Product Name	Key Feature
UT-861 **4-ports USB to RS-485/422 HUB with photoelectric isolation**	USB → RS-422/485 +4 5KM OPTO Isolated Lightning strike protection ESD protection Surging Protection

INTRODUCED

I. Summary:

USB interface is gradually replacing the old-fashioned low-speed peripheral interfaces of PC with the continuous development of PC industry. But many vital devices in current industrial environment is still designed using RS-485/RS-422 interface, so the USB to RS-485/RS-422 converters are needed to transfer data between PC and RS-485/RS-422 devices. UT-861 is a universal USB/RS-485/422 converter which doesn't need external power supply and has built-in op to-isolator and DC/DC power isolation module. It is compatible with USB ,RS-422 and RS-485 standards, and it can convert single-end USB signal to balanced differential RS-422 or 485 signal. The built-in photoelectric isolator can provide isolating voltage up to 2500Vrms and it equips with high-speed transient voltage suppressor which is designed to protect the RS-422/RS-485 interface.

The advanced TVS (TRANSIENT VOLTAGE SUPPRESSOR) presents high-impedance state under normal conditions, and it can rapidly decrease the resistance between its 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, and then the following components will not be damaged by the transient high-voltage impulse. This suppressor can effectively restrain lightning and ESD (electro-static discharge) with lightning surge protection power of 600W for each line, and it also can restrain surge voltage and transient over-voltage on the lines for any reason. Extremely small inter electrode capacitance ensures high speed data transmission of RS-422/RS-485 interface. The RS-422/RS-485 end is connected through male DB9 connector. It has built-in automatic transmit-receive switch without time delay. The unique I/O circuit can be used to automatically control the direction of data flow without any hand-shaking signals(such as RTS and DTR) and full-duplex(RS-422) and half-duplex (RS-485) can be implemented without jumper configuration, so as to make it plug-and-play and applicable to all existing communication software and interface hardware. UT-861 industrial photoelectric isolated interface converter can provide reliable connection for point-to-point or point-to-multipoint communication. Maximum 128 RS-422 or RS-485 interface devices can be supported for the point-to-multipoint communication. Data communication rate can be 300-128000BPS, and the power indicator light and data traffic indicator light can be used for malfunction indication. USB to RS-422 and USB to RS-485 conversions are supported.

II. Specification:

- USB 2.O,compliable ring to USB1.1, 1.0 and EIA RS-485 and RS-422 standard
- USB signals: VCC, DATA+, DATA-, GND, FG
- RS-485 signals/R+, T/R-, GND
- RS-422 signals: T/R+, T/R-, RXD+, RXD-, GND
- Operating mode: Asynchronous, P2P or point-to-multipoint mode, 2-wire half-duplex, 4-wire full-duplex
- Automatic data flow control: automatically adapt and control data flow
- Baud rate: 300-128000bps, automatically detecting the data rate
- Load capacity: point-to-multipoint mode, Max.=128 RS-422/485 devices are supported
- Communication distance:5 KM for RS-485/422 (128000-9600bps) and <5 m for USB

- Interface protection: 600W lightning strike and surge protection for each port, ±15KV ESD protection
- Isolation degree: 2500Vrms isolation voltage for each port, 500DC continuous specialized DC/DC module
- Isolation type: master/slave ,slave/slave
- Interface connection: B type female at USB side and DB9 male at RS-485/422 side
- Signal indication: 9 signal indicator lights, Power(PWR) transmit (TXD) receive (RXD)
- Transmission medium: STP or UTP
- Baud rate: 128000bps to 300M
    38400bps to 2.4KM
    9600bps to 5KM
- Dimension: 210mm×130mm×32mm
- Environmental parameters: temperature of -25°C to 70°C, relative humidity of 5% to 95%
- Supported Win98/Win2000/WinXP/Win7/Linux

INFORMATION ORDER

MODEL: UT-861 4-ports USB to RS-485/422 HUB with photoelectric isolation