



A Beijer Electronics Group Company

JetCon 1301 Series Industrial Media Converter
Quick Installation Guide V1.4

Overview

JetCon 1301 Industrial Media Converter, conforming IEEE 802.3 and 802.3u standard, supports 1 10/100Base TX plus one 100FX Fast Ethernet Fiber port. JetCon 1301 adopts slim and compact industrial design to save rail space of compact system requirement. In order to survive under harsh environment, JetCon 1301 chooses industrial-grade aluminum case with IP30 standard protection. The 4-Pin DIP switch can configure JetCon 1301 to operate in switch mode or pure converter mode. The JetCon1301 "-w" model extends support for wide operation temperature. To extend the link distance and network infrastructure, JetCon1301-s equips with a transceiver for large power budget for single mode fiber to reach 30KM link distance. JetCon1301 is recommended to be powered by DC24V (18-32V) from the 2-pin terminal block. For JetCon1301-48V, it is recommended to be powered by DC48V (36-60V). The power input provides polarity reverse protection to avoid system damage.

Package Check List

- ▶ JetCon 1301 Industrial Media Converter
- ▶ Quick Installation Guide



Installation

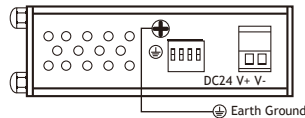
Mount the unit

Din-Rail mount: Mount the din-rail clip screwed on the rear of JetCon 1301 on the DIN rail



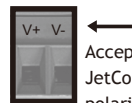
Grounding JetCon 1301

There is one grounding screw on the bottom side of JetCon1301. Connect the frame grounding of JetCon1301 to the grounding surface to ensure safety and prevent noise.



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.



Accept 24AWG wire. JetCon1301 provide polarity reverse protection

Notes: The recommended working voltage is DC24V (DC18-32V)

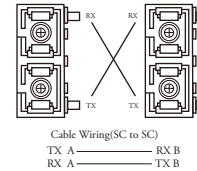
The recommended working voltage for JetCon1301-48V is DC48V (DC36-60V)

Connecting to Network

1. **Connecting the Ethernet Ports:** Connect one end of an Ethernet cable into the UTP port of JetCon 1301, while the other end is connected to the attached networking device. UTP port support auto MDI/MDIX function. The LNK / ACT LED will turn on and flash to indicate RJ-45 port link and the packets received and transmitted from RJ-45.

2. **Connecting the Fiber Port:** Connect the fiber port on your JetCon 1301 to another Fiber Ethernet device, by following the figure below. Wrong connection or 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.



3. For different link distance, the JetCon1301 provides JetCon1301-m for multi-mode fiber and "JetCon1301-s" for single-mode fiber. The table below illustrates fiber transceiver specification.

Modul	Fiber (um)	Connector	Wavelength(um)	TxPwr (Min)	TxPwr (Max)	RxPwr (Min)	RxPwr (Max)	LinkBudg(dBm)	Distance(km)
JetCon 1301-m	Multi-Mode 50-62.5/125	SC	1310nm	-20dBm	-14dBm	-31dBm	0dBm	11dBm	2KM
JetCon 1301-s	Single-Mode 8-10/125	SC	1310nm	-15dBm	-8dBm	-34dBm	8dBm	19dBm	30km

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 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 Settings for Alarm Relay Output

Pin Nr. #	Status	Description	Alarm Switch
Pin1	ON	Enable Link Loss Forwarding function.	
	Off	Disable Link Loss Forwarding function. (Default).	
Pin2	ON	Set RJ-45 in 100Mbps Full Duplex mode.	
	Off	Set RJ-45 in Auto-Negotiation mode. (Default).	
Pin3	ON	Set Fiber port in Half duplex mode.	
	Off	Set Fiber port in Full duplex mode. (Default).	
Pin4	ON	Set JetCon1301 in pure converter mode.	
	Off	Set JetCon1301 in Switch converter mode. (Default).	

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

Note: The Link Loss Forwarding function only works when two JetCon 1301 devices are connected via fiber.

