JETCON
Industrial Media Converter

Universal Genius!

Industrial Ethernet to Fiber Converter

JetCon 1301 Industrial Fast Ethernet to Fiber Converter

- Mini size 3cm(W) x 7cm(H) x 9cm(D), IP31 Design
- Switch and Pure Converter mode
- Extreme Low Data Forwarding Latency, 1.6 micro second
- DC or AC wide range power input
- Link Loss Forwarding for far-end fault detection

Industrial Design -10~70°C Media Converter
Fanless, Anti-Shock, IP31, 1500V Hi-Pot, Compact Size

JetCon 1301	JetCon 1302	JetCon 2301	JetCon 3301	JetCon 1501	JetCon 2401
Fast Ethernet to Fiber Converter	2-port Fast Ethernet to Fiber Converter	Fast Ethernet to Fiber Media Converter	Gigabit Ethernet Media Converter	Fast Ethernet Media Converter	Serial to Fiber Media Converter

korenix
www.korenix.com

Your Industrial Computing & Networking Partner

Korenix Industrial Product Selection Guide - Media Converter





	JetCon 1301	JetCon 1302	JetCon 2301	JetCon 3301	JetCon 1501
	Mini Media Converter	Compact Media Converter	Fast Media Converter	Gigabit Media Converter	Fast Media Converter
Interface					
Number of Ports:10/100Base-TX	1	2	1	1000 Base-T	1
Number of Ports: PoE Injector					
Number of Ports:100Base-FX	1	1	1	1000 Base-SX/LX	1
(Multi Mode Fiber)	JetCon 1301-m	JetCon 1302-m	JetCon 2301-m	JetCon 3301-m	JetCon 1501-m
(Single Mode Fiber)	JetCon 1301-s	JetCon 1302-s	JetCon 2301-s	JetCon 3301-s	JetCon 1501-s
Number of Serial Ports					
Power Terminal	DC18~32V AC18~27V	DC18~32V AC18~27V	DC24V*2 (12~48) -48(Option)		
Power Jack			DC12~48V	DC5V	DC5V
Fault Relay Output		●	●		
1500VAC HIPOT	●	●	1200VAC HIPOT	1200VAC HIPOT	1200VAC HIPOT
Mechanical					
Rigid Aluminum Case	●	●	●	●	●
Dimensions (unit=mm)	30 (W) x 70 (H) x89 (D)	30 (W) x 111.8 (H) x 98.2 (D)	53(W) x 135(H) x 105(D)	74 (W) x 22 (H) x 102 (D)	74 (W) x 22 (H) x 102 (D)
Case Protection	IP 31	IP 31	IP 31	IP 30	IP 30
Operating Temperature	-10~70°C	-10~70°C	-10~70°C	0~60°C	0~60°C
DIN-Rail Kit	●	●	●		
Protocols					
Web-based Configuration					
Windows Utility					
Secured HTTPS,SSH					
Link Loss Forwarding	●		●	●	●
Switch Mode	●	●	●	●	●
Pure Converter Mode	●				
Redundant Dual Ethernet					
IGMP Snooping					
Quality of Service					
SMTP(e-mail warning)					
Syslog					
Certifications					
Regulatory Approvals:CE / FCC / UL	●	●	●	(CE/FCC)	(CE/FCC)
RoHS / WEEE	●	●	●	●	●

Korenix Industrial Product Selection Guide - Media Converter

	 JetCon 2401	 JetCon 2101 JetCon 2101i	 JetCon 2101ir	 JetCon 2204	 JetCon 2208
	Fiber Media Converter	RS 232 to RS 422/485	RS 422/485	RS 232 to USB	RS 232 to USB
Interface					
Number of Ports:10/100Base-TX				USBx1	USBx1
Number of Ports: PoE Injector					
Number of Ports:100Base-FX	Serial Fiber				
(Multi Mode Fiber)	JetCon 2401-m				
(Single Mode Fiber)	JetCon 2401-s				
Number of Serial Ports	RS232/422/485	1xRS232 1xRS422/485	2xRS422/485	4xRS232	8xRS232
Power Terminal	DC12~48V AC18~32V	DC10~30V	DC10~30V		
Power Jack				DC5V	DC5V
Fault Relay Output					
1500VAC HIPOT					
Mechanical					
Rigid Aluminum Case	●				
Case Protection	IP 30	IP 30	IP 30	IP 30	IP 30
Dimensions (unit=mm)	70(W) x 20 (H) x 100 (D)	70(W) x 10(H) x 20(D)		67(W) x 26(H) x 150(D)	
Operating Temperature	-20~70°C	-25~75°C	-25~75°C	0~55°C	0~55°C
DIN-Rail Kit	●	●	●		
Protocols					
Web-based Configuration					
Windows Utility					
Secured HTTPS,SSH					
Link Loss Forwarding					
Switch Mode					
Converter Mode					
Redundant Dual Ethernet					
IGMP Snooping					
Quality of Service					
SMTP(e-mail warning)					
Syslog					
Certifications					
Regulatory Approvals:CE / FCC / UL	(CE/FCC)	(CE/FCC)	(CE/FCC)	(CE/FCC)	(CE/FCC)
RoHS / WEEE	●	●	●	●	●

Applications

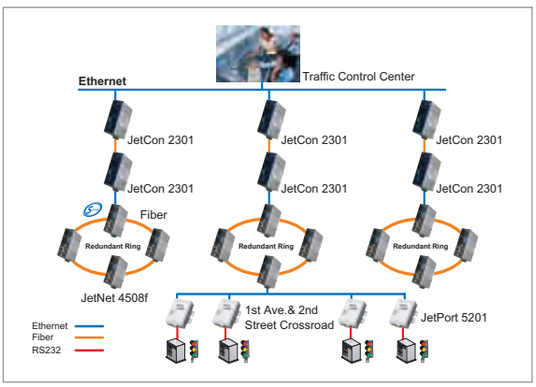
Taipei MRT Infrared Detecting System

It is an application for MRT infrared detecting system. The JetNet 2005f-s has been installed in control center and the JetCon 1501 in information desk. If infrared detecting system senses any abnormal or intrusion object, the JetNet 2005f-s will deliver the warning message to control center and information desk instantly.

To achieve safest subway experience, MRT implements infrared detecting system between every entrance. If anybody is too closed to platform within a specific distance when trains are not arrived yet, infrared detecting system would notify the security and further action may be taken to prevent any injury or delay. Furthermore, MRT staff can quarantine the section and deal with the incident simultaneously, driver of MRT will be informed not to enter the station. Taipei MRT has chosen Korenix JetNet 2005f-s industrial 5-port unmanaged switch to work together with the infrared detecting system simply because JetNet 2005f-s is compact, robust, reliable, industrial-grade, wide-operating temperature, and most importantly, trustworthy.

Applications

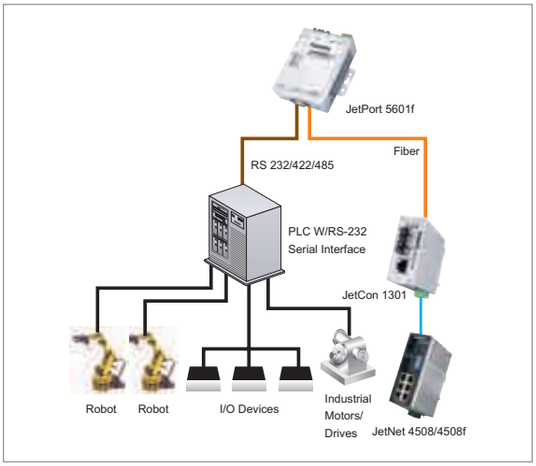
Monitoring Application---Traffic Light Control



To improve the heavy traffic during rush hour, public transportation and intelligent traffic system are often introduced in nearly all metropolitans, if not all. For intelligent traffic system, it requires Ethernet redundant mechanism, RS-232/422 to Ethernet converter to remote control traffic light or other traffic sign/display. Fiber converter becomes a must since the remote control traffic light maybe locating tens of kilometers away. In the diagram above, each circle represents 4 sets of traffic light from 4 intersections, and the traffic information is collected and transmitted back to traffic control center instantly through JetCon2301's Fiber connection. JetPort/JetCon Series is the best combination for traffic control application operating under harsh environment. Connecting the JetPort 5601 to traffic light controller and link to the JetNet 4508f through Ethernet then report those signals to control center and these are the standard procedures and network operations for intelligent traffic system across the globe. By using this network architecture demonstrated in the picture, it provides

