



Features

- Industrial serial to fiber media converter
- Speed up to 921.6 Kbps
- Peer to Peer or SFR for serial fiber ring communication
- Auto baud rate and direction control
- Multi-mode 5 km, Single mode 60Km
- 15KV ESD protection
- Wide range power input from 12V to 48Vdc
- Wide operating temperature (-40 to +70°C)
- Terminator and biasing resistors by DIP switch
- 1X9 Standard ST/SC Fiber Transceiver

Introduction

The standard RS-232/422/485 protocols and interfaces have been widely used in most of industrial equipments for serial port communication. The fiber media material offers ideal insulation and long distance advantages for data transmission. The AMC-5910 series combine many advantages of RS-232/422/485 and fiber media for serial communication. The Peer to Peer (PTP) and Serial Fiber Ring (SFR) modes are typical application modes in the networking communication. The serial interface mode and optical mode are easy setting with DIP switch.

Automatic Direction and High Speed Transmission

The AMC-5910 series support RS-232, RS-422, half-duplex 2-wire RS-485 and full-duplex 4-wire RS-485 to fiber media converter. The RS-485 offers the automatic data direction control feature. The data rate supports up to 921.6Kbps, satisfying the need of most automatic control systems.

Wide range Power Input, Temperature, and Insulation Protection

The wide range DC power input from 12V to 48V, this wide range DC power input supports the demanding of versatile industrial applications. Most of industrial applications are harsh environment, The AMC-5910 series provide the operating temperature from -40 to 70 °C, give you a reliable solution of a RS-232/RS-422/485 to fiber media converter for wide temperature application. The AMC-5910 series provide full insulation between two devices with fiber media, every AMC-5910 have 15K ESD protection on the RS-422/485 signal lines.

Peer to Peer (PTP) and Serial Fiber Ring (SFR) modes

The PTP mode offers fiber media transmission between two devices, it is a simply application for fiber full duplex communication.

The SFR mode offers ring transmission from 5km to 100km distance. It only allows half-duplex communication among devices.

Specifications

Serial Interface

Number of Ports: 1
Connector: Terminal Block
RS-232 Signals: TxD, RxD, GND
RS-422 Signals: TxD+, TxD-, RxD+, RxD-, GND
RS-485-4w Signals: TxD+, TxD-, RxD+, RxD-, GND
RS-485-2w Signals: Data+, Data-, GND
Baud rate: 300 bps to 921.6 Kbps

Serial Connection Distance

RS-232: 15 meters (50 feet)
RS-422: 1200 meters (4000 feet)
RS-485 2/4w: 1200 meters (4000 feet), Max. 32 nodes

Optical Fiber interface

Number of Ports: 1
Connector: ST or SC type
Fiber Cable Requirements
Multi-mode fiber: 50 ~ 62.5 / 125 um
Single-mode fiber: 8 ~ 10 / 125 um

Optical Transmission Distance

Multi-mode 1310nm: 5 KM
Single-mode 1310nm: 60 KM
ESD Protection: ESD Contact 8KV, Air 15KV embedded

Optical Fiber Link Architecture

Peer to Peer (PTP) Mode: Full-duplex

Industrial Serial RS-232/422/485 to Fiber Media Converter

Serial Fiber Ring (SFR) Mode: Half-duplex

Physical Characteristics

Housing: Aluminum

Dimension: 74 x 24.7 x 99mm (W x H x D)

Weight: 140 g

Environment Operating

Operating Temperature: -40 ~ 70°C (-40 ~ 158°F)

Operating Humidity: 20 ~ 85% @40°C, non-condensing

Storage Temperature: -40 ~ 85°C (-40 ~ 185°F)

Storage Humidity: 10 ~ 90% @40°C, non-condensing

Safety and Certifications

EMC: CE, FCC

EMI: FCC Part 15 Subpart B Class A, CE EN55022 Class A

EMS: EN55024: 2010

EN61000-4-2: 2009 (Level 4)

EN61000-4-3: 2006 + A2: 2010

EN61000-4-4: 2004 + A2: 2010

EN61000-4-5: 2006 (Level 3)

EN61000-4-6: 2009

EN61000-4-8: 2010

Green Product: RoHS, CRoHS, WEEE

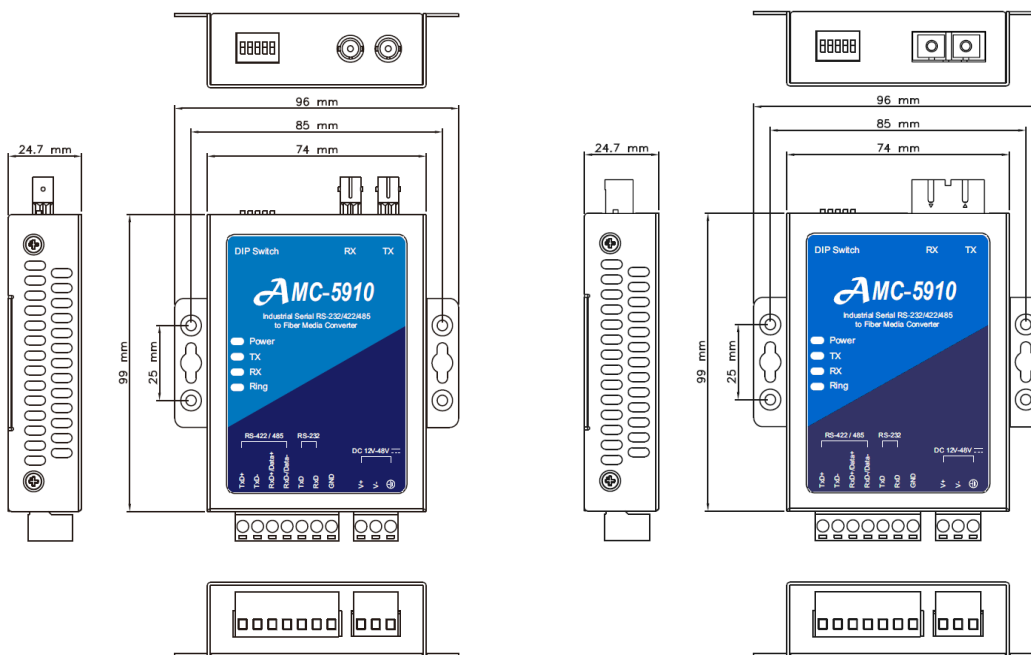
Power Requirements

AMC-5910-MT: 250mA@24V

AMC-5910-ST: 250mA@24V

Warranty: 3 years

Dimension Drawing



Ordering Information

P/N	Product Description	Operating Temperature	Mode	Fiber Connector	Distance
AMC-5910-MT	RS-232/422/485 to Fiber Media Converter	-40 ~ 70 °C	1310 nm Multi-mode	ST Connector	5 KM
AMC-5910-MC	RS-232/422/485 to Fiber Media Converter	-40 ~ 70 °C	1310 nm Multi-mode	SC Connector	5 KM
AMC-5910-ST	RS-232/422/485 to Fiber Media Converter	-40 ~ 70 °C	1310 nm Single-mode	ST Connector	60 KM
AMC-5910-SC	RS-232/422/485 to Fiber Media Converter	-40 ~ 70 °C	1310 nm Single-mode	SC Connector	60 KM

Includes:

- AMC-5910 converter
- DIN rail kit
- Quick start CD-ROM