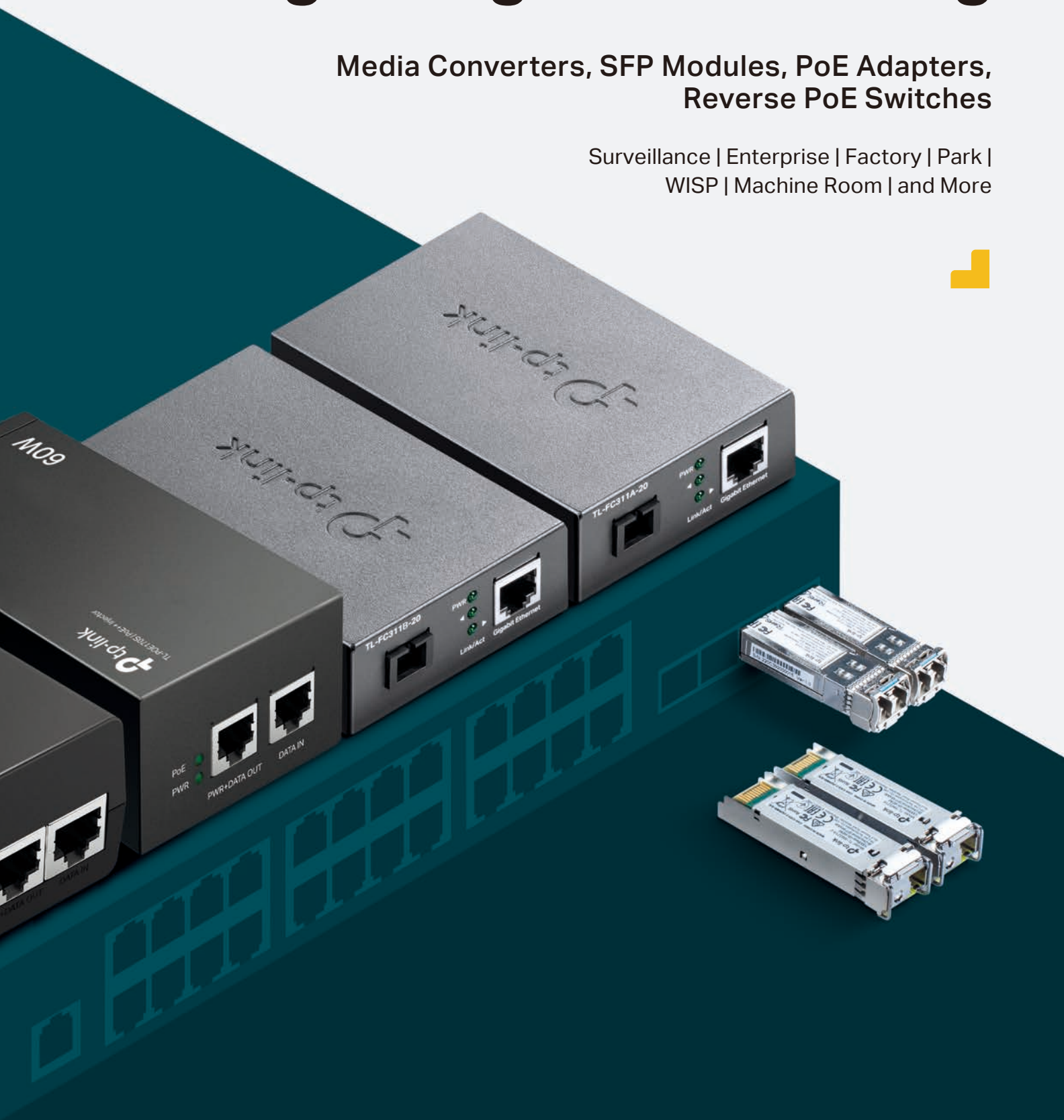
# Simple Way for Long-Range Networking

## Media Converters, SFP Modules, PoE Adapters, Reverse PoE Switches

Surveillance | Enterprise | Factory | Park |
WISP | Machine Room | and More



# Media Converters—Simple Way to Overcome the Distance

TP-Link offers 100 Mbps and 1000 Mbps media converters to realize reliable network connections, making the long-distance network deployments of surveillance cameras in businesses, factories, and parks simpler.

