

IPMC-111PB++-60W

# IPMC-111PB++-60W

➔ **Industrial mini type Ethernet to fiber High power PoE++ media converter with 1x10/100Base-T(X) P.S.E. and 1x100Base-FX, SFP socket**

## Features

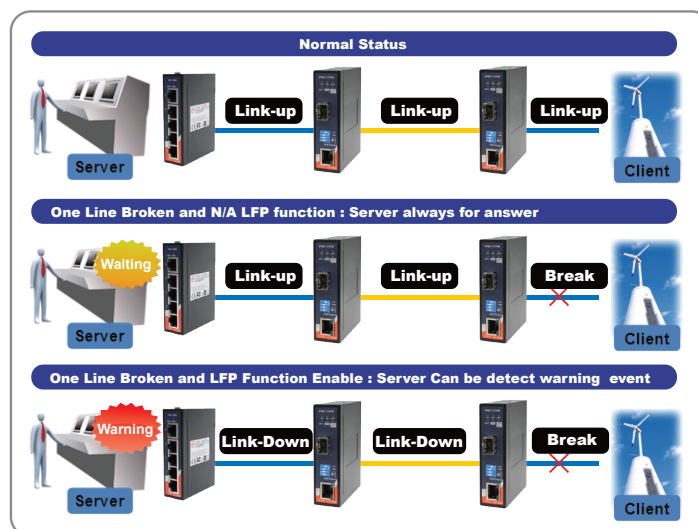
- Supports 1 port 10/100Base-T(X) P.S.E. auto-negotiation and auto-MDI/MDI-X
- Support Ethernet to fiber or Ethernet to SFP port
- Support **LFP (Link Fault Pass-through)** function
- Supports full/half duplex operation
- **P.S.E.** fully compliant with IEEE802.3at standard, provide up to **60Watts**
- Supports store and forward transmission
- Provided DIP-Switch to setting function and PoE mode selectable
- High reliability and rigid IP-30 housing
- DIN-Rail and wall mounting enabled



## Introduction

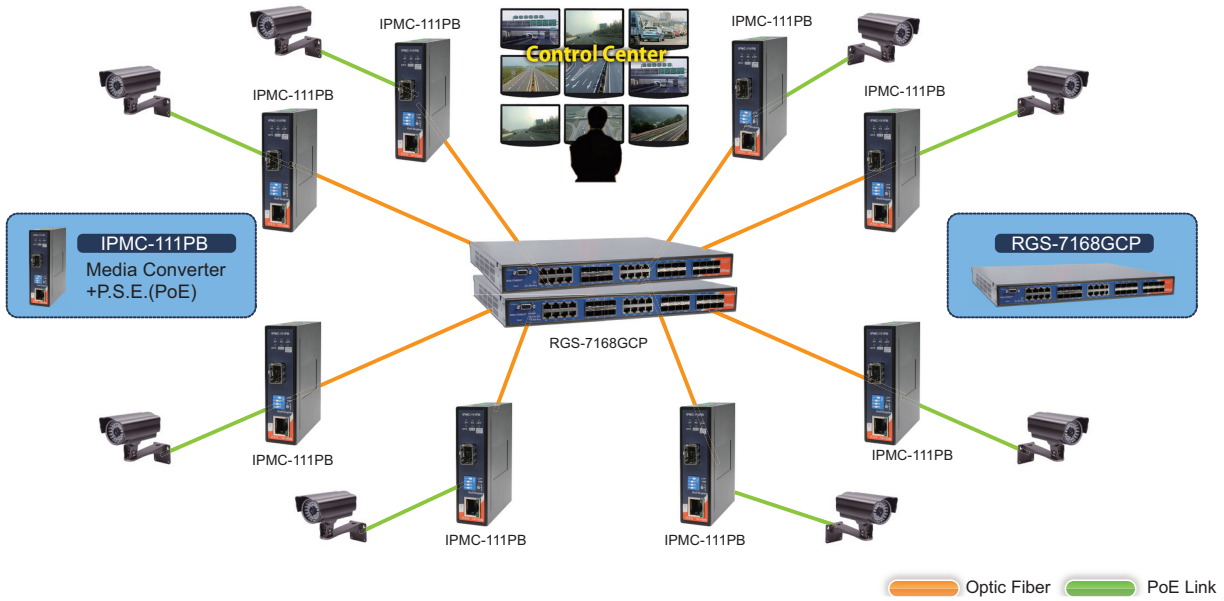
IPMC-111PB++-60W is a cost-effective solution for the conversion interface between 10/100Base-T(X) and 100Base-FX, it allows you to extend communication distance by optical fiber. IPMC-111PB++-60W supports MDI/MDIX auto detection, so you don't need to use crossover wires. IPMC-111PB++-60W also support Power over Ethernet, a system to transmit electrical power up to **60 watts**, along with data, to remote devices over standard 4-pair cable in an Ethernet network. Each IPMC-111PB++-60W has 1x10/100Base-T(X) P.S.E. (Power Sourcing Equipment) port to provide power in a PoE setup. IPMC-111PB with wide operating temperature range from -40 ~ 75°C and accepts a wide voltage range from dual 50~57 VDC power inputs, so it is suitable for harsh operating environments.

