IPMC-111PB++-60W

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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

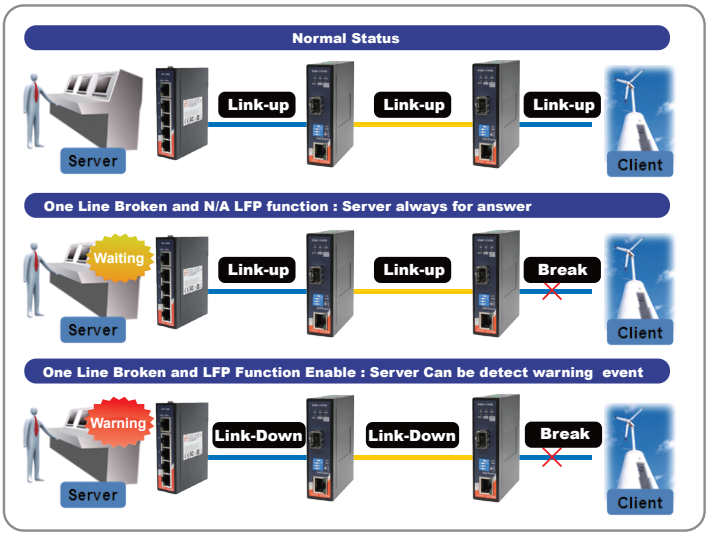
- Supports 1 port 10/100Base-T(X) P.S.E. auto-negotiation and auto-MDI/MDI-X
- Support Ethernet to fiber or Ethernet to SFP port
- Support **LFP (Link Fault Pass-through)** function
- Supports full/half duplex operation
- **P.S.E.** fully compliant with IEEE802.3at standard, provide up to **60Watts**
- 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

Mini Type | -40~75°C Temperature | 60W PoE | Redundant PWR | RoHS Lead Free | CE | FC

Introduction

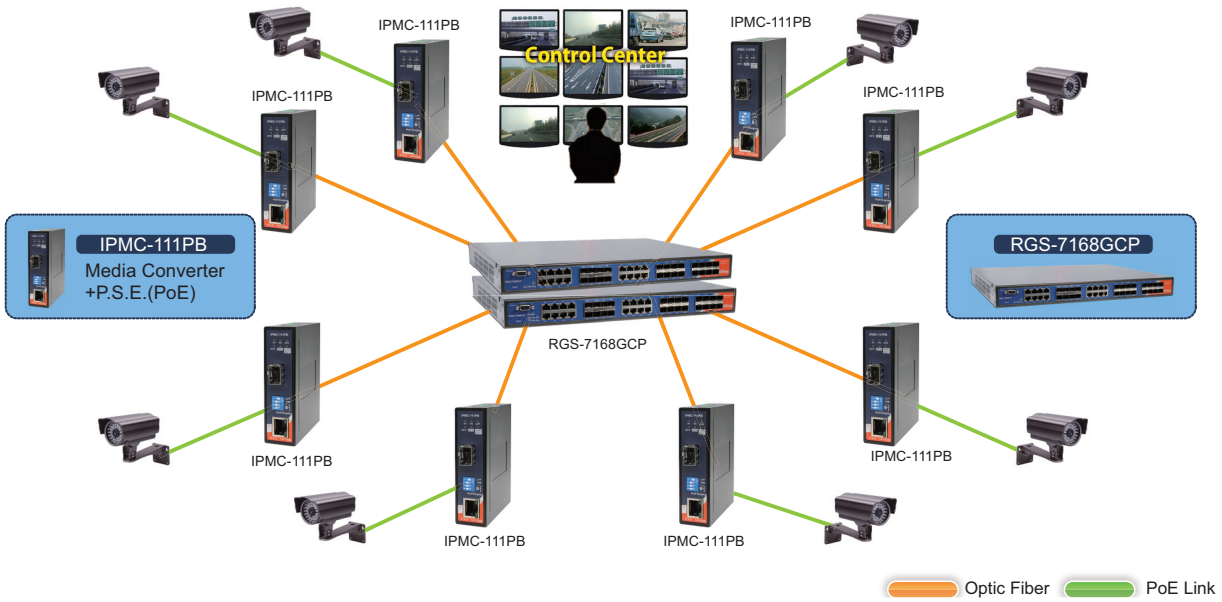
IPMC-111PB++-60W is a cost-effective solution for the conversion interface between 10/100Base-T(X) and 100Base-FX, it allows you to extend communication distance by optical fiber. IPMC-111PB++-60W supports MDI/MDIX auto detection, so you don't need to use crossover wires. IPMC-111PB++-60W also support 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℃ 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.



