Introduction

The TL-MC-1S2R features one SFP port (SFP module sold separately) and two RJ45 twisted pair ports, effectively adapting twisted pair-based devices to fiber for longer transmission distances. The MC-1S2R supports multimode fiber when paired with a [multimode SFP module](#) and single mode fiber when paired with a [single mode SFP module](#).

Two TL-MC-1S2R media converters are required for most applications -- one for each end of the cable run.

The UTP ports are connected together with the SFP port, essentially creating a 3-port unmanned network switch.
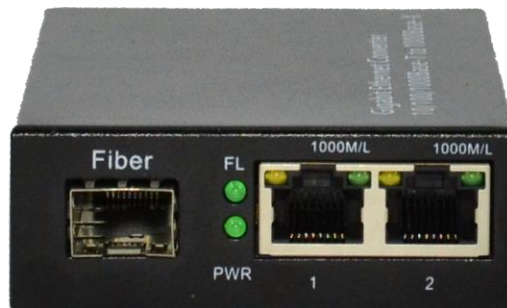
Features

- Convert signals from twisted pair to fiber and vice versa

- One SFP (fiber) port and two RJ45 (twisted pair) port

- 10/100/1000M data rate

- 850nm/1310nm/1550nm supported wavelengths

- Single mode and multimode fiber compatible (SFP module dependent)

- SFP module sold separately

- Suggested multimode module: [TL-1GSFP-MM550](#)

- Multimode max distance: 550m (1,805 ft.)

- Suggested single mode module: [TL-1GSFP-SM20K](#)

- Single mode max distance: 20km (12.4 miles)

- 0 degree to 60 degree C operating temperature

- 1.0" x 2.75" x 3.6" (26mm x 70mm x 93mm)

- 5V power supply (included)

- IEEE 802.3z & 802.3ab compliant

- MDI/MDIX auto-crossover

- Jumbo frame (64-9216 byte)

- Voltage monitor support

- Diagnostic LEDs

- Plug-and-play compliant

Package Contents

- [1] TL-MC-1S2R media converter
- [1] Power Supply with International Pins

Panel Description

Front

- Fiber - Insert an SFP module (1G bandwidth) according to the fiber type (single mode or multimode).
- LED Indicators - these report operational status

LED	Status	Operational Status
FL	On	Fiber connection is Normal
	Off	Fiber connection FAULT
PWR	On	Power supply is connected
	Off	No power supply is connected
P1 - Amber	Blinking	Data is transferring through the UTP cable
	Off	Data is NOT transferring through the UTP cable
P1 - Green (1000M/L)	On	1000M Link established
	Off	10/100m Link or No link established

LED	Status	Operational Status
P2 - Amber	Blinking	Data is transferring through the UTP cable
	Off	Data is NOT transferring through the UTP cable
P12 - Green (1000M/L	On	1000M Link established
	Off	10/100m Link or No link established

- UTP Port 1 - Connect to a network device (i.e. network switch or IP camera) using standard network patch cable

- UTP Port 2 - Connect to a network device (i.e. network switch or IP camera) using standard network patch cable

Rear

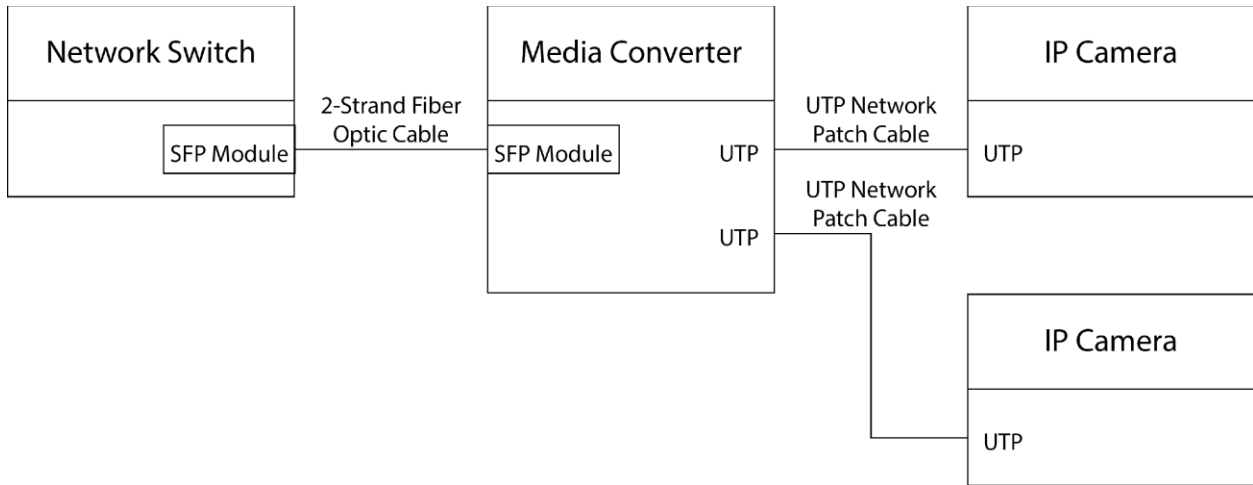DC 5V - Connect included DC 5V/1A power adaptor