### Flexible Selections of Distance and Speed

A wide range of media converters are available, offering different maximum transmission distances of between 2 km to 20 km. Different speeds provide flexible deployment options.

### Cost Effective Solution with WDM*

WDM (Wave Division Multiplexing) technology enables you to transmit and receive data over one single fiber strand instead of two.

### Stable Network Transmission

The stability of fiber transmission guarantees our stable monitoring of sensitive areas and point-to-point connections.

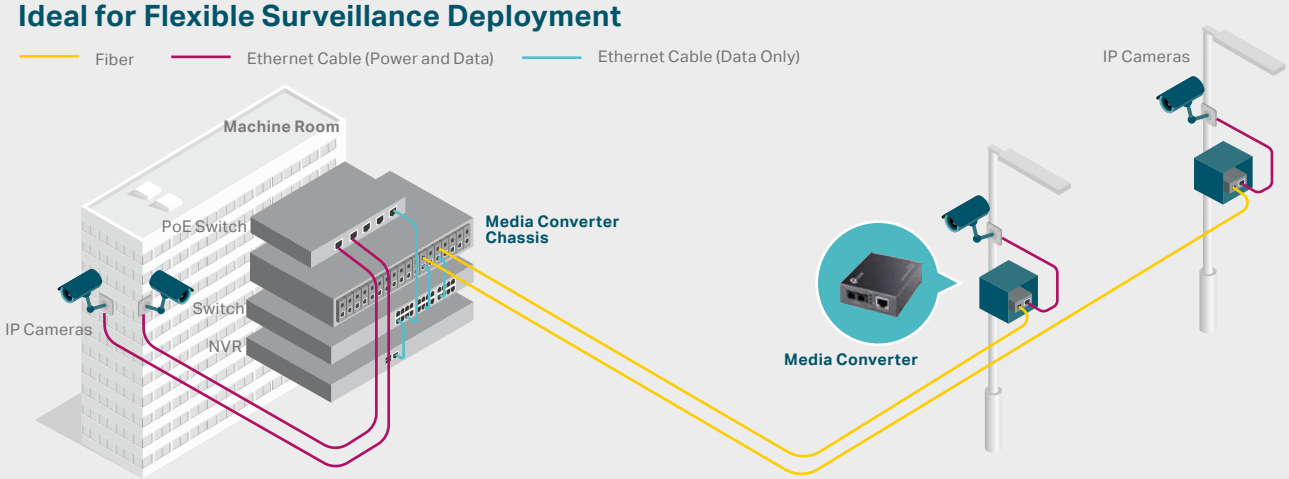
### Innovative Combination of PoE and Fiber**

The PoE output port of media converter provides a direct data and power connection to the IP camera, making remote camera deployment easier and more convenient.

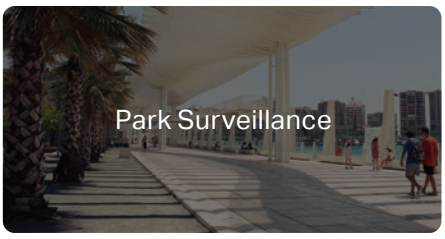
## 100 Mbps Media Converters Benefit Flexible Surveillance

TP-Link Fast Ethernet Media Converters are designed to address the needs of flexible long-range surveillance deployment with optical fibers. It provides an economical path towards extending the distance of an existing network.