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)

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导言

JetCon 1301工业级光电信号转换器·符合IEEE 802.3 和IEEE 802.3u标准·提供1个10/100Base TX 和1个100FX界面。JetCon 1301 采用小巧的工业级外观设计·可以免除系统安装空间狭小的顾虑。为了适应工业现场恶劣的作业环境·JetCon 1301 密闭的铝制外壳符合IP30工业防护标准。JetCon 1301的4-Pin 拨码开关可是设置JetCon 1301 采用交换机工作模式或是单纯的光电转换器工作模式。 JetCon1301 "w"系列还能使用宽温的工作环境。为了延长通讯距离扩大网络覆盖面积·JetCon1301-s 配备高功率预算的收发器·单模光口支持最大传输距离为30Km。JetCon1301 使用2-pin 接线端子·建议供电范围DC24V (18-32V)。JetCon 1301-48V 建议供电范围DC48V (36-60V)。JetCon1301 还具备电源极性反接保护。

产品清单

- ▶ JetCon 1301工业信号转换器
- ▶ 快速安装向导



安装

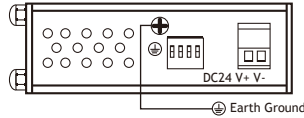
安装配件

导轨安装: 将导轨夹用螺丝钉固定JetCon1301后面·然后卡上导轨。



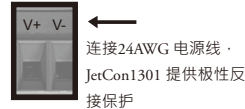
JetCon 1301设备接地

在JetCon1301底部有一个地线连接螺丝。将JetCon1301地线螺丝接地·可以确保设备使用安全·并可防干扰。设备未接地·因自然因素造成损害·将不予以修复。



电源连接

1. 将电源线正负极插入产品底部接线端子的V+ 和V- 接脚。
2. 将线夹拧紧·防止DC电源线脱落。



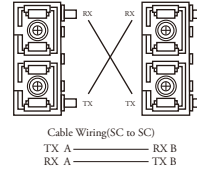
备注: 建议供电范围: DC24V (DC18-32V)。

JetCon 1301-48V建议供电范围DC48V (DC36-60V)。

网络连接

1. **连接以太口:** 双绞线的一端连接JetCon 1301 RJ-45 电口·另一端连接网络设备。RJ-45电口支持自适应MDI/MDIX。此时LNK / ACT指示灯会亮起·信号灯闪烁表示此RJ-45 电口有数据正在传递。
2. **连接光口:** 光纤线一端连JetCon 1301光口·另一端连接设备·如下图所示连接模式。错误的连接会致使光口不能正常工作。

ATTENTION
This is a Class 1 Laser/LED product.
Don't look into the Laser/LED Beam.



3. 为适应不同的传输距离·JetCon1301 提供两种选择: "JetCon1301-m" 多模光纤型和"JetCon1301-s"单模光纤型。下表列举了光纤传输的一些规格参数。

机型	Fiber (um)	接头	波长(um)	TXPwr (Min)	TXPwr (Max)	RxPwr (Min)	RxPwr (Max)	LinkBudg(dBm)	传输距离(km)
JetCon 1301-m	Multi-Mode 50-62.5/125	SC	1310nm	-20dBm	-14dBm	-31dBm	0dBm	11dBm	2M
JetCon 1301-s	Single-Mode 8-10/125	SC	1310nm	-15dBm	-8dBm	-34dBm	8dBm	19dBm	30km

TxPwr(Min): 最小发射功率 TxPwr(Max): 最大发射功率

RxPwr(Min): 最小接收灵敏度 RxPwr(Max): 最大接收灵敏度

Link Budget=最小发射功率 -最大接收灵敏度

备注: 为了确保光电转换器在2节点间能够正常收发数据·光纤线材的衰减一定要低于转换器的Link Budget值。

DIP拨码开关设定

Pin Nr. #	状态	描述	Alarm Switch
Pin1	ON	启动LLF(Link Loss Forwarding)功能	
	Off	关闭LLF(Link Loss Forwarding)功能 (默认)	
Pin2	ON	设定RJ-45为100Mbps 全双工模式	
	Off	设定RJ-45 为自适应模式 (默认)	
Pin3	ON	设定光口为半双工模式	
	Off	设定光口为全双工模式 (默认)	
Pin4	ON	设定 JetCon1301为单纯的光电转换器模式	
	Off	设定 JetCon1301为交换式的光电转换器模式 (默认)	

备注: 更改DIP拨码开关设置以后·请重启设备让新设置生效。

备注: LLT功能仅在使用光纤连接的成对JetCon 1301上正常运作。

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注意! 请勿于电源开启时插拔接线端子·以避免产生火花造成系统损坏。

此产品保证完全符合欧盟2003年1月27日电气和电子设备有害物质限制委员会所提出的限用指令2002/95/EC(ROHS禁令)及2011/65/EU(RoHS 2.0)。

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 Granted Invention: I 376118
 Granted Invention: I 393317
 Granted Invention: I 398066
 Granted Invention: I 398125
 Granted Invention: I 459757
 Utility Model: M 339841
 Utility Model: M 339840