

	Product Name	Key Feature
	<p style="text-align: center;"><b>UT-502</b></p> <p style="text-align: center;">RS-232 to 2*RS-485 Interface converter</p>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> </div> </div>

## INTRODUCED

### I. Summary

UT-502 is an RS-232C and RS-485 compatible industrial photoelectric isolated interface converter designed to convert a single-end RS-232 signal to a double balanced differential 2 port/RS signal. The built-in photoelectric isolator can provide isolating voltage up to 2500Vrms and it has a high-speed transient voltage suppressor which is designed to protect the 2 port/RS-485 interface. The advanced TVS (TRANSIENT VOLTAGE SUPPRESSOR) presents a high-impedance state under normal conditions, and it can fast reduce the resistance across two ends while it's withstanding transient high-power impulse so as to absorb the high current and clamp the voltage across it to a preset value, thus preventing the components in the next stage from being damaged. This suppressor can suppress lightning and ESD (electro-static discharge) with lightning surge protection power of 600W for each line as well as surge voltage and transient over-voltage on the lines caused for any reason. Very small inter electrode capacitance can ensure high speed data transmission of RS-485 interface. RS-232 side is connected to RS-232C compatible interface through a DB9 female connector, and RS-485 side is connected to a 10-bit wiring terminal. The converter equips with automatic data transceiver without delay, and the unique I/O circuit can automatically control the direction of data flow without any handshake signal (such as RTS/DTR). Both 2-port photoelectric isolated half-duplex (RS-485) mode switch without jumper setup and plug & play can be achieved. This converter can support any existing communication software and interface hardware, eliminating the need to change the software for previous RS-232 based operation mode. UT-502 industrial photoelectric isolated interface converter can provide reliable connection for point-to-point or point-to-multipoint communication. Maximum 128 RS-485 interface devices can be supported for the point-to-multipoint communication. Data rate can be up to 300-115.2KBPS, and the power indicators and data traffic indicators can be used for error indication. RS-232 to 2-port/RS-485 conversion is supported.

### II. Specification:

- Interface: Compatible with RS-232 and RS-485 standards of EIA/TIA
- Electric connection: DB9 female connector (RS-232 side) to 10-bit wiring terminal (RS-485 side)
- Protection class: +/-15KV ESD protection for RS-232 interface; Dedicated DC/DC module, 600W lightning strike and surge protection for each RS-485 line.
- Isolation voltage: continuous 2.5KVrms /500VDC isolation
- Operation mode: Asynchronous half-duplex
- Signal indication: 5 signal indicators- one for power (PWR), two for transmission (TXD) and two for reception (RXD)
- Transmission media: twisted-pair cable or shielded cable
- Communication rate:
  - \* 115.2KBPS for distance of 300m
  - \* 38.4KBPS for distance of 2.4Km
  - \* 9600 BPS for distance of 5Km
- Dimension: 117mmX80mmX25mm
- Working environment: -40 to 85 relative humidity of 5% to 95%
- Communication distance: 0-5 KM(115200bps-9600bps)

## INFORMATION ORDER

**MODEL: UT-502**      RS232 to 2-port RS-485 Hub, Interface Converter