#### RP-MC301 series

# 10/100Base-TX to 100Base-FX Smart Media Converter

RP-MC301series Fast Ethernet Media
Converter support conversion between
10/100Base-T and 100Base-FX network. There are



SC/ST/WDM connectors with single-mode or multi-mode media for various fiber optic applications, providing a cost-effective Ethernet-fiber link, in order to extend an Ethernet network connection over a fiber backbone. Just a simple plug-and-play that can be easily installed into any scenario.

RP-MC301 Series support DIP-Switch for enhancing smart function configuration. The DIP switch can disable or enable the LFP (link fault pass through) function and Flow-Control function. LFP (LLCF/LLR) can immediately alarm administrators the problem of the link media and provide efficient solution to monitor the net. LLCF (Link Loss Carry Forward) means when a device connected to the converter and the TP line loss the link, the converter's fiber will disconnect the link of transmit. LLR (Link Loss Return) means when a device connected to the converter and the fiber line loss the link, the converter's TP port will disconnect the link of transmit. Both can immediately alarm administrators the problem of the link media and provide efficient solution to monitor the net.

The RP-MC301 series can be used as a standalone unit when powered by its DC adapter or installation into the 14 Slot , 2U rack mount media converter chassis (RP-MCR314) for use at a central wiring closet.

#### **Features**

- 10/100Mbps auto-sensed, facilitating network upgrade
- Built-in efficient switching core to implement flow control and reduce broadcast packets
- Full-duplex and half-duplex auto-sensed
- Supporting auto-sense of MDI/MDI-X, facilitating system commissioning and installation
- LFP(Link Fault Pass-through) function
- Supporting the transmission of 100Base-FX or STM-1, compatible with other devices
- Supporting low-time lag transmission
- Supporting the transmission of extra-long packets up to 2048 bytes
- Extremely low power consumption (less than 2W), reliable and stable performance
- Options in single mode dual fiber or Multi-mode dual fiber

