62B / TI-PG80 / TI-PG80B / TI-UPG62 (V1.0R) / TI-UPG62 (V2.0R)
  - Quick Installation Guide
  - Removable terminal block
  - DIN-Rail mount
  - Wall mount kit

- **Minimum Requirements**
  - Existing network
  - Power Supply

PoE+ Unmanaged Industrial Switch Model PoE Power Budget / DC Input Requirement.

| Switch Model | Switch Power Consumption (No PoE Load) | PoE Power Budget | DC Input Voltage Range |
|---|---|---|---|
| TI-BG104 | 6.2W | 360W | 48 – 56V |
| TI-PE50 | 2.24W | 90W | 48 – 56V |
| TI-PE80 | 5.76W | 200W | 48 – 56V |
| TI-PG102 | 5.67W | 240W | 48 – 56V |
| TI-PG160 | 5.76W | 480W | 48 – 56V |
| TI-PG162 | 5.76W | 240W | 48 – 56V |
| TI-PG262 | 5.76W | 480W | 48 – 56V |
| TI-PG50 | 2.24W | 120W | 48 – 56V |
| TI-PG62 | 5.76W | 120W | 48 – 56V |
| TI-PG62B | 5.76W | 60 – 120W | 12 – 56V |
| TI-PG80 | 5.76W | 200W | 48 – 56V |
| TI-PG80B | 5.3W | 120 – 200W | 24 – 56V |
| TI-UPG62 (V1.0R) | 5.76W | 240W | 48 – 56V |
| TI-UPG62 (V2.0R) | 6.2W | 240W | 52 – 56V |

| Power Supply Model | Max. Power Supplied | DC Output | Type | Note |
|---|---|---|---|---|
| TI-M6024 | 60W | 24V / 2.5A | DIN-Rail | |
| TI-S12024 | 120W | 24V / 5A | DIN-Rail | |
| TI-S12048 | 120W | 48V / 2.5A | DIN-Rail | |
| TI-S24048 | 240W | 48V / 5A | DIN-Rail | |
| TI-S48048 | 480W | 48V / 10A | DIN-Rail | |
| 48VDC3000 | 160W | 48V / 3.34A | Power Adapter (4-pin DIN type connector) | Compatible only with TI-PG541i / TI-PG62 / TI-PG102 / TI-PG160 / TI-PG162 |

**Note**: Select the appropriate power supply according to the switch model you have purchased. When choosing the appropriate power supply, please take into consideration that the switch will also consume some of the power budget supplied in addition to the PoE power budget requirement.

## 2. Quick Reference

**Note**: The switch model and power supply may be different than the one shown in the example below.

TV-IP1514PI                    TV-IP1515PI
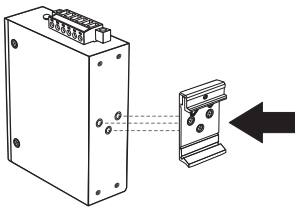


TI-S12048        TI-PE80
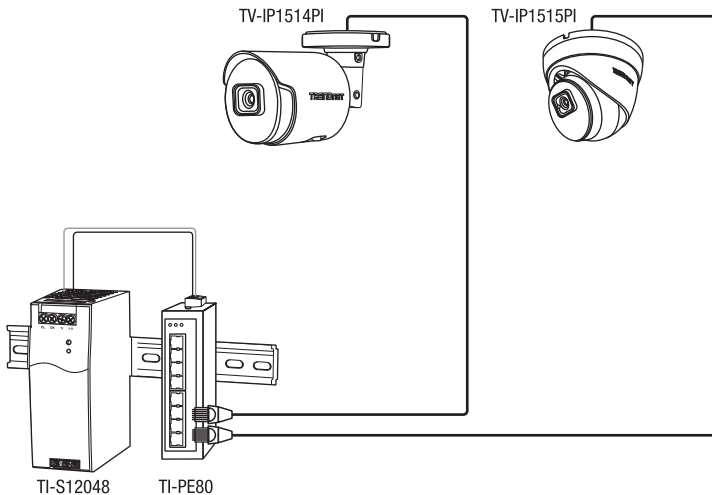
# 3. Hardware Installation

