

I-7551

Isolated RS-232 to RS-232 Converter



Features ▶▶▶▶

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

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Converters, Repeaters, Hubs and Splitter

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.

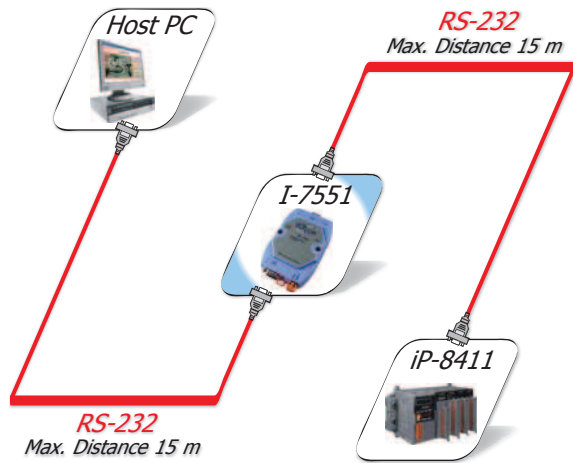
The CTS/RTS pins of the I-7551 module can be reconfigured as DSR/DTR to meet requirements on different applications.

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.

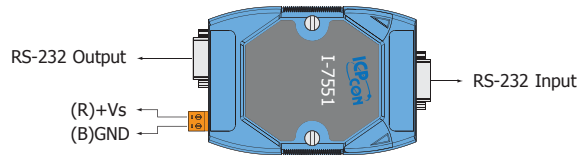
System Specifications

| | | |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 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 | |
| Flammability | Fire-Retardant Materials (UL94-V0 Level) | |
| 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 |
| GND | 01 | 06 | -- | 09 | -- |
| TxD | 02 | 07 | CTS | 08 | CTS |
| RxD | 03 | 08 | RTS | 07 | RTS |
| -- | 04 | 09 | -- | 06 | -- |
| -- | 05 | | | | |

Female DB-9 Connector

Male DB-9 Connector

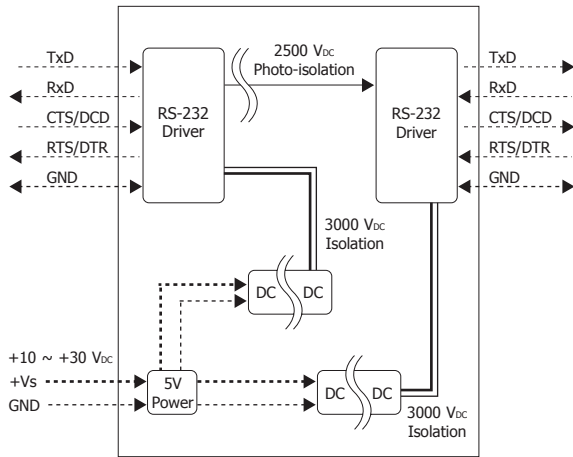
TxD, RxD, DTR, DSR, GND

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

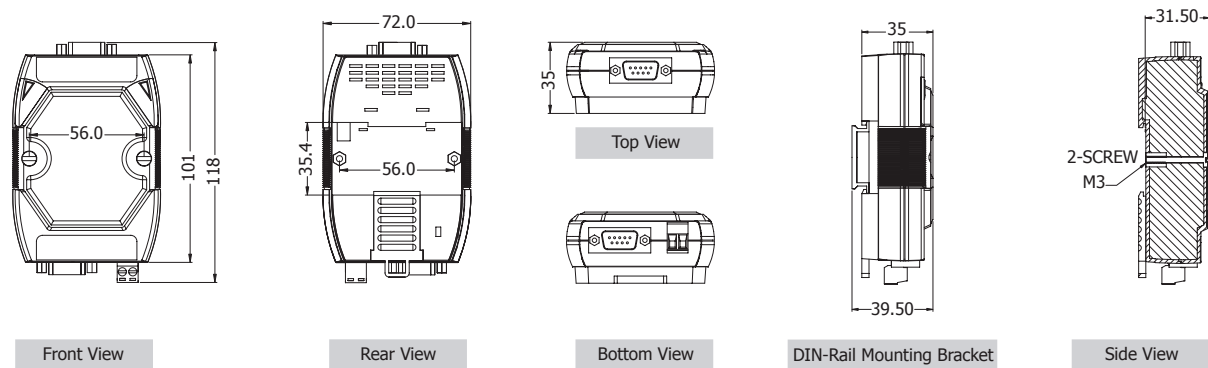
Female DB-9 Connector

Male DB-9 Connector

Internal I/O Structure



Dimensions (Unit: 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 Vdc/0.25 A, 6 W Power Supply |
| DIN-KA52F | 24 Vdc/1.04 A, 25 W Power Supply with DIN-Rail Mounting |