### Specifications

Ethernet  IEEE802.3x Flow Control  850nm/1310nm/1550nm  Multi-mode Dual-fiber: 2 km(50/125µm or 62.5/125µm); Single mode Dual-fiber: 20/40 km(9/125µm); Single mode Single-fiber: 20/40 km(9/125µm); Category-5 twisted pairs: 100m  One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC (9/125µm)  Dip Switch  DiP1: LFP function DIP2: Flow Control  Conversion means  Buffer space  Built in 128Kb RAM for data buffer  Flul duplex: flow control; Half duplex: back pressure  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Supply External power adapter DC5V1A  Operating Temperature Operating Humidity Storage Temperature  - 71×94 ×26 mm (W*D*H)	Standards	IEEE802.3 10Base-T Ethernet, IEEE802.3u 100Base-TX/FX Fast
IEEE802.3x Flow Control	- Staridards	
Segmin		
<ul> <li>Multi-mode Dual-fiber: 2 km(50/125μm or 62.5/125μm );</li> <li>Single mode Dual-fiber: 20/40 km(9/125μm);</li> <li>Single mode Single-fiber: 20/40 km(9/125μm);</li> <li>Category-5 twisted pairs: 100m</li> <li>One RJ45 port:         Connecting STP/UTP category-5 twisted pairs, EIA568A/B</li> <li>One optical port:         Multi-mode Dual-fiber: SC or ST (50/125μm or 62.5/125μm)         Single mode Dual-fiber: SC (9/125μm)</li> <li>Dip Switch</li> <li>DIP1: LFP function         DIP2: Flow Control</li> <li>Store and Forward mode or Cut-Through mode</li> <li>Built in 128Kb RAM for data buffer</li> <li>Full duplex: flow control;</li> <li>Half duplex: back pressure</li> <li>PWR (power supply), FX LINK/ACT (optical link action)</li> <li>FDX (full duplex), TX LINK/ACT (TP cable link/action)</li> <li>TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)</li> <li>Power Consumption</li> <li>ZW</li> <li>Power supply</li> <li>External power adapter DC5V1A</li> <li>Operating Temperature</li> <li>-40-75° C</li> <li>Dimension</li> <li>TX 194 x 26 mm (W*D*H)</li> </ul>	Wayolongth	
Single mode Dual-fiber: 20/40 km(9/125μm); Single mode Single-fiber: 20/40 km(9/125μm); Category-5 twisted pairs: 100m  One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125μm or 62.5/125μm) Single mode Dual-fiber: SC (9/125μm)  Dip Switch  DiP1: LFP function DIP2: Flow Control  Conversion means  Buffer space  Built in 128Kb RAM for data buffer  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  Storage Temperature  Dimension  Single mode Dual-fiber: 20/40 km(9/125μm);  One AM (50/125μm)  FDX (50/125μm)  FDX (9/125μm)  FDX (9/125μm)  FDX (9/125μm)  FDX (9/125μm)  FDX (125μm)  FDX (	wavelength	
Single mode Single-fiber: 20/40 km(9/125µm); Category-5 twisted pairs: 100m  One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC (9/125µm)  Dip Switch  Dip Switch  Dip Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply External power adapter DC5V1A  Operating Temperature Operating Humidity  5 % to 90% (Non-condensing)  Storage Temperature Dimension  Pone Supply FIND (W*D*H)		` ' '
Category-5 twisted pairs: 100m  One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC (9/125µm)  Dip Switch  Dip Switch  Dip Switch  Dip Switch  Dip Switch  Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) FDX (full duplex), TX LINK/ACT (TP cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  Storage Temperature  Dimension  One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  IN ACC (9/125µm)  FUS (9/125µm)		. ,
One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC (9/125µm)  Dip Switch  Dip Switch  Dip Switch  Dip Switch  Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  Storage Temperature  Dimension  One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm) Storage Temperature  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm) Storage Temperature  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm) Storage Temperature  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm) Storage Temperature  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm) Single mode Dual-fiber: SC or ST (50/125µm)  FUX (5		
Connecting STP/UTP category-5 twisted pairs, EIA568A/B  One optical port: Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC (9/125µm)  Dip Switch  Dip Switch  Dip Switch  Dip Switch  Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  Half duplex: flow control; Half duplex: back pressure  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Power Supply  Storage Temperature  T1x94 x26 mm (W*D*H)		
One optical port:   Multi-mode Dual-fiber: SC or ST (50/125μm or 62.5/125μm)   Single mode Dual-fiber: SC (9/125μm)   Dip Switch		·
Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm) Single mode Dual-fiber: SC (9/125µm)  Dip Switch  DIP1: LFP function DIP2: Flow Control  Conversion means Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  5% to 90% (Non-condensing)  Storage Temperature  -40~75° C  Dimension  Multi-mode Dual-fiber: SC or ST (50/125µm) FURCION (9/125µm) FURCI		
Single mode Dual-fiber: SC (9/125µm)  Dip Switch  DIP1: LFP function DIP2: Flow Control  Conversion means Store and Forward mode or Cut-Through mode  Buffer space Built in 128Kb RAM for data buffer Flow control  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply External power adapter DC5V1A  Operating Temperature Operating Humidity Storage Temperature  -40~75° C  Dimension  PIN2: Flow Control  FUX: Flow Control FUX: Flow		·
Dip Switch  DIP1: LFP function DIP2: Flow Control  Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  Storage Temperature  -40~75° C  Dimension  Dimension  Divided Control  Divided Proved Control  External Forward mode or Cut-Through mode  FUII duplex: flow control; Half duplex: back pressure  FUII duplex: flow control; Half duplex: back pressure  FUII duplex: flow control; Half duplex: fl		Multi-mode Dual-fiber: SC or ST (50/125µm or 62.5/125µm)