### Ideal for Flexible Surveillance Deployment









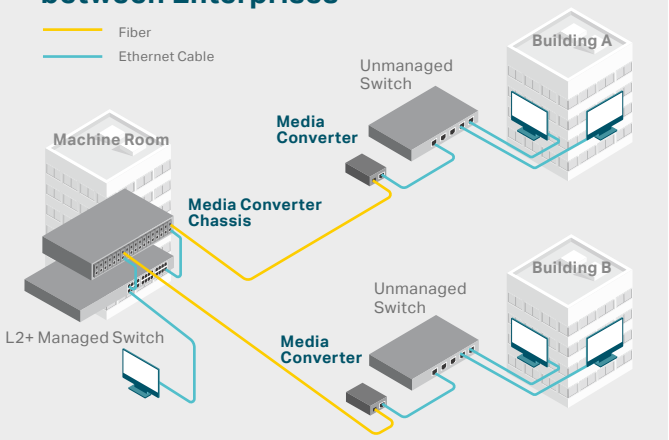
### TP-Link 100 Mbps Media Converters at a Glance

| Product Picture |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
| **Model** | MC100CM | MC110CS | MC111CS | MC112CS | TL-FC111A-20 | TL-FC111B-20 | TL-FC111PB-20 |
| **Power Input** | 9V/0.6A | | | | 5V/0.6A | | 48V/0.5A |
| **Fiber Ports** | 2× 100 Mbps SC Fiber Ports | | 1× 100 Mbps SC Fiber Port | | 1× 100 Mbps SC Fiber Port | | |
| **Copper Ports** | 1× 100 Mbps RJ45 Port | | | | 1× 100 Mbps RJ45 Port | | 1× 100 Mbps RJ45 PoE Port |
| **Transmission Diatance** | 2 km | 20 km | | | 20 km | | |
| **Fiber Type** | Multi-Mode | Single-Mode | | | Single-Mode | | |
| **Fiber Number** | Dual Fibers | | Single Fiber | | Single Fiber | | |
| **Wavelength** | 1310 nm | | TX: 1550 nm RX: 1310 nm | TX: 1310 nm RX: 1550 nm | TX: 1550 nm RX: 1310 nm | TX: 1310 nm RX: 1550 nm | TX: 1310 nm RX: 1550 nm |
| **Dimensions (W × D × H)** | 3.7×2.9×1.1 in (94.5×73.0×27.0 mm) | | | | | | |
| **Operating Temperature** | 0–40˚C (32–104˚F) | | | | 0–50˚C (32–122 ˚F) | | |
| **Environment** | Storage Temperature: -40–70˚C (-40–158˚F)<br>Operating Humidity: 10–90% RH Non-Condensing; Storage Humidity: 5–90% RH Non-Condensing | | | | | | |

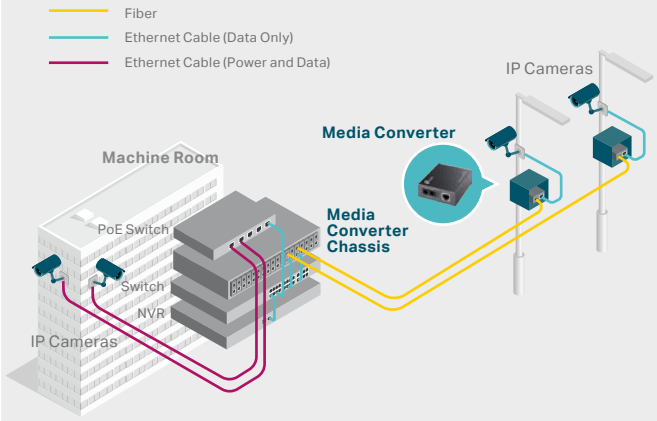
# Gigabit Media Converters—Long-Range Connections with Fiber

TP-Link Gigabit Media Converters easily extend the distance of an existing gigabit network. Long-range point-to-point connections are easily built with the gigabit fiber converters, making them ideal for connecting the network in another building, remote surveillance system, and automated factory equipment.