IPMC-111PB++-60W 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 IPMC-111PB++-60W will force the link to shutdown as soon as noticed that the other link has failed, to notice the administrator to react to the situation. Therefore, the IPMC-111PB++-60W is reliable media converter with PoE capability and can satisfy most demand of operating environment.



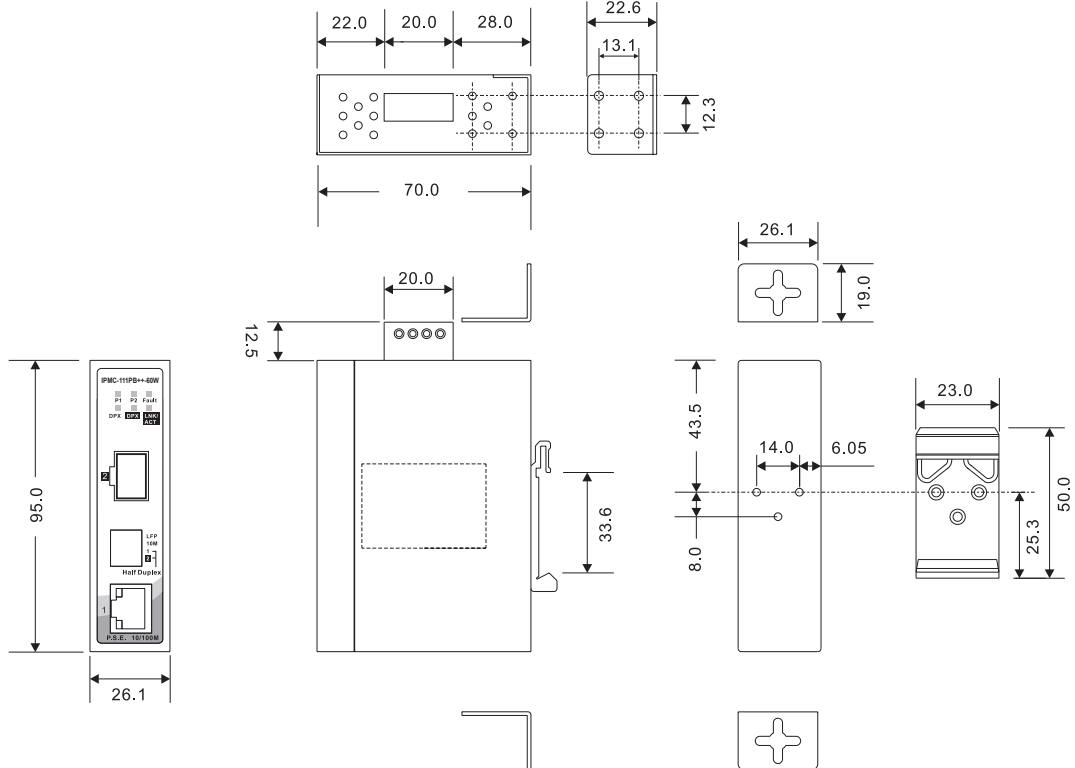
Connections of the LFP function

Practical Operation



Connections of the media converters

Dimensions



(Unit=mm)

