IGPMC-111GP-BT-24V

Industrial Gigabit High power PoE Ethernet to fiber media converter with 1x10/100/1000Base-T(X) bt P.S.E. and 1x100/1000Base-X, SFP socket

Features

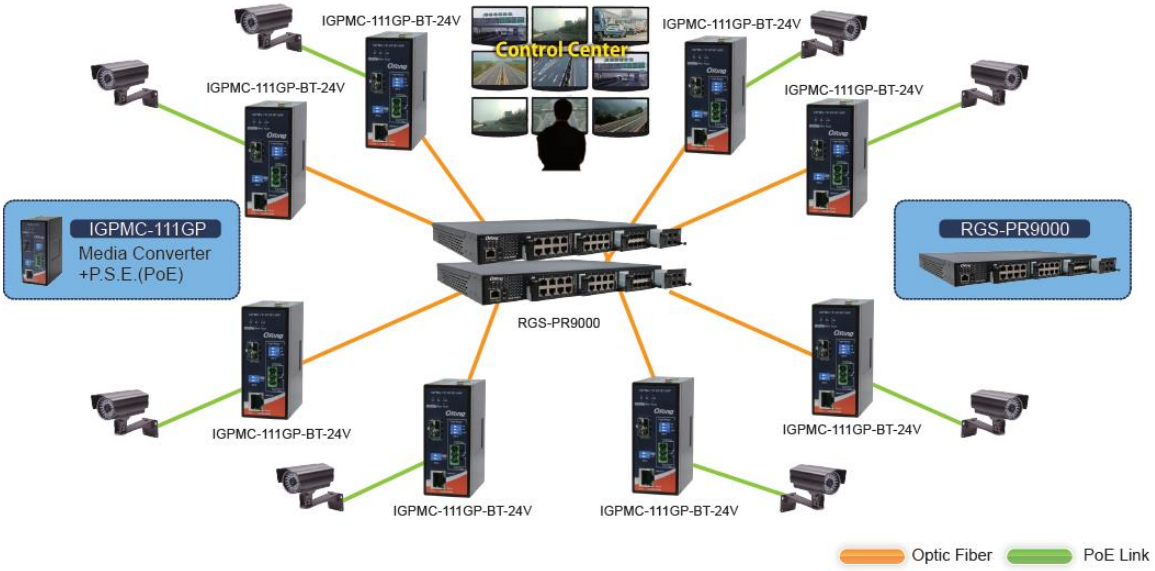
- Support 1 port 10/100/1000Base-T(X) bt P.S.E. auto-negotiation and auto-MDI/MDI-X copper port
- Support 1 port 100/1000Base-X SFP fiber port
- **P.S.E. fully compliant with IEEE802.3af/at/bt** standard, provide up to 90Watts
- Support Jumbo Frame up to 10K Bytes
- Support **LFP (Link Fault Pass-through)** function
- Relay output to carry capacity of 1A at 24 VDC for warning system
- Provided DIP-Switch to setting function
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

Introduction

The IGPMC-111GP-BT-24V is a cost-effective solution for the conversion interface between 10/100/1000Base-T(X) and 100/1000Base-X SFP socket; it allows you to extend communication distance by optical fiber. IGPMC-111GP-BT-24V supports MDI/MDIX auto detection, so you don't need to use crossover wires. IGPMC-111GP-BT-24V also support Power over Ethernet, a system to transmit electrical power up to **90 watts**, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. Each IGPMC-111GP-BT-24V has 1x10/100/1000Base-T(X) P.S.E. (Power Sourcing Equipment) port to provide power in a PoE setup.

The IGPMC-111GP-BT-24V also supports the **LFP (Link Fault Pass-through)** feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. Use the DIP-Switch to enable the LFP function, then IGPMC-111GP-BT-24V will force the link to shut down as soon as noticed that the other link has failed, giving the application software a chance to react to the situation.