Ethernet Ring redundant solution assuring a non-stop data transmitting to traffic control system. Fiber module in single mode of the JetNet 4508f extends the network connectivity to up to 30km, and such distance can be extended to as long as 100km upon changing the transceiver. As soon as the data has arrived at the traffic control center, we can use JetCon 2301 to convert Fiber to Ethernet or JetCon 2401 to convert Fiber to RS-232/RS-422/RS-458

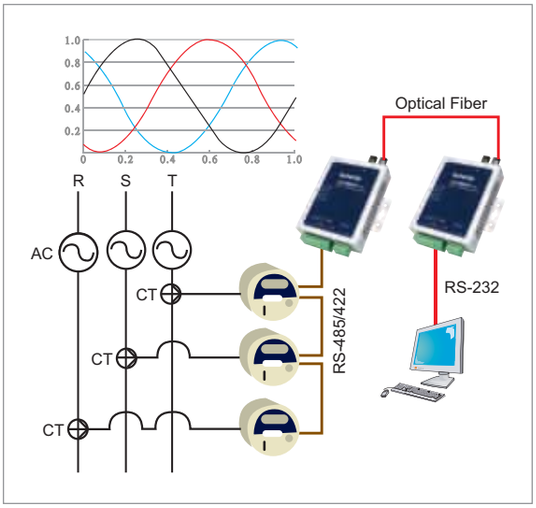
Expanding Your Network Via Fiber Optic Communication



To extend the network communication and to remote control/monitor existing serial devices, Korenix provides a total solution for your industrial network system. Using JetPort 5601f to remote control the existing PLC via Ethernet network, a pair of fiber ports (JetPort 5601f and JetCon 1301) extends the network connection via fiber optics up to 30 km.

Connecting with industrial managed switch JetNet 4508 series also provides a comprehensive network management and redundant Ethernet solution.

Reliable Connection with Enhanced Safety Protection



The JetCon2401 is designed to work in industrial operating temperature ranges from -20~70^{o}C. This makes converter qualified for extreme applications such as traffic controls, outdoor SCADA installations, water treatment plants and monitoring CT reading of three-phase-four-wire power line of power plant in remote site.

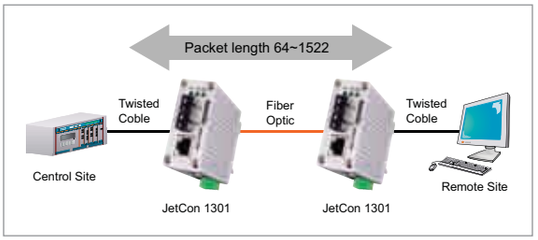
JetCon 2401 has terminal block connections for the serial signals, power input, and two ST connectors for the fiber side, DIN Rail mount kit for installation. The JetCon 2401 series also provides tough safety protection with EMS EN61000-4 Level 3, criterion performance A-standard approval.

High Tech Talk

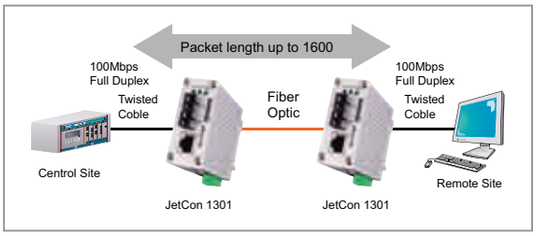
Switching Converter Mode or Pure Converter Mode

The JetCon1301 can be used in two different modes, switching converter mode and pure converter mode. The store-and-forward technology is implemented in switching converter mode. It will filter out abnormal packets to maintain network efficiency, and support the data forwarding rate up to 148810 bps in full wire speed, packet length from 64 to 1522 bytes. In the pure converter mode, the JetCon1301 only converts signal between copper and fiber port without any packet check and operates in the speed of minimum latency of data transfer.

Configured as Switch Converter mode:



Configured as Pure Converter mode:



In tradition, media converter is used for the signal converter between electronic and optical. Most of media converters are not capable to handle all kinds of packet sizes. One major drawback is that it can't support 10/100Mbps auto negotiation and auto detection function for the cross-over or straight cable. The pure converter mode has the advantages, it supports extreme low transfer latency. Even the packet with CRC error, and packet length is below 64 bytes. Some of special devices will need pure converter and they need it do as a dumb without any feature.

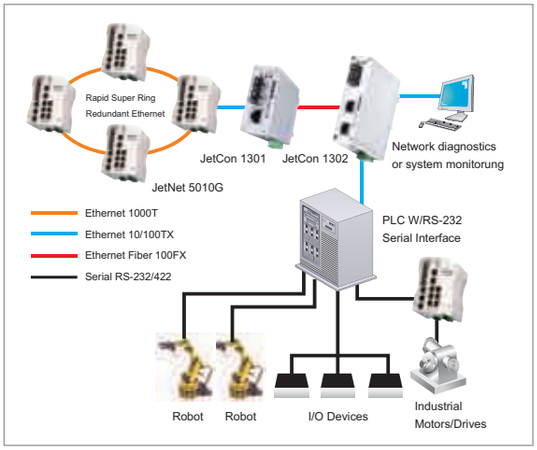
JetCon 1301 can be configured as Switch Converter or Pure Converter mode by a DIP Switch. For CSMA/CD compliance, the UTP port supports 100Mbps Full Duplex when set JetCon 1301 as pure converter. If set as 100Mbps half duplex mode, the available link distance will be 60 meters only. In the switch mode, it will not have this limitation. The link distance can be reached to 100 meters.

In pure converter mode, the JetCon1301 will operate with the minimum latency, 1.6 microseconds. The 2 ports of JetCon1301 is inter-connected via MII signals, therefore the internal switch MAC and packet buffer is not used and the packet length up to 1600bytes.

The updated configuration will be available after power reset.

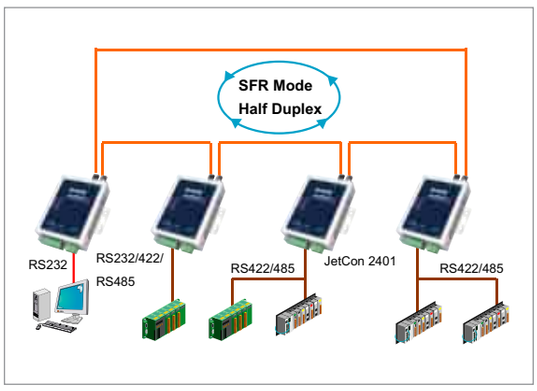
JetCon 1302 also a 3-port Switch

Providing two 10/100BaseTx ports and one 100BaseFx uplink, JetCon 1302 can be best used as either a 3-port switch or RJ45 to fiber optic converter for two devices. For easy diagnosis in the field, the JetCon 1302 provides one relay output to trigger alarm automatically if any port breaks.



To upgrade older equipments from 10BaseT (10 Megabit) Ethernet devices to a 100 Megabit Ethernet network connection, the JetCon 1302 converter automatically detects speed and provides both a 100BaseTx and a 100BaseFx uplink. Any industrial Ethernet device can also connect the JetCon 1302 to a high reliability fiber optic network in fulfilling the following applications, such as fiber enabling any Ethernet devices, linking 2 Ethernet devices to one fiber port, adding fiber link to any Ethernet network and using the second 100BaseTX port for network diagnostics.

Serial Fiber Ring to Expand Connected Devices and Distance



The JetCon 2401 series supports two transmission configurations, Peer to Peer in full duplex and Serial Fiber Ring (SFR) in half duplex. In a Peer-to-Peer configuration, two fibers are required between the two converters, one for data in each direction (RX and TX). To expand the number of connected serial devices and connect the fiber transmitter to the rest of the slaves and eventually back to the master node.

JetCon 1301

Industrial Fast Ethernet to Fiber Media Converter

- Slim and Compact Fast Ethernet Media Converter
- Dual Forwarding modes- Switch and Pure converter
- Supports Auto MDI/MDI-X, Auto Negotiation
- Supports Multi-mode 2KM, Single-mode 30KM
- Auto Link Loss Forwarding(LLF) for fault detection
- Extreme Low Data Forwarding Latency- 1.6 x 10^{-6} Sec
- Wide range DC or AC Power input with DC polarity correction
- IP-31 grade protection with wide range operating temperature
- 1.5KV Hi-Pot testing passed

Overview

JetCon1301 is a compact 1-port Fast Ethernet media converter designed as the size of a cigarette box, which makes it as ideal model that would physically fit into a chassis with limited space, eg machinery control box and duct assembly room. It also supports switch forwarding mode with abnormal packet filtering and pure converter mode for extreme low latency requirement – Fieldbus and EtherCAT, which needs invariant forwarding latency in 64~1522 bytes packet length. For the easy maintenance and time-saving, JetCon1301 features remote Link Loss Forwarding technology which provides remote link down signal forwarding, acknowledging link events occurred on each end of JetCon1301 to main server. To activate forwarding mode and LLF functions, simply adjust DIP switch then reset the converter, the reconfigurations will be applied.

