

# JetCon 2201-w / 2201i-w / 2201i-wTB

## Industrial RS-232/422/485 Converter



CE FC RoHS

921.6Kbps 3KV Isolation -40~70°C

- Automatic RS-232 to RS-422/485 converter
- Auto baud rate and direction control
- High speed up to 921.6 Kbps
- RS-422/485 3000VDC isolation protection (JetCon 2201i-w/2201i-wTB)
- Supports RX bias and terminal resistor
- Easy configuration by DIP switch without resetting power
- Din-Rail mount and wall mount robust aluminum case
- Terminal block 5-pin at RS-232 (JetCon 2201i-wTB)
- -40~70°C operating temperature for hazardous environment applications

- 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

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 terms of transmission speed, range and networking capabilities. Furthermore, the RS-422 and RS-485 standards have overcome the limitations mentioned above by utilizing

different voltage lines for data and control signals. Hence, JetCon 2201-w series, the RS-232 to RS-422/485 converter becomes very popular to be deployed in the industrial communication network for longer distance and higher reliability.

### High Speed and Auto Baud Control

The JetCon 2201 series features embedded high performance ASIC to provide graceful signal conversion and speed Control.

The data rate supports up to 921.6Kbps, satisfying the need of most automatic control systems.

### User Friendly Design Line Terminator/RX Bias Control

In a long distance transmission, the RS-422/485 differential signal is easily interfered by noises which result in the communication interruption; JetCon 2201

provides 120ohm line terminator and receiver biasing control functions to ensure the quality of transmission by using the DIP switch to activate those features.

## Hazardous Environment application

In the factory floor, there are too many interferences coming from field site equipments, such as robot, Variable- frequency motor and high-power magnetic –contactor. Those devices may produce huge electric field, magnetic field or surge and coupling into the communication lines near the devices and make all of devices work abnormally. Therefore, Electrical Magnetic

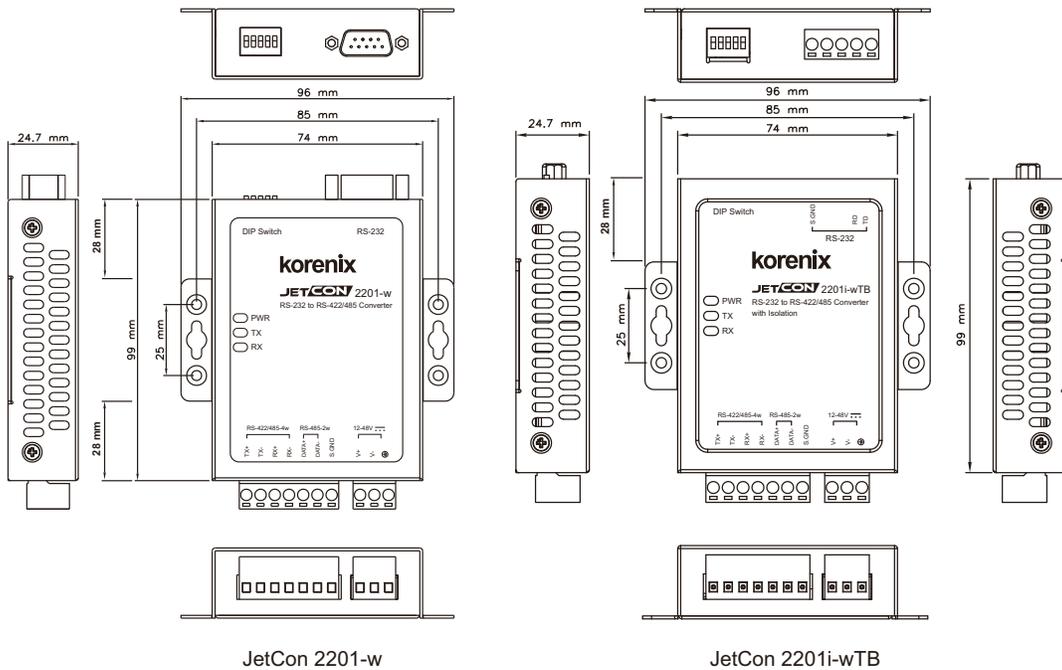
Susceptibility (EMS) is important for the industrial communication. The JetCon 2201 series provides great EMS ability and complies with EN 61000-6-2 Heavy Industrial level EMS.