## Fiber Connections between Enterprises




## Fiber Connections for Surveillance System







## TP-Link Gigabit Media Converters at a Glance

| Product Picture |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
| **Model** | MC200CM | MC210CS | MC220L | TL-FC311A-2 | TL-FC311B-2 | TL-FC311A-20 | TL-FC311B-20 |
| **Power Input** | 9V/0.6A | | | 5V/0.6A | | | |
| **Fiber Ports** | 2× 1000 Mbps SC Fiber Ports | | 1 × Gigabit SFP Port | 1× 1000 Mbps SC Fiber Port | | | |
| **Copper Ports** | 1× 10/100/1000 Mbps RJ45 Port (Auto Negotiation) | | | 1× 10/100/1000 Mbps RJ45 Port (Auto Negotiation) | | | |
| **Transmission Diatance** | 550 m | 20 km | Depends on the used SFP module | 2 km | | 20 km | |
| **Fiber Type** | Multi-Mode | Single-Mode | | Single-Mode | | | |
| **Fiber Number** | Dual Fibers | | | Single Fiber | | | |
| **Wavelength** | 850 nm | 1310 nm | | TX: 1550 nm RX: 1310 nm | TX: 1310 nm RX: 1550 nm | TX: 1550 nm RX: 1310 nm | TX: 1310 nm RX: 1550 nm |
| **Dimensions (W × D × H)** | 3.7×2.9×1.1 in (94.5×73.0×27.0 mm) | | | | | | |
| **Operating Temperature** | 0–40°C (32–104°F) | | | 0–50°C (32–122°F) | | | |
| **Environment** | Storage Temperature: -40–70°C (-40–158°F)<br>Operating Humidity: 10–90% RH Non-Condensing; Storage Humidity: 5–90% RH Non-Condensing | | | | | | |

# Power Chassis—Ensure the Scalability of Installation

TL-MC1400

- Up to 14 Media Converter Units
- 9 VDC / 0.6 A Power Output
- Redundant Power Supply
- Hot-Swappable
- Mounted Two Cooling Fans for Better Ventilation

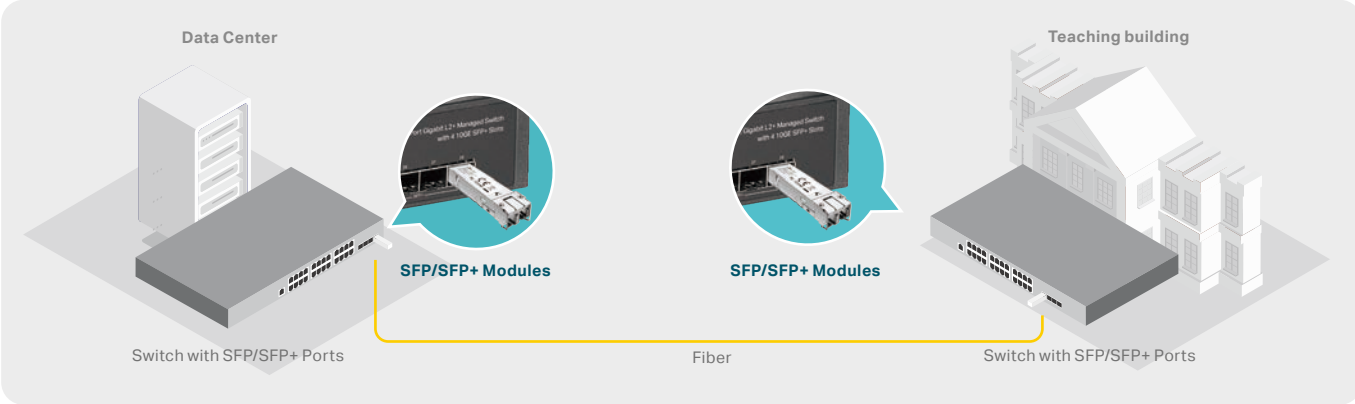
TL-FC1420

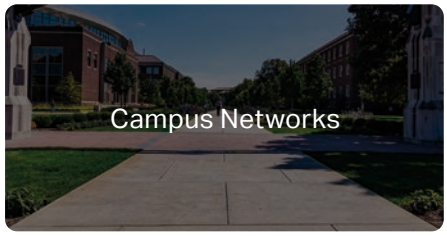
- Up to 14 Media Converter Units
- 5 VDC / 0.6 A Power Output
- Redundant Power Supply
- Hot-Swappable
- Fanless

*Certain media converters are equipped with WDM technology and use single fiber to transmit and receive data.
**Only TL-FC111PB-20 is equipped with the PoE output port.

