Trademarks

Copyright Statement

FCC Warning

CE Mark Warning

1. Checklist

The package should contain the following items:

- Media Converter
- User's Guide

Please notify your sales representative immediately if any item is missing or damaged.

2. Overview

This Media Converter supports IEEE802.3at PoE feature and is specifically designed to supply power to PoE-enabled devices such as WiFi AP or surveillance cameras. It is a power supply equipment (PSE) that can transmit data and supply power at the same time to the powered devices (PD). The maximum cable distance that can reach the powered devices from the Media Converter is up to 80M, allowing your powered devices to be installed in a place where power is not easily accessible.
Besides, this Media Converter aims at industrial applications that demand wide range of operating temperature and require redundant power supplies to create a reliable and stable networking environment in the event of power failure. It can also be mounted on the wall or onto 35mm DIN rail using DIN rail clip on the media converter. The installation and operation procedures are simple and straightforward. Operation status can be locally monitored through a set of diagnostic LED indicators located on the front panel.

Major Features:
- Support IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3x, 802.3at

standards
- Auto-Negotiation in TP port
- Store and Forward Switching Mechanism
- Support MDI/MDIX Auto-Crossover
- Support Flow Control
- Support fault alarms for power failures
- Support 1K MAC address
- Support 9K bytes Jumbo Frame
- Support 32k bytes Memory Buffer
- Support redundant AC and DC power supply
- Support wide range of operating temperature (-20°C~60°C)
- Support DIN Rail and Wall Mounting
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3. Network Installation

- Attach fiber cable from the Media Converter to the fiber network.
- Attach a UTP cable from the 10/100/1000Base-TX network to the RJ-45 port on the Media Converter.
- Connect the power adapter to the Media Converter and check that the Power LED lights up. The TP Link/ACT and F/O Link/ACT LED will light when all the cable connections are satisfactory.

4. Terminal Block

TB1 and TB2 Power Supply: There are two pairs of power supply connection (TB1 and TB2) on the terminal block for power redundancy purpose. You can use both pairs of power supply (TB1 and TB2) or use either one pair of power supply on the terminal block and AC external power supply to create redundant setup. The redundant power supply will take over seamlessly when one power source is down to protect your device or network from the loss of power. When you use only one power supply (no redundant power is available), the LED Power/Port Status will flash in orange to alert the user.

Use flat-head screwdriver to loosen and tighten the screw.
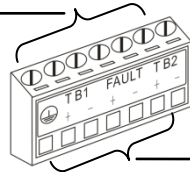
Insert positive or negative wire as indicated.

Figure 1. Terminal Block Front and Top View

5. Link Alarm

Link Alarm allows users to easily identify and diagnose the linking status. TP and F/O can link up only when both linking conditions are good. In addition, if the TP or F/O port link is down during operation, the other port will also be turned down to alert the user. Setting Link Alarm DIP switch to Enable gives the user a transparent link indication between two network devices interconnected by the Media Converter.

If Link Alarm is disabled, the TP and F/O will link up based on their individual linking condition. Furthermore, if either port link (TP or F/O) is down during operation, it will not turn down the other port link.

6. LED Description

| LED	Color	Function
PW ADC	Green	AC or DC power is available.
PW T1	Green	Terminal Block 1 powers up.
PW T2	Green	Terminal Block 2 powers up.
TP Link/ACT	Green	TP link is up.
	Green Blinking	TP is receiving and transmitting data.
Speed	Off	Link is down or TP works in 10M.
	Green	TP works in 100M.
	Orange	TP works in 1000M.
	Green/Orange Blinking	TP is receiving and transmitting data.
FDX	Off	TP port works in half duplex mode.
	Green	TP port works in full duplex mode.
F/O Link/ACT	Green	F/O link is up.
	Green Blinking	F/O is receiving and transmitting data.
PW R/Port Status	Orange	TP or F/O link is down. (This indication only works when DIP 8 and 9 are set to Enable.)
	Orange Blinking	Redundancy system is abnormal (only one power source is available).
PoE	Green	Device provides power and works normally.
	Green Blinking	Device does not provide power.
	Fast Green Blinking	Device's PoE function is working abnormally.

