

USB type-c座子

USB转串口

The diagram illustrates a USB-to-serial converter circuit. The central component is the CH340C chip, which interfaces between a USB bus and a serial port. The USB bus connections are as follows:

- VBUS** (Pin 16) is connected to the USB VBUS line.
- D+** (Pin 5) and **D-** (Pin 6) are connected to the USB data lines.
- GND** (Pin 1) is connected to the USB ground.

The serial port connections are as follows:

- TXD** (Pin 2) is connected to the MCU's TX pin.
- RXD** (Pin 3) is connected to the MCU's RX pin.
- DTR** (Pin 4) is connected to the MCU's DTR pin.
- DSR** (Pin 7) is connected to the MCU's DSR pin.
- CTS** (Pin 8) is connected to the MCU's CTS pin.
- XON** (Pin 9) is connected to the MCU's XON pin.

The MCU is connected to a 5V supply and a 100K resistor. The MCU's TX pin is connected to the CH340C's TXD pin via a 10K pull-up resistor. The MCU's RX pin is connected to the CH340C's RXD pin via a 100K capacitor. The MCU's DTR pin is connected to the CH340C's DTR pin via a 10K pull-up resistor. The MCU's DSR pin is connected to the CH340C's DSR pin via a 10K pull-up resistor. The MCU's CTS pin is connected to the CH340C's CTS pin via a 10K pull-up resistor. The MCU's XON pin is connected to the CH340C's XON pin via a 10K pull-up resistor.

POWER LED

EXIT键 主页键

主控 ESP32-S3-WROOM-1-N8R8

BOOT

RESET

GPIO接口

电池及控制电路

TF Card

3V3

10k

10k

4.7uF

TF_GND

IO10_SPI_CS P51

IO40_SPI_MOSI P51

3V3

IO39_SPI_CLK P51

IO13_SPI_MISO P51

DATA2 CS

DI

VDD

SD

DATA1 CS

DI

VDD

VSS

DO

3V3 P51

GND P51

GND P51

GND P51

EPD屏接口

The diagram illustrates the EPD screen interface circuit. The microcontroller (U4, 0.5_FPC_24P) is connected to the EPD screen (U1, SI1308EDL) through various pins. The screen's pins are labeled with their functions: GDR, RESE, IO48_BUSY, IO47_RES, IO46_D/C, IO45_CS, IO12_SPI_CLK, IO11_SPI_MOSI, PREVGH, PREVGL, VDH, VDD, VSH, VSL, and VCOM. The microcontroller's pins are labeled with their functions: NC, GDR, RESE, NC1, VDH, TSCL, TSDA, BS, BUSY, RES, D/C, CS, IO46_D/C, IO45_CS, IO12_SPI_CLK, IO11_SPI_MOSI, SDA, SCL, VDDIO, VDD, VSS, VPP, VSH, PREVGH, VSL, PREVGL, and VCOM. The diagram also shows the connection to a 3V3 power supply and ground (GND).

螺母

系统3.3V电源

串口电平转换

TF LCD 使能