



CHAPTER 1

INTRODUCTION

The RS232 to RS485 photo isolator provides a RS232 signals to RS485 signals conversion features, which are used to expand long haul communication distance via multi-drop communication of RS485 signal, and it allows the input signals to be completely prevent up to 1000V. There are 3 LED indicators correspond to Tx, Rx, and power signals. A 9V, 500mA power adapter is provided in the package.

The features of RS232 to RS485 photo isolator are:

- Standard EIA RS232 to RS485 converter interface.
- Photo isolator function that prevents signals up to 1000V.
- Transmission distance up to 1200m.
- Female RS232 connector.
- Male RS485 connector.
- 9V, 500mA power adapter.
- Point to point or multi-drop available.
- Provide auto flow control.



CHAPTER 2

UNPACKING INFORMATION

 Check that your RS232 to RS485 photo isolator package includes the following items:

- RS232 to RS485 photo isolator.
- DB 25 pin cable
- User manual.
- Warranty form.



CHAPTER 3

HARDWARE CONFIGURATION

The on board jumpers can be used to set flow control and delay time.

JP1 (Jumper 1)

Select delay time when auto flow control is set.

JP2 (Jumper 2)

Select flow control.

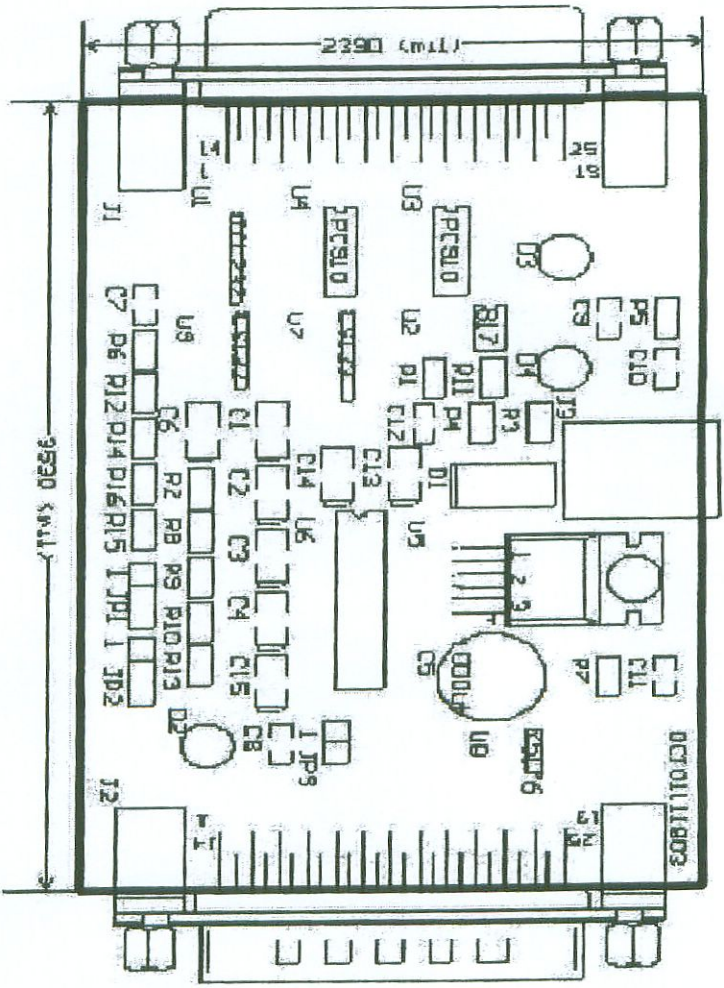
JP3 (Jumper 3)

Set photo isolator.

