

Model: UT-M482/M3482

(Product Name: Embedded isolated TTL to RS-485/422 transceiver module)

Datasheet



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1. Overview

UT-M482 series isolated transceiver module is an integrated power isolation, electrical isolation, RS-485/422 interface chip with isolation and bus protection functions; it is convenient to embed in the user's equipment so that the product can be connected to the RS-485/422 network.

This series of modules adopts potting technology and has good isolation characteristics, and the isolation voltage is as high as 1000V Dc. It can be used in industrial communication, coal mine industry, power monitoring, building automation, petrochemical industry, communication between PLC and frequency converter.

2. Major Functions & Features

- The same network can connect at least 32 nodes;
- Single +5V or +3.3V power supply;
- UT-M482 transmission rate 300bps -115200bps;
- RS-422 signal: T+, T-, T/R+, T/R-;
- RS-485 signal: 485+, 485-;
- TTL signal: RXD, TXD, GND;
- RS-485/422 bus 600W anti-surge protection
- Isolation voltage: 1000V DC;
- Operating humidity: 5-95% non-condensing
- Operating temperature: -40~+85℃
- Dimensions: 32 × 20 × 9.5mm±0.5mm

3. Pin map

1. UT-M482 series module pin map

Product physical map

Table 1.1 UT-M482/M3482

| Pin No. | Name | Description |
|---------|------|-----------------|
| 1 | TXD | send pin |
| 2 | RXD | receive pin |
| 3 | VCC | power supply |
| 4 | GND | input power |
| 5 | SGND | isolated signal |
| 6 | T/R+ | Send + |
| 7 | T/R- | send- |
| 8 | RXD+ | receive+ |
| 9 | RXD- | receive- |



2. Electrical Parameters

UT-M485/M3485 series module characteristic parameters

| Item \ Model | UT-M482 | UT-M3482 |
|--------------------------|---|--|
| Input voltage | DC: 4.75~5.25V | DC: 3.15~3.45V |
| Module quiescent current | Less than 65 mA | Less than 50 mA |
| Module sends current | Less than 80 mA | |
| RS-422 bus interface | Standard RS-485/422 interface, with ESD bus protection, built-in 4.7K pull-up and pull-down resistance, twisted pair output, surge protection function 600W | |
| Bus drive capability | At least 32 nodes in each RS-485/422 network | |
| Serial interface | Compatible +5V standard UART interface | Compatible +3.3V standard UART interface |
| Input data baud rate | 115200bps maxmaximum 100μs. | |
| Data delay | Delay time from receiving data switching to sending data: minimum 30μs, | |
| Isolation voltage | 1000VDC | |
| Humidity | 5~95% no condensing | |
| Temperature | -40℃~+85℃ | |

8. Appearance

