

# RMC-111FB Series / RMC-111PB

➔ **Industrial rack-mount card type Ethernet to fiber media converter with 1x10/100Base-T(X) to 1x100Base-FX**

## Features

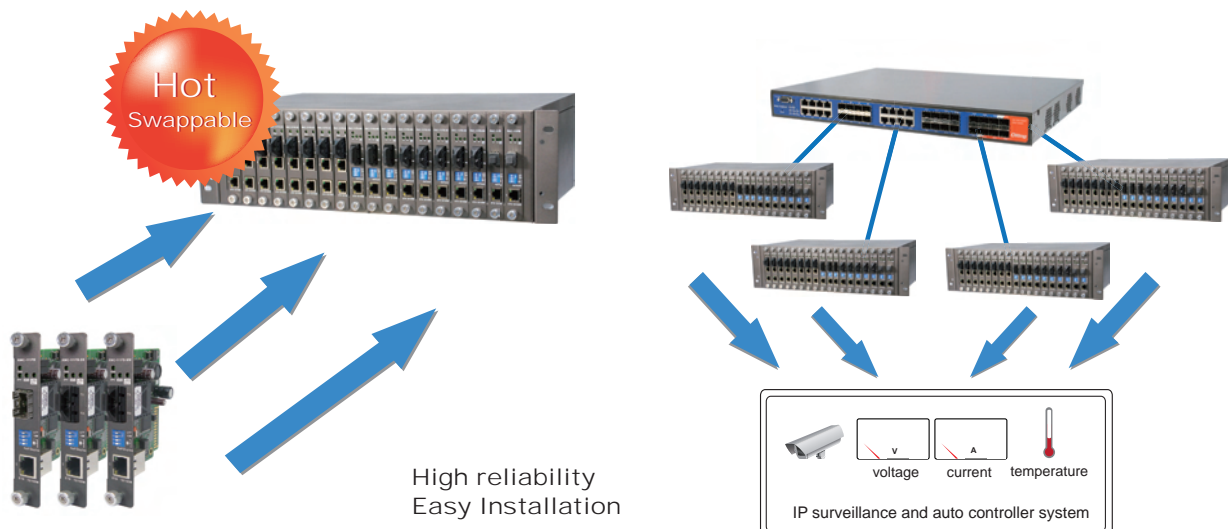
- Each converter supports one 10/100Base-T(X) port with auto-negotiation and auto-MDI/MDI-X
- Support Ethernet to fiber or Ethernet to SFP port for long distance communication
- Support **LFP (Link Fault Pass-through)** function
- Support full/half duplex operation
- Support store-and-forward transmission
- Provide DIP-Switches for function setting
- Hot-swappable, High reliability and easy installation
- Up to 18 slots of high-density installation in RMC-1000 chassis on the 19-inch rack