Dip Switch  DIP2: Flow Control  Conversion means  Store and Forward mode or Cut-Through mode  Buffer space  Built in 128Kb RAM for data buffer  Flow control  Full duplex: flow control;  Half duplex: back pressure  PWR (power supply), FX LINK/ACT (optical link action)  FDX (full duplex), TX LINK/ACT (TP cable link/action)  TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  Storage Temperature  T1x94 x26 mm (W*D*H)		Single mode Dual-fiber: SC (9/125µm)
<ul> <li>DIP2: Flow Control</li> <li>Conversion means</li> <li>Store and Forward mode or Cut-Through mode</li> <li>Buffer space</li> <li>Built in 128Kb RAM for data buffer</li> <li>Full duplex: flow control;</li> <li>Half duplex: back pressure</li> <li>PWR (power supply), FX LINK/ACT (optical link action)</li> <li>FDX (full duplex), TX LINK/ACT (TP cable link/action)</li> <li>TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)</li> <li>Power Consumption</li> <li>2W</li> <li>Power Supply</li> <li>External power adapter DC5V1A</li> <li>Operating Temperature</li> <li>-10~55°C</li> <li>Operating Humidity</li> <li>5% to 90% (Non-condensing)</li> <li>Storage Temperature</li> <li>-40~75° C</li> <li>Dimension</li> <li>71x94 x26 mm (W*D*H)</li> </ul>	Dip Switch	DIP1: LFP function
Buffer space  Built in 128Kb RAM for data buffer  Flow control  PWR (power supply), FX LINK/ACT (optical link action)  FDX (full duplex), TX LINK/ACT (TP cable link/action)  TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption  Power Supply  External power adapter DC5V1A  Operating Temperature  Operating Humidity  Storage Temperature  -40~75° C  Dimension  Built in 128Kb RAM for data buffer  Full duplex: flow control;  Half duplex: flow control;  External duplex: flow control;  FUX (full duplex), TX LINK/ACT (optical link action)  FDX (full duplex), TX LINK/ACT (TP cable link/action)  External power adapter DC5V1A  Operating Temperature  -10~55°C  Operating Humidity  -40~75° C  Dimension  T1×94 ×26 mm (W*D*H)		DIP2: Flow Control
Flow control  Full duplex: flow control; Half duplex: back pressure  PWR (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)  Power Consumption Power Supply External power adapter DC5V1A  Operating Temperature Operating Humidity Storage Temperature  -40~75° C  Dimension  Full duplex: flow control; External power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) FDX (full dup	Conversion means	Store and Forward mode or Cut-Through mode
<ul> <li>Half duplex: back pressure</li> <li>PWR (power supply), FX LINK/ACT (optical link action)</li> <li>FDX (full duplex), TX LINK/ACT (TP cable link/action)</li> <li>TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)</li> <li>Power Consumption</li> <li>2W</li> <li>Power Supply</li> <li>External power adapter DC5V1A</li> <li>Operating Temperature</li> <li>-10~55°C</li> <li>Operating Humidity</li> <li>5% to 90% (Non-condensing)</li> <li>Storage Temperature</li> <li>-40~75° C</li> <li>Dimension</li> <li>71×94 x26 mm (W*D*H)</li> </ul>	Buffer space	Built in 128Kb RAM for data buffer
<ul> <li>Half duplex: back pressure</li> <li>PWR (power supply), FX LINK/ACT (optical link action)</li> <li>FDX (full duplex), TX LINK/ACT (TP cable link/action)</li> <li>TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)</li> <li>Power Consumption</li> <li>2W</li> <li>External power adapter DC5V1A</li> <li>Operating Temperature</li> <li>-10~55°C</li> <li>Operating Humidity</li> <li>5% to 90% (Non-condensing)</li> <li>Storage Temperature</li> <li>-40~75° C</li> <li>Dimension</li> <li>T1x94 x26 mm (W*D*H)</li> </ul>	Flow control	Full duplex: flow control;
<ul> <li>FDX (full duplex), TX LINK/ACT (TP cable link/action)         <ul> <li>TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)</li> </ul> </li> <li>Power Consumption         <ul> <li>2W</li> </ul> </li> <li>Power Supply                 <ul> <li>External power adapter DC5V1A</li> <li>Operating Temperature</li> <ul> <li>5% to 90% (Non-condensing)</li> </ul> </ul></li> <li>Storage Temperature</li> <ul> <li>71x94 x26 mm (W*D*H)</li> </ul> </ul>		Half duplex: back pressure
<ul> <li>TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)</li> <li>Power Consumption</li> <li>2W</li> <li>External power adapter DC5V1A</li> <li>Operating Temperature</li> <li>-10~55°C</li> <li>Operating Humidity</li> <li>5% to 90% (Non-condensing)</li> <li>Storage Temperature</li> <li>-40~75° C</li> <li>Dimension</li> <li>T1x94 x26 mm (W*D*H)</li> </ul>	LED indicators	PWR (power supply), FX LINK/ACT (optical link action)
Power Consumption  • 2W  Power Supply  • External power adapter DC5V1A  Operating Temperature  • -10~55°C  Operating Humidity  • 5% to 90% (Non-condensing)  Storage Temperature  • -40~75° C  Dimension  • 71×94 ×26 mm (W*D*H)		<ul> <li>FDX (full duplex), TX LINK/ACT (TP cable link/action)</li> </ul>
Power Supply  • External power adapter DC5V1A  Operating Temperature  • -10~55°C  Operating Humidity  • 5% to 90% (Non-condensing)  Storage Temperature  • -40~75° C  Dimension  • 71×94 ×26 mm (W*D*H)		TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)
Operating Temperature  • -10~55°C  Operating Humidity  • 5% to 90% (Non-condensing)  Storage Temperature  • -40~75° C  Dimension  • 71×94 ×26 mm (W*D*H)	Power Consumption	• 2W
Operating Humidity  • 5% to 90% (Non-condensing)  Storage Temperature  • -40~75° C  Dimension  • 71×94 ×26 mm (W*D*H)	Power Supply	External power adapter DC5V1A
Storage Temperature  • -40~75° C  Dimension  • 71×94 ×26 mm (W*D*H)	Operating Temperature	• -10~55°C
<b>Dimension</b> ● 71×94 ×26 mm (W*D*H)	Operating Humidity	• 5% to 90% (Non-condensing)
	Storage Temperature	• -40~75° C
Certification • FCC CF	Dimension	• 71×94 ×26 mm (W*D*H)
	Certification	• FCC, CE

## Ordering information

RP-MC301SC 10/100Base-TX to 100Base-FX Smart Media Converter, MM/SC-2km RP-MC301C20 10/100Base-TX to 100Base-FX Smart Media Converter, SM/SC-20km