For the field site harsh environment installation such vibrating machinery or duct assembly room, JetCon1301 can be easily mounted directly onto DIN rail and powering with DC 18~32V, or AC 12~27V where DC input is not available. With the Ingress Protection grade 31 and rigid alloy case, JetCon1301 can survive and have excellent performance under -20~70°C temperature range, severe electromagnetic interference and outcoming vibration.

The highly MTBF- 500,000 hours, 5-year global warranty and endurable performance of JetCon 1301 series give you the reliable choices for hazardous applications.

Reliable Life Vibration & Life Shock Tests

To ensure the reliability networking devices operating in harsh environment successfully, Korenix JetCon 1301 series have passed the following life vibration and life shock tests while units in operating.

- IEC 61000-2-6 life vibration
  5~100Hz/Amplitude 1mm, 0.7G/ 90Min. X.Y.Z. 6 axis
  3~50Hz/Amplitude 3.5mm, 1.0G/ 90Min. X.Y.Z. 6 axis
- IEC 61000-2-27 life shock
  50G, 11ms duration, X,Y, Z, 3 shock/axes (Total 18 shocks)

Switching Converter Mode and Pure Converter Mode

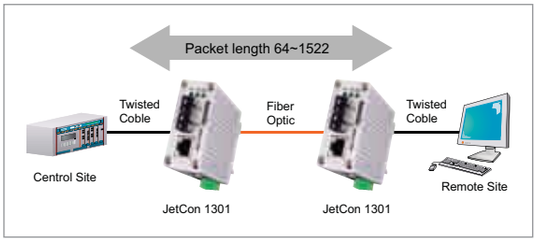
The JetCon 1301 can be used in two different modes, switching converter mode and pure converter mode. The store-and-forward technology is implemented in switching converter mode. It will filter out abnormal packets to maintain network efficiency, and support the data forwarding rate up to 148810 bps in full wire speed, packet length from 64 to 1522 bytes. In the pure converter mode, the JetCon1301 only converts signal between copper and fiber port without any packet check and operates in the speed of minimum data forwarding latency.

In tradition, media converter is used for the signal converter between electronic and optical. Most of media converters are not capable to handle all kinds of packet sizes. One major drawback is that can't support 10/100Mbps auto negotiation and auto detection function for the cross-over or straight cable. The pure converter mode has the advantage which it supports extreme low transfer latency. Even the packet-with CRC error, and packet length is below 64 bytes. Some of special devices will need pure converter and they need it do as a dumb without any feature.

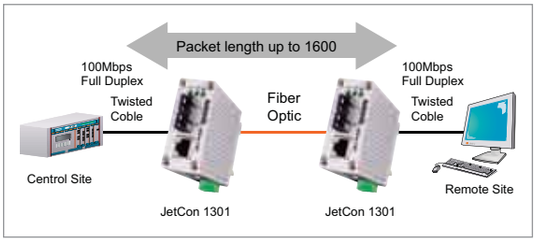
JetCon 1301 can be configured as Switch Converter or Pure Converter mode by a DIP Switch. For CSMA/CD compliance, the UTP port supports 100Mbps Full Duplex when set JetCon 1301 as pure converter. If set as 100Mbps half duplex mode, the available link distance will be 60 meters only. In the switch mode, it will not have this limitation. The link distance can be reached to 100 meters.

In pure converter mode, the JetCon1301 will operate with the minimum latency,1.6 micro second. The 2 ports of JetCon1301 is inter-connected via MII signals, therefore the internal switch MAC and packet buffer is not used and the packet length will not be limited and up to 1600bytes. The updated configuration will be available after power reset.

Configured as Switch Converter mode:



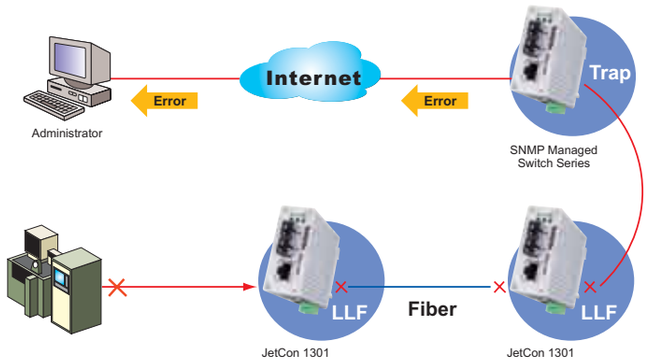
Configured as Pure Converter mode:



Link Loss Forwarding Technology

When using traditional fiber converters, users often encounter the following problem: a fiber converter acted like an ordinary unmanaged 2-port switch. When one of a fiber converter's ports failed (e.g. the TX port), the other one (e.g. FX port) would continue to receive data via the media (e.g. fiber), confusing the device on the other end of the media that the connection was still intact. But, by the time the disconnection was found, this error had caused a great amount of loss.

If a port had lost the connection for any reason, JetCon 1301 Industrial Ethernet Converter not only triggers the alarm system by relay output, but also activates the Link Loss Forwarding to shut down the other port; hence, allowing the device on the other end of the media to detect the disconnection. The administrator over the network can be informed of the disconnection immediately, and react promptly to the situation, greatly reducing loss caused by any link failures.



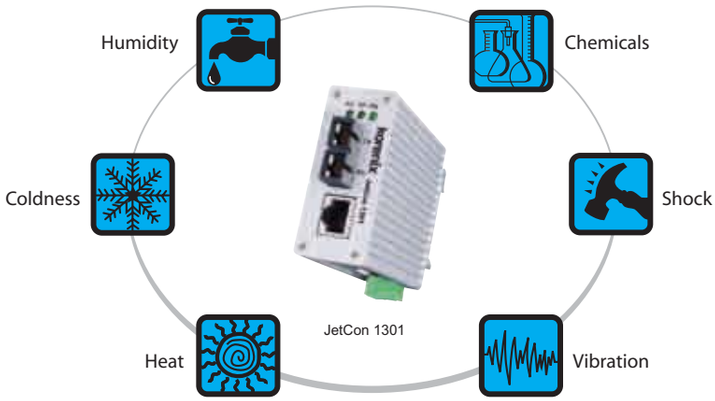
The Real Time Ethernet Solution- EtherCAT Test

JetCon 1301, an Industrial 10/100Base-TX to 100Base-FX Multi-Mode (JetCon1301-m)/ Single-Mode (JetCon1301-s) fiber converter, has been passed the system test of an open Real-Time Ethernet solution, EtherCAT. Cooperated with the testing laboratory of Backhoff, Korenix sets a successful milestone to enable Real Time Ethernet-EtherCAT, the fastest "industrial Ethernet control in the world", over fiber optics.

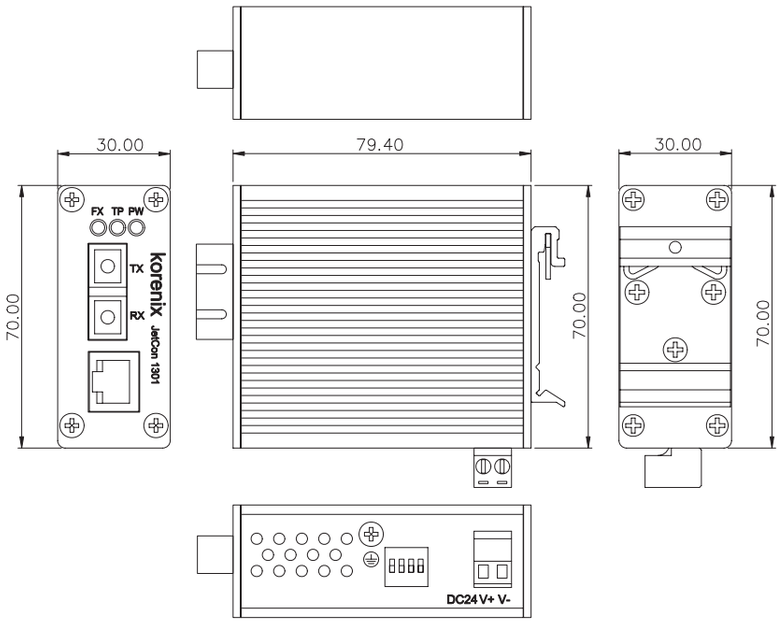
For communication tasks, not only the defined latency (cycle time) is important, but the jitter also has to be limited. During the system test, there is no noticeable Jitter between two JetCon 1301 converters connected via fiber end whereas EtherCAT devices attached to the other Ethernet end. The system has been setup and tested to meet all criterions of EtherCAT protocol. For standard Ethernet jitter, specifications of only 100 µs to 3 ms are possible.

