korenix
A Beijer Electronics Group Company

JetCon 2301 Industrial Fast Ethernet to Fiber Media Converter
Quick Installation Guide V1.1

Overview

JetCon 2301 is a single port Fast Ethernet to Fiber media converter, supporting 4 types of forwarding modes – Store and Forward, Modified Cut-through, Pure Converter and Converter with auto-change modes. The JetCon 2301 adopts rugged aluminum case with IP31 grade enclosure and 1.5KV Hi-Pot isolation protection to operate in harsh environments with severe electromagnetic interference and -25~70°C (JetCon 2301) or -40~75°C (JetCon 2301-w). It features Link Loss Forwarding to forward link status changes for alerting remote or central management systems when a remote fault occurs. It also adopts one relay output to alarm users if a port link fails or if the power fails. Alarms can be enabled/ disabled by dip switch. JetCon 2301 has redundant power inputs with wide range DC10~60V through the 6-pin removable terminal block. The fiber port supports Single-mode or Multi-mode for providing up to 30KM extended distance transmission.

Package Check List

▸ JetCon 2301 Industrial Media Converter
▸ Quick Installation Guide

Installation

Mount the unit

Din-Rail mount: Mount the din-rail clip on the rear of JetCon 2301 on the DIN rail. For information about the DIN Rail installation, please refer to user's manual.

Grounding JetCon 2301

There is one grounding screw on the bottom side of JetCon 2301. Connect the frame grounding of JetCon 2301 to the grounding surface to ensure safety and prevent noise for communication interference.

Chassis connects to the Earth Ground
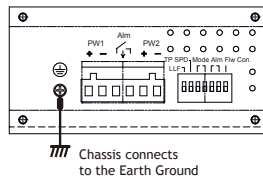
Wiring the Power Inputs

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.
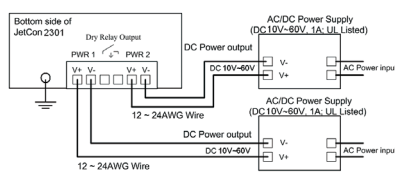
Note: The recommended working voltage is DC 24V (Input range: DC10~ 60 V)

Accept 24AWG wire. JetCon 2301 provides auto-polarity reverse

Wiring the Relay Output

The relay output contacts are in the middle of the terminal block connector as shown in figure below. By inserting the wires and by setting the DIP switch of the respective alarm function to "ON", relay output alarm will detect port or power fault, and form a short circuit. The alarm relay output is "Normal Open". For detailed information, please refer to chapter 2-5 of the User's Manual.

Maximum 1A current / DC 24V

Alarm System

Extra Power System
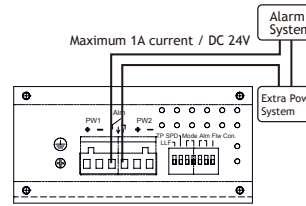
Note: The relay contact supports only 1A current, DC 24V. It is not recommended to apply higher voltage and current higher than this specification.

Connecting to Network

1. Connecting the Ethernet Port: Connect one end of an Ethernet cable into the UTP port of JetCon 2301, while the other end is connected to the attached networking device. UTP port supports auto MDI/MDIX function. The LNK / ACT LED will turn on and start flashing to indicate RJ-45 port links and the packets received and transmitted from RJ-45.

2. Connecting the Fiber Port: Connect the fiber port of your JetCon 2301 to another Fiber Ethernet device, by following the figure below. Wrong connection or wrong fiber cable type will cause the fiber port not working properly.
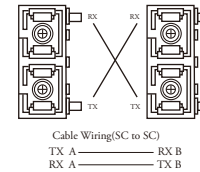
| ATTENTION | This is a Class 1 Laser/LED product. Don't look into the Laser/LED Beam. |

Cable Wiring(SC to SC)
TX A ——————— RX B
RX A ——————— TX B

3. For different link distances, the JetCon 2301 provides JetCon 2301-m" for multi-mode fiber and "JetCon 2301-s" for single-mode fiber.

4. The table below illustrates fiber transceiver specification.

Modul	Fiber (um)	Connecter	Wavelength(um)	TXPwr (Min)	TxPwr (Max)	RxPwr (Min)	RxPwr (Max)	LinkBudg(dBm)	Distance(km)
JetCon 2301-m	Multi-Mode 50~62.5/125	SC	1310nm	-20dBm	-14dBm	-31dBm	0dBm	11dBm	2KM
JetCon 2301-s	Single-Mode 8-10/125	SC	1310nm	-15dBm	-8dBm	-34dBm	8dBm	19dBm	30km

xPwr(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 can transmit/receive data between the 2 nodes, the attenuation of the optical fiber cable should be smaller than the fiber converter's Link Budget.

DIP Switch Setting

Pin No. #	Status	Description	
DIP 1	On	Enable Link Loss Forwarding function.	ON 1 2 3 4 5 6 7
	Off	Disable Link Loss Forwarding function (Default)	
DIP 2	On	Set TX port in 10 Mbps Half Duplex mode	
	Off	Set TX port in Auto-Negotiation mode (Default)	
DIP 5	On	Enable power alarm	
	Off	Disable power alarm (default)	
DIP 6	On	Enable port alarm	
	Off	Disable port alarm (default)	
DIP 7	On	Disable Flow control	
	Off	Enable Flow control (default)	

DIP 3	DIP 4		
Off	Off	Store and Forward forwarding mode (default mode)	ON 1 2 3 4 5 6 7
Off	On	Pure Converter forwarding mode	
On	Off	Modify Cut-Through forwarding mode	
On	On	Converter mode with Auto-Change forwarding mode	

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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