

## JetCon 2302

### 2-Channel Fast Ethernet to Fiber Media Converter



CE FCC RoHS



- Two Channels 10/100 TX to 100 FX media converter
- Two 10/100TX with 2 100FX Fast Ethernet Fiber Switch
- Dual Forwarding modes- Switching and Pure converter
- Supports Auto MDI/MDI-X, Auto Negotiation
- Supports Multi-mode 2KM, Single-mode 30KM
- 3.2Gbps Non-Blocking Switch Fabric
- Fault Alert for port and power
- Redundant 10~60V DC Power inputs with DC polarity protection
- Supports AC 1.5KV Hi-Pot isolation protection
- EN 50121-3-2 Railway EMC compliance (applying)
- Operating temperature -25~75°C (-40~75°C wide operating temperature model available by request)

- Industrial Intelligent NMS
- Rackmount PoE Plus Switch
- Industrial PoE Plus Switch
- Industrial 12-24V PoE Switch
- Industrial PoE Switch
- Rackmount L3/L2 Switch
- Gigabit Managed Switch
- Managed Ethernet Switch
- Entry-level Switch
- Wireless Outdoor AP
- Embedded PoE/Router Computer (LINUX)
- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/Serial Board
- Ethernet I/O Server
- Media Converter**
- Serial Device Server
- SFP Module
- Din Rail Power Supply

## Overview

JetCon 2302 is not only a compact 4-port switch, but also a 2 channel RJ45 to fiber media converter - an ideal model that would physically fit in harsh environments with intensive severe electromagnetic interference. In switch mode, JetCon 2302 is an Industrial 4-port 10/100Mbps Fast Ethernet Fiber Switch, incorporating 3.2Gbps switching fabric with non-blocking store and forward technology to fulfill the high transmission performance requirements. In converter mode, JetCon 2302 is an Industrial 2-channel 10/100 TX to 100 FX media converter, with an alarm relay to trigger out a real alarm signal for port or power events.

To avoid interferences as well as to extend the network coverage, Single-mode or Multi-mode fiber optic ports meet your needs for up to 30KM long distance transmission.

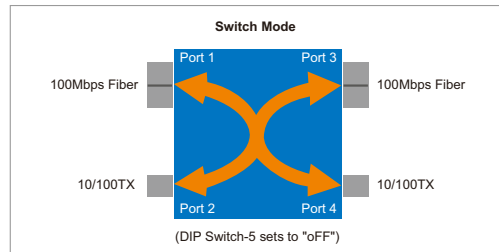
In addition, to withstand under hazardous environmental conditions, JetCon 2302 provides dual redundant power inputs with wide DC10~60V range, 1.5KV Hi-Pot isolation protection and wide operating temperature for avoiding any power interruption and providing reliable network performance. With its rugged aluminum case, CE/ FCC regulatory approvals and 5-year global warranty, JetCon 2302 is your reliable choice for industrial field site applications.

## Two-Channel Media Converter and 4-Port Fiber Switch

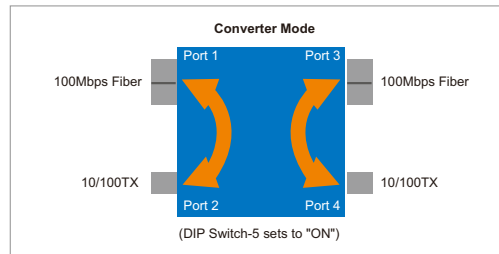
The JetCon 2302 can be configured by DIP switch in two different operation modes: media converter or fiber switch. In media converter operation mode JetCon 2302 has 2 channels 10/100 TX to 100 FX. For traditional

media converter it only has one channel TX to FX. Therefore, JetCon 2302 can be used to substitute two traditional media converters as a result saving cost and power use.

**Switch Mode** – the device works as a switch equipped with 2 10/100TX RJ-45 ports and 2 100Mbps fiber ports. The packet forwarding uses store and forward technology, which means all the packet flow that goes through the device will be checked and dropped in case if it contains error information. The MAC address table can be updated per 300 micro seconds.