Reliable Mechanical Design

Industrial converters are often placed in harsh environments and required to run non-stop. The quality of industrial converter is constantly being tested by rugged conditions, such as high or low temperature conditions, impact, vibration, or corrosion. To cope with demanding industrial environments, the aluminum alloy case of JetCon Industrial Converter is rigid, shock-proof, and conforms to IP-31 design. In order to prevent power lines from damage caused by falling dust particles and water drops in an industrial environment, Korenix's engineers specially designed the terminal block for power and relay at the bottom of the unit, greatly reducing failures caused by environment.



Dimensions (Unit –mm)



Specification

Technology

Standard: IEEE802.3 10Base-T,IEEE802.3u 100Base-TX IEEE802.3u 100Base-FX,IEEE802.3x flow control and back-pressure

Packet transfer mode:

Support Switch mode and Pure Converter mode. This feature is select by DIP-switch.

The Switch mode will begin to forward the received data only after it received the frame completely, the forwarding latency depends on the packet length and the packet length support 64 to 1600Bytes. The pure converter operating algorithm is different with switch mode; it will direct transfer Ethernet signal without any frame checking

Link Lose Forward: Enabled/Disabled by DIP-Switch 1

Hi-pot Testing: Passed AC1.5KV Hi-pot tesing on port-port, power-case and port-power

Interface

Number of Ports: 1 x 10/100 Base-TX with Auto MDI/ MDI-X, Auto-Negotiation functions

1 x 100Base-FX

Connectors:

10/100 Base-TX: RJ-45

100Base-FX: Duplex SC for multi-mode or single-mode fiber

Power: 2-Pin Terminal Block

Cables:

RJ-45 connector: supports CAT-3, CAT-4, CAT-5 unshielded twisted pair or shielded twisted pair cable.

The link distance is maximum 100 meters

SC connector: supports multi-mode or single-mode optical fiber

Multi-mode fiber: 50/125um or 62.5/125um, max. distance 2KM

Single-mode fiber: 8/125um, 9/125um or 10/125 um, max distance 30KM

Fiber Transceiver:

JetCon1301-m, Multi-mode: 2KM max. distance

Wave-length: 1310nm

Min Tx Power:-19dBm

Max Tx Power:-14dBm

Min Rx Sensitivity:-30dBm

Link budget:11dBm

JetCon1301-s, Single-mode: 30KM max. distance

Wave-length:1310nm

Max Tx Power:-8dBm

Min Tx Power:-15dBm

Min Rx Sensitivity:-34dBm

Link budget:19dBm

Configuration DIP Switch:

DIP 1: Link loose forwarding Enable /Disable.

DIP 2: RJ-45 Auto-Negotiation/Forced 100Mbps Full Duplex

DIP 3: Fiber Full Duplex/Half Duplex

DIP 4: Switch/Pure Converter mode.

Diagnostic LED:

System: Power (Green)

RJ-45 port: Link (Green ON)/Activity (Green Blinking)

Fiber port: Link(Green ON)/Activity(Green Blinking)

Power Requirements

System Power: 2 pins terminal block for power input.DC 24V (18~32V) with polarity reverse protection.AC 18~27V, 47~63Hz

Power Consumption: 3.5 Watts @ DC 24V(Maximum)

Mechanical

Installation: DIN-Rail mount

Case: Aluminum metal case with IP31 grade case protection for drop-waterproof and dustproof.

Dimension:

70mm(H) x 30mm (W) x 89mm (D) (with DIN rail clip)

70mm(H) x 30mm (W) x 80mm (D) (without DIN rail clip)

Weight:

374g with package

292g without package

Environmental

Operating Temperature: -10 ~70°C

Operating Humidity: 0% ~ 95% (non-condensing)

Storage Temperature: -40 ~ 80°C

Storage Humidity: 0%~ 95% (non-condensing)

Regulatory Approvals

Hi-Pot: AC1.5KV on port to port and port to power.

EMI: FCC Class A, CE/EN55022.

EMC immunity interface:

EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

Safety: CE/EN60950

Shock: IEC60068-2-27

Vibration: IEC60068-2-6

Free Fall: IEC60068-2-32

MTBF: 506,819 Hours, MIL-HDBK-217F GB standard

Warranty: 5 years

Ordering Information

JetCon 1301-m Industrial Fast Ethernet to Fiber Media Converter, SC, Multi-mode/2KM

Includes:

- JetCon 1301-m
- Quick Installation Guide

JetCon 1301-s Industrial Fast Ethernet to Fiber Media Converter, SC, Single-mode/30KM

Includes:

- JetCon 1301-s
- Quick Installation Guide

JetCon 1302

Industrial 2-port Fast Ethernet to Fiber Media Converter

- Two 10/100 TX ports to One 100FX port media converter
- Supports 1.5KV Hi-PoT isolation protection
- Dual modes for power input, AC18-27V/DC18-32V
- Fault Relay Output for port alarm
- Compact Aluminum case with IP-31 grade protection
- -10~70°C operating temperature for hazardous environment applications

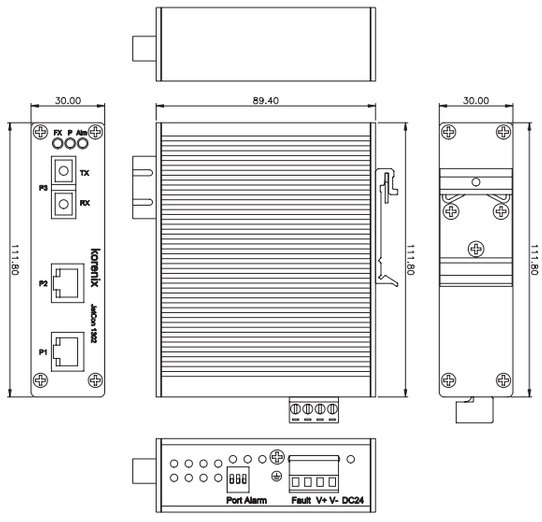
CE FC cULus LISTED RoHS

Overview

JetCon 1302 is not only a compact 2-port RJ45 to fiber media converter, but also a slim 3-port switch which is an ideal model that would physically fit in a network environment with limited space. The feature of fault relay alarm aiming to inform you whenever there is any port link down. Just move up the DIP switch, the fault relay alarm will be functioning! Single-mode and Multi-mode fiber optic ports meet your needs for long distance transmission up to 30KM.

When you are ready to install JetCon 1302, you will find out that it can be easily wall mounted and be mounted directly on DIN rail. AC 18V~27V or DC 18V~32V is available for different operating environments. With IP 31 rigid and compact aluminum case, 1.5KV Hi-PoT isolation protection, CE/FCC regulatory approvals, and 5-year global warranty, JetCon 1302 series are your reliable choices for hazardous applications.

