

# Model: UT-5202

**Product Name: RS-232 / RS-485 to 2 Ports RS-485 HUB**

## Datasheet



## 1. Overview

UT-5202 is a hub special designed for RS-485 BUS under complicated electromagnetic field. The transmission rate for this hub is as high as 115.2Kbps. To ensure the safety and reliability of the data communication, RS-485 port adopts optoelectronic isolation technology to prevent from lightning and surge; the built-in optoelectronic isolator and 600W surge protection circuit can provide 2,500V isolated voltage for lightning and ESD protection. Meanwhile, it adopts external switch power, prevents from common ground interference; it is quite good for outdoor application.

Under RS-485 operating mode, the distinguished circuit can auto sense the direction of data flow, and switch it automatically, so as to control the circuit, solve RS-485 time delay problem. The transmission distance of RS-485 port is more than 1,200m. This model is widely used in highway toll system, road monitoring system, and power system.

UT-5202 RS-485 HUB supports RS-485 star connection. Each port supports short-circuit, open-circuit protection, 2,500V optoelectronic isolation. User can easily change the structure of RS-485 BUS, divide the network segment, and improve the communication reliability. When the device break down, the network segment with problem will be isolated, so as to ensure other network segment working smooth; this performance greatly improve the reliability of RS-485, and shorten the maintenance time of the network.

## 2. Major Functions & Features

- Fiber optic MODEM supporting asynchronous RS-485 communication interface

## 3. Technical Parameters

- Standards: RS-232C, RS-485 EIA/TIA
- Asynchronous transmission: point-to-point use at up to 460Kbps
- Interface: RS-232C: 10-pin terminal block  
RS-485: 10-pin terminal block
- Transmission media: Twisted-pair or shielded wire
- Operating mode: Asynchronous half-duplex
- Operating power: 9-30VDC/150mA
- Signal indication: 5 signal indicators power (PWR), transmit (TD), Receive (RD), Fault (E1-E2)
- Isolation: 2,500VRMS 500 DC continuous isolated voltage, DC/DC module
- Baud rate: 300bps-115.2Kbps
- Protection: RS-232  $\pm 15$ KV ESD protection, RS-485 each wire 600W lightning surge protection
- Transmission distance: 0-5,000m (115,200-300bps)
- Dimensions: 120mm x 80mm x 25mm

## 4. Interfaces Definitions:

### RS-232C Pin definitions

10-pin terminal block	Definitions	Description
1	GND1	GND
2	GND1	GND
3	GND1	GND
4	485-	RS-485-
5	485+	RS-485+
6	GND1	GND
7	RXD	RS-232 Receiving
8	TXD	RS-232 Transmitting
9	VCC	DC9-30V input
10	GND	GND

### RS-485 Pin Definitions

10-pin terminal block	Definitions	Description
1	N/C	N/C
2	N/C	N/C
3	N/C	N/C
4	N/C	N/C
5	T/R1+	RS-485+ Output
6	T/R1-	RS-485-Output
7	T/R2+	RS-485+Output
8	T/R2-	RS-485-Output
9	GND2	GND
10	GND2	GND

## 5. Product View (Appearance)



## 6. Structure Dimensions