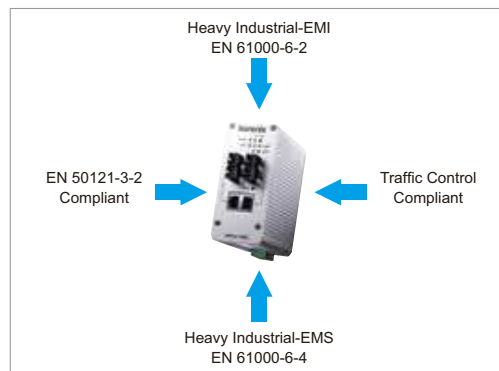


**Converter Mode** – the device works as a 2-channel media convert with independent traffic path, channel-A and channel-B. The forwarding technology still supports store and forward technology, but the device will not learn and update the MAC address table. All the traffic will be recognized as unknown destination packet flooding with each other and will act as a 2-channel Fast Ethernet media converter.



## Excellent system Anti-Electromagnetic Interference

Traditionally, the interference is presented in positive system and disturbs the communication. To prevent the communication from these noise disturbances, some of telecom devices use negative power system to ensure the communication quality. In this regard, JetCon 2302 also can be applied with DC negative power and therefore can provide better anti-jamming ability; not only for the fiber cable anti-interference, but also for the device's power system.

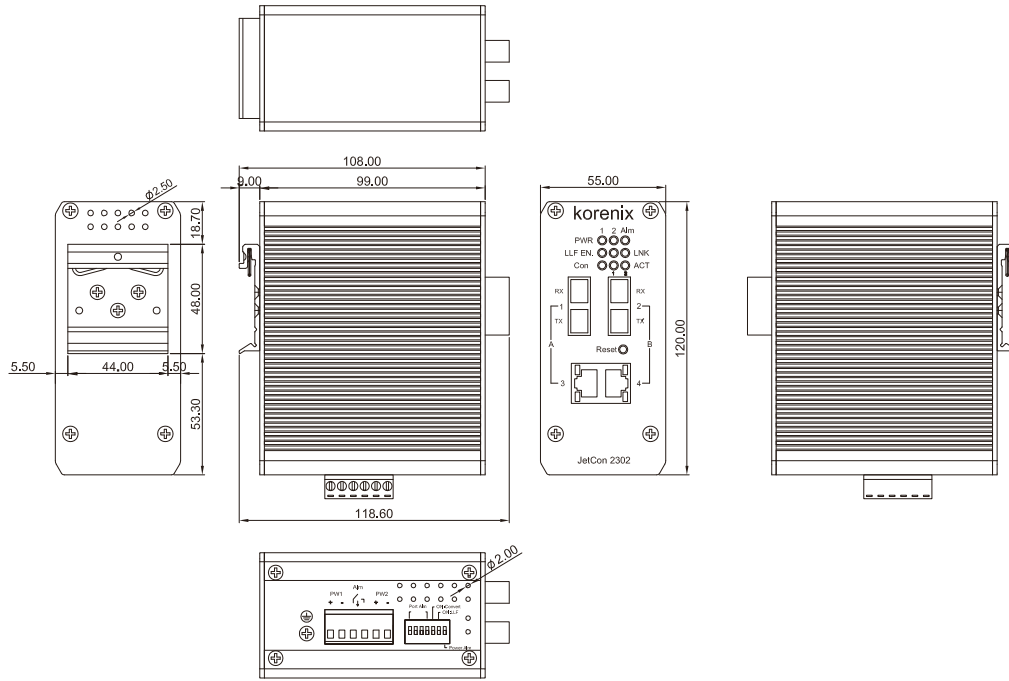


## Wide Range Redundant Power Inputs & True Reliability

In field site applications, unstable power input always impacts on the reliability of system and causes an interruption of communication. To provide a higher reliability, JetCon 2302 has a wide range redundant power input 10~60VDC.

In addition, with -25~75°C and -40~75°C (JetCon 2302-w model) wide operating temperature range, the JetCon 2302 can ensure high performance data transmission under harsh environments.