# SFP/SFP+ Modules—High-Speed Fiber Connections

TP-Link offers a variety of fiber modules to suit your fiber connectivity applications. Multi-mode and single-mode modules with 1000Base SFP or 10GBase SFP+ ports are available, ideal for linking enterprise fiber networks, campus fiber networks, ISP networks, and more.






## TP-Link SFP/SFP+ Modules at a Glance

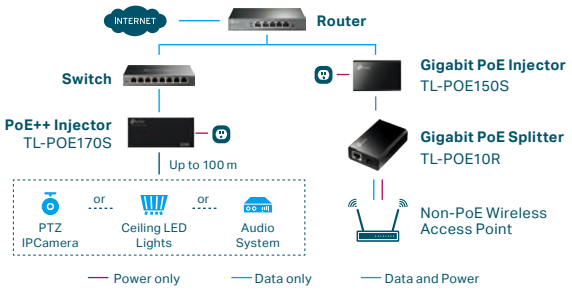
| Product Picture |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | TL-SM5110-LR | TL-SM5110-SR | TL-SM311LM | TL-SM311LS | TL-SM321A | TL-SM321B | TL-SM321A-2 | TL-SM321B-2 | TL-SM5310-T | TL-SM331T |
| **Data Rate** | 10 Gbps | | 1.25 Gbps | | | | | | 10.31 Gbps | 1.25 Gbps |
| **Fiber Ports** | 2× LC/UPC Duplex Ports | | 2× LC/UPC Duplex Ports | | 1× LC/UPC Simplex Port | | | | - | |
| **RJ45 Ports** | - | | | | | | | | 1× 10 Gbps RJ45 Port | 1× 1000 Mbps RJ45 Port |
| **Transmission Distance** | 10 km | 300 m | 550 m | 20 km | 20 km | | 2 km | | 31 m | 100 m |
| **Transmission Media** | Dual Single-Mode Fibers | Dual Multi-Mode Fibers | Dual Multi-Mode Fibers | Dual Single-Mode Fibers | Single Single-Mode Fiber | | | | Cat6a or above Ethernet Cable | Cat 5e or above Ethernet Cable |
| **Wavelength** | 1310 nm | 850 nm | 850 nm | 1310 nm | TX: 1550 nm RX: 1310 nm | TX: 1310 nm RX: 1550 nm | TX: 1550 nm RX: 1310 nm | TX: 1310 nm RX: 1550 nm | - | - |
| **Dimensions (W × D × H)** | 2.2*0.5*0.4 in (56.7*13.9*10.35 mm) | 2.4*0.6*0.5 in (61.3*14.5*12.2 mm) | 2.2*0.5*0.5 in (55.4*13.7*12.9 mm) | 2.2*0.6*0.5 in (55.4*14.6*12.9 mm) | | | | | 2.7*0.5*0.5 in (67.4*13.75*13.8 mm) | |
| **Operating Temperature** | 0–70 °C (32–158 °F) | | | | | | | | | |
| **Environment** | Storage Temperature: -40–85 °C ( -40–185 °F); Operating Humidity: 10–90% RH Non-Condensing; Storage Humidity: 5–90% RH Non-Condensing | | | | | | | | | |

## TP-Link 10G SFP+ Direct Attach Cable at a Glance

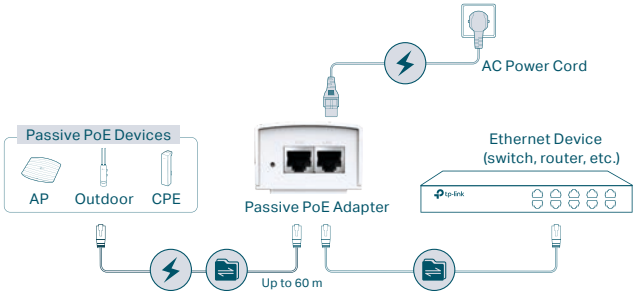
| Product Picture |  |  |
|---|---|---|
| **Model** | TL-SM5220-3M | TL-SM5220-1M |
| **Length** | 3 m | 1 m |
| **Connector Type** | 10G SFP+ connector on both sides | |
| **Cable Type** | Passive Twinax | |
| **Data Rate** | 10 Gbps | |
| **Environment** | Operating Temperature: 0–70 °C (32–158 °F); Storage Temperature: -40–80 °C ( -40–176 °F); Operating Humidity: 10–90% RH Non-Condensing; Storage Humidity: 5–90% RH Non-Condensing | |