Dimensions (Unit –mm)



Specification

Technology

Standard:
IEEE802.3 10Base-T,IEEE802.3u 100Base-TX
IEEE802.3u 100Base-FX,IEEE802.3x flow control
Switch Technology: Store and forward technology and with 3.2Gbps switch bandwidth
Aggregate System Throughput: 1.49Mpps

Interface

Number of Ports: 2 x 10/100 TX with Auto MDI/MDI-X, Auto-Negotiation functions
1 x 100Base-FX
Connectors: 10/100 Base-TX: RJ-45
100Base-FX: Duplex SC
Power/Relay: 4-pin terminal block
Cables:
RJ-45 connector: supports CAT-3, CAT-4, CAT-5 unshielded twisted pair or shielded twisted pair cable. The link distance is maximum 100 metersSC connector:
SC Connector:
Multi-mode fiber: 50/125um or 62.5/125um, max. distance 2KM
Single-mode fiber: 8/125um, 9/125um or 10/125 um, max. distance 30KM
Fiber Transceiver:
JetCon1302-m, Multi-mode: 2KM max. distance
Wave-length: 1310nm
Min Tx Power:-19dBm
Max Tx Power:-14dBm
Min Rx Sensitivity:-30dBm
Link budget:11dBm
JetCon1302-s, Single-mode: 30KM max. distance
Wave-length:1310nm
Max Tx Power:-8dBm
Min Tx Power:-15dBm
Min Rx Sensitivity:-34dBm
Link budget:19dBm
Port Alarm DIP Switch:
DIP 1~3: Enable or disable port link down alarm for copper port 1/2, fiber port 3
On: Enable port link down alarm
Off: Disable port link down alarm
Diagnostic LED: System: Power (green), Fault (red)
RJ-45 port: 100Mbps Link (green on)/Activity(green blinking)
10Mbps Link (yellow on)/Activity(yellow blinking)
Fiber port: Link/Activity(green)

Power Requirements

System Power: 2 pins terminal block for power input
DC 24V(18~32V)with reverse polarity protection
AC 18~27V, 47~63Hz
Power Consumption: 4.8Watts @ DC 24V

Mechanical

Installation: DIN-Rail mount
Casing: IP31 protection, aluminum case
Dimensions:
111.8mm(H) x 30mm (W) x 98.2mm (D) (with DIN rail clip)
111.8mm(H) x 30mm (W) x 89.4mm (D) (without DIN rail clip)
Weight: 374g with package
292g without package

Environmental

Operating Temperature: -10 ~ 70°C
Operating Humidity: 0% ~ 95% (Non-condensing)
Storage Temperature: -40 ~ 80°C
Storage Humidity: 0%~ 95% non-condensing

Regulatory Approvals

EMI: FCC Class A, CE/EN55022 Class A
EMC Immunity Interface: EN61000-4-2: 6KV Contact, 8KV Air, ESD contact indirect 6kvEN61000-4-3: 10V/m, 80 MHz - 1 GHz, AM 1 KHz, 80% modulation,10V/m, 0.9 - 1.8 GHz, FM 200 Hz, 50% modulation EN61000-4-4: PWR Supply Lines:+/- 2KV,Communication Lines:+/- 2KV
EN61000-4-5: 2KV on power line (L-N), 4KV on power line (L-PE, N-PE), 1.2uS Tr/ 50uS Th.
EN61000-4-6: PWR Supply Lines:10 Vrms, 150 KHz - 80 MHz;AM 1 KHz,80% modulation; Communication Lines:10 Vrms, 150 KHz - 80 MHz;AM 1 KHz, 80% modulation;Relay:10 Vrms, 150 KHz - 80 MHz;AM 1 KHz, 80% modulation
EN61000-4-8: 50Hz ,3A/m
EN61000-4-11: 30% 10 ms, 60% 100 ms, > 95% 5000 ms
Safety: CE/EN60950
Shock: IEC60068-2-27 shock: 50G, 11ms, 4G, +/- X, +/- Y, +/- Z
Free Fall: IEC60068-2-32 free fall:90 cm, 1 corner, 3 edges, 6 faces
Vibration: IEC60068-2-6 vibration: 1 mm, 2 Hz - 13.2 Hz, 90 min.; 0.7g, 13.2 Hz - 100 Hz, 90 min.; 3.5 mm, 3 Hz - 9 Hz, 10 cycles,
1 octave/min.; 1G, 9 Hz - 150 Hz, 10 cycles, 1 octave/min
MTBF: 632,171 Hours, MIL-HDBK-217F GB standard
Warranty: 5 years

Ordering Information

JetCon 1302-m Industrial 2-port Fast Ethernet to Fiber Media Converter, SC, Multi-mode/2KM

Includes:

- JetCon 1302-m
- Quick Installation Guide

JetCon 1302-s Industrial 2-port Fast Ethernet to Fiber Media Converter, SC, Single-mode/30KM

Includes:

- JetCon 1302-s
- Quick Installation Guide

JetCon 2301

Industrial Fast Ethernet to Fiber Media Converter

- One port 10/100 TX to 100 FX media converter
- Link Loss Forwarding far-end fault detection technology
- System Fault Relay Output
- Support 1.2KV Hi-PoT isolation protection
- Power redundancy with wide range input, DC24V (12~48V)
- Reverse power polarity protection
- Aluminum case with IP-31 grade protection
- -10~70°C operating temperature for hazardous environment applications

CE FC cULus LISTED RoHS

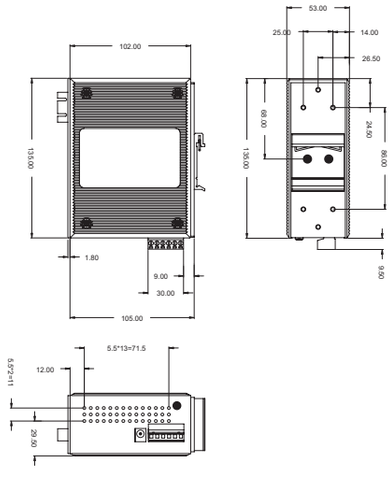
Overview

JetCon 2301 is a 1-port media converter qualified for extended distance transmission under harsh environment.

For the easy maintenance and time-saving, JetCon2301 features remote Link Loss Forwarding technology which provides remote link down signal forwarding, acknowledging link events occurred on each end of JetCon2301 to main server. To activate forwarding mode and LLF functions, simply adjust DIP switch then reset the converter, the reconfigurations will be applied. Single-mode and Multi-mode fiber optic ports meet your needs for long distance transmission up to 30KM.

When you are ready to install JetCon 2301, you will find out that it can be easily wall mounted and be mounted directly on DIN rail. JetCon 2301 has two DC24V inputs, and it is also compatible with range from DC12V~48V. Dual power inputs and built-in reverse polarity protection are designed as the redundant power system to ensure your power continuity. With IP 31 rigid aluminum case, 1.5KV Hi-PoT isolation protection, CE/FCC regulatory approvals, and 5-year global warranty, JetCon 2301 series are your reliable choices for hazardous applications.

Dimensions (Unit –mm)



Specification

Technology

Standard: IEEE802.3 10BASE-T
IEEE802.3u 100BASE-TX/100BASE-FX
IEEE802.3x Flow Control and Back pressure
Processing: Store and Forward switching architecture
Link Lose Forwarding: Tx to Fiber-If Tx port link breaks down, JetCon 2301 will force the fiber port to disconnect. Fiber to Tx-If fiber port link breaks down, JetCon 2301 will force the Tx port to disconnect.

Interface

Number of Ports: 1 x 10/100 Base-TX with Auto MDI/ MDI-X and Auto Negotiation functions
1 x 100 Base-FX, supports Full/Half duplex and set by DIP Switch
Connector: 10/100 Base-TX: RJ-45
100 Base-FX: Duplex SC
Power: Embedded in 6-pin terminal block connector
Relay: Embedded in 6-pin terminal block connector
Core: RJ-45 connector: supports CAT-3, CAT-4, CAT-5 unshielded twisted pair or shielded twisted pair cable. The link distance is maximum 100 meters.
SC connector: supports multi-mode or single-mode optical fiber
Multi-mode fiber: 50/125um or 62.5/125um, max. distance 2KM
Single-mode fiber: 8/125um, 9/125um or 10/125 um, max. distance 30KM
Fiber Transceiver:
JetCon2301-m, Multi-mode: 2KM max. distance
Wave-length: 1310nm
Min Tx Power:-19dBm
Max Tx Power:-14dBm
Min. Rx Sensitivity:-14dBm
Max Rx Sensitivity:-31
Link budget:12dBm
JetCon2301-s, Single-mode: 30KM max. distance
Wave-length:1310nm
Max Tx Power:-8dBm
Min Tx Power:-15dBm
Max Rx Sensitivity:-34dBm
Min Rx Sensitivity: -8dBm
Link budget:19dBm
Configuration DIP Switch: DIP 1: Enabling Port Alarm (ON)/ Disabling Port Alarm (OFF)
DIP 2: Enabling LLF (ON)/ Disabling LLF (OFF)
DIP 3: Fiber Full-Duplex (ON)/ Fiber Half-Duplex (OFF)
DIP 4: TX port Auto-Negotiation (OFF) / 100Base-TX Full Duplex (ON)
Diagnostic LED: System: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow)
Fiber port: Link/Activity (Green), Full/Half Duplex (Yellow)
TX port: 100Mbps (Green), Link (Green), Full Duplex (Yellow)
LED Indicators: Power (Green), Power1 (Green), Power2 (Green), Fault (Orange)
Fiber: Link/Activity (Green), Half/Full Duplex (Green)
TX: 10/100 (Green), Link (Green), Full Duplex (Orange)
Alarm: Relay output for port break and power failure

