



DTIB-0708

RS232 Optical Isolator

Manual



Overview

The DTIB-0708 is a compact, port-powered, 3-wire RS-232 isolator. With adoption of advanced photoelectric isolation technology, it optically isolates three RS-232 lines (TX, RX and GND) and 2500Vrms optical isolation effectively protects devices on both ends of the RS-232 interface from ground loops, transient surges, lightning strikes, noise and hot-plug issues. The isolator has a DB-9 female connector on the RS-232C serial port and DB-9 male connector on the other RS-232 port. It is powered from the RS232 data lines, requires no external power or software drivers, making the unit a highly reliable and plug-and-play device.

The Performance Parameters

- Standards: EIA RS-232 & CCITT v. 24 asynchronous protocol
- Connector Type: DB-9 female and DB-9 male
- Baud Rate: from 300 bps to 115200 bps
- Isolation Voltage: 2500 VRMS pulse or 500V DC continuous
- Port Powered from RS-232 data lines (TXD, RTS or DTR)
- Transmission Modes: asynchronous, full duplex, transparent
- Operating Environment: - 86 °F to 158 °F

6	Data Set Ready (DSR)
7	Request To Send (RTS)
8	Clear To Send (CTS)
9	Ring Indicator (RI)

The Connector and Signal:

RS-232C DTE Side Pin Assignment	
DB9 Female	RS-232C Interface Signal
1	Protective Ground
2	Transmitted Data (TXD)
3	Received Data (RXD)
4	Data Terminal Ready (DTR)
5	Ground (GND)
6	Data Set Ready (DSR)
7	Request To Send (RTS)
8	Clear To Send (CTS)
9	Ring Indicator (RI)

RS-232C DCE Side Pin Assignment	
DB9 Male	RS-232C Interface Signal
1	Protective Ground
2	Received Data (RXD)
3	Transmitted Data (TXD)
4	Data Terminal Ready (DTR)
5	Ground (GND)

Connection:

The DTIB-0708 is used between RS-232 port. Between DTE and DCE device, the female connector of the isolator is connected with host/DTE (e.g. PC, multiple user card), the male connector is connected with client/DCE (e.g. modem, terminals); Between two DTE devices, a crossover cable is needed and the female connector of the isolator is connected with DTE device, the male connector of the isolator is connected with the crossover cable, then connect the cable to another DTE device.

Applications:

- Multi-user system like UNIX
- Multi-user terminal and host
- Program-controlled switches, terminals, switch billing
- Satellite receiver
- Multi-user card
- Modem and router
- Between RS-232 devices without common ground (e.g. ATMs)

Note: This isolator is used for 3 wire RS-232 isolation (pin 2, pin 3 and pin 5). For 5 wire RS-232 isolation (pin 2, pin 3, pin 4, pin 5 and pin 7), you may choose DTIB-0708S model. If you have a high requirement for power source, please choose active photoelectric isolators like DTIB-0708T (3 wire) or DTIB-07080N (9 wire)

