Model: UT-520

（Product Name：Industrial RS-485 2 Ports Repeater with Opto-electronic Isolation）

Datasheet

UTEK TECHNOLOGY (SHENZHEN) CO., LTD.

Add: Floor 8-10, Building 7, Skyworth Innovation Valley, No. 8, Tangtou No.1 Road, Shiyan Old Street, Bao 'an District, Shenzhen

Tel：+86-755-81202008

Fax：+86-755-27886083

Http：www.uotek.com

1. Overview

UT-520 is a repeater with isolation that complies with RS-485 standards. It can extend the RS-485 BUS network communication distance, and increase the RS-485 network device qty. The built-in optoelectronic isolator and DC/DC isolated module can provide as high as 2,500Vrms isolated voltage; the fast instant voltage restraint is designed to protect RS-485 interface; it adopts advanced TVS (TRANSIENT VOLTAGE SUPPRESSOR) instant voltage restraint. Normally, TVS tube is in high impedance state; when both sides of TVS tube suffer from high power impact in a sudden, the voltage restraint will fast lower the impedance from both sides, and absorb in big current; with this, the voltage on both sides are fixed at presupposed value, protects the component of circuit from damage.

2. Major Functions & Features

- Supports RS-485 dual opto-isolated repeaters

3. Technical Parameters

- Standards: RS-232C,RS-485 EIA/TIA
  Electrical interface: 10-position terminal block connector for RS-485 input, 10-position terminal block connector for RS-485 output.
- Protection level: 600W per line lightning surge protection for both RS-485 interfaces, +/-15KV ESD protection.
- Isolation: Isolation voltage 2500Vrms 500DC continuous. DC/DC module
- Operating mode: asynchronous half duplex
- Signal indication: five signal indicators power (PWR), two transmit (TXD), two receive (RXD)
- Transmission medium: twisted pair or shielded cable
- Transmission rate: 300-115.2Kbps
- External dimensions: 120mm x 80mm x 25mm
- Operating environment: -40 ~ 85 ℃, 5% ~ 95% relative humidity
- Transmission distance: 0-5,000m (115200bps-9600bps)

4. Pin Definitions

2 Port sRS-485 Input signal & pin definitions

Terminal block (PIN)	Signal	RS-485 Wiring
1	D1+	RS-485 (A+)
2	D1-	RS-485 (B-)
3	GND1	GND1
4	D2+	RS-485 (A+)
5	D2-	RS-485 (B-)
6	GND3	GND3
7	N/C	N/C
8	N/C	N/C
9	N/C	N/C
10	ETH	ETH

2Port RS-485 Output signal & pin definitions

Terminal block(PIN)	Signal	RS-485Wiring
1	D1+	RS-485 (A+)
2	D1-	RS-485 (B-)
3	GND2	GND2
4	D2+	RS-485 (A+)
5	D2-	RS-485 (B-)
6	GND4	GND4
7	N/C	N/C
8	N/C	N/C
9	VCC	9V-30V DC Input
10	GND	GND

5. Product View（Appearance）

6. Structure Dimensions