

**Industrial
802.11at PoE
Media Converter**

User Manual

V1.00

FCC MARKING

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE MARKING

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

Trademarks:

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(P/N: 41RP-IMC81100-AQG)

Introduction

This rugged Industrial POE media converter is equipped with Hardened Marvell IC to provide a reliable power source to power up your remote POE device. It is designed for Security, Transportation and Telco application to expand your network distances. With its multi-purpose design, it can also be used for Din-Rail or wall-mounted. It is an ideal unit for IP surveillance, traffic monitoring and Security application in critical environment. It can tolerate -40°C to 75°C in harsh environment to perform a reliable network.

Key Features

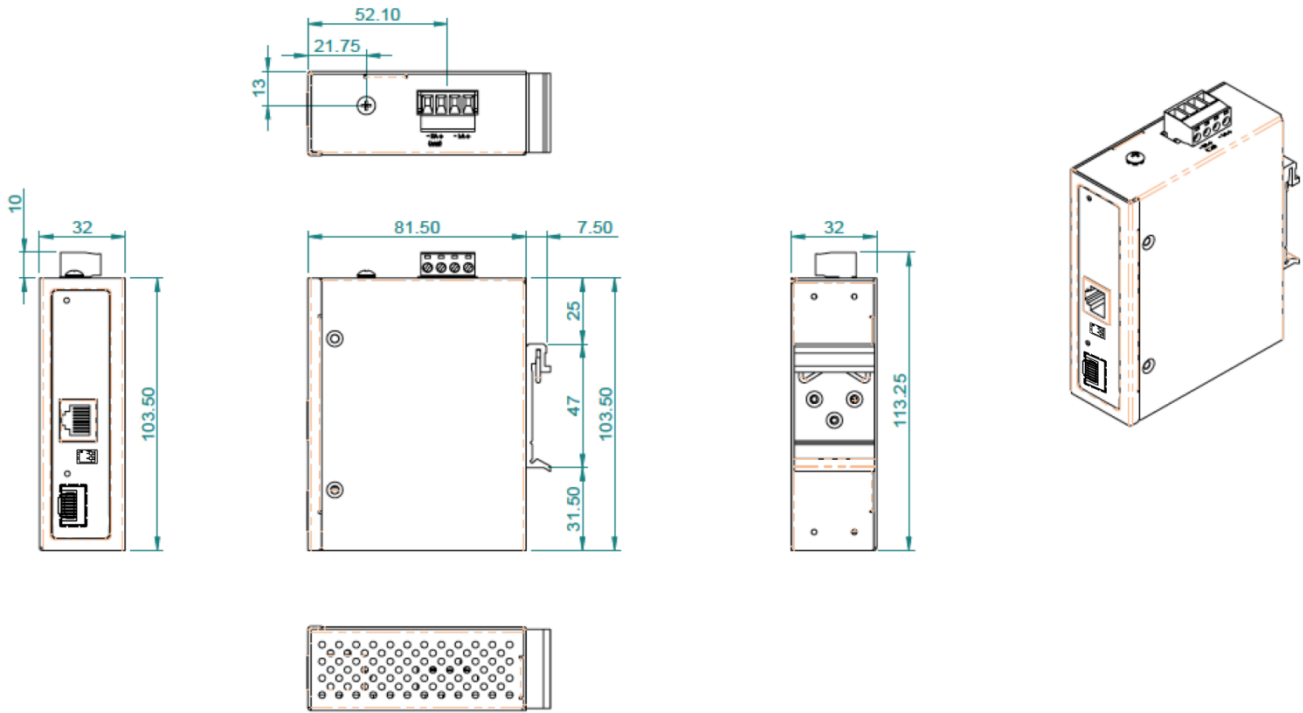
- Supports 48V-56VDC, Redundant power input
- Adjustable SFP speed 100M or 1000M
- PoE Output power up to 30Watts
- Reverse polarity protection
- Overload current protection
- ESD protection diodes on RJ-45 port
- 2K MAC Table
- 9KB Jumbo Frame
- Rugged Metal IP30 Protection enclosure
- Operating Temperature: -40°C to +75°C

Package Contents

- 1 x Industrial Media converter
- 1 x User Manual
- 1 x 4 pin Terminal Block
- 2 x Wall Mounting Bracket and 4 x Screws
- 1 x Din Rail Bracket

