

I-7551

Isolated RS-232 to RS-232 Converter



Features ▶▶▶

- 3000 V_{DC} 3-way Isolation Protection
- Transmission Speed of up to 115200 bps
- Operating Temperatures, -25 °C ~ +75 °C
- ESD Protection
- Power Input, +10 ~ +30 V_{DC}
- DIN-Rail Mounting

Introduction

The I-7551 provides a complete full-duplex (including control signal) electrical isolation channel between two RS-232 devices. This isolation is an important consideration if a system uses different power sources, has noisy signals, or must operate at different ground potentials.

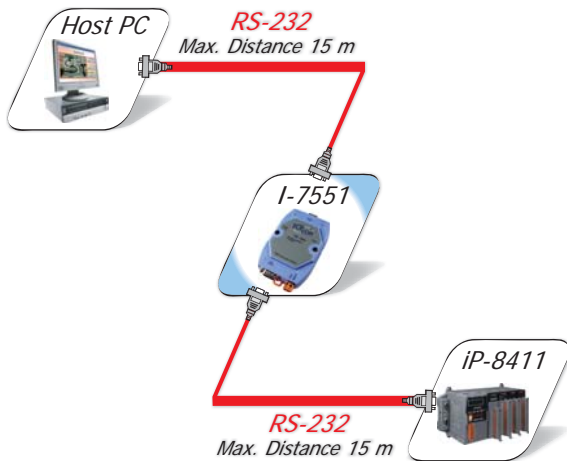
The CTS/RTS pins of the I-7551 module can be reconfigured as DSR/DTR to meet requirements on different applications.

The I-7551 incorporates two DC-to-DC converters, the isolation side of the I-7551 is located in the input and output interface circuit. In other words, the I-7551 is 3-way isolated RS-232 to RS-232 converter.

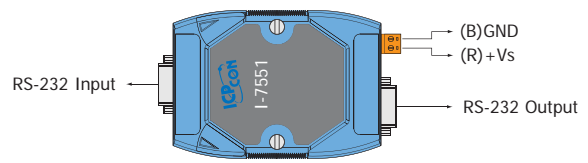
System Specifications

| | | |
|--|---|--------------------|
| Interface | | |
| Input | TxD, RxD, CTS, RTS, GND (Default) or TxD, RxD, DSR, DTR, GND Jumpers JP1 and JP2 are used to select the RS-232 input source type | |
| Output | TxD, RxD, CTS, RTS, GND (Default) or TxD, RxD, DSR, DTR, GND | |
| Transmission Distance | Max. 15 M at 115200 bps | |
| Speed | 300 ~ 115200 bps | |
| ESD Protection | Yes | |
| 3000 V _{DC} Three Way Isolated Protection | Yes | |
| Connector | RS-232 Input | 9-Pin Female D-Sub |
| | RS-232 Output | 9-Pin Male D-Sub |
| LED Indicators | | |
| Power/Communication | Yes | |
| Power | | |
| Input Voltage Range | +10 V _{DC} ~ +30 V _{DC} (Non-isolated) | |
| Power Consumption | 1.2 W | |
| Mechanical | | |
| Casing | Plastic | |
| Dimensions (W x H x D) | 72 mm x 118 mm x 35 mm | |
| Installation | DIN-Rail Mounting | |
| Environment | | |
| Operating Temperature | -25 °C ~ +75 °C | |
| Storage Temperature | -30 °C ~ +75 °C | |
| Humidity | 10 ~ 90% RH, non-condensing | |

