

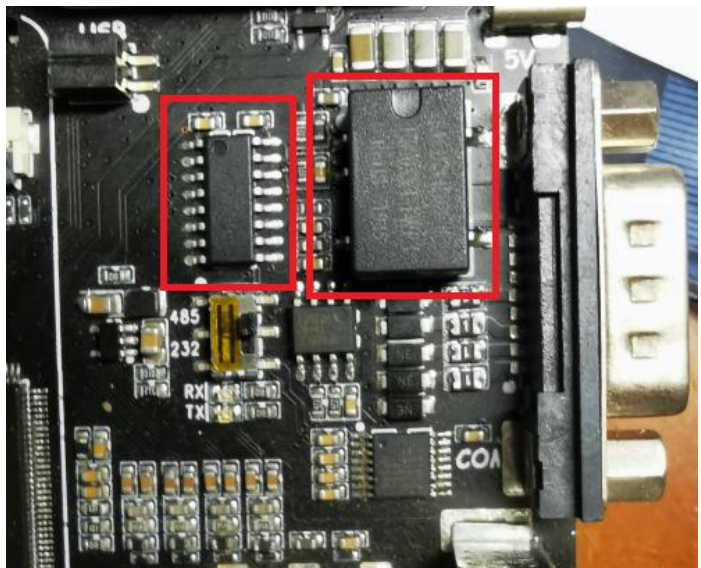
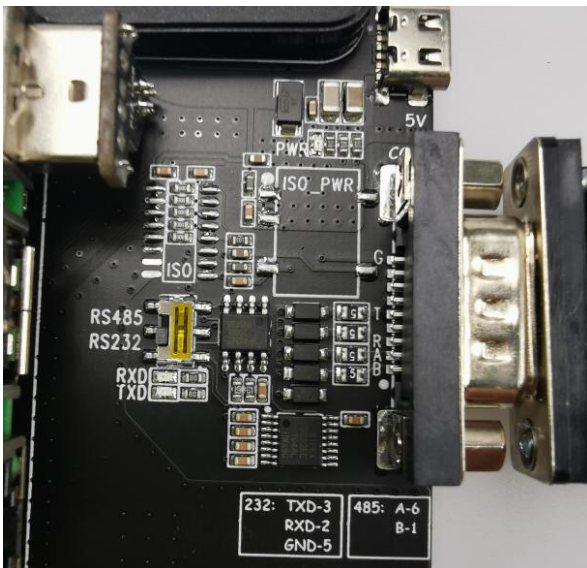
How to use the RS232/485 interface of the 7" display

If the Raspberry Pi is not connected to other USB serial ports, the serial port name is **ttyUSB0**

1. Connect the USB adapter board to PI4 or PI1/2/3



2. If want to use isolated power supply and isolated chip, you can weld as shown in the figure below($\pi 142U31$, B0505XT)



3. Use the code switch to select the RS232/RS485 function



4. Connect peripherals to the corresponding signal pins of DB9



5. Example: Use RS485 and modbus protocol to connect FX3U logic controller

Open source logic controller

1. 16-channel optocoupler isolation input, each can use 10MHz high-speed optocoupler
2. 16-channel relay output/optocoupler output, each channel can use 10MHz isolated optocoupler output, each 8 channels can use an independent isolated DC/DC power supply
3. RS232 DB9 for PLC program download
4. RS485 DB9 uses Modbus to communicate with the display or peripherals
5. IDC socket integrates 1xTTL UART, 1xRS485
6. 2 parallel RJ45 with 1xRS485
7. 24V DC power supply

CONTROL LOGIC: MCU+FPGA

1. 200MHz Cortex-M4, 512K Flash, 22K SRAM,
2. Efinix 8K Lut Fpga, 1M QSPI FLASH for Program, 1M QSPI Flash for User, 8M PSRAM For User, Download cable use FT232/FT232
3. MCU and Fpga use 50MHz spi interface with hardware crc for communication