

# JetCon 2201-w / 2201i-w

## Industrial RS-232/422/485 Converter



CE FC  RoHS

- Automatic RS-232 to RS-422/485 converter
- Auto Baud rate and direction control
- High Speed 921.6Kbps
- 3000V RS-485/422 isolation protection
- RX bias and terminal resistor selection
- Easy Configure without power resetting
- -40~70°C wide operating temperature (JetCon 2201i-w)

### 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 standard has overcome the limitations mentioned

above by utilizing different voltage lines for data and control signals. Hence 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, such as JetCon 2201-w series.

### High Speed and Auto Baud control

The JetCon 2201 series 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 system.

### 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 transmits 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

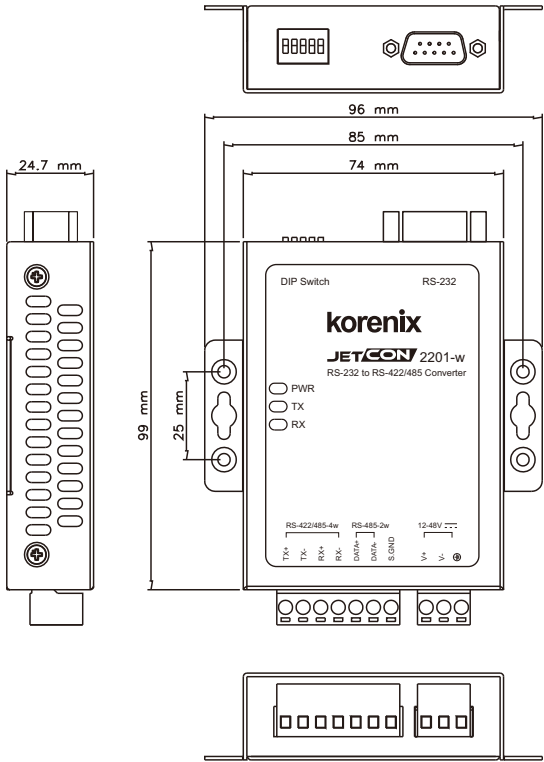
Magnetic Susceptibility (EMS) is important for the industrial communication. The JetCon 2201 series provides great EMS ability and complies with EN 61000-6-2 Heavy Industrial level EMS.

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)



Industrial PoE Switch

IP67/68 Ethernet Switch

Rackmount Managed Switch

Gigabit Switch

Redundant Switch

Entry-Level Switch

Networking Computer

Communication Computer

Ethernet I/O Server

Serial Device Server

Media Converter

Multiport Serial Card

SFP Module

Din Rail Power Supply

## 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)

### 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  
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.

**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) x 99 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

## 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