Applications



Pin Assignments



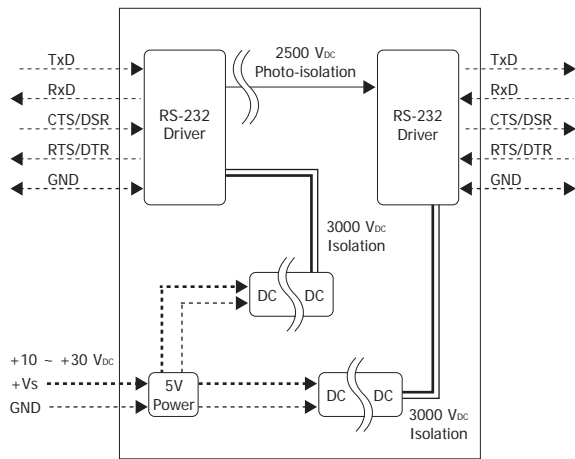
TxD, RxD, CTS, RTS, GND (Default)

| RS-232 Input | | | RS-232 Output | | | | |
|----------------|--------------|----------------|----------------|--------------|----------------|-----|-----|
| Pin Assignment | Terminal No. | Pin Assignment | Pin Assignment | Terminal No. | Pin Assignment | | |
| -- | 01 | 06 | DTR | 05 | 09 | -- | |
| TxD | 02 | 07 | CTS | 04 | 08 | CTS | |
| RxD | 03 | 08 | RTS | TxD | 03 | 07 | RTS |
| DSR | 04 | 09 | -- | RxD | 02 | 06 | -- |
| GND | 05 | | | -- | 01 | | |

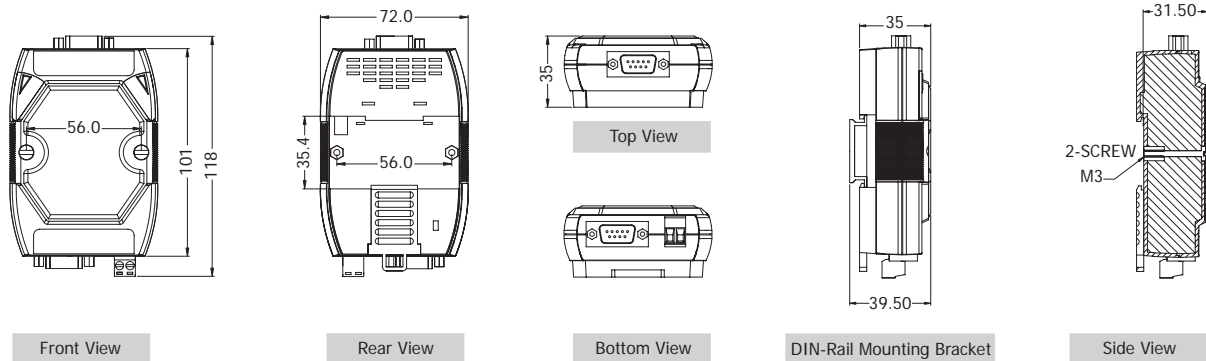
TxD, RxD, DTR, DSR, GND

| RS-232 Input | | | RS-232 Output | | | | |
|----------------|--------------|----------------|----------------|--------------|----------------|----|-----|
| Pin Assignment | Terminal No. | Pin Assignment | Pin Assignment | Terminal No. | Pin Assignment | | |
| -- | 01 | 06 | DTR | GND | 05 | 09 | -- |
| TxD | 02 | 07 | CTS | DTR | 04 | 08 | -- |
| RxD | 03 | 08 | RTS | TxD | 03 | 07 | -- |
| DSR | 04 | 09 | -- | RxD | 02 | 06 | DSR |
| GND | 05 | | | -- | 01 | | |

Internal I/O Structure



Dimensions (Units: mm)



Ordering Information

| | |
|-------------|---|
| I-7551 CR | Isolated RS-232 to RS-232 Converter (RoHS) |
| I-7551-G CR | Isolated RS-232 to RS-232 Converter (Gray Cover) (RoHS) |

Accessories

| | |
|-----------|--|
| GPSU06U-6 | 24 V _{dc} /0.25 A, 6 W Power Supply |
| DIN-KA52F | 24 V _{dc} /1.04 A, 25 W Power Supply with DIN-Rail Mounting |