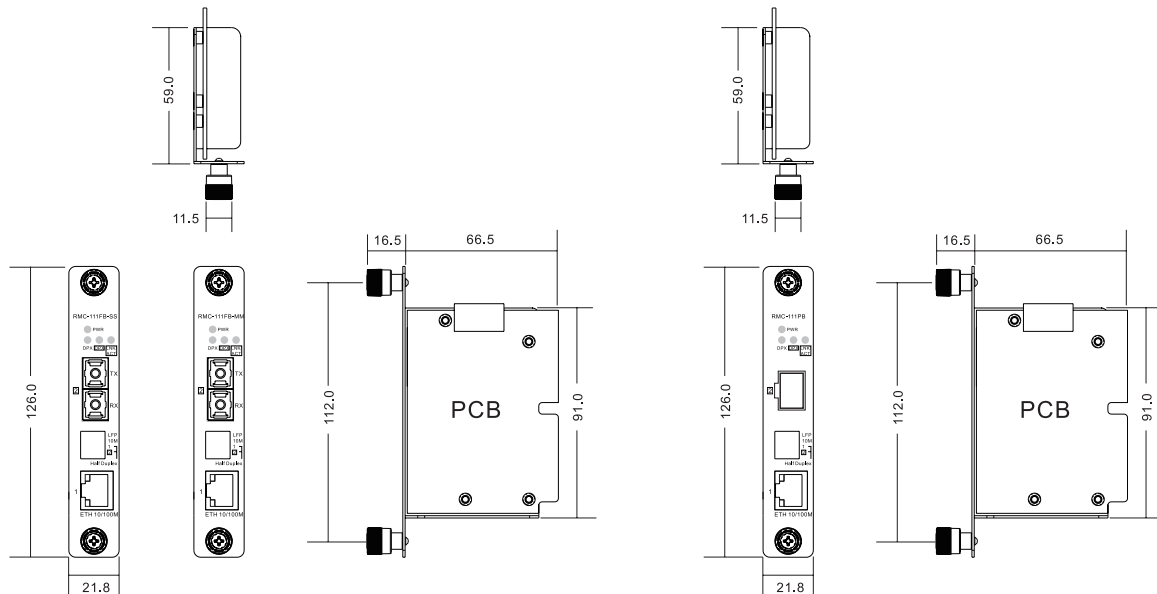
## Introduction

RMC-111 series are industrial rack-mount card type Ethernet to fiber media converters for the rack-mount chassis box of RMC-1000, as these card type converters are hot-swappable and can be easily installed on RMC-1000. RMC-111 series are the cost-effective solution for the conversion between 10/100Base-T(X) and 100Base-FX interface, allowing you to extend communication distance by optical fiber. RMC-111 series support MDI/MDIX auto detection, so you don't need to use crossover wires.

RMC-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 waits for a response that never arrives from the disconnected side. Use the DIP-Switch to enable the LFP function, then RMC-111 series will force the link to shutdown as soon as noticed that the other link has failed, giving the application software a sign to react to the situation. Therefore, the RMC-111 series, with RMC-1000 as their host, are reliable media converters that can satisfy most demands of operating environments.



## Dimensions



(Unit=mm)

## Specifications

ORing Card-Type Media Converter Model		RMC-11FB-MM	RMC-11FB-SS	RMC-11PB
<b>Physical Ports</b>				
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX		1	1	1
Fiber Ports Specifications	Fiber Ports Number	1	1	-
	Fiber Ports standard	100Base-FX	100Base-FX	-
	Fiber Mode	Multi-mode	Single-mode	-
	Fiber Diameter (µm)	62.5/125 µm 50/125 µm	9/125 µm	-
	Fiber Optical Connector	SC	SC	-
	Typical Distance (km)	2 km	30 km	-
	Wavelength (nm)	1310 nm	1310 nm	-
	Max. Output Optical Power (dBm)	-14 dBm	-8 dBm	-
	Min. Output Optical Power (dBm)	-23.5 dBm	-15 dBm	-
	Max. Input Optical Power (Saturation)	0 dBm	0 dBm	-
	Min. Input Optical Power (Sensitivity)	-31 dBm	-34 dBm	-
Link Budget (dB)	7.5 dB	19dB	-	
100Base-FX 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		
Processing		Store-and-Forward		

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>LED Indicators</b>		
Power / Indicator	Green : Power LED x 1	
10/100Base-T(X) RJ45 port indicator	Green for port Link/Act Amber for 100Mbps indicator Green for port duplex indicator	
100Base-FX fiber port indicator	Green for fiber port Link/Act - (ON) Link up / (Blinking) Acting / (OFF) Link down Green for fiber port duplex indicator - (ON) Full-Duplex / (OFF) Half-Duplex	
LFP status indicator	Amber for link fault detected and passed	
<b>Power</b>		
Power consumption (Typ.)	2.2 Watts	
Reverse Polarity Protection	Present	
<b>Physical Characteristics</b>		
Dimensions (W x D x H)	21.8 (W) x 73.1 (D) x 126 (H) mm	
Weight (g)	145 g	140 g
<b>Environmental</b>		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-10 to 60°C (14 to 140°F)	
Operating Humidity	5% to 95% Non-condensing	
<b>Regulatory Approvals</b>		
EMI	FCC Part 15, CISPR (EN55022) 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	
Warranty	2 years	

## Ordering Information

RMC-1 **A** **B** **C** **B** - **DD** - **EE**

Code Definition	10/100/1000Base-T(X) Port Number	100Base-FX Fiber Port Number	Fiber Port Type	Fiber Optical Mode	Fiber Optical Connector
<b>Option</b>	- <b>1</b> : 1 port	- <b>1</b> : 1 port	- <b>F</b> : 100Base-FX Fiber - <b>P</b> : 100Base-FX SFP	- <b>MM</b> : Multi-mode - <b>SS</b> : Single-mode	- <b>SC</b> : SC connector

Available Model	Model Name	Description
	RMC-111FB-MM-SC	Industrial Rack-mount card type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, multi-mode, 2km/1310nm, SC connector <b>Art. No. 126140</b>
	RMC-111FB-SS-SC	Industrial Rack-mount card type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, single-mode, 30km/1310nm, SC connector <b>Art. No. 126141</b>
	RMC-111PB	Industrial Rack-mount card type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, SFP socket <b>Art. No. 126142</b>
<b>Packing List</b>		<b>Optional Accessories (Can be purchased separately)</b>
<ul style="list-style-type: none"> <li>RMC-111FB/111PB</li> <li>Quick Installation Guide</li> </ul>		<ul style="list-style-type: none"> <li>FPC series : Fiber Patch cord</li> </ul>