

IMC-111FB_PB series



IMC-111FB_PB

► **Industrial mini type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX fiber or 1x100Base-FX SFP socket**

Features

- Support 1 port 10/100Base-T(X) ports
- Support 1 x 100Base-FX single/multi-mode fiber or SFP ports
- Support LFP (Link Fault Pass-through) function
- Provide full/half duplex operation change
- Support auto-negotiation and auto-MDI/MID-X
- Support Store and forward transmission
- Provide DIP switch to setting function
- Rigid IP-30 housing design
- DIN-rail and wall mounting enable



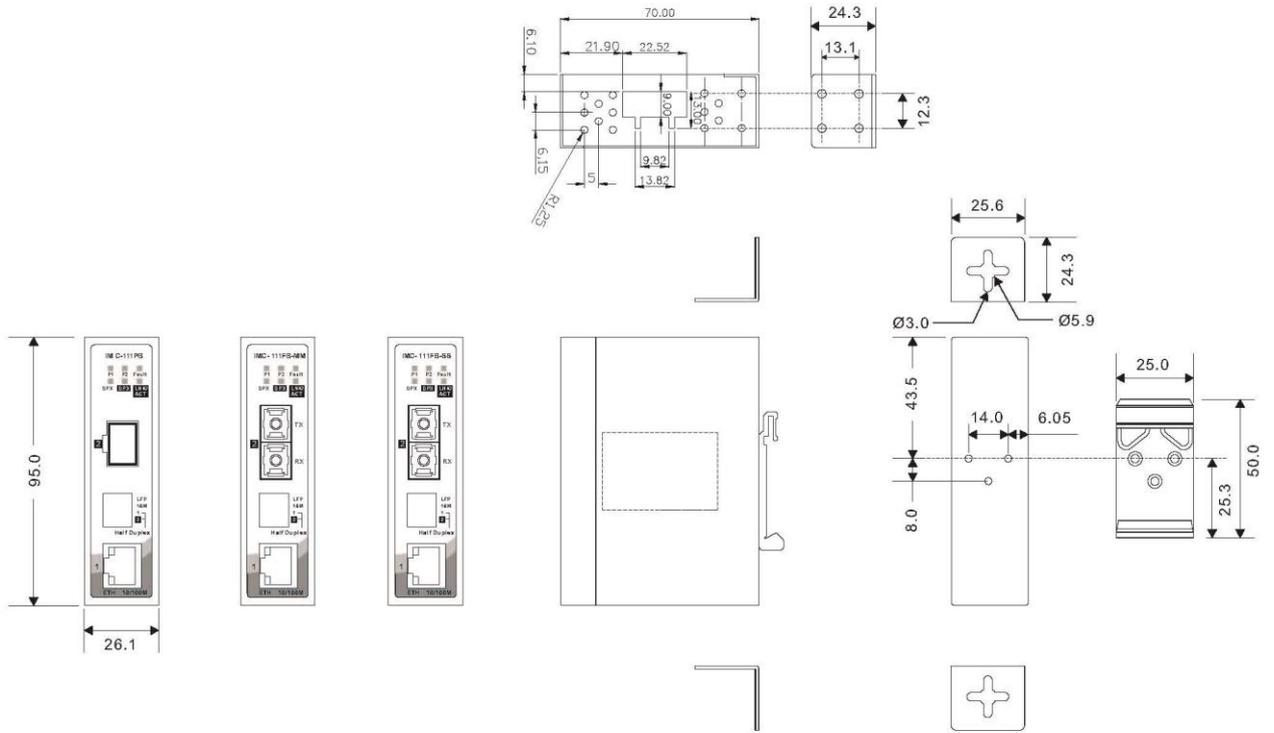
Introduction

IMC-111 series is a cost-effective solution for the conversion between 10/100Base-T(X) and 100Base-FX interface, it allows you to extend communication distance by optical fiber. IMC-111 series supports MDI-MDIX auto detection, so you don't need to use crossover wires. IMC-111 series with wide operating temperature range from -40 to 75 and accepts a wide voltage range from dual 12-48VDC power inputs, so it is suitable for harsh operating environments.

IMC-111 series also support 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 IMC-111 series 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. Therefore, the IMC-111 series is reliable media converter and can satisfy most demand of operating environment.