The switch can be placed on a desktop, wall, or mounted to a DIN-Rail.
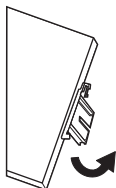
## DIN-Rail Mounting Instructions

1. Attach the DIN-rail mount bracket to the switch.

**Note**: The switch may be different than the one shown in the examples below.
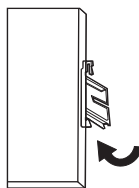


2. Position the unit in front of the DIN-Rail and hook the mount bracket over the top of the rail.

3. Rotate the unit downward towards the rail to lock it into place. You will know it is secure when you hear the click.



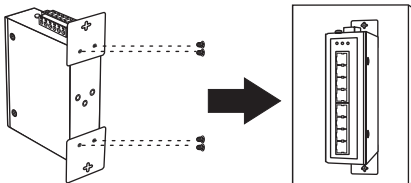**Mounting the unit**          **Releasing the unit**

4. To remove the unit, pull down to clear the bottom of the DIN-Rail and rotate up, away from the rail.

## Wall Mounting Instructions

1. Attach the wall mount plates to switch.

2. Mount the switch.

## Applying Power

1. Connect the power supply (sold separately) to the included terminal block (as shown below) and secure with the screws.

**Note**: Polarities must match.

2. Attach the terminal block to the unit, connect the ground wire to the ground, and supply power to the power supply.

**Note**: The switch model and power supply may be different than the one shown in the example below. Terminal blocks may be 4-pin (dual power input only) or 6-pin (dual power input with alarm relay output) with differences in labeling.
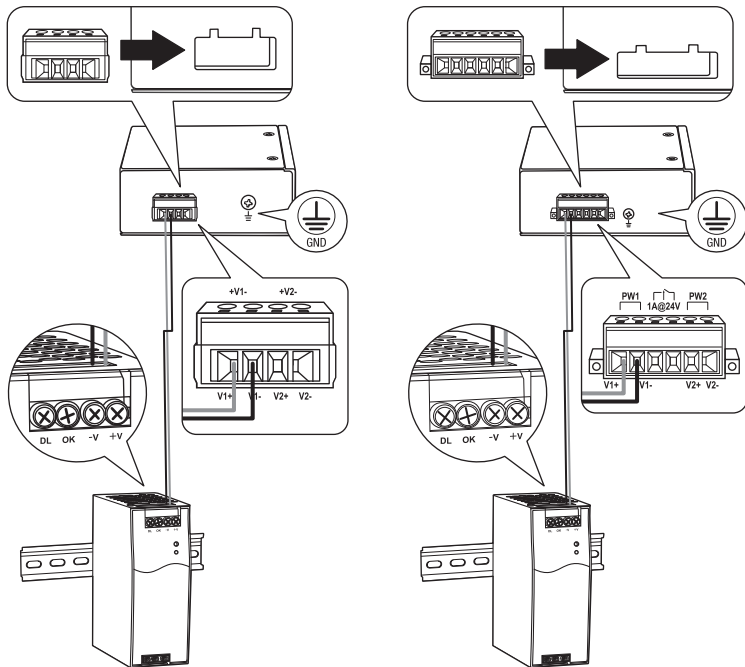
3. Connect a network source and devices to the switch. Check the LEDs to confirm the connections are established. Your installation is completed.

<u>Note</u>: Please refer to the LED definition section on page 8-14 for reference to your switch model.
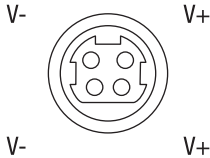
If available on your switch (TI-PG62 / TI-PG102 / TI-PG160 / TI-PG162), the 4-pin DIN type connector can also be used as an additional power input (48VDC3000 power adapter sold separately).