7. Technical Specifications

Standards	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3x, 802.3at
Interface	1 X 10/100/1000 RJ-45 connector
	1 X 1000 SC F/O port or SFP slot
LED	PW ADC, PW T1, PW T2, TP Link/ACT, Speed, FDX, F/O Link/ACT, PWR/Port Status, PoE
Power	DC Input Voltage: 48VDC
	DC Terminal Block x 2
Shipping Weight	Metal Housing: 0.5KG
Dimensions	Operating: -20°C~60°C; Storage: -20°C~70°C
Temperature	5%~90% RH non-condensing
Humidity	FCC Part 15 Class A, CE
EMC Safety	TP:
Media	Fiber: EIA/TIA-568 CAT 5e
	Fiber: 50/125, 62.5/125um multi-mode fiber 9/125, 10/125um single-mode fiber

8. Recommendation for Shielded network cables

STP cables have additional shielding material that is used to reduce external interference. The shield also reduces the emission at any point in the path of the cable. Our recommendation is to deploy an STP network cable in demanding electrical environments. Examples of demanding indoor environments are where the network cable is located in parallel with electrical mains supply cables or where large inductive loads such as motors or contactors are in close vicinity to the camera or its cable. It is also mandatory to use an STP cable where the power device (like IP camera) is used outdoors or where the network cable is routed outdoors.
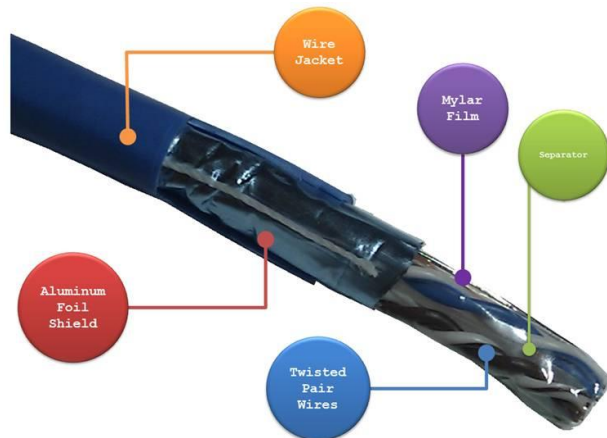
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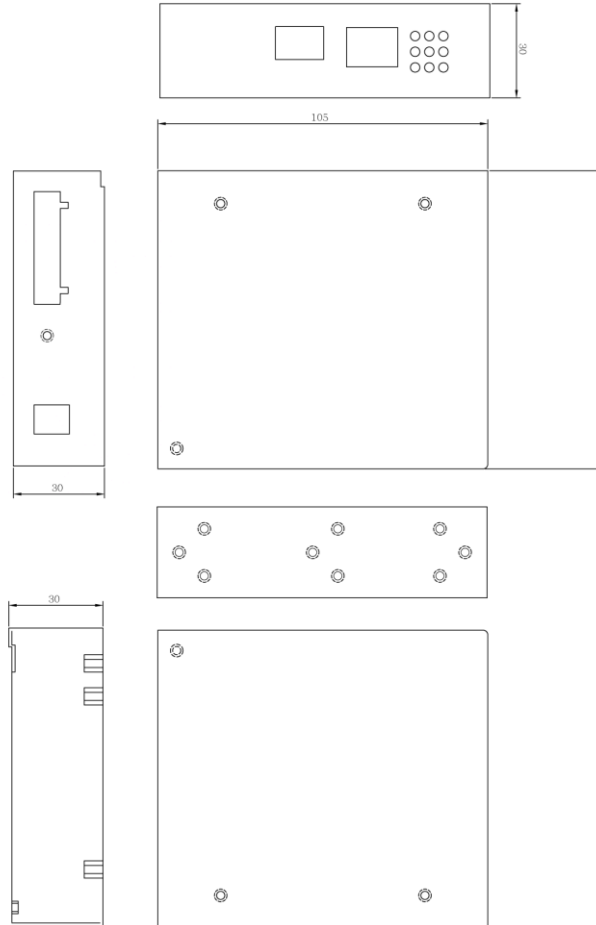
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10/100/1000Base-T to 1000Base-X Gigabit Ethernet Media Converter with Built-in IEEE 802.3at PoE/PSE Feature

User's Guide

Version 1.6