

RMC-111FB Series / RMC-111PB

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

Features

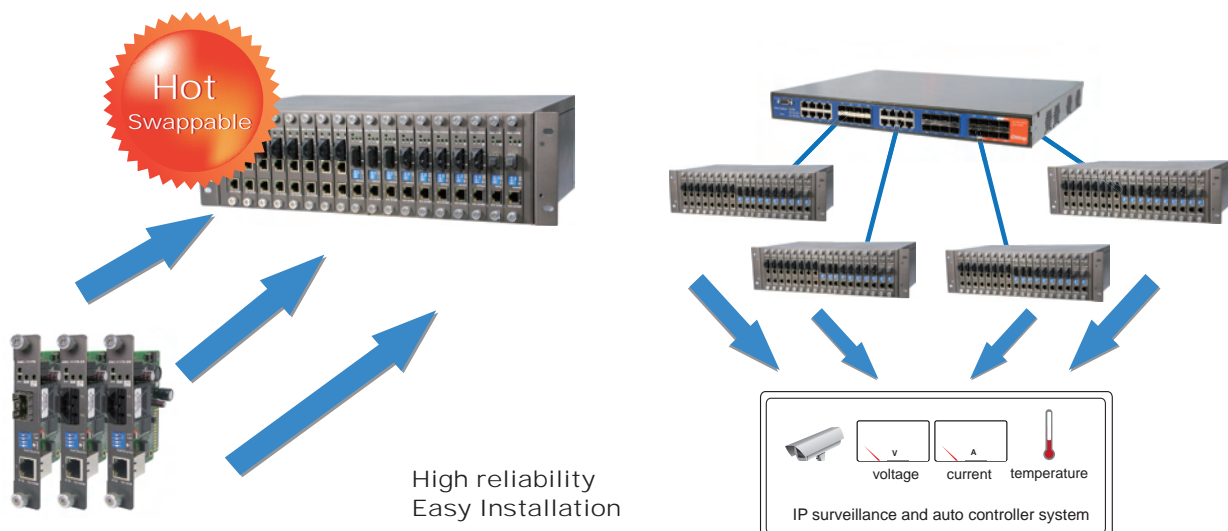
- Each converter supports one 10/100Base-T(X) port with auto-negotiation and auto-MDI/MDI-X
- Support Ethernet to fiber or Ethernet to SFP port for long distance communication
- Support **LFP (Link Fault Pass-through)** function
- Support full/half duplex operation
- Support store-and-forward transmission
- 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



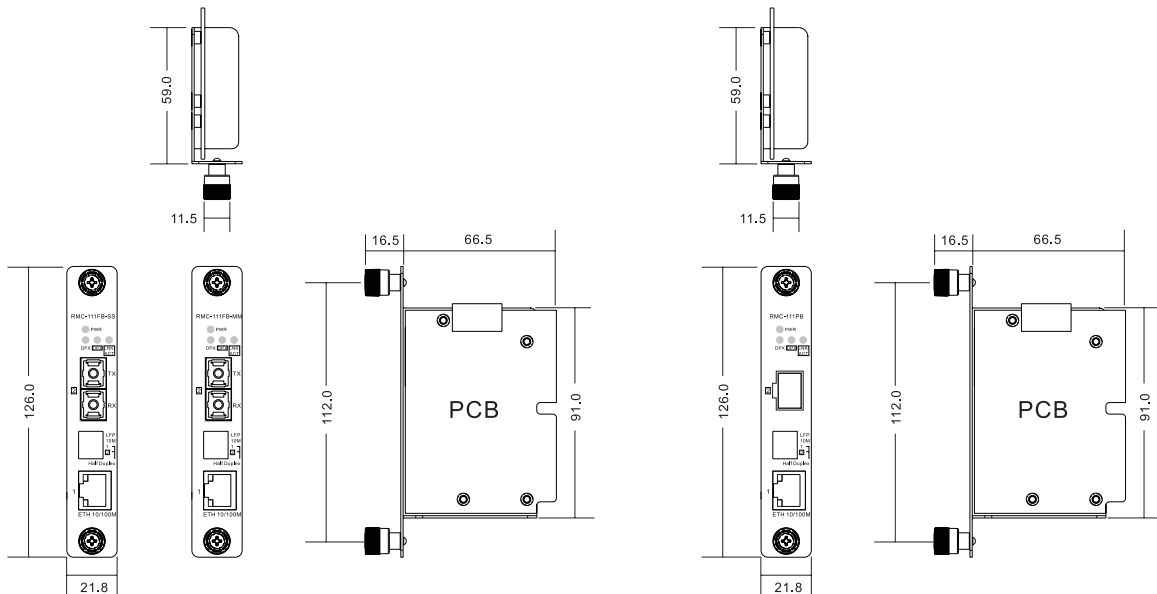
Introduction

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 |
|---|--|--------------------------|-------------|
| Physical Ports | | | |
| 10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX | 1 | 1 | 1 |
| Fiber Ports Specifications | Fiber Ports Number | 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 |
| Technology | | | |
| 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 | | |

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial M2M Gateway

Accessories

Network Management Software

| | | |
|-------------------------------------|---|-------|
| 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 | |
| LED Indicators | | |
| 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 | |
| Power | | |
| Power consumption (Typ.) | 2.2 Watts | |
| Reverse Polarity Protection | Present | |
| Physical Characteristics | | |
| Dimensions (W x D x H) | 21.8 (W) x 73.1 (D) x 126 (H) mm | |
| Weight (g) | 145 g | 140 g |
| Environmental | | |
| 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 | |
| Regulatory Approvals | | |
| 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 |
|-----------------|----------------------------------|------------------------------|--|---|----------------------------|
| Option | - 1 : 1 port | - 1 : 1 port | - F : 100Base-FX Fiber - P : 100Base-FX SFP | - MM : Multi-mode - SS : Single-mode | - SC : 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 |
| | 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 |
| | RMC-111PB | Industrial Rack-mount card type Ethernet to fiber media converter with 1x10/100Base-T(X) and 1x100Base-FX, SFP socket |

Packing List

- RMC-111FB/111PB
- Quick Installation Guide

Optional Accessories (Can be purchased separately)

- FPC series : Fiber Patch cord