# PoE Adapters—Easier Network Deployment

## PoE Injector and Splitter



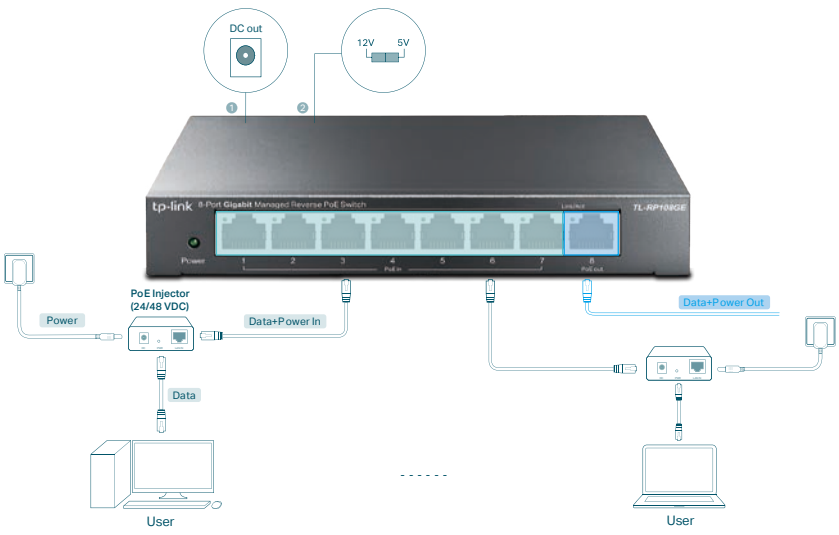

## Passive PoE Adapter




| Product Picture |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| **Model** | TL-POE170S | TL-POE160S | TL-POE150S | TL-POE10R | TL-POE2412G | TL-POE4824G |
| **Product Description** | PoE++ Injector | PoE+ Injector | PoE Injector | PoE Splitter | 24V Passive PoE Adapter | 48V Passive PoE Adapter |
| **RJ45 Ports** | 1× Gigabit RJ45 LAN Port<br>1× Gigabit RJ45 PoE Port (802.3af/at/bt type3) | 1× Gigabit RJ45 LAN Port<br>1× Gigabit RJ45 PoE Port (802.3af/at) | 1× Gigabit RJ45 LAN Port<br>1× Gigabit RJ45 PoE Port (802.3af) | | 1× Gigabit RJ45 LAN Port<br>1× Gigabit RJ45 PoE Port (Passive PoE) | |
| **Power** | Input: 100–240 V<br>Output: Max. 60 W (Auto-Determination) | Input: 100–240 V, 1.0A<br>Output: Max. 30 W (Auto-Determination) | Input: 48 VDC, 0.5 A<br>Output: Max. 15.4 W (Auto-Determination) | Input: Max. 15.4 W (Auto-Determination)<br>Output: 5/9/12 VDC | Input: 100–240 V 0.4 A<br>Output: 24 V 0.5 A | Input:100–240 V 0.8 A<br>Output: 48 V 0.5 A |
| **Plug and Play** | • | • | • | • | • | • |
| **Dimensions (W × D × H)** | 6.1×2.8×1.7 in (155×70×42 mm) | 4.9×2.3×1.4 in (125×59.4×36.8 mm) | 3.2×2.1×0.9 in (80.8×54×24 mm) | | 3.4×1.7×1.4 in (85.8×43.9×35 mm) | 4.3×2.3×1.5 in (110×57×38.8 mm) |
| **Operating Temperature** | 0–45 °C (32–113 °F ) | 0–40 °C (32–104 °F ) | | | | |
| **Environment** | Storage Temperature: -40–70 °C (-40–158 °F );<br>Operating Humidity: 10–90% RH Non-Condensing;Storage Humidity: 5–90% RH Non-Condensing | | | | | |