## Dimensions (Unit = mm)



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## Specification

### Technology

#### Standard:

IEEE 802.3 10Base-T  
 IEEE 802.3u 100Base-TX  
 IEEE 802.3u 100Base-FX  
 IEEE 802.3x Flow Control and Back Pressure

### Performance

**Switch Technology:** 3.2 Gbps Store and Forwarding Technology

**System forwarding performance:** 1.19 Mega packets per second, 64 bytes packet size. (Switch Mode)  
 14880 pps for 10Base-T  
 148810 pps for 100Base-TX/ FX

**Mac address:** 1K MAC address entries with automatic learning and aging (Switch Mode only)

**Packet Buffer:** 512Kbits shared memory

**Forwarding Technology:** Store and Forward

#### Operating Mode:

Converter/Switch mode selected by DIP switch  
 Switch Mode: data exchange on 4 ports (Channel A, B exchange)  
 Converter mode: data forwarding on independent channel (A, B)

**Digital Output:** Dry Relay Output with 1A @24V DC ability

### Interface

**Ethernet copper port:** 2 × 10/100TX ports with Auto MDI/MDI-X, Auto Negotiation, flow control and back-pressure enabled (Switch mode)

**Fiber port:** 2 × 100Mbps Fiber port, SC flow control and back-pressure disabled  
 JetCon 2302-m: Multi-mode (Channel A,B)  
 JetCon 2302-s: Single-mode (Channel A,B)

#### Cables:

##### RJ-45 Connector:

10Base-T: 2-pairs UTP/STP Cat-3,4 TIA/EIA 568-B cable, 100 meters  
 100Base-TX : 2/4 pairs UTP/STP Cat.5 TIA/EIA 568-B cable, 100 meters

##### Fast Ethernet Fiber Transceiver:

**JetCon 2302-m:** 2KM distance, 50~62.5/125um Multi-mode fiber cable.

**JetCon 2302-s:** 30KM distance, 8~10/125um Single-mode fiber cable.

#### Diagnostic LEDs:

System Power (Green on) : Power 1 , 2

Relay Alarm: Active (Red)

Op. Mode: Convert (Green on)

Fiber Ethernet Port(Channel A/B): Link/Activity (Green on/ Yellow Blinking)

Ethernet Port: Link/Activity (Green on/Yellow Blinking)

**Reset Button:** For Operating mode change

DIP Switch 1~4: Port Event Alarm Control,

Enable(On)/ Disable (Off)

DIP Switch 5: Operating mode select,

Converter mode (On)/ Switch mode (Off)

DIP Switch 6: Power Event Alarm Control,

Enable(On)/ Disable (Off)

DIP Switch 7: Not available

**Power Connector:** Removable Terminal Block

**Digital Output:** Removable Terminal Block

### Power Requirements

**System power:** DC 10~60V with polarity reverses correction. Supports Positive/Negative power system

**System power consumption:** 6Watts / DC 24V

### Mechanical

**System Installation:** DIN Rail installation

**Enclosure protection:** Ingress Protection code - 30

**Dimensions:** 99 (D) x55(W)x 120(H), unit:mm (without Din-rail kit)

**Weight:** 0.49Kg w/o packing

### Environmental

#### Operating Temperature:

-25 ~75°C (JetCon 2302-w: -40~ 75°C)

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

**Storage Temperature:** -40 ~ 75°C

**Storage Humidity:** 0%~ 95% non-condensing

**Hi-Pot:** AC 1.5KV on port to port and port to power

**EMC:** Compliant with EN 50121-3-2 EMC

### Regulatory Approvals

**EMI:** CE/EN 61000-6-4, CISPR-16-1-2:2003, CISPR-16-2-1:2003, CISPR-16-2-3:2006, CISPR-22 :2005+A1 :2005(9.6), FCC part 15B Class A

**EMS:** CE/ EN 61000-6-2 :2005

IEC 61000-4-2 :2008, IEC 61000-4-3 :2006+A1 :2007,IEC

61000-4-4 :2004, IEC 61000-4-5 :2005, IEC 61000-4-6 :2008,

IEC 61000-4-8 :1993+A1 :2000

**Shock:** IEC 60068-2-27

**Vibration:** IEC 60068-2-6

**Free fall:** IEC 60068-2-32

## Ordering Information

JetCon 2302-m 2-Channel Fast Ethernet to Fiber Media Converter, SC, Multi-mode/ 2KM

JetCon 2302-s 2-Channel Fast Ethernet to Fiber Media Converter, SC, Single-mode/ 30KM

Includes:

- JetCon 2302-m / 2302-s
- Quick Installation Guide