## Connector and Pin Definition

### 10/100 Base-T(X)

Pin	RJ-45 Output (Data and Power)	
	Symbol	Description
1	Rx+ (Vdc1+)	Data Receive and Feeding power(+)
2	Rx- (Vdc1+)	Data Receive and Feeding power(+)
3	Tx+ (Vdc1-)	Data Transmit and Feeding power(-)
4	NC (Vdc2+)	Not Connected and Feeding power(+)
5	NC (Vdc2+)	Not Connected and Feeding power(+)
6	Tx- (Vdc1-)	Data Transmit and Feeding power(-)
7	NC (Vdc2-)	Not Connected Feeding power(-)
8	NC (Vdc2-)	Not Connected Feeding power(-)

Note: pins 3/6/7/8 (-Vdc) should not be shorted to ground

## Specifications

ORing Media Converter Model	IPMC-111PB++-60W
<b>Physical Ports</b>	
10/100 Base-T(X) with P.S.E. Port in RJ45 Auto MDI/MDIX	1
100/1000Base-X SFP port	1
<b>Technology</b>	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control IEEE 802.3at PoE specification
Processing	Store-and-Forward
<b>LED indicators</b>	
Power indicator	Green : Power LED x 2 (ON : power input on-line / (OFF) power input off-line
10/100Base-T(X) RJ45 port indicator	Green for port Link/Act – (ON) Link up / (Blinking) Acting / (OFF) 10Mbps or Link down Green for port duplex indicator – (ON) Full-Duplex / (OFF) Half-Duplex
100Base-FX fiber port indicator	Green for fiber port Link/Act - (ON) Link up / (Flash) Acting / (OFF) Link down Green for fiber port duplex indicator – (ON) Full-Duplex / (OFF) Half-Duplex
LFP state indicator	Amber LED – (ON) LFP function happen / (OFF) LFP function disable
PoE indicator	Green for P.S.E. indicator
<b>DIP Switch for function</b>	
DIP-Switch setting	DIP-Switch 1 for LFP mode selection : (ON) enable / (OFF) disable DIP-Switch 2 for Ethernet speed selection : (ON) 10Mbps / (OFF) 10/100Mbps Auto-negotiate DIP-Switch 3 for Ethernet full/half duplex selection : (ON) Half-duplex / (OFF) Full/Half-Duplex Auto-negotiate DIP-Switch 4 for fiber full/half duplex selection : (ON) Half-Duplex / (OFF) Full-Duplex
<b>DIP Switch for PoE mode</b>	
DIP Switch 1/2	DIP Switch 1/2 (OFF): PoE P.S.E set to master and Asynchronize mode. (default) DIP Switch 1/2 (ON) : PoE P.S.E set to synchronize mode
<b>Power</b>	
Input power	Dual 50~57 VDC voltage power inputs at 4-pin terminal block
Power consumption (Typ.)	3 Watts (Not include PD's device)
Short circuit protection	Present
Reverse polarity protection	Present
<b>Physical Characteristic</b>	
Enclosure	IP-30
Dimension (W x D x H)	26.1 (W) x 70 (D) x 95 (H)mm (1.03 x 2.76 x 3.74 inch)

Weight (g)	228g
<b>Environmental</b>	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 75°C (-40 to 158°F)
Operating Humidity	5% to 95% Non-condensing
<b>Regulatory approvals</b>	
EMC	EN55032 EN55024
EMI	FCC Part 15B Class A CISPR 22 class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
Warranty	5 years

**Ordering Information**

IPMC-1 **A****B****C**B++-60W



Code Definition	10/100Base-T(X) Port Number	Fiber Port Number	Fiber Port Type
<b>Option</b>	- <b>1</b> : 1 port	- <b>1</b> : 1 port	- <b>P</b> : 100Base-FX SFP

Available Model	Model Name	Description
	IPMC-111PB++-60W	Industrial mini type Ethernet to fiber High power PoE++ media converter with 1x10/100Base-T(X) P.S.E. and 1x100Base-FX, SFP socket

**Packing List**

- IPMC-111PB++-60W x 1
- Wall-Mount Kit x 1
- Quick Installation Guide x 1
- Din-Rail Kit x 1

**Optional Accessories (Can be purchased separately)**

- SFP100 series : 100Mbps SFP optical transceiver
- DR/SDR/DRP series DIN-Rail power supply