



A Beijer Electronics Group Company

JetCon 2401 Industrial Serial to Fiber Media Converter Quick Installation Guide V1.3

Overview

JetCon 2401 is a Multi-serial to fiber media converter which has RS-232/RS-422/RS-485 triple mode circuits with auto baud rate and direction control functions. It extends the distance of serial communication to 5KM (JetCon 2401-m Multi-mode Optical Fiber) or 40KM (JetCon 2401-s Single-mode Optical Fiber) and also provides good immunity of EMI/EMS. For the ESD protection, JetCon 2401 also passed the 15KV ESD testing on serial line.

To ensure nonstop transmission in hazardous environment, JetCon 2401 supports wide operating temperature range, -20~70°C model (JetCon 2401) and -40~70°C model (JetCon 2401-w). Further more, JetCon 2401 supports wide range power input (DC/AC) and DIN rail mount for quick and easy installation.

Package Check List

- ▶ JetCon 2401 Industrial serial to fiber media Converter
- ▶ Quick Installation Guide
- ▶ DIN rail mount kits



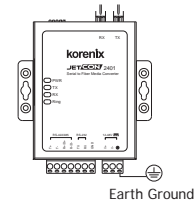
Installation

Mounting the Unit

- ▶ Din-Rail mount: screw up the DIN rail mount kit with 4 screws and mount JetCon 2401 on the DIN Rail.

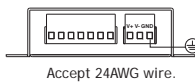
Grounding JetCon 2401

There is one earth grounding pole include in power-input connector. Connect the earth grounding of JetCon 2401 which is within power-input terminal block to ensure system safety and prevent noise to interfere communication.



Wiring the Power Inputs

1. Insert the positive and negative wires into the V+ and V- contact on the terminal block connector.
2. Tighten the wire-clamp screws to prevent the power wires from being loosened.

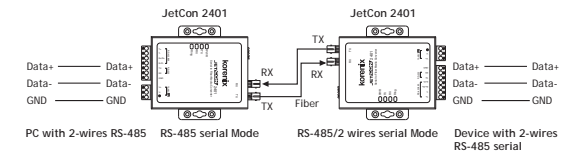
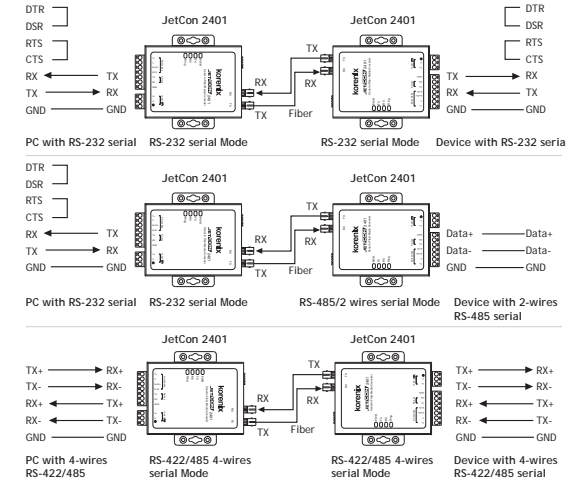


Notes: The recommended working voltage is DC24V (DC12- 48 V) or AC24V (AC 12-32V) with polarity reverse protection.

Connecting to serial line

The JetCon 2401 provides triple mode circuits for RS-232/RS-422/RS-485 2/4-wires and extend these signals to 5KM or 40KM by optical fiber cable. The converter operating architecture can also configure as a PTP (Peer to Peer) or SFR (Serial Fiber Ring) to enlarge

the serial communication infrastructure and link more JetCon 2401. To ensure the quality of serial line signal, JetCon 2401 provides 2 termination resistors for the RS-422/485 TX and RX signal by DIP switch enabled/Disable. About the DIP Switch setting, please refer to DIP Switch setting table. The following information will show the different serial signal connectivities for your reference.

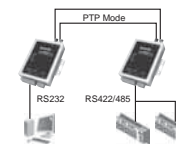


Connecting the Optical Fiber

The Fiber Optical link architecture supports PTP and SFR mode for different purposes.

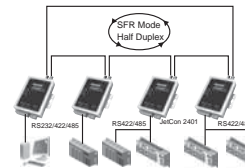
1. PTP Mode (Peer to Peer)

The PTP (Peer to Peer) mode provides connection between 2 nodes. When working on this mode, JetCon 2401 can transmit data and receive it at same time, which means JetCon 2401 is working at full duplex mode.



2. SFR Mode (Serial Fiber Ring)

To extend the transmission distance and to save the fiber cable cost, JetCon 2401 can link to each other as a ring architecture, in this mode JetCon 2401 only provides half duplex transmission and all of data communication is controlled by the host device. The maximum of communication nodes can up to 20.



The table below illustrates fiber transceiver specifications

| Modal | Fiber (um) | Connector | Wavelength(um) | TxPwr (Min) | TxPwr (Max) | RxPwr (Min) | RxPwr (Max) | LinkBudg(dBm) | Distance(km) |
|---------------|------------------------|-----------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|
| JetCon 2401-m | Multi-mode 90-62.5/125 | ST | 820nm | -12dBm | -9dBm | -28dBm | N/A | 16dBm | 5KM |
| JetCon 2401-s | Single-mode 8-10/125 | ST | 1310nm | -9dBm | -8dBm | -27dBm | N/A | 18dBm | 40km |

TxPwr(Min):Minimum Launch Power TxPwr(Max):Maximum Launch Power
RxPwr(Min):Maximum Receive Sensitivity RxPwr(Max):Minimum Receive Sensitivity

Link Budget=Minimum Launch Power -Maximum Receive Sensitivity

Note: To ensure your fiber converter transmission/receiving of data between the 2 nodes, the attenuation of the optical fiber cable should be smaller than the fiber converter's Link Budget.

JetCon 2401 DIP Switch Setting

| Function | DIP Switch 1 | DIP Switch 2 |
|--------------------------|---------------|---------------|
| RS-422/4 wires (Default) | OFF (Default) | OFF (Default) |
| RS-485/4 wires | OFF | OFF |
| RS-485/2 wires | OFF | ON |
| RS-232 | ON | OFF |

| Function | DIP Switch | Switch position |
|-----------------------------|------------|--|
| 120 Ohm Terminator (RX) | Switch 3 | Off (Disable)/On (Enable), Default off |
| 120 Ohm Terminator (TX) | Switch 4 | Off (Disable)/On (Enable), Default off |
| Point to Point /Serial Ring | Switch 5 | Off (PTP)/On (SFR), Default off (PTP) |

Note: After adjusting the DIP-switch, please reboot the unit to activate the new settings.

Support

5 Years Warranty

Each of Korenix's product line is designed, produced, and tested with high industrial standard. Korenix warrants that the Product(s) shall be free from defects in materials and workmanship for a period of five (5) years from the date of delivery provided that the Product was properly installed and used.

This warranty is voided if defects, malfunctions or failures of the warranted Product are caused by damage resulting from force measure (such as floods, fire, etc.), other external forces such as power disturbances, over spec power input, or incorrect cabling; or the warranted Product is misused, abused, or operated, altered and repaired in an unauthorized or improper way.

Attention! To avoid system damage caused by sparks, please DO NOT plug in power connector when power is on.

The product is in compliance with Directive 2002/95/EC and 2011/65/EU of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronics equipment (RoHS Directives & RoHS 2.0)

Korenix Customer Service

KoreCARE is Korenix Technology's global service center, where our professional staffs are ready to solve your problems at any time Korenix global service center's e-mail is KoreCARE@korenix.com.

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