V-          V+

V-          V+

**Safety Note**

• Turn off the power before connecting any module or wire. The correct power supply voltage is listed on the product label. Check the voltage of your power source to make sure that you are using the correct part. Do NOT use voltage greater than the maximum listed on the product label.

• Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size. If the current surpasses the maximum ratings, the wiring could overheat, causing serious damage to your equipment.

## LED Definition Reference

| TI-BG104 | | |
|---|---|---|
| | **Status** | **Description** |
| **PW1 / PW2 / PW3** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **F9 (GREEN) / F10 (GREEN)** | Solid | Link Established |
| | Blinking | Data Transmitting |
| | Off | No Link |
| **RLY** | Solid Amber | PW1 or PW2 Disconnected |
| | Off | PW1 and PW2 Connected |
| **SPD** | Solid Amber | Connected at 1Gbps |
| | Off | Connected at 100Mbps / 10Mbps |
| **LNK (GREEN)** | Solid Green | Link Established |
| | Blinking | Data Transmitting |
| | Off | No Link |
| **POE (P1, P2, P3, P4, P5, P6, P7, P8)** | Solid Green | PoE Device is connected |
| | Off | No PoE Device is connected |

## DIP Switch Reference

| | | |
|---|---|---|
| **DIP SWITCH POH 5** | POH | Sets Port 5 in POH Mode |
| | bt | Sets port 5 in PoE++ mode |
| **DIP SWITCH POH 6** | POH | Sets Port 6 in POH Mode |
| | bt | Sets port 6 in PoE++ mode |
| **DIP SWITCH POH 7** | POH | Sets Port 7 in POH Mode |
| | bt | Sets port 7 in PoE++ mode |
| **DIP SWITCH POH 8** | POH | Sets Port 8 in POH Mode |
| | bt | Sets port 8 in PoE++ mode |

| TI-PG102 | | |
|---|---|---|
| | **Status** | **Description** |
| **P1** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **P2** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **P3** | Solid Amber | Power is Detected |
| | Off | Power is Not Detected |
| **RLY** | Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected and powered |
| **LNK** | Solid Green | Connection |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **SFP (F9, F10)** | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **PoE** | Solid Amber | PoE is connected |
| | Flashing Amber | PoE is being detected |
| | Off | No PoE |

| TI-PE50 / TI-PE80 / TI-PG50 / TI-PG80 / TI-PG80B | | |
|---|---|---|
| | **Status** | **Description** |
| **PW1** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **PW2** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **RLY (TI-PE80, TI-PG80, & TI-PG80B ONLY)** | Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected and powered |
| **LNK** | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **POE** | Solid Amber | PoE is connected |
| | Flashing Amber | PoE is being detected |
| | Off | No PoE |

| TI-PG62 | | |
|---|---|---|
| | **Status** | **Description** |
| **PW1 / PW2 / PW3** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **RLY** | Solid Amber | Connected only PW1, PW2 or PW3 |
| | Off | Two of the PW1, PW2, PW3 are connected and powered |
| **LNK / SFP (F5, F6)** | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **PoE** | Amber | PoE is connected |
| | Flashing Amber | PoE is being detected |
| | Off | No PoE |

### DIP Switch Reference

| **DIP SWITCH 1** | On | Enable Port T5 |
|---|---|---|
| | Off | Enable Port F5 |
| **DIP SWITCH 2** | On | SFP Speed is 100Mbps |
| | Off | SFP Speed is 1000Mbps |

| TI-PG160 / TI-PG162 | | |
|---|---|---|
| | **Status** | **Description** |
| **P1 / P2** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **P3** | Solid Amber | Power is Detected |
| | Off | Power is Not Detected |
| **RLY** | Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected and powered |
| **LNK** | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **SFP (F15, F16) (TI-PG162 ONLY)** | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **PoE** | Solid Amber | PoE is connected |
| | Flashing Amber | PoE is being detected |
| | Off | No PoE |

| TI-PG62B | | |
|---|---|---|
| | **Status** | **Description** |
| **PW1 / PW2** | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| **ERR** | Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected and powered |
| **LNK** | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **SPD** | Solid Amber | Connected at 1000M |
| | Off | Connected at 10/100M |
| **SFP (F5, F6)** | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| **POE (P1, P2, P3, P4)** | Solid Green | PoE is connected |
| | Flashing Green | PoE is being detected |
| | Off | No PoE |

