# UTEK®

# PCI-Express to RS-485/422 card 2-Ports Model: UT-792I

## I. Summary

UT-792I，convert PCI-E into 2 ports RS-422/RS-485, industrial grade, with built-in Opto-isolator and TVS. Integrated with 600W lightening surge protection for each line; with ESD protection, protect your device against surge voltage and transient over voltage caused by any other factors. It also guarantees the high-speed transmission of RS-422/RS-485 interface.

Highly trust performance and stability with reasonable price.

## II .Feature:

Hardware Interface
Connection Type: DR44 female x1;
BUS: X1 2.5Gbps PCI Express
Signal RS-422: T/R+、T/R-、RXD+、RXD-、GND;
Signal RS-485: Data+(A)  Data-(B) GND
Transmission Rate: 300bps-921.6Kbps
Data Bit: 5、6、7、8;  Stop Bit: 1、1.5、2
Parity Bit: None、Even、odd、Space、Mark
Flow Control: RTS/CTS XON/XOFF
Operating Temperature: -45℃～80℃
Interface Protection:600W surge protection per line for RS-485、
            RS-422 interface,±15KV ESD protection
Transmission distance: RS-485/422 communication distance
            reaches up to 1.2Km
Supporting System: Win2000/XP/Vista/Win7/8/10 64bit NT4.0/CE
            4.2/5.0/6.0/Vxworks/Linux 2.4.x/2.6.x

The speed of each interface can reaches up to 921.6Kbps and supports 256byte FIFO drivers and internal soft and hardware flow control. The universal use PCI is compatible with PCI-E.
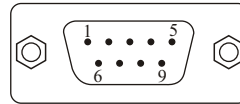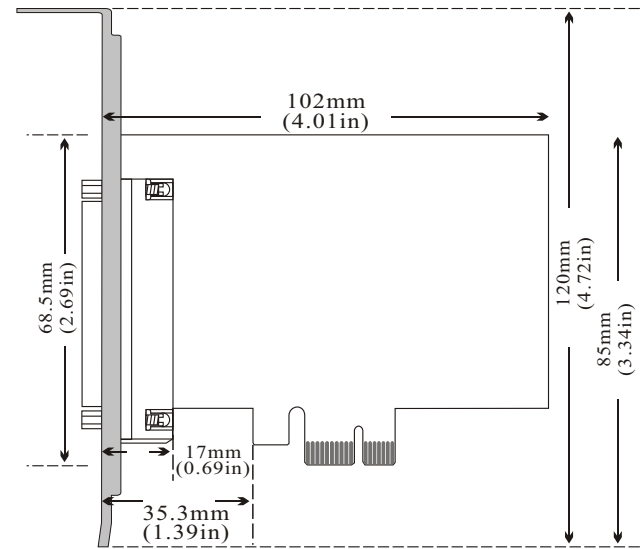
## III. Pin assignment:

1、DB9 male side：RS-485/RS-422
        Port1-Port2

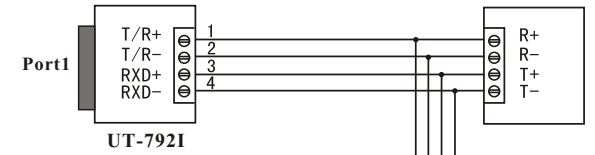| Db9 male (PIN) | Signal | RS-422 | RS-485 |
|---|---|---|---|
| 1 | T/R+ | T/A+ | RS-485 (A+) |
| 2 | T/R- | T/B- | RS-485 (B-) |
| 3 | RXD+ | R/A+ | N/C |
| 4 | RXD- | R/B- | N/C |
| 5 | GND | GND | GND |
| 6 | | | |
| 7 | N/C | | |
| 8 | N/C | | |
| 9 | N/C | | |

### DB9 male
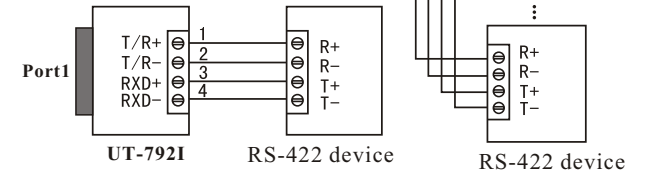


## IV. Profile



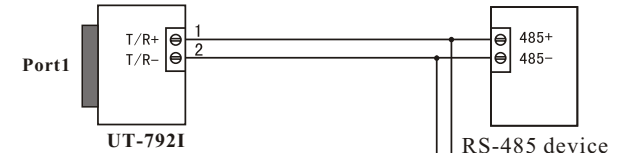## V. Connect Diagram

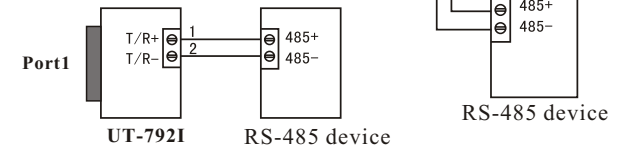## 1.RS-485 Point to Multi Point connection



## 2.RS-422 P2P connection



## 3.RS-485 Point to Multi Point connection



## 4.RS-485 P2P connection



## VI. Faults and Ruling Out:

1、Data Communication Failure

　A、Check the PCI-E interface

　B、Check if RS-485/RS-422 output interface line is correct

　C、Check if the power supply light is lit

　D、Check if the line terminal is connected properly

　E、Check if the receiving indicator is flashing during reception.

　F、Check if the sending indicator is flashing during sending.

2、Data Loss or Mistake
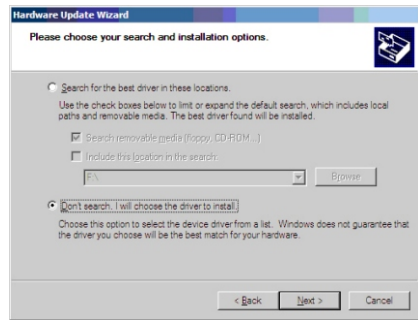
　A、Check if the speed and format of the data communication

Ⅶ、Driver Installation Procedure

When plug in UT-792I, system pops up a window, select "Install from list or designated location" and click "Next"。
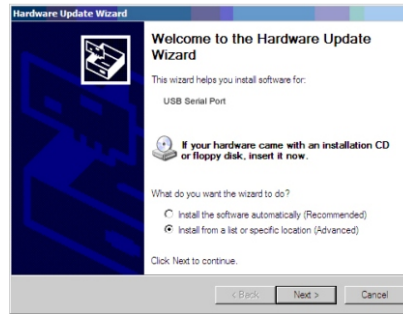


A program path selection installation window will pop up as illustrated below. Select "Search in these locations for the best matching driver", then "Search include this location", click "browse" and select the folder in the disc. If your operation system is XP, the select Win2KXP foler. If other systems, select the corresponding folder and clieck "Next".



After located and installed the driver, clieck "Finish".



New hardware wizard dialog box will pop up again, and drivers for the 3 serial ports need to be installed. Select "installation from the list or designated location" and click "Next".



Install drivers for the remaining ports following the procedures above.

After drivers are installed, open device manager and check if there is any virtual COM port under port tag. If there is not other port driver installed in the system before, the default COM ports are COM3, 4, as illustrated below. All drivers have now been installed on UT-792I.