Power Requirements

Power Supplly: 24 VDC (12 to 48 VDC)
Reverse Polarity Protection: Present
Power Consumption: 4.6W

Mechanical

Hi-Pot: 1.2KV testing passed for port to port and port to power
Installation: DIN Rail or Wall Mount
Casing: IP31 protection, aluminum case
Dimensions: 54 mm (W) x 135 mm (H) x 105mm (D)

Environmental

Operating Temperature: -10~ 70°C (14 ~ 158°F)
Operating Humidity: 5% ~ 95% (non-condensing)
Storage Temperature: -40 ~ 85°C (-40 ~ 185°F)

Regulatory Approvals

EMI: FCC Class A, EN55022 Class A
EMC: EN61000-4-2, EN61000-4-3, EN61000-4-4
EN61000-4-5, EN61000-4-6, EN61000-4-8, EN610004-11
Safety: UL, cUL, CE/EN60950
Shock: IEC 60068-2-27
Free fall: IEC 60068-2-32
Vibration: IEC 60068-2-6
MTBF: 225,855 Hours, MIL-HDBK-217F standard
Warranty: 5 years

Ordering Information

JetCon 2301-m Industrial Fast Ethernet to Fiber Media Converter,Multi-mode / 2KM

Includes:

- JetCon 2301-m
- Wall mount kit
- Quick Installation Guide
- CD User manual

JetCon 2301-s Industrial Fast Ethernet to Fiber Media Converter,Single-mode / 30KM

Includes:

- JetCon 2310-s
- Wall mount kit
- Quick Installation Guide
- CD User manual

JetCon 3301

Gigabit Ethernet Media Converter

- One port 1000Base-T to Gigabit Fiber media converter
- Link-Loss-Forwarding(LLF) far-end fault detection technology
- Compliance with IEEE 802.3ab/IEEE 802.3z standards
- Supports 19” 3U 16 slots chassis mounting, Rack-1001/1002

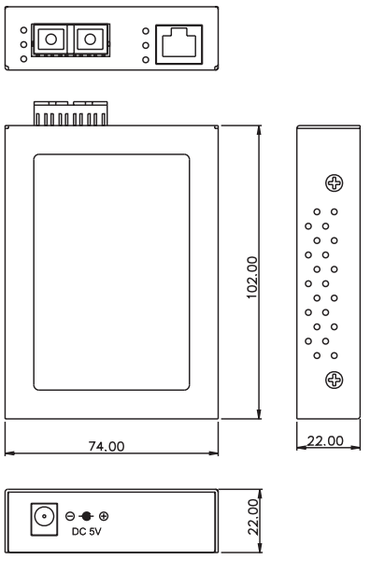
CE FC RoHS

Overview

The JetCon 3301Gigabit Ethernet Media Converter series are designed to convert 1000Base-T signals to 1000Base-SX/LX signals, supporting the data forwarding rate up to 1488100 pps in Gigabit Ethernet speed. They greatly extend the connection range of Ethernet device to transmit & receive data via fiber cable without performance degradation.

The JetCon 3301converter series support jumbo packets up to 10KB, also supports auto-negotiation, flow control function both on RJ-45 copper port and Fiber port. They will filter out abnormal packets to keep network performance. With the Link Loss Forwarding technology, the JetCon 3301 can fast detect the broken link on RJ-45 port and force the disconnection on the fiber port immediately. The JetCon 3301 also features diagnostic LEDs, which displays power, link and activity, allowing you to quickly detect and correct problems on the network.

Dimensions (Unit –mm)



Specification

Technology

Standard:
IEEE802.3ab 1000Base-T
IEEE802.3z 1000Base-SX/LX

Interface

Number of Ports:
1 x 1000 Base-T with Auto MDI/MDI-X function,
1 x 1000Base-SX/LX

Connectors:
1000 Base-T: RJ-45
1000 Base-SX/LX: SC or LC
Power plug

Cables:
RJ-45 connector: supports CAT-3,CAT-4,CAT-5, 5e or 6 unshielded twisted pair
or shielded twisted pair cable. The link distance is maximum 100 meters.
SC connector: supports multi-mode or single-mode optical fiber.
LC connector: supports multi-mode or single-mode optical fiber.
Multi-mode fiber: 50/125um, max. distance 550 M, 60/125um, max. distance 220 M,
Single-mode fiber: 9/125um or 10/125 um, max. distance 10/20 KM

Fiber Transceiver:
JetCon 3301, Multi-mode:550M max. distance
Wave-length: 850nm
Maximum TX power: -4dB
Minimum TX power: -9dB
Sensitivity: -17dB
Power Budget: 8dB
Single-mode: 10KM max. distance
Wave-length: 1310nm
Maximum TX power: -3dB
Minimum TX power: -8dB
Sensitivity: -20dB
Power Budget: 12dB
Single-mode: 20KM max. distance
Wave-length: 1310nm
Maximum TX power: -2dB
Minimum TX power: -7dB
Sensitivity: -22dB
Power Budget: 15dB

Diagnostic LED:
System: Power
RJ-45 port: Link & TX LEDs
Fiber port: Link & RX LEDs

Power Requirements

System Power: 5V DC 1.4A
Power Consumption: 5.2 Watts (Maximum)

Mechanical

Installation: Desktop or chassis mount
Case: Sheet metal case
Dimension: 102mm(H) x 74mm (W) x 22mm (L) with DIN
Weight:
240g without power adapter

Environmental

Operating Temperature: 0 ~60°C
Operating Humidity: 10% ~ 90% (non-condensing)
Storage Temperature: -20 ~ 70°C
Storage Humidity: 5%~ 90% (non-condensing)

Regulatory Approvals

EMI: FCC Class A, CE/EN55022
Warranty: 3 years

Ordering Information

JetCon 3301C, 1000Base-T to 1000Base-SX Media Converter with SC connector, Multi-mode 550M

JetCon 3301L, 1000Base-T to 1000Base-SX Media Converter with LC connector, Multi-mode 550M

JetCon 3301C10, 1000Base-T to 1000Base-LX Media Converter with SC connector, Single-mode 10KM

JetCon 3301C20, 1000Base-T to 1000Base-LX Media Converter with SC connector, Single-mode 20KM

JetCon 3301L10, 1000Base-T to 1000Base-LX Media Converter with LC connector, Single-mode 10KM

JetCon 3301L20, 1000Base-T to 1000Base-LX Media Converter with LC connector, Single-mode 20KM

Rack-1001:Industrial 19” 3U 16 slots Rackmount Chassis with one 60w power supply

Rack-1002:Industrial 19” 3U 16 slots Rackmount Chassis with two 60w power supplies

Includes:

- JetCon 3301
- Quick Installation Guide
- AC-DC Power Adapter

JetCon 1501

Fast Ethernet Media Converter

- One port compact 10/100 TX to 100FX media converter
- Link-Loss-Forwarding(LLF) far-end fault detection technology
- Compliance with IEEE 802.3/IEEE 802.3u standards/ IEEE 802.3x standards
- Supports 19” 3U 16 slots chassis mounting, Rack-1001/1002

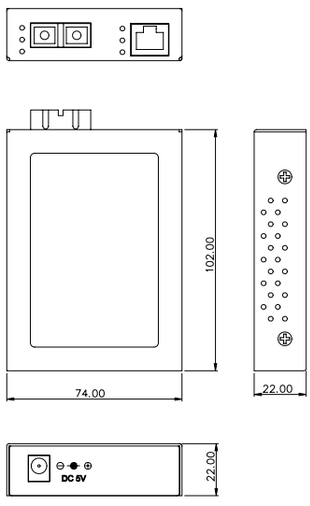
CE FC RoHS

Overview

The JetCon 1501 Fast Ethernet Media Converter series are designed to convert 10/100Base-TX signals to 100Base-FX signals. They greatly extend the connection range of Ethernet device to transmit & receive data via fiber cable without performance degradation.

JetCon 1501 series are using store-and-forward technology in switching converter mode. They will filter out abnormal packets to keep network performance,supporting the data forwarding rate up to 148810 pps in full wire speed. The JetCon 1501 series support auto-negotiation & flow control for 10/100Mbps connection. With the Link Loss Forwarding technology, the JetCon1501 can fast detect the broken link on RJ-45 port and force the disconnection on the fiber port immediately. JetCon 1501 also features diagnostic LEDs, which displays power, link, speed and activity, allowing you to quickly detect and correct problems on the network.