The differential serial signal interface also adopts 3000V isolation protection to prevent inrush surge or lighting noise (JetCon 2201i-w).

Item	Std.	Commercial Grade	Heavy Ind. Grade (JetCon 2201)*
ESD		Contact 4KV/Air 8KV	Contact 8KV/Air 15KV - Over Level
RS		3V/m	10V/m
EFT		0.5Kv ,Power, I/O	2KV Power, 1KV I/O
Surge		1KV	2KV
CS		3V	10V

Note:\*Heavy Industrial grade.

## Dimensions (Unit –mm)



## Specifications

### 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)

### Interface

**Forwarding Rate:** Auto baud rate 300 to 921.6Kbps

#### Port:

RS-232 x1  
 RS-422 x1  
 RS-485 2/4 wire x1

#### Connector:

RS-232: DB-9 Female (JetCon 2201i-w)  
 RS-232: Terminal block (JetCon 2201i-wTB)  
 RS-422/485: Removable terminal block

#### Link Distance:

RS-232: 50 feet  
 RS-422: 4000 feet  
 RS-485: 4000 feet

#### Serial Signals:

RS-422: TxD+, TxD-, RxD+, RxD-  
 RS-485 4 wires: TxD+, TxD-, RxD+, RxD-  
 RS-485 2 wires: Data+, Data-  
 Signal Ground

#### Configuration DIP Switch:

DIP-switch 1,2: RS-422/485 wiring mode selection  
 DIP-switch 3,4: RS-422/485 line terminator selection  
 DIP-switch 5,6: RS-422/485 biasing resistor selection  
 DIP-switch has plate (JetCon 2201i-wTB)

### Diagnostic LED:

System power (Pwr): Green  
 Receive Data (Rx): Yellow blinking  
 Transmit Data (Tx): Green blinking

### Power Requirements

#### System Power:

DC 12~48V input with polarity reverse correction.

**Power Consumption:** 1 Watt (max.)

### Mechanical

**Installation:** Wall mount or DIN Rail mount

**Case:** Aluminum metal case

**Dimensions:** 24.7mm(H) x 74mm (W) x99 mm (D)

#### Weight:

0.24kg with package  
 0.15kg without package

### Environmental

**Operating Temperature:** -40 ~70°C

**Operating Humidity:** 0% ~ 90% (non-condensing)

**Storage Temperature:** -40 ~ 80°C

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

### Regulatory Approvals

#### EMI:

FCC class B, CE/EN55022 class B  
 CE/EN61000-3-2:2001 Harmonic test  
 CE/EN61000-3-3: 1995 Flicker test

**Shock:** IEC60068-2-27

**Vibration:** IEC60068-2-6

**Free Fall:** IEC60068-2-32

**MTBF:** 5366,967 Hours ,MIL-HDBK-217F

**Warranty:** 5 Years

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

## Ordering Information

### JetCon 2201-w Industrial RS232 to RS422/485 Rail Converter, -40~70°C operating Temp.

Includes:

- JetCon 2201-w
- DIN rail kit
- Quick Installation Guide

### JetCon 2201i-w Industrial RS232 to RS422/485 Rail Converter, 3KV isolation,-40~70°C operating Temp.

Includes:

- JetCon 2201i-w
- DIN rail kit
- Quick Installation Guide

### JetCon 2201i-wTB Industrial RS232 to RS422/485 Rail Converter, 3KV isolation,-40~70°C operating Temp. with terminal block 5-pin at RS-232

Includes:

- JetCon 2201i-wTB
- DIN rail kit
- Quick Installation Guide