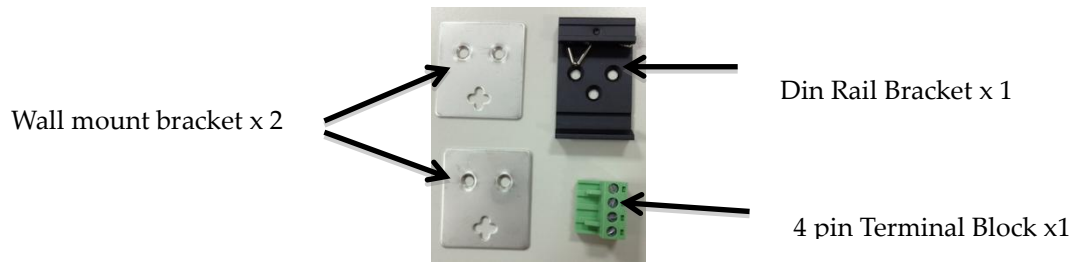
Compare the contents of the industrial switch with the standard checklist above. If any item is damaged or missing, please contact the local dealer for service.

Physical Dimension

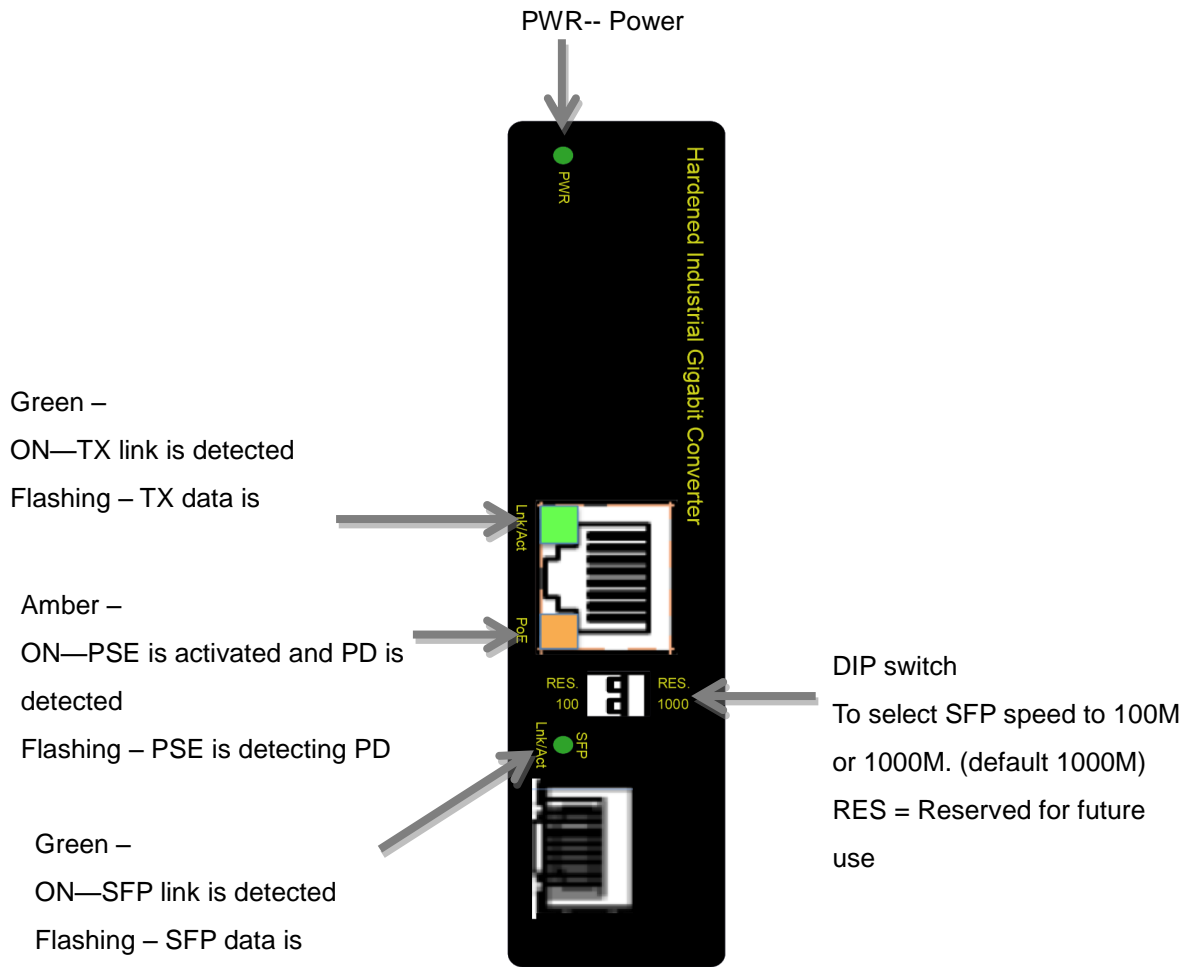


Installation package

This unit can be installed by din-rail mounted or wall-mounted. Din-rail brackets and wall-mounted bracket are included.



LED Indicators



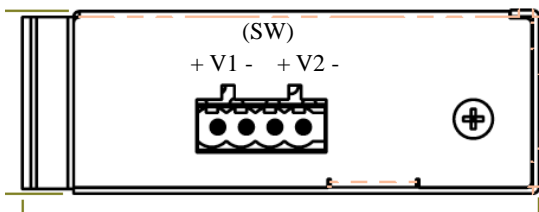
Wiring the Power Inputs

This unit provides 4 pin terminal block. It can be operated using 48-56VDC power source. Always Make sure your input voltage is within this supported voltage range. For 30Watts and 60Watts models, you need to use 56VDC input to generate IEEE802.3at 30Watts power.

To make power connection – Follow the printed polarity for V+, V-, Ground. Connect positive wire to V1+ , connect negative wire to V1-, also connect neutral wire to ground.

+V1- is for power input connection, this unit has only one power input.

+V2-(SW) is for relay connection. (SW) is the relay connection.



Connecting procedure

STEP 1 –

Take out 4 pin terminal block located in the included mounting kit package.

STEP 2 –

Connect power wire to +V1- with correct polarity. Connect +V2- (SW) for relay.

STEP 3 –

Plug into terminal block socket shown above. Polarity needs to match the V+ and V-

WARNING -- Always SHUTS OFF power source to connect power wire.

WARNING – any exceeded input voltage will not make this unit function and may damage this unit.

Specification

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE802.3x Flow Control and Back Pressure, IEEE802.3af for POE IEEE802.3at for POE+
Switch Architecture	Back-plane (Switching Fabric): 4Gbps
Data Processing	Store and Forward