Dimensions (Unit –mm)



Specification

Technology

Standard:
IEEE802.3 10Base-T
IEEE802.3u 100Base-TX
IEEE802.3u 100Base-FX
IEEE802.3x flow control

Interface

Number of Ports:
1 x 10/100 Base-TX with Auto MDI/MDI-X function,
1 x 100BaseFX
Connectors:
10/100 Base-TX: RJ-45
100Base-FX: SC or ST
Power plug
Cables:
RJ-45 connector: supports CAT-3,CAT-4,CAT-5 unshielded twisted pair
or shielded twisted pair cable. The link distance is maximum 100 meters.
SC connector: supports multi-mode or single-mode optical fiber
ST connector: supports multi-mode or single-mode optical fiber
Multi-mode fiber: 50/125um or 62.5/125um, max. distance 2 KM
Single-mode fiber: 9/125um or 10/125 um, max. distance 30/60/90 KM
Fiber Transceiver:
JetCon 1501-m, Multi-mode:2KM max. distance
Wave-length: 1310nm
Maximum TX power: -12dB
Minimum TX power: -22dB
Sensitivity: -31dB
Power Budget: 9dB
Single-mode: 30KM max. distance
Wave-length: 1310nm
Maximum TX power: -5dB
Minimum TX power: -13dB
Sensitivity: -32dB
Power Budget: 19dB
Single-mode: 60KM max. distance
Wave-length: 1310nm
Maximum TX power: 2dB
Minimum TX power: -3dB
Sensitivity: -32dB
Power Budget: 29dB
Single-mode: 90KM max. distance
Wave-length: 1310nm
Maximum TX power: 13dB
Minima TX power: 8dB
Sensitivity: -33dB
Power Budget: 41dB
Diagnostic LED:
System: Power
RJ-45 port: Link/Activity, Speed and FDX/Col
Fiber port: Link/Activity & FDX

Power Requirements

System Power: 5V DC 1.4A
Power Consumption: 3.4 Watts (Maximum)

Mechanical

Installation: Desktop or chassis mount
Case: Sheet metal case
Dimension: 102mm(H) x 74mm (W) x 22mm (L) with DIN
Weight:
230g without power adapter

Environmental

Operating Temperature: 0 ~60°C
Operating Humidity: 10% ~ 90% (non-condensing)
Storage Temperature: -20 ~ 70°C
Storage Humidity: 5%~ 90% (non-condensing)

Regulatory Approvals

EMI: FCC Class A, CE/EN55022
Warranty: 3 years

Ordering Information

JetCon 1501C, 10/100Base-TX to 100Base-FX Media Converter with SC connector, Multi-mode 2KM

JetCon 1501T, 10/100Base-TX to 100Base-FX Media Converter with ST connector, Multi-mode 2KM

JetCon 1501C30, 10/100Base-TX to 100Base-FX Media Converter with SC connector, Single-mode 30KM

JetCon 1501T30, 10/100Base-TX to 100Base-FX Media Converter with ST connector, Single-mode 30KM

JetCon 1501C60, 10/100Base-TX to 100Base-FX Media Converter with SC connector, Single-mode 60KM

JetCon 1501C90, 10/100Base-TX to 100Base-FX Media Converter with SC connector, Single-mode 90KM

Rack-1001:Industrial 19” 3U 16 slots Rackmount Chassis with one 60w power supply

Rack-1002:Industrial 19” 3U 16 slots Rackmount Chassis with two 60w power supplies

Includes:

- JetCon 1501
- Quick Installation Guide
- AC-DC Power Adapter

JetCon 2401

Industrial Serial to Fiber Media Converter

CE FC c UL us LISTED RoHS

- 3-in-1 RS232/422/485 to serial fiber media converter
- Easy DIP switch configuration to change serial modes without resetting converter
- Extended serial signal through multi-mode fiber 5KM or single-mode fiber to 40KM
- PTP or SFR transmission mode for serial fiber ring communication
- Auto Baud rate Detection, Selection and Direction
- High Level Immunity with 15KV ESD Protection
- Two-way 120 ohm Line Terminator Embedded
- Dual modes for power input, AC 24V(12~32V)/ DC 24V(12~48V)
- -20~70°C operating temperature for hazardous environment applications

Overview

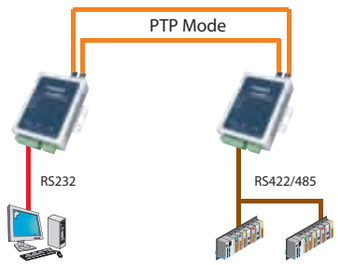
JetCon 2401 is a 1-port RS232/422/485 serial to fiber media converter with extended fiber transmission. Single-mode and Multi-mode fiber optic ports meet your needs for long distance transmission up to 40KM. JetCon 2401 will automatically detect the data baud rate of the connected full-duplex serial device, ranging from 300 to 921,600bps.By moving up the DIP switch, JetCon2401 supports brilliant auto setting function without system power reset to change serial interface, fiber wiring architecture and termination of receiver and transmission line. Also JetCon 2401 is specially designed for applications requiring good immunity of EMI/EMS such as power distribute substation, rail and traffic control signification system under severe electromagnetic interference and wide temperature range from -20 ~ 70°C.

When you are ready to install JetCon 2401, you will find out that it can be easily wall mounted and be mounted directly on DIN rail. AC 24V(12~32V) or DC 24V(12~48V) is available for different operating environments. With IP 30 rigid aluminum case, stronger CE/FCC regulatory approvals, and 5-year global warranty, JetCon 2401 series are your reliable choices for hazardous applications.

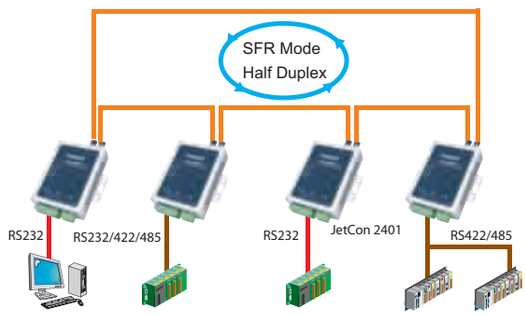
Application

The JetCon 2401 series supports two transmission configurations, Peer to Peer in full duplex and Serial Fiber Ring (SFR) in half duplex. In a Peer-to-Peer configuration, two fibers are required between the two converters, one for data in each direction (RX and TX). To expand the number of connected serial devices and connect the fiber transmitter to the rest of the slaves and eventually back to the master node.

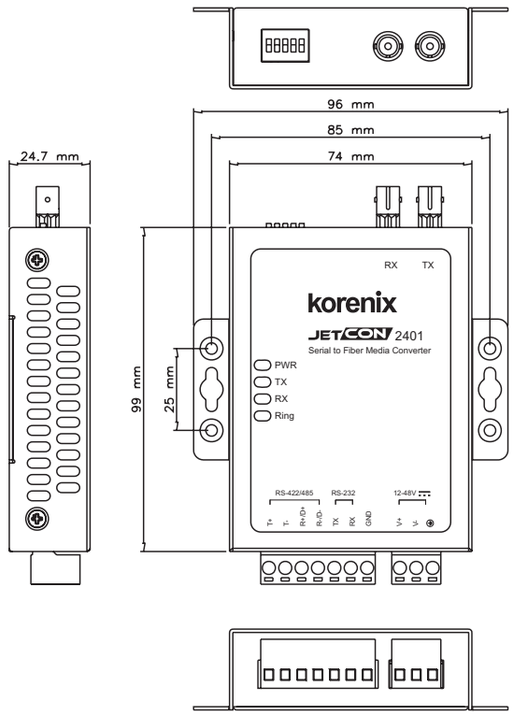
Peer to Peer Serial Communication (PTP)



Serial Fiber Ring Communication (SFR)



Dimensions (Unit –mm)



Specification

Technology

Standard:
EIA/TIA-232 RS-232 (ITU-T v.28)
EIA/TIA-422 RS-422 (ITU-T v.11)
EIA/TIA-485 RS-485 (ISO/IEC8284)
Serial Interface:
RS-232 2-wires, RS-422 4-wires, RS-485 2/4-wires
Architecture: PTP mode: Peer To Peer wiring in Full or Half Duplex
SFR mode: Serial Fiber Ring in Half Duplex

Interface

Number of Ports:
1 x RS-232/RS-485/RS-422 serial port
1 x Fiber Transmit port, 1 x Fiber receive port
Connectors:
Serial port: 7-pin removable terminal block
Fiber port: 1 x Duplex ST
Power input: 3-pin removable terminal block with earth ground
Transmit Baud Rate: 300bps to 921.6Kbps
Link distance:
RS-232: 50 feet
RS-422: 4000 feet
RS-485: 4000 feet
Multi-mode fiber: 50/125um or 62.5/125um, max. distance 5KM
Single-mode fiber: 8/125um, 9/125um max. distance 40KM
Serial signal:
RS-232: TxD, RxD, Signal Ground.
RS-422: TxD+, TxD-, RxD+, RxD-, Signal Ground
RS-485 4 wires: TxD+, TxD-, RxD+, RxD-, Signal Ground.
RS-485 2 wires: Data+, Data-, Signal Ground.
Configuration DIP Switch:
Switch 1 and 2: serial interface mode select.
Switch 3: RX 120ohm terminator Disable (off)/Enable (on)
Switch 4: TX 120ohm terminator Disable (off)/Enable (on)
Switch 5: PTP mode (off) / SFR mode (on).
Diagnostic LED:
Power LED: Power 1 (Green)
TX (Green): Serial port is on transmitting data.
RX (Yellow): Serial port is on receiving data.
Ring mode (Green): Working on SFR (Serial Fiber Ring) mode.