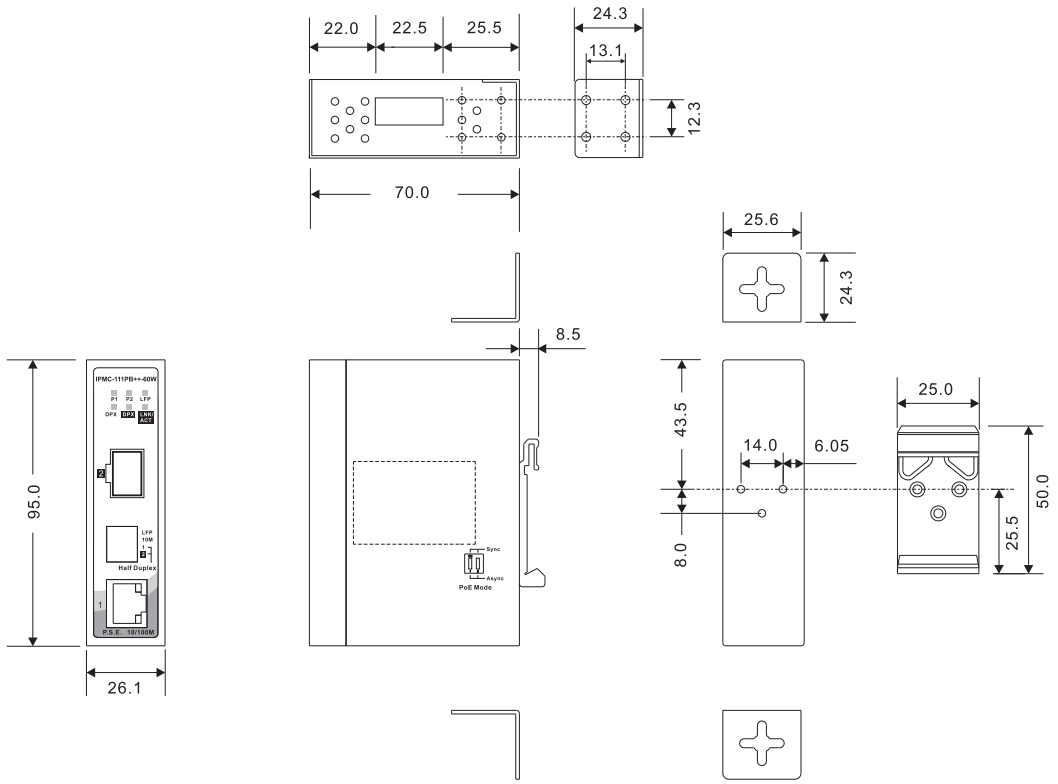
Connections of the LFP function

Practical Operation



Connections of the media converters

Dimension



(Unit=mm)

Connector and Pin Definition

10/100 Base-T(X)

	RJ-45 Output (Data and Power)	
Pin	**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
Physical Ports	
10/100 Base-T(X) with P.S.E. Port in RJ45 Auto MDI/MDIX	1
100Base-X SFP port	1
Technology	
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
LED indicators	
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
DIP Switch for function	
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
DIP Switch for PoE mode	
DIP Switch 1/2*NOTE1	DIP Switch 1/2 (OFF): PoE P.S.E set to master and Asyncronize mode. DIP Switch 1/2 (ON) : PoE P.S.E set to syncronize mode(default)
Power	
Input power	Dual 50~57 VDC voltage power inputs at 4-pin terminal block
Power consumption (Typ.)	3 Watts (Not include P.D's device)
Short circuit protection	Present
Reverse polarity protection	Present
Physical Characteristic	
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
Environmental	
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
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), IEC/EN 61000-4-3 (RS),IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11 (DIP))
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF	2067004hr
Warranty	5 years

***Note1: (1) By default, the output value of the high power PoE++ is in Sync mode which supports PoE af/at-compliant P.D. devices.**
(2) If you cannot enable the 60W PTZ camera, please set the DIP switch to Async mode and reconnect power. This mode only supports Dual P.D mode. You may not connect to an af/at-compliant P.D. device with this mode.

Ordering Information

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

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

	Model Name	Description
Available Model	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