System Connection

There are several applications suitable for media converters, here are a few examples:

Example 1 - extend from network switch with SFP module.

In this example, the network switch includes an SFP module and the media converter is utilizing the fiber optic cable to extend the LAN signal to two IP cameras.
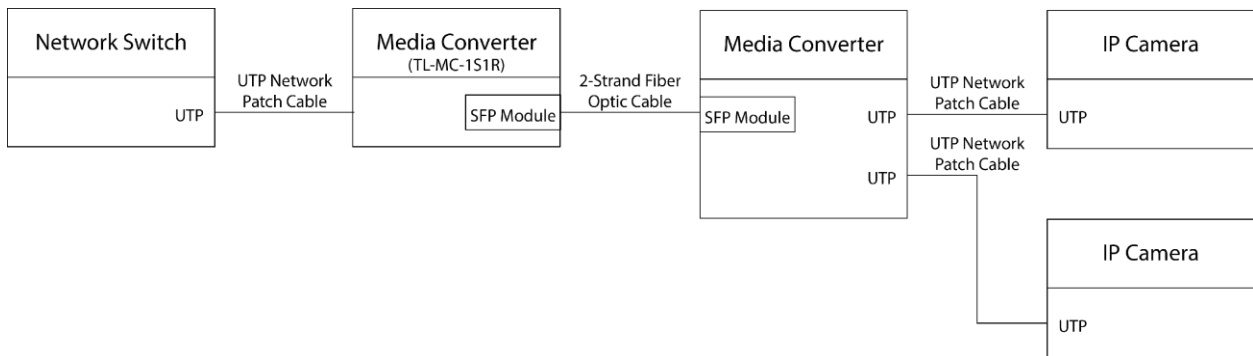
*The TL-MC-1S2R does not offer PoE so the camera must be powered locally.

Example 2 - extend LAN signal using switch without SFP ports.

In this example, the network switch does not offer an SFP module. Using [2] media converters allows fiber optic cabling to be utilized.

*The TL-MC-1S2R does not offer PoE so the camera must be powered locally.

Specifications

I/O Connections

Fiber Module Port   SFP (small form-factor pluggable) connector port

UTP   [2] 8p8c unshielded female connector

DC 5V   Female coaxial barrel connector - 5.5mm O.D. x 2.5mm I.D.

Signal Characteristics

SFP compatibility   IEEE 802.3z/AB 1000Base-T/SX/LX/ZX

TLN Part #s:

TL-1GSFP-MM550 - Multimode Fiber

TL-1GSFP-SM20K - Single Mode Fiber

Link Support   IEEE 802.3X Full Duplex and Half Duplex with flow control

MDI/MDI-X automatic switching

Jumbo Frame   Supported Jumbo frame (64-9216 byte)

Chassis and Environmental

Enclosure   Painted Steel

Dimensions   1.0" x 2.75" x 3.6" (26mm x 70mm x 93mm)

Dimensions (Shipping)   7.25" x 6" x 2" (184mm x 70 x 51mm)

Weight (Shipping)   355g

Working Temperature   0°C~60°C

Operating Humidity   5%~90%

Power Supply

Input Voltage   100~240v AC, 50~60Hz, 0.3A

Output Voltage 5VDC Center Positive 1.2A

Regulatory   CE, FCC, RoHS, WEE, UL-US, UL-C, CCC, JET, C-TICK, UL-DE/GS

Efficiency   Level VI

Other

Warranty   3 Years

Package Contents   [1] TL-MC-1S2R

[1] 5VDC Power Supply (USA, AUS, EU, UK Pins)