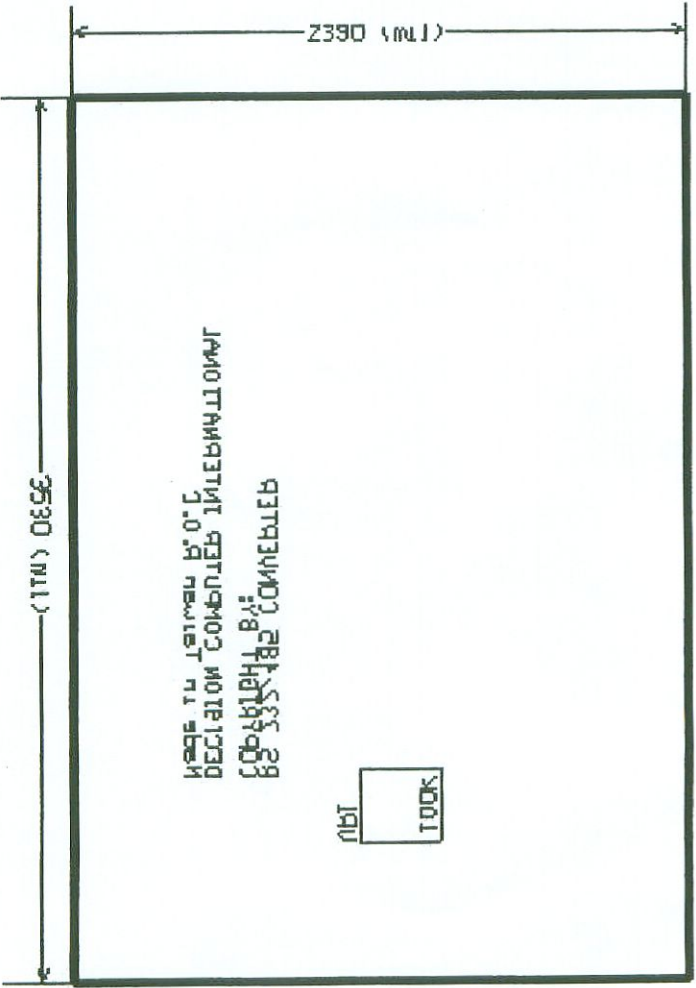
VR

Adjust delay time.





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1. Select auto flow control

JP2

1 2 3



The JP2 is used to set auto flow control. When short pin 2 and pin 3 means auto flow control, user only need to send data from Tx signal, the hardware will control RTS signal automatically. When short pin 1 and pin 2 means RTS flow control, while user need to send data, it needs to set RTS signal to 1, to enter driver mode, then send message or data. After sending message, it needs to set signal to 0 to enter receive mode again.

Pin	Short 1,2	Short 2,3
Mode	We use RTS For Flow Control	Auto Flow Control

2. Select delay time

JP1

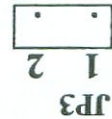
1 2 3



The JP1 is used to set maximum delay time when auto flow control is set. To short pin 1 and pin 2 means maximum delay time is 4.6 ms, and short pin 2 and pin 3 means maximum delay is 40 ms. To adjust maximum delay time, please adjust VR.

Pin	Short 1,2	Short 2,3
Maximum Delay Time	4.6 ms	40 ms

3. Set photo isolator



The JP3 is used to set photo isolator. When short pin 1 and pin 2 means disable photo isolator, otherwise, photo isolator is set.

Pin	Mode
Open 1,2	Photo Isolator
Short 1,2	Disable Photo Isolator

4. VR

The VR is used to adjust maximum delay time. Please use the software in the shipping package to adjust it.

3.1 RS485 Cabling Information for DB25

The RS485 signal assignment is shown as follows.

Pin	Description
2	TRD-
3	TRD+
7	Ground

The RS485 communication is based on cable sharing method, which is connected as following:

Computer at site 1	Computer at site 2
TRD+	TRD+
TRD-	TRD-
Ground	Ground

3.2 RS232 Cabling Information for DB25

The communication interface follows the EIA RS232 standard. The signal assignments for a standard DB25 connector are shown below:

DB25 Pin #	Signal Name	RS 232C Name	Signal Direction
2	Transmit Data(TxD)	BA	Output
3	Receive Data(RxD)	BB	Input
4	Request to Send(RTS)	CA	Output
5	Clear to Send(CTS)	CB	Input
7	Signal Ground(SG)	AB	Common

APPENDIX A

WARRANTY INFORMATION

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A.2 Warranty Information

DECISION warrants that for a period of one year from the date of purchase (unless otherwise specified in the warranty card) that the goods supplied will perform according to the specifications defined in the user manual. Furthermore that the PCCOM product will be supplied free from defects in materials and workmanship and be fully functional under normal usage.

In the event of the failure of a PCCOM product within the specified warranty period, DECISION will, at its option, replace or repair the item at no additional charge. This limited warranty does not cover damage resulting from incorrect use, electrical interference, accident, or modification of the product.

All goods returned for warranty repair must have the serial number intact. Goods without serial numbers attached will not be covered by the warranty.

Transportation costs for goods returned must be paid by the purchaser. Repaired goods will be dispatched at the expense of PCCOM.

To ensure that your PCCOM product is covered by the warranty provisions, it is necessary that you return the Warranty card.

Under this Limited Warranty, DECISION's obligations will be limited to repair or replacement only, of goods found to be defective as specified above during the warranty period. DECISION is not liable to the purchaser for any damages or losses of any kind, through the use of, or inability to use, the PCCOM product. DECISION reserves the right to determine what constitutes warranty repair or replacement.

Return Authorization: It is necessary that any returned goods are clearly marked with an RA number that has been issued by DECISION. Goods returned without this authorization will not be attended to.