【TWIN232 Operation Guild】

1. Introduction

We have one DIP SWITCH to setup the interface type for RS422/RS485.

2. RS422/RS485 interface setting

We have one 4bit DIP SWITCH to set the interface type and terminator resistor insert or not.

When we need to set in RS422 interface type, we need to set bit1,2,3 of DIP SWITCH in OFF location.

When we need to set in RS485 interface type, we need to set bit1,2,3 of DIP SWITCH in ON location.

When we need to insert 120 ohm terminator resistor in RS422/485 interface, we need to set bit4 of DIP SWITCH in ON location.

When we don't need to insert 120 ohm terminator resistor in RS422/485 interface, we need to set bit4 of DIP SWITCH in OFF location.

***NOTE：Because RS485 network can only insert terminator resistor in both end of device. So we do not insert terminator resistor in TWIN232 box normally.

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4. RS232 connector pin definition.

Isolated RS232 interface is DB9 male connector with following DTE type pin definition.

Pin 1：No Connection.
Pin 2：RXD (input) signal input from external RS232 device.
Pin 3：TXD (output) signal output to external RS232 device.
Pin 4：short to Pin 6 internally.
Pin 5：Isolated GND
Pin 6：short to Pin 4 internally.
Pin 7：RTS (output) signal output to external RS232 device.
Pin 8：CTS (input) signal input from external RS232 device.
Pin 9：No Connection.

Common Ground RS232 interface is DB9 female connector with following DCE type pin definition.

Pin 1：1Kohm resistor to +5V power source.
Pin 2：RXD (output) signal output to external RS232 device.
Pin 3：TXD (input) signal input from external RS232 device.
Pin 4：short to Pin 6 internally.
Pin 5：GND (common signal ground of DC power input)
Pin 6：short to Pin 4 internally.
Pin 7：RTS (input) signal input from external RS232 device.
Pin 8：CTS (output) signal output to external RS232 device.
Pin 9：No Connection. (user may ask this pin 9 as DC power input).

5. DC Power input.

We can have two method to offer DC POWER input. One is 9VDC or 12VDC power adapter input from POWER JACK. The inner side is +9VDC and the outer side is ground.

The other is +9VDC -- 32VDC input from TERMINAL BLOCK. Pin 1 is +VDC input and Pin 2 is ground. It is suitable for industrial +24VDC or +12VDC power.

The power ground is common ground signal for Common Ground RS232 interface.

For OEM based user we can also use pin 9 of Common Ground RS232 DB9 female connector as +VDC power input. The VDC range will be +9VDC -- +32VDC. (This is not in standard product).

6. RS422/RS485 connector pin definition.

RS422/RS485 interface has 10 signal pin in TERMINAL BLOCK.

RS422/RS485 interface has isolated ground signal with other circuitry.

So you have isolated ground signal for Isolated RS232 and RS422/RS485 interface.

RS422/RS485 interface is in pin3 -- pin12 of TERMINAL BLOCK.

Pin 3 = 422TXD- (Output) signal.
Pin 4 = 422TXD+ (Output) signal.
Pin 5 = 422RXD- (input) or 485DATA- signal.
Pin 6 = 422RXD+ (input) or 485DATA+ signal.
Pin 7 = isolated GND
Pin 8 = 422RTS- (Output) signal.
Pin 9 = 422RTS+ (Output) signal.
Pin 10 = 422CTS- (input) signal.
Pin 11 = 422CTS+ (input) signal.
Pin 12 = isolated GND