Power Requirements

System Power: Positive or negative power system.
DC 24V (12~48V) with reverse polarity protection.
AC 24V (AC12~32V, 50/60Hz)
Provides 0.65A over current protection
Power Consumption: 1.5Watts @ 24V(Maximum)

Mechanical

Installation: DIN-Rail mount or desktop
Case: IP-30 grade aluminum metal case
Dimension: 24.7mm(H) x 96mm (W) x 99mm (L) with DIN
Weight:
0.24kg with package
0.135kg without package

Environmental

Operating Temperature: -20 ~70°C
Operating Humidity: 5% ~ 95% (non-condensing)
Storage Temperature: -40 ~ 80°C
Storage Humidity: 5%~ 95% (non-condensing)

Regulatory Approvals

EMI: FCC Class B; CE/EN55022:2003,class B; CE/EN61000-3-2:2001 Harmonic Test CE/EN61000-3-3:1995 Flicker test
EMS:
EN61000-4-2:1998, ESD Testing, Level 3(Contact +/- 6KV, Air +/-8KV) with Criterion performance A), port to port (serial line, fiber port), port to power (serial to power, fiber to power)
EN61000-4-3:1998, RS testing, Level 3 (10V/m) with criterion performance A
EN61000-4-4:1995, EFT testing, Level 3 (Power supply:+/-2kV/5Khz; I/O:+/- 1Kv,5Khz), with criterion performance A
EN61000-4-5:1995, Surge test, Level 3 (L-N: +/- 2Kv), with criterion performance A
EN61000-4-6:1996, CS testing, Level 3 ,with criterion performance A
Safety: CE/EN60950
Shock: IEC60068-2-27
Vibration: IEC60068-2-6
Free Fall: IEC60068-2-32
Warranty: 5 Years

Ordering Information

JetCon 2401-m Industrial Serial to Fiber Media Converter, ST, Multi-mode/5KM

Includes:

- JetCon 2401-m
- Quick Installation Guide

JetCon 2401-s Industrial Serial to Fiber Media Converter, ST, Single-mode/40KM

Includes:

- JetCon 2401-s
- Quick Installation Guide

JetCon 2101 / 2101i

Industrial RS-232 to RS-422 / 485 Isolated Rail Converter

CE FC RoHS

- Automatic RS-232 to RS-422/485 converter
- Automatic internal RS-422/485 data control
- 3000VDC isolation protection
- Transient suppression on RS-422/485 signal lines
- Speed up to 115.2 kbps

JetCon 2101ir

Industrial RS-422 / 485 Isolated Rail Repeater

CE FC RoHS

- Extends RS-422/485 network coverage
- Automatic internal RS-422/485 data control
- 3000VDC isolation protection
- Transient suppression on RS-422/485 signal lines
- Speed up to 115.2 kbps

Overview

The standard RS-232 protocol has been widely used in most of industrial computer systems for serial port communication. However, it has its limitations in transmission speed, range, and networking capabilities. The RS-422 and RS-485 standard protocols, on the other hand, overcome the limitations mentioned above by utilizing different voltage lines for data and control signals.

Specification

Interface

Input: RS-232
Output: RS-422/485 (jumber selectable)
Max. multidrop supported: 256 modules (without repeaters)
Isolation Protection:
JetCon 2101-3000V at RS-232 end
JetCon 2101i-3000V at RS-232/RS-422/485 end
RS-232 Signals: Tx, Rx, GND (Female DB9 connector)
RS-422 Signals: Tx+, Tx-, Rx+, Rx-
RS-485 Signals: Data+, Data-
Communication Distance:
2.1 km/9600 bps, 2.7 km/4800 bps, 3.6 km/2400 bps
Reverse Polarity Protection: Present

Performance

Speed: "AutoPro" auto-switches baud rates from 300 to 115200 bps

Power Requirements

Power Input: 10 to 30 VDC
Power Consumption: 2.2W (max.)

Mechanical

Dimensions: 70 mm (W) x 10 mm (H) x 20 mm (D)

Environmental

Operating Temperature: -25 ~ 75°C (-13 ~ 167°F)
Operating Humidity: 5% to 90% (non-condensing)
Storage Temperature: -40 ~ 80°C (-40 ~ 176°F)

Regulatory Approvals

EMI: FCC, CE
warranty: 3 years

Ordering Information

JetCon 2101 Industrial RS-232 to RS-422/485 Rail Converter
JetCon 2101i Industrial RS-232 to RS-422/485 Isolated Rail Converter
JetCon 2101ir Industrial RS-422/485 Isolated Rail Repeater
Includes:

- JetCon 2101/2101i/2101ir
- Quick Installation Guide/DIN Rail & Wall mount kit

JetCon 2204 / 2208

4-port / 8-port RS-232 to USB Media Converter

CE FC RoHS

- Adds 4/8 RS-232 serial ports to PC or notebook over USB port
- Supports USB 2.0, and backwards compatible with USB 1.1/1.0
- Supports baud rate from 75 bps to 115.2 Kbps
- Supports Windows 98/Me/2000/XP/2003

Overview

JetCon 2204/2208 is a 4/8-port RS-232 to USB converter. a cost-effective USB-to-Serial solution to help you extend COM ports on your PC. JetCon 2204/2208 gives you an easy plug-n-play solution with 4/8 independent RS-232 ports. The USB interface not only gives you the plug-n-play capability, but also allows you to hot swap without powering on/off your PC,USB 1.1 standard that is compatible with USB 2.0 and 1.0, you can be assured that JetCon 2204 / 2208 can work with any PC or device with USB interface. JetCon 2204 / 2208 also provides both USB bus and external power to give you flexible power supply connection.PC or device with USB interface.

Specification

Technology
Standard: USB 1.1, 1.0, USB 2.0 backwards compatible

Interface
USB
Connector: Type B
Speed: Full speed 12 Mbps
Serial
Interface: RS-232
Connector: Male DB62 x 1
RS-232 Signals: TxD, RxD, RTS, CTS, DTR, DSR, GND, DCD
Serial Line Protection: 16KV ESD

Performance
Baud Rate: 75 bps to 115.2 Kbps
Data Bits: 5, 6, 7, 8
Parity: odd, even, none
Stop Bits: 1, 1.5, 2
Flow Control: XON/XOFF, RTS/CTS
FIFO: 512 bytes

Power Requirements
Input:
Bus Power 5 VDC
Ext. Power 5 VDC
Consumption:
Bus Power 250mA at 5 VDC
Ext. Power 250mA at 5 VDC
Operating Systems: Windows 98/Me/2000/XP/2003

Mechanical
Material: ABS
Dimensions: 150 x 67 x 26 mm (5.9 x 2.64 x 1.02 in)
Weight: 140g + 5g

Environmental
Operating Temperature: 0 ~ 55°C (32 ~ 131°F)
Operating Humidity: 5% to 95% RH
Storage Temperature: -20 ~ 85°C (-4 ~ 185°F)

Regulatory Approvals
EMI: FCC-Class B, CE- Class B
Warranty: 3 years

Ordering Information

JetCon 2204/2208 4/8-port RS-232 to USB Converter
Includes:

- JetCon 2204/2208
- Quick Installation Guide
- A to B USB Cable (1.8m)
- DIN Rail & Wall mount kit
- Dowmentation and Software CD-ROM