



## IRS-C250: Industrial RS-232/422/485 to Fiber Converter

### Key Features

- Point-to-Point transmission
- RS-232/RS-422/RS-485 to fiber all in one design
- Main chip using market-leading transceiver
- Auto baud rate detection up to 460.8K Bps
- Extend serial signal through fiber cable
  - Up to 20km (or More) with single mode
  - Up to 2km with multi mode
- Converting serial to Multi-mode or Single-mode fiber
- DB-9 or Terminal block serial connector (Optional)
- Providing Chassis or DIN-Rail installation
- Operating temperature range -10°C to 60°C
- AC-DC power adapter(-10°C~60°C) optional
- RoHS Compliance

### Overview

IRS-C250 is a Multi-serial to fiber media converter which adopts RS-232/RS-422/RS-485 triple mode circuits with auto baud rate and direction control. It extends the serial signal link distance to 2km ( Multi-mode Optical Fiber) or 20km (Single-mode Optical Fiber) and also provides good immunity of EMI/EMS.

To ensure nonstop transmission in hazardous environment, IRS-C250 supports operating temperature-10°C~60°C. Further more, IRS-C250 supports Chassis and DIN rail mount for quick and easy installation.

### Technical Specifications

- **Standard Compliance:**
  - TIA/EIA-232 (ITU-T V.28)
  - TIA/EIA-422 (ITU-T V.11)
  - TIA/EIA-485 (ISO/IEC8284)
- **Data Transfer Rate**
  - 300bps to 460.8Kbps
- **Cable**
  - Fiber (M-M): 50/125,62.5/125,100/140µm (Up to 2km)
  - Fiber (S-M): 8.3/125,8.7/125,9/125,10/125µm (Up to 20km or more)
  - Bidi-SC 1310nm,1550nm

#### LED Description

LED	Color	Function
FX (LNK/ACT)	Green	Lit when fiber connection is good
		Blinks when fiber data is present
DATA (Copper)	Green	Lit when Copper data is present
PWR	Green	Lit when 5V power is coming up

#### DIP Switch Function

##### Sw1 (Copper Mode Select)

SW1 (Copper Mode Select)			
Mode	1	2	Description
RS232*	OFF	OFF	RS232 mode
RS422-4W	OFF	ON	RS422 4-wire mode (Full duplex)
RS485-4W	ON	OFF	RS485 4-wire mode (Full duplex)
RS485-2W	ON	ON	RS485 2-wire mode (Half duplex)

\*: Default

##### Sw2 (RS-422/RS-485 TERMINATION)

SW2 (Termination select)		
1	2	Description
OFF	OFF	Termination disable
OFF	ON	Insert 120 terminator on RS-485 TX/RX wires
ON	OFF	Insert 100 terminator on RS-422 TX/RX wires
ON	ON	Do not use

NOTE: SW2-1 and SW2-2 do not set to "ON" at the same time

## • Hardware Spec

Feature	Detailed Description
Voltage	1A@+5VDC from CR-1112 Chassis or AC-DC Adapter (Optional, 85~264VAC Input, 5VVDC output, -10°C~60°C)
Ambient Temperature	-10°C to 60°C
Humidity	5% to 90%
Dimensions	26.2(H) x 70.3(W) x 94(D) mm
Weight	0.2kg
Installation	Desktop, Chassis, Din Rail (Optional)
Safety	Comply with FCC Part 15 Class A & CE Mark Approval
Shock	IEC60068-2-27
Freefall	IEC60068-2-32
Vibration	IEC60068-2-6
Casing	IP20 Protection
MTBF	364.6K
Warranty	3 Years

## Packing Information

Carton Dimensions(mm)	pcs/Carton	N.W (KG)	G.W (KG)
530x512x345	40	17.6	18.6

## Order Information

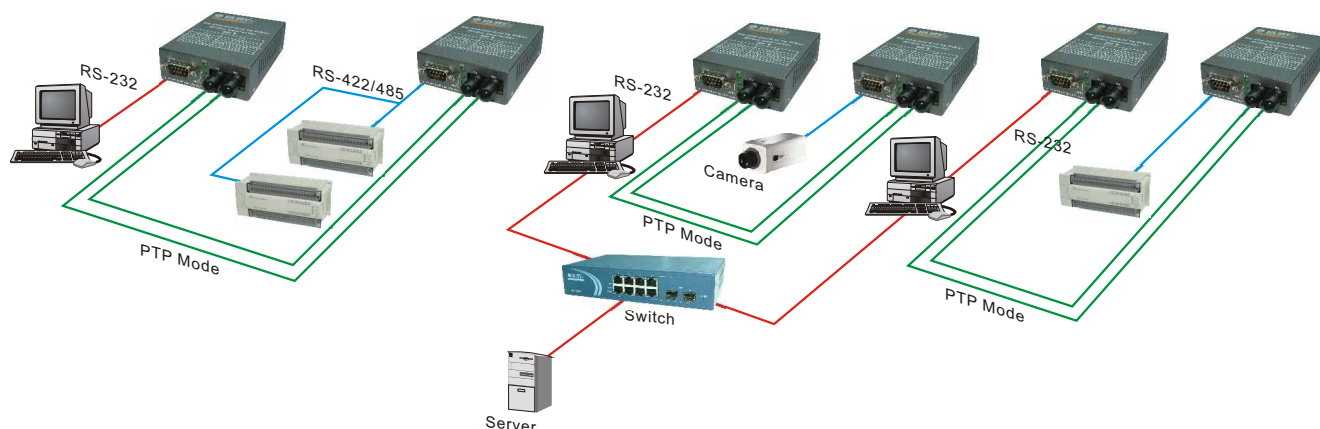
IRS-C250ST-1	RS-232/422/485 (DB-9) to Fiber Converter, ST Multi-Mode
IRS-C250ST-2	RS-232/422/485(Terminal Block) to Fiber Converter, ST Multi-Mode
IRS-C250ST-3	RS-232/422/485 (DB-9) to Fiber Converter, ST Single-Mode 20km
IRS-C250ST-4	RS-232/422/485(Terminal Block) to Fiber Converter, ST Single-Mode 20km
IRS-C250SC-1	RS-232/422/485 (DB-9) to Fiber Converter, SC Multi-Mode
IRS-C250SC-2	RS-232/422/485(Terminal Block) to Fiber Converter, SC Multi-Mode
IRS-C250SC-3	RS-232/422/485 (DB-9) to Fiber Converter, SC Single-Mode 20km
IRS-C250SC-4	RS-232/422/485(Terminal Block) to Fiber Converter, SC Single-Mode 20km

Note: Any other distance is upon request.

## Optional Accessories

- DRK-35: DIN-RAIL Mounting Kit
- MDR-20-5: 15W/3A DIN-Rail 5VDC Power Supply with universal 85 to 264 VAC input

## Application



## Ruby Tech Corp.

3F, No.1, Lane 50, Nan Kang Road, Sec.3, Taipei, Taiwan  
 TEL:886-2-2785-3961 FAX:886-2-2786-3012

<http://www.rubyttech.com.tw>  
 E-mail : rubyttech@mail.rubyttech.com.tw