Flow Control:	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	9KB
MAC address Table Size	2K
Packet Buffer Size	1M
Network Connector :	1xRJ-45 10/100/1000BaseT(X) PSE with POE Output power up to 36Watts 1 x 100/1000M SFP
Network Cable	UTP/STP above Cat.5e Cable EIA/TIA-568 10-ohm (100m)
Protocol	CSMA/CD
LED	PW1(power 1) Green: ON- power good, OFF-power failed UTP LEDs: Amber ON- PD detected Green ON – Link/active – SFP LED: Green ON – SFP detected
POE Pin Assignment	30 watts 2 pairs V+, V+, V-, V- for pin 1, 2, 3, 6
DIP Switch	To select SFP speed 100M or 1000M.
Reverse polarity protection	Present
Overload current protection	Present
Power Supply	4 pin terminal block with 48V-56V VDC Power Input, SW (Relay): Relay switch for alarm
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC, Relay in short circuit mode when power fails. in open circuit mode when power supply is connected
Power Consumption	2 W@48 VDC Without POE
POE power	Maximum POE power 36watts at 56VDC input
Removable Terminal Block	Provide 4 pin terminal block Wire range: 0.34mm ² to 2.5mm ² Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Operating Temperature	-40°C~75°C fully tested.
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
MTBF (mean time between failure)	510,304 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Metal ,IP30 Protection

Case Dimension (L X W X D)mm	103.5mmx32mmx81.5mm (LxWxD)
Installation mounting	DIN Rail mounting and Wall Mounting
Certifications:	
EN55022/24	ITE equipment
EN55011	Industrial, Scientific and Medical (ISM) equipment
Safety	IEC EN60950-1
EMC/EMS	CE, FCC, VCCI
EMI	FCC Part 15 Subpart B Class A, CE EN 55022 Class A
EN 50155 / EN 60068-2-6	Vibration
EN 50155 / EN 60068-2-27	Shock
EN 50155 / EN 60068-2-32	Free Fall