Model:UT-1216

RS-232/485 to 16-port RS-485 HUB

Datasheet

1. Overview

UT-1216 is a RS-485 bus splitting HUB with internal quad-core, non-halt design, designed to address the requirements of RS-485 systems in complex electromagnetic field environments. The product supports transmission rate up to 115.2Kbps. To ensure safe and reliable data communication, the RS-485 interface side adopts opto-isolation technology to prevent lightning surge from being introduced into the converter and equipment. At the same time can effectively prevent lightning strikes and common ground interference, power supply using external switching power supply, safe and reliable, very suitable for outdoor engineering applications.

In the RS-485 working mode, the discrimination circuit can automatically sense the direction of the data flow, and automatically switch the enable control circuit to easily solve the RS-485 transceiver conversion delay problem. The transmission distance of the RS-485 interface is greater than 1200 meters, and the performance is stable. It is widely used in highway toll systems, road monitoring systems and power acquisition systems. It is a data interface conversion product with excellent performance.

The UT-1216 RS-485 HUB provides a star RS-485 bus connection. Each port has short-circuit and open-circuit protection. Opto-isolated 2500V, users can easily improve the RS-485 bus structure and split the network segments to improve communication reliability. When a lightning strike or equipment failure occurs, the network segment with problem is isolated to ensure the normal operation of the other segments. This performance greatly improves the reliability of existing RS-485 networks and effectively reduces the maintenance time of the network. Proper utilization of the UT-1216 RS-485 HUB can help you design a unique and highly reliable RS-485 system.

2. Main functions and feature

- Support RS-232/485 to 16-port RS-485 (HUB)

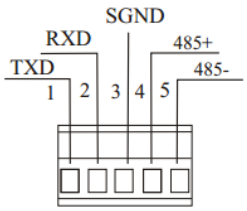
3. Technical Parameters

- Interface features: interface compatible with EIA/TIA RS-232C, RS-485 standard
- Electrical interface: RS-232C interface is 5PIN terminal 1-3 pins
  RS-485 interface is 5PIN terminal 4-5 pins
- Transmission medium: twisted wire or shielded wire
- Working mode: Asynchronous half-duplex
- Operating power: AC100 ~ 240V 50/60Hz
- Signal indication: 19 PWR, TXD,RXD, E1-E16
- Isolation: Isolation voltage 2500VRMS 500VDC continuous, DC/DC isolation module
- Transmission rate: 300bps-115.2Kbps
- Protection level: RS-232 interface ±15KV ESD protection
  RS-485 interface 1500W per line lightning surge protection
- Transmission distance: 0-5km (115,200-300bps)
- Dimension: 440mm×201mm×44mm
- Operating environment: -40 ~ 85°C, relative humidity of 5 ~ 95%

4. Interface Definition

1.RS-232C/RS-485 input interface definition

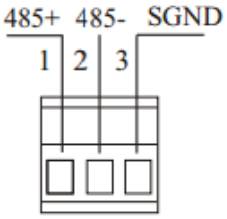
5-PIN Terminal Interface	Definition	Signal Direction
1	TXD	OUT
2	RXD	IN
3	SGND	
4	485+	
5	485-	



RS-232/485 input interface

2.RS-485 output interface definition

3-PIN Terminal Interface	RS-485
1	485+
2	485-
3	GND



RS-485 output interface

5. Product View (Appearance)

6. Structure Dimensions