## DIP Switch Reference

| **DIP SWITCH 1** | On | Disable Port F5 |
|---|---|---|
| | Off | Enable Port F5 |
| **DIP SWITCH 2** | On | SFP Speed is 100Mbps |
| | Off | SFP Speed is 1000Mbps |

| TI-PG262 | | |
|---|---|---|
| | **Status** | **Description** |
| **PW1 / PW2** | PW1 Solid Green | Power 1 is detected |
| | PW2 Solid Green | Power 2 is detected |
| **APL** | RLY Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected |
| **LINK/ACTIVE TX/RJ-45 PORT (1~24)** | Solid Green | TX port is detected |
| | Flashing Green | TX data is transmitting/receiving |
| | Off | No Connection |
| **SPEED** | Solid Amber | Connected at 1000M |
| | Off | Connected at 10/100M |
| **SFP (F25 & F26)** | Solid Green | SFP port is detected |
| | Flashing Green | SFP port data is transmitting/receiving |
| | Off | No Connection |
| **PoE (P1, P2, P3, P4)** | Solid Green | PD is detected and PSE is activated |
| | Flashing Green | PoE is being detected |
| | Off | PD is not detected |

| TI-UPG62 (V1.0R) | | |
|---|---|---|
| | Status | Description |
| PW1 / PW2 | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| ERR | Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected and powered |
| LNK | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| SPD | Solid Amber | Connected at 1000M |
| | Off | Connected at 10/100M |
| SFP (F5,F6) | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| POE (P1, P2, P3, P4) | Solid Green | PoE is connected |
| | Flashing Green | PoE is being detected |
| | Off | No PoE |

## DIP Switch Reference

| DIP SWITCH 1 | On | Disable Port F5 |
|---|---|---|
| | Off | Enable Port F5 |
| DIP SWITCH 2 | On | SFP Speed is 100Mbps |
| | Off | SFP Speed is 1000Mbps |

| TI-UPG62 (V2.0R) | | |
|---|---|---|
| | Status | Description |
| PW1 / PW2 | Solid Green | Power is Detected |
| | Off | Power is Not Detected |
| ERR | Solid Amber | Connected only PW1 or PW2 |
| | Off | Both PW1 and PW2 are connected and powered |
| LNK | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| SPD | Solid Amber | Connected at 1000M |
| | Off | Connected at 10/100M |
| SFP (F5,F6) | Solid Green | Connected |
| | Flashing Green | Data Transmitting / Receiving |
| | Off | No Connection |
| POE (P1, P2, P3, P4) | Solid Green | PoE is connected |
| | Flashing Green | PoE is being detected |
| | Off | No PoE |

**DIP Switch Reference**

| DIP SWITCH 1 | On | Enable Port T5 |
|---|---|---|
| | Off | Enable Port F5 |
| DIP SWITCH 2 | On | SFP Speed is 100Mbps |
| | Off | SFP Speed is 1000Mbps |

# Declaration of Conformity

**TRENDNET**®

**Manufacturer's Name and Address**

TRENDnet, Inc.
20675 Manhattan Place
Torrance, CA 90501 USA

Zwolsestraat 156 2587 WB
The Hague The Netherlands

CE

**Product Information:**

**Model Number:** TI-BG104 / TI-PE50 / TI-PE80 / TI-PG102 / TI-PG160 / TI-PG162 / TI-PG262 / TI-PG50 / TI-PG62 / TI-PG62B / TI-PG80 / TI-PG80B / TI-UPG62 (V1.0R) / TI-UPG62 (V2.0R)