Dimensions

Unit =mm (Tolerance ±0.5mm)



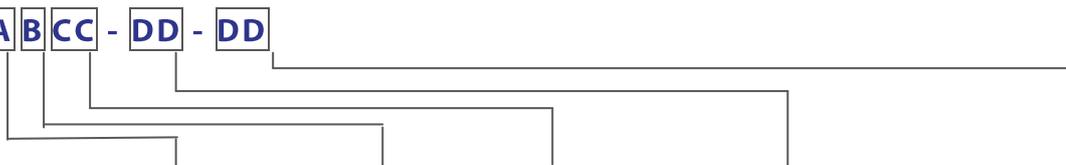
Specifications

ORing Switch Model	IMC-111FB-MM	IMC-111FB-SS	IMC-111PB
Physical Ports			
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	1	1	1
Fiber Ports Specification	Fiber Ports Number	1	-
	Fiber Ports Standard	100Base-FX	100Base-FX
	Fiber Mode	Multi-Mode	Single-Mode
	Fiber Diameter(um)	62.5/125 um & 50/125 um	9/125 um
	Fiber Optical Connector	SC/ST	SC/ST
	Typical Distance(Km)	2Km	30Km
	Wavelength(nm)	1310nm	1310nm
	Max. Output Optical Power(dBm)	-14dbm	-8dbm
	Min. Output Optical Power(dBm)	-23.5dbm	-15dbm
	Max. Input Optical Power(Saturation)	0dbm	0dbm
	Min. Input Optical Power(Sensitivity)	-31dbm	-34dbm
	Link Budget(db)	7.5db	19db
100Base-FX 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		
MAC Table	1K		
Packet buffer	288K bits		
Processing	Store-and-Forward		
Switch Properties	Switching latency: 7 us Switching bandwidth: 0.4Gbps Throughput (packet per second) : 0.2896Mpps@64Bytes packet		
DIP switch for functional setting			
DIP Switch 1	LFP mode, ON: Enable, OFF: Disable (default)		
DIP Switch 2	RJ45 speed selection, ON: 10Mbps, OFF: 10/100Mbps auto-negotiation (default)		
DIP Switch 3	RJ45 full/half selection, ON: Half duplex, OFF: Full duplex (default)		
DIP Switch 4	Fiber full/half selection, ON: Half duplex, OFF: Full duplex (default)		
LED indicators			
Power Indicator (PWR)	Green: Power LED x 2		
10/100Base-T(X) RJ45 Port Indicator	Upper LED for Link/Act indicator: Green for port Link/Act, Blink for Acting, OFF for Link down Lower LED for speed indicator, Amber for 100Mbps, OFF for 10Mbps DPX LED, Green for full-duplex, OFF for half-duplex		
100Base-FX Fiber port Indicator	LNK/ACT LED, Green for port Link/Act, Blink for Acting, OFF for Link down DPX LED, Green for full-duplex, OFF for half-duplex		
LFP status indicator	Amber for LFP function enable, OFF for LFP function disable		
Power			
Redundant Input power	Dual 12~48VDC on 4-pin terminal block		
Power consumption (Typ.)	<3.4W, 0.28-0.07A	<3W, 0.22-0.06A	<2.5W 0.17-0.05A

Overload current protection	Present		
Reverse Polarity Protection	Present		
Physical Characteristic			
Enclosure	IP-30 Metal		
Dimension (W x D x H)	26.1 (W) x 70 (D) x 95 (H)mm 1.03 (W) x 2.76 (D) x 3.74 (H) inch		
Weight (g)	218 g		213g
Hardware Version	V1.0		
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, Signal 1KV), IEC/EN 61000-4-6 (CS: 3V), 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	EN 60950-1 (LVD)		
MTBF	2,391,695hrs (SC fiber) 2,175,072hrs (ST fiber)	2,607,981hrs (SC fiber) 2,316,230hrs (ST fiber)	2,803,593hrs
Warranty	5 years		

Ordering Information

IMC-1A B CC - DD - DD



Code Definition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type	Fiber Optical Mode	Fiber Optical Connector
Option	- 1: 1 port	- 1: 1 port	- FB : 100Base-FX fiber - PB : 100Base-FX SFP	- MM : Multi-Mode - SS : Single-Mode	- SC : SC Connector - ST : ST Connector

Available Model	Model Name	Description
	IMC-111FB-MM-SC	Industrial mini type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, Multi-Mode, 2Km/1310nm, SC connector
	IMC-111FB-MM-ST	Industrial mini type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, Multi-Mode, 2Km/1310nm, ST connector
	IMC-111FB-SS-SC	Industrial mini type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, Single-Mode, 30Km/1310nm, SC connector
	IMC-111FB-SS-ST	Industrial mini type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, Single-Mode, 30Km/1310nm, ST connector
	IMC-111PB	Industrial mini type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, SFP socket

Packing List

- IMC-111FB_PB series x 1
- DIN-Rail Kit x 1
- Wall-mount Kit x 2
- Quick Installation Guide x 1

Optional Accessories

- DR/SDR/DRP Series DIN-Rail power supply

Mouser Electronics

Authorized Distributor

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ORing:

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