Model: UT-1208

(Product Name：Industrial RS-232/RS-485 to 8 Ports RS-485 Hub)

Datasheet

1. Overview

UT-1208 is a RS-485 Hub special designed for RS485 system under complicated electromagnetic field. With dual core and non-stop running, the transmission rate can be up to 115.2KBPS. To ensure the safety and reliability of the communication, it adopts optoelectronic isolation technology on RS-485 ports; this provides surge & lightning protection with the converter & device; the internal optoelectronic isolator and 1,500W lightning & surge protection circuit provide with 2,500V isolated voltage to prevent from lightning and ESD. At the same time, it prevents from common-grounded interference. This hub adopts external power; it is quite safe and convenient for outdoor application.

Under RS-485 working mode, UT-1208 will detect the data flow direction by distinguishing the circuit automatically; at the same time, it will control the circuit by auto switching, this solves RS485 data receiving and transmitting delay problem. The transmission distance of RS-485 port is up to 1,200m. UT-1208 is widely used in highway toll system, traffic monitoring system and power system.

UT-1208 RS-485 HUB provides with star topology RS-485 connection, each port supports short circuit, open-circuit protection. Users can easily change RS-485 BUS structure, and cut the network segment to improve the communication reliability. When lightning or the equipment breaks down, the network segment with problem will be isolated, to make sure the other network segment works normally. This performance enhances the reliability of RS-485 network, and shortens the network maintenance time. Using UT-1208 RS-485 HUB in a right way will help you to create a unique and reliable RS-485 system.

2. Major Functions & Features

- Industrial RS-232/RS-485 to 8 Ports RS-485 Hub

3. Technical Parameters

- Interface features: compatible with RS-232C and RS-485 standards of EIA/TIA.
- Electric interface: RS-232C interface for the 1st -3rd pins of the 5-PIN terminals, and RS-485 interface for the 4th~5th pins of the 5-PIN terminals.
- Transmission media: twisted-pair cable or shielded cable.
- Working mode: asynchronous half-duplex.
- Signal indication: 11 signal indicator including power (PWR), send(TXD), receive(RXD) and failure(E1-E8).
- Isolation degree: a isolation voltage of 2,500V RMS 500VDC non-stop and DC/DC isolation module.
- Transmission rate: 300BPS-115.2K.
- Protection grade: RS-232 interface 15KV ESD protection,
     RS-485 interface 1,500W lighting strike surge protection for each line.
- Transmission distance: 0-5km (115,200-300BPS)
- Measurements: 210mmX130mmX33mm
- Working environment: -40 °C to 80 °C, relative humidity 5% to 95%.

4. Hardware Definition and Initial Setup
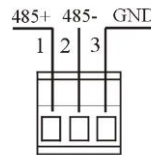
RS-232C/RS-485 input interface definition

5-PIN Terminal Interface	Definition	Signal Direction
1	TXD	OUT
2	RXD	IN
3	GND	Signal Direction
4	485+	
5	485-	
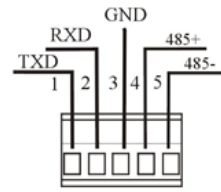
RS-232C/RS-485 input interface

RS-485 output interface definition

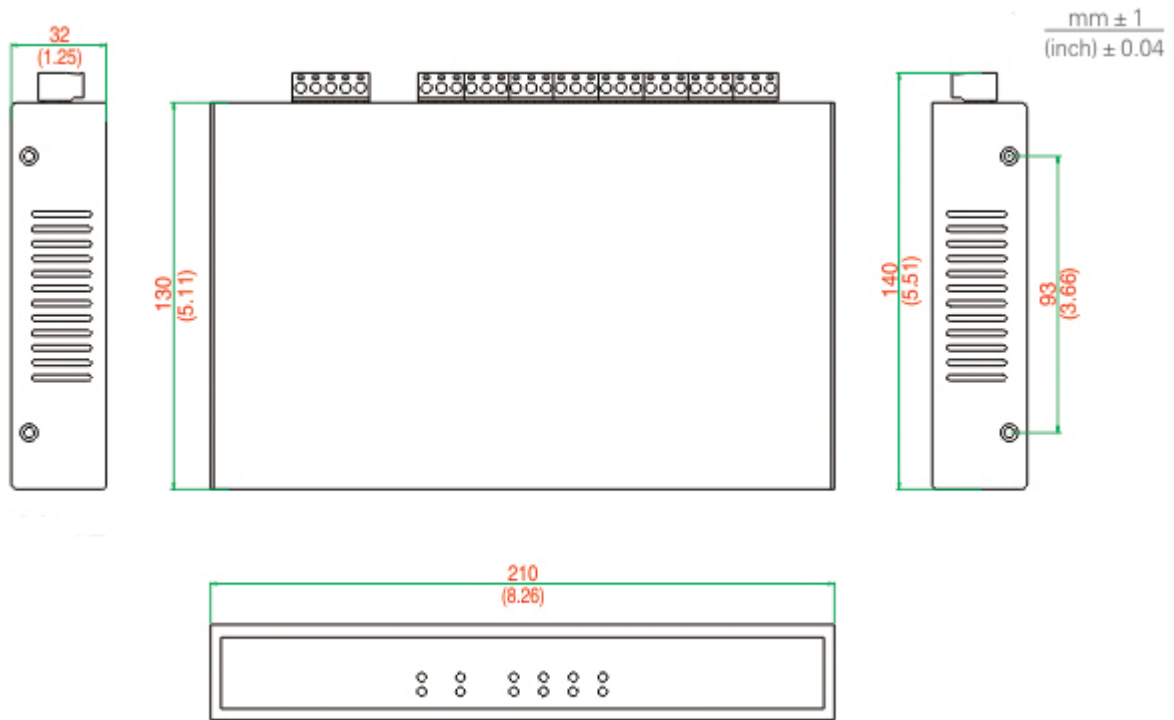| 5-PIN Terminal Interface	RS-485
1	485+
2	485-
3	GND

RS-485 output interface

5. Product View (Appearance)

6. Structure dimensions

7. Ordering

Model	Signal/Port		Protection		Baudrate	Environment			Power	
	RS-232-485	RS-485				Temperature		Humidity		
	Interface		RS-232	RS-485		-25/70℃	-40/85℃	5-95℃	Port-powered	External power
UT-1208	√	√	±15KV ESD	1500W Surge	300bps-115.2kbps		√	√		9-48VDC