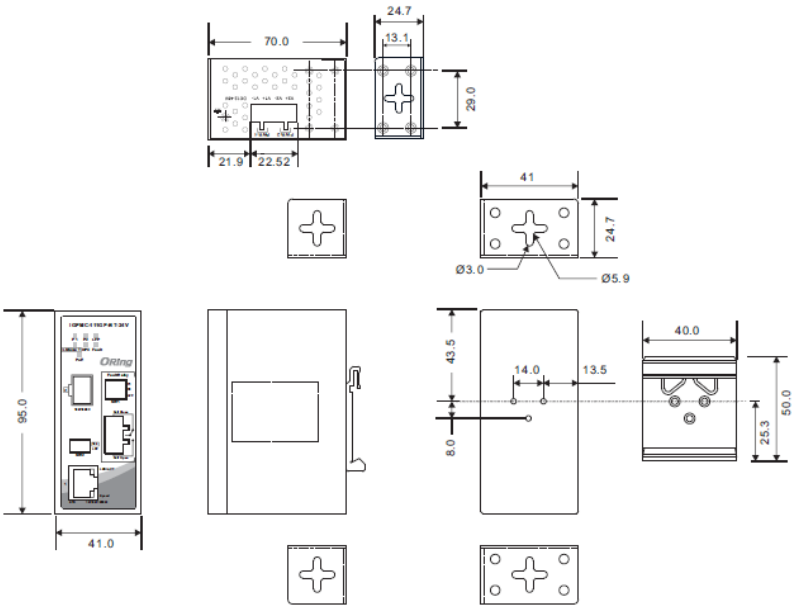
The IGPMC-111GP-BT-24V with wide operating temperature range from -40 ~ 75°C and accepts a wide voltage range from dual 12~57 VDC power inputs, so it is suitable for harsh operating environments. Therefore, the IGPMC-111GP-BT-24V is reliable media converter with PoE capability and can satisfy most demand of operating environment.



Connections of Media converter

Dimension

Unit =mm (Tolerance ±0.5mm)



PoE Pin Definition

10/100Base-T(X) P.S.E. RJ-45 port

RJ-45 Pin Definition	
Pin No.	Description
#1	TD+ with PoE Power input +
#2	TD- with PoE Power input +
#3	RD+ with PoE Power input -
#4	Not used
#5	Not used
#6	RD- with PoE Power input -
#7	Not used
#8	Not used

1000Base-T P.S.E. RJ-45 port

RJ-45 Pin Definition	
Pin No.	Description
#1	BI_DA+ with PoE Power input +
#2	BI_DA- with PoE Power input +
#3	BI_DB+ with PoE Power input -
#4	BI_DC+
#5	BI_DC-
#6	BI_DB- with PoE Power input -
#7	BI_DD+
#8	BI_DD-

DIP-Switch Setting

3-PIN DIP-Switch 1	**Description**		
DIP-Switch No.	Function	DIP-Switch Status	
1	Power-1 failure detection	ON	When power-1 failure, enable relay output
		OFF	Disable power-1 failure detection
2	Power-2 failure detection	ON	When power-2 failure, enable relay output
		OFF	Disable power-2 failure detection
3	LFP warning detection	ON	LFP signals when detected, enable relay output
		OFF	Disable LFP signals detection

3-PIN DIP-Switch 2	**Description**		
DIP-Swith No.	Function	DIP-Switch Status	
1	100/1000Base-FX mode selection	ON	100Base-FX mode
		OFF	1000Base-FX mode
2	LFP function	ON	Enable LFP function
		OFF	Disable LFP function

Specifications

ORing PoE Media Converter Model	IGPMC-111GP-BT-24V
Physical Ports	
10/100/1000 Base-T(X) bt P.S.E. Port in RJ45 Auto MDI/MDIX	**1**
100/1000Base-X SFP port	**1**
Technology	
Ethernet Standards	IEEE 802.3i for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T IEEE 802.3z for 1000Base-X IEEE 802.3at/bt PoE specification
Jumbo Frame	10K Bytes (1G mode only)
LED Indicators	
Power / Ready Indicator	Green: Power LED x 2
LFP statue indicator	Amber – (ON) LFP function fail / (OFF) LFP function disable
100/1000Base-X SFP Port Indicator	Green for port Link/Act
10/100/1000Base-T(X) RJ45 port Indicator	Green for Link/Act Speed LED– Green for 1000Mbps,Off-light for 100/10Mbps
Fault Indicator (Fault)	Amber : Indicate unexpected event occurred
PoE indicator	Green: Power is supplied over Ethernet cable.
Fault Contact	
Relay	Relay output to carry capacity of 1A at 24 VDC
Power	
Input Power	Dual 12 ~ 57 VDC voltage power inputs in 4-pin terminal block
PoE Power Output	IEEE 802.3at(30W) mode :>=12VDC IEEE 802.3bt(60/90W) mode:>=24VDC
Power Consumption (Typ.)	5Watts (PoE output is not included)
Overload Current Protection	Present
Reverse Polarity Protection	Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	41(W) x70 (D) x 95 (H) mm
Weight (g)	300 g
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 75°C (40 to 167°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory approvals	
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15 B
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15 B class A
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD: Contact 4KV, Air 8KV), IEC/EN 61000-4-3 (RS: 3V), IEC/EN 61000-4-4 (EFT Power 0.5KV, Signal 0.5KV), IEC/EN 61000-4-5 (Surge: Power 0.5KV, RJ45 1KV), IEC/EN 61000-4-6 (CS: 3V), IEC/EN 61000-4-8(PFMF)
Safety	EN 62368-1
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
MTBF	1,183,306hrs
Warranty	5 years