**Product Name:**

10-Port Industrial Gigabit PoE++ DIN-Rail Switch / 5-Port Industrial Fast Ethernet PoE+ DIN-Rail Switch /
8-Port Industrial Fast Ethernet PoE+ DIN-Rail Switch / 10-Port Industrial Gigabit PoE+ DIN-Rail Switch /
16-Port Industrial Gigabit PoE+ DIN-Rail Switch / 16-Port Industrial Gigabit PoE+ DIN-Rail Switch /
26-Port Hardened Industrial Gigabit PoE+ DIN-Rail Switch / 5-Port Industrial Gigabit PoE+ DIN-Rail Switch /
6-Port Hardened Industrial Gigabit PoE+ DIN-Rail Switch / 6-Port Industrial Gigabit PoE+ DIN-Rail Switch 12 – 56 V /
8-Port Hardened Industrial Gigabit PoE+ DIN-Rail Switch / 8-Port Industrial Gigabit PoE+ DIN-Rail Switch (24 – 56V) /
6-Port Hardened Industrial Gigabit Ultra PoE DIN-Rail Switch / 6-Port Hardened Industrial Gigabit PoE++ DIN-Rail Switch

**Trade Name:** TRENDnet

TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.

**Safety** EN 62368-1:2014 (TI-UPG62, TI-PG162, TI-PG160, TI-PG102, TI-PG80B, TI-PG80, TI-PE80, TI-BG104)

**EMC**

| | |
|---|---|
| EN 55032:2012+ AC:2013 Class A (TI-PG102) | EN 61000-6-4:2007/A1:2011 (TI-PG62B, TI-PG62) |
| EN 61000-6-2:2005/AC:2005 (TI-PG62B, TI-PG62) | EN 55011:2009/A1:2010 (TI-PG62B, TI-PG62) |
| EN 55032:2012/AC:2013 (TI-PG62B, TI-PG62) | EN 55032:2015 (TI-BG104) |
| EN 55032:2015 CISPR 32:2015 (TI-PG160, TI-PE50) | CISPR 22:2008 Class A (TI-PG80) |
| AS/NZS CISPR 32:2015 Class A (TI-UPG62, TI-PG80B, TI-PG50) | |
| CISPR 32:2015 + C1:2016 Class A (TI-UPG62, TI-PG162, TI-PG80B, TI-PG50) | |
| EN 55032:2015 +AC:2016 Class A (TI-UPG62, TI-PG162, TI-PG80B, TI-PG50, TI-PE80) | |
| EN 55035: 2017 (TI-UPG62, TI-PG162, TI-PG160, TI-PG80B, TI-PG50, TI-PE80, TI-PE50, TI-PG102, TI-PG628, TI-PG80, TI-PG62, TI-BG104) | |

This product is herewith confirmed to comply with the Directives.

**Directives:** EMC Directive 2014/30/EU
RoHS 3 Directive 2015/863/EU
RoHS Directive 2011/65/EU
WEEE Directive 2012/19/EU
REACH Regulation (EC) No. 1907/2006
Low Voltage Directive 2014/35/EU

Person responsible for this declaration.

Place of Issue: Torrance, California, USA

Date: April 07, 2023

Name: Sonny Su

Title: VP of Technology

Signature:

# Declaration of Conformity

**TRENDNET**®

**Manufacturer's Name and Address**

TRENDnet, Inc.
20675 Manhattan Place
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Authorized Representative:
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**UKCA**

**Product Information:**

**Model Number:** TI-BG104 / TI-PE50 / TI-PE80 / TI-PG102 / TI-PG160 / TI-PG162 / TI-PG262 / TI-PG50 / TI-PG62 / TI-PG62B / TI-PG80 / TI-PG80B / TI-UPG62 (V1.0R) / TI-UPG62 (V2.0R)

