User Manual

IGC-0101

RJ45 to SFP Gigabit Industrial Media Converter, 1 PoE Output

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.

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Key Features

- Hardened Industrial graded Marvell IC
- Rugged design Aluminum enclosure 103.5x32x81.5mm (LxWxD)
- Supports 30Watts PSE on TX port
- Supports SFP fiber speed 100M or 1000M dual mode
- Surge protection diodes on power input.
- ESD protection diodes on RJ-45 port
- Provides increased Noise Immunity
- Working in extreme environment -40°C to 75°C

Introduction

This IGC-0101 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 extend 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.

Installation package

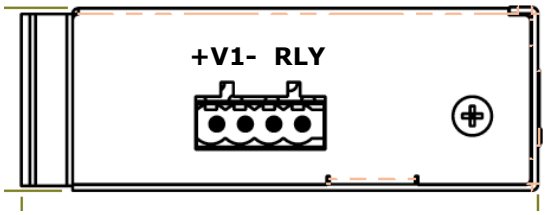
The following items are shipped with this device:

- Din-Rail Mounted * 1
- Wall-Mounted * 2
- Screws * 4
- 4 pin Terminal Block * 1

Power connection

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. You need to use 56VDC input to generate IEEE802.3at 30Watts power.

To make power connection – Follow the printed polarity for V+, V- and RLY. Connect positive wire to V+, connect negative wire to V- and also connect neutral wire to ground.
+V- is for power input connection, this unit has only one power input.
RLY is for 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 +V- with correct polarity. Connect RLY 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.

LED indicator

LED	Color	State	Description
PWR	Green	ON	Power is detected
		OFF	Power is not detected
SFP Lnk/Act	Green	ON	FX port is detected
		Flashing	FX data is transmitting/receiving
TX Lnk/Act	Green	ON	TX link is detected
		Flashing	TX data is transmitting/receiving
TX PoE	Amber	ON	PSE is activated and PD is detected
		OFF	PSE is detecting PD

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	1 x RJ-45 10/100/1000BaseT(X) PSE with POE Output power up to 30Watts 1 x 100/1000M SFP
Network Cable	UTP/STP Cat.5e or above Cable
	EIA/TIA-568 10-ohm (100m)
	Fiber Cable (Multi-mode):50/125um,62.5/125um Fiber Cable (Single-mode): 9/125um
Protocol	CSMA/CD
LED	PWR (Green): ON—Power is detected OFF—Power is not detected SFP Lnk/Act (Green): ON—FX port is detected Flashing—FX data is transmitting/receiving
	RJ-45 port: Lnk/Act (Green): ON—TX port is detected Flashing—TX data is transmitting PoE (Amber): ON—PSE is activated and PD is detected Flashing—PSE is detecting PD
POE Pin Assignment	30 watts 2 pairs V-, V-, V+, V+ for pin 1, 2, 3, 6
DIP Switch	DIP 1: Reserved DIP 2: ON—SFP port 100M OFF—SFP port 1000M (Default)
Reverse polarity protection	Present
Overload current protection	Present
Power Supply	4 pin terminal block with 48V-56V VDC Power Input, RLY (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 full load, Without POE Max total power 36Watts at 56VDC
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)	>500,000 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Aluminum, IP30 Protection
Case Dimension (L X W X D)	103.5 x 32 x 81.5 mm (L x W x D)
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

Housing Dimension (mm)