# Reverse PoE Switches—Simplify Installation for PoE Devices

The 8-Port Gigabit Managed Reverse PoE Switch TL-RP108GE has seven gigabit PoE input ports that allow it to receive power from user outlets via PoE injectors. Equipped with one PoE output port, the switch can supply power to CPEs and similar devices via Port 8. The DC output port supports both 5 V and 12 V optional output voltage and can be used to power devices like ONTs. Enhanced with basic management features like VLAN and QoS, TL-RP108GE shares the same software functions with TP-Link Easy Smart switches.




| Model | TL-RP108GE |
|---|---|
| Port | 7 Gigabit Passive PoE-in RJ45 Ports<br>Voltage: 24/48 V (mixture is not supported)<br><br>1 Gigabit Passive PoE-out RJ45 Port<br>Voltage: depending on the input voltage of PoE-in ports<br><br>1 DC Output Port<br>Voltage: 5/12 V |
| Power pin of Ethernet cable | 4/5+ 7/8- |
| PoE Supply | Passive PoE |
| Dimensions | 6.2 × 3.9 × 1.0 in (158 × 99.1 × 25 mm) |
| Installation | Desktop/Wall-Mounting |
| Switching Capacity | 16 Gbps |
| Features | VLAN<br>IGMP Snooping<br>QoS<br>Manageable via web browser or Utility |

# Reliable and Professional Quality Assurance

### Continuous Innovations

Independent research and development.

### Vertical Integration

In-house manufacturing maintains the quality of every component.

### High-Level Manufacturing

Decades of experience combined with high-tech supporting facilities.

### Complete Quality Control

Develops, builds, crafts and sells products from start to finish, running rigorous whole-process quality-control tests.

# Powerful Support

In addition to the Pharos solution and high-quality products, TP-Link also provides whole services for complete client satisfaction.

## TP-Link Partner Program

https://partner.tp-link.com/

TP-Link's success as a provider of network solutions has been built on its relationship and unrivaled commitment to its partners. For Value-Added Resellers (VARs) and System Integrators (SIs) looking for access to even better deals and tailored support, TP-Link has designed the TP-Link Partner Program to reward loyalty and help grow business.

- Deal Registration
- Sales Tools
- Knowledge Base
- Training & Certification
- Marketing Materials
- Promotions
- Support

### Join TP-Link Partner Program, Earn More Margin

*Note: The Partner Program and benefits may vary according to your region. Please contact your local TP-Link representative for more information.*

## SMB Community

https://community.tp-link.com/en/business/

Technical support and case sharing.
Your direct dialogue with TP-Link.
When it comes to SMB, we know you want to learn more...

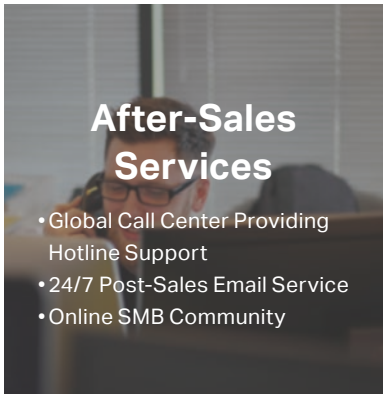
Forums

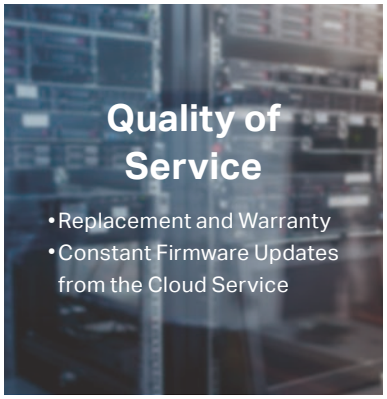
Stories

Knowledge Base

## Excellent Pre- and After-Sales Services

TP-Link provides not only products with outstanding quality but also whole services for complete client satisfaction.





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*Actual products may vary from image.

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