**Product Name:**

10-Port Industrial Gigabit PoE++ DIN-Rail Switch / 5-Port Industrial Fast Ethernet PoE+ DIN-Rail Switch /
8-Port Industrial Fast Ethernet PoE+ DIN-Rail Switch / 10-Port Industrial Gigabit PoE+ DIN-Rail Switch /
16-Port Industrial Gigabit PoE+ DIN-Rail Switch / 16-Port Industrial Gigabit PoE+ DIN-Rail Switch /
26-Port Hardened Industrial Gigabit PoE+ DIN-Rail Switch / 5-Port Industrial Gigabit PoE+ DIN-Rail Switch /
6-Port Hardened Industrial Gigabit PoE+ DIN-Rail Switch / 6-Port Industrial Gigabit PoE+ DIN-Rail Switch 12 – 56 V /
8-Port Hardened Industrial Gigabit PoE+ DIN-Rail Switch / 8-Port Industrial Gigabit PoE+ DIN-Rail Switch (24 – 56V) /
6-Port Hardened Industrial Gigabit Ultra PoE DIN-Rail Switch / 6-Port Hardened Industrial Gigabit PoE++ DIN-Rail Switch

**Trade Name:**     TRENDnet

TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.

**Safety**     EN 62368-1:2014 (TI-UPG62, TI-PG162, TI-PG160, TI-PG102, TI-PG80B, TI-PG80, TI-BG104)

**EMC**

| | |
|---|---|
| BS EN 55032: 2012+ AC:2013 Class A (TI-PG102) | BS EN 61000-6-4: 2007/A1:2011 (TI-PG62B, TI-PG62) |
| BS EN 61000-6-2:2005/AC:2005 (TI-PG62B, TI-PG62) | BS EN 55011:2009/A1:2010 (TI-PG62B, TI-PG62) |
| BS EN 55032:2012/AC:2013 (TI-PG62B, TI-PG62) | BS EN 55032:2015 (TI-BG104) |
| BS EN 55032:2015 CISPR 32:2015 (TI-PG160, TI-PE50) | CISPR 22:2008 Class A (TI-PG80) |
| AS/NZS CISPR 32:2015 Class A (TI-UPG62, TI-PG80B, TI-PG50) | |
| CISPR 32:2015 + C1:2016 Class A (TI-UPG62, TI-PG162, TI-PG80B, TI-PG50) | |
| BS EN 55032:2015 +AC:2016 Class A (TI-UPG62, TI-PG162, TI-PG80B, TI-PG50, TI-PE80) | |
| BS EN 55035:2017 (TI-UPG62, TI-PG162, TI-PG160, TI-PG80B, TI-PG50, TI-PE80, TI-PE50, TI-PG102, TI-PG628, TI-PG80, TI-PG62, TI-BG104) | |

**Directives:**     Electromagnetic Compatibility Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in
Electrical and Electronic Equipment Regulations 2012
The Waste Electrical and Electronic Equipment Regulations 2013 (as amended)
The REACH Enforcement Regulations 2008 (as amended)
Electrical Equipment (Safety) Regulations 2016
The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019

Person responsible for this declaration.

Place of Issue:   Torrance, California, USA

Date:  April 07, 2023

Name:  Sonny Su

Title:  VP of Technology

Signature:

# TRENDNET®

## Certifications

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received.
    Including interference that may cause undesired operation.

**FC** **CE** **UK CA**

Waste electrical an electronic products must not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or Retailer for recycling advice.

Applies to PoE Products Only: This product is to be connected only to PoE networks without routing to the outside plant.

**Note**
The Manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

**Advertencia**
En todos nuestros equipos se mencionan claramente las caracteristicas del adaptador de alimentacón necesario para su funcionamiento. El uso de un adaptador distinto al mencionado puede producir daños fisicos y/o daños al equipo conectado. El adaptador de alimentación debe operar con voltaje y frecuencia de la energia electrica domiciliaria exitente en el pais o zona de instalación.

**Product Warranty Registration**
Please take a moment to register your product online. Go to TRENDnet's website at:
**www.trendnet.com/register**