

CH340自动流控下载电路

CH340C使用LDO，而不使用5V直接供电，是为了使CH340与ESP32的3.3V通信电平一致。

CH340如直接使用USB-5V供电，会使通信电平为5V，导致电平不兼容和电流倒灌



群名称:ESP32全开源Easyio物联学...
群号:827686418

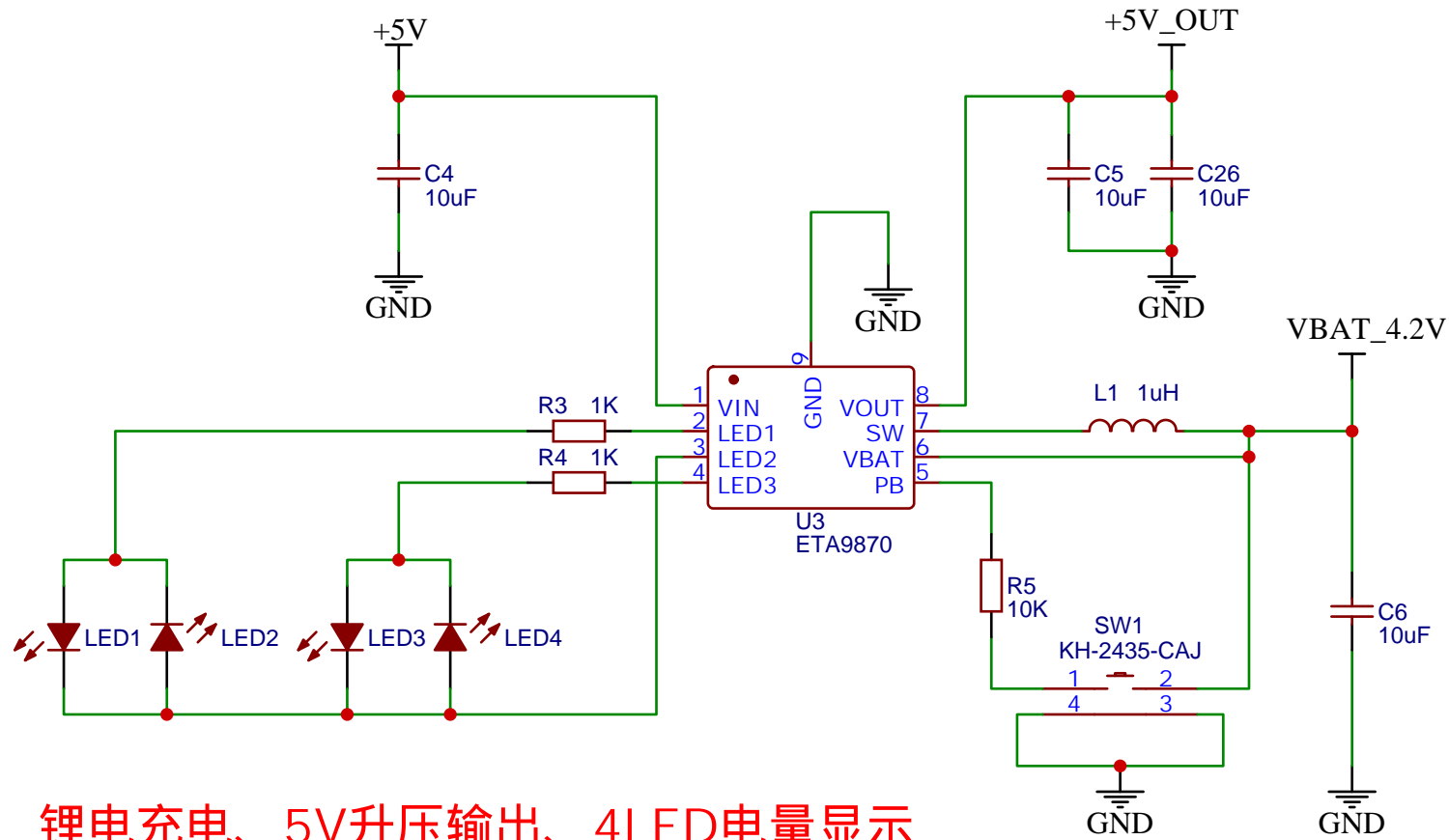
手焊建议打一张钢网，提高效率同时降低失败率。不熟悉硬件的也没关系，店铺有售卖，基础128：
<https://m.tb.cn/h.fQtVEBu?sm=568647>
配套的2.0寸单点电容触摸屏的购买链接：
<https://m.tb.cn/h.fQteyrB?sm=46f608>

【交流Q群】827686418

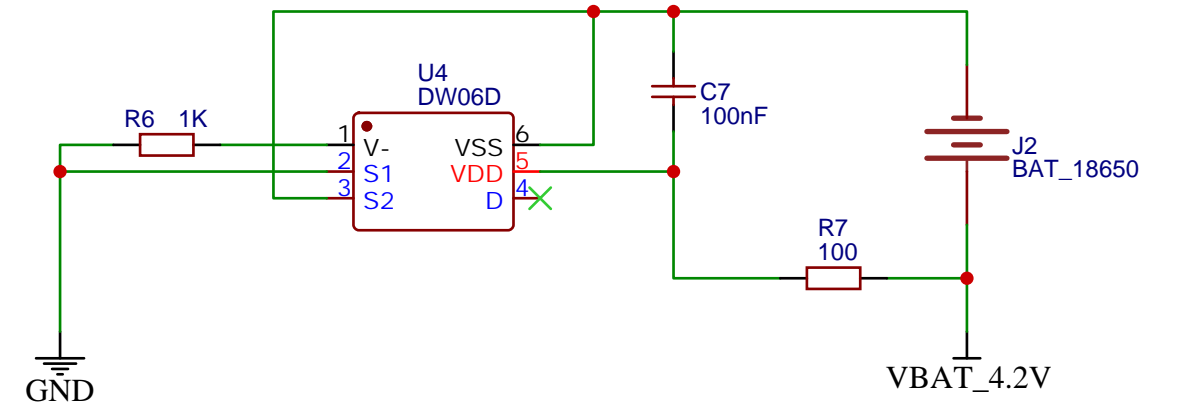


配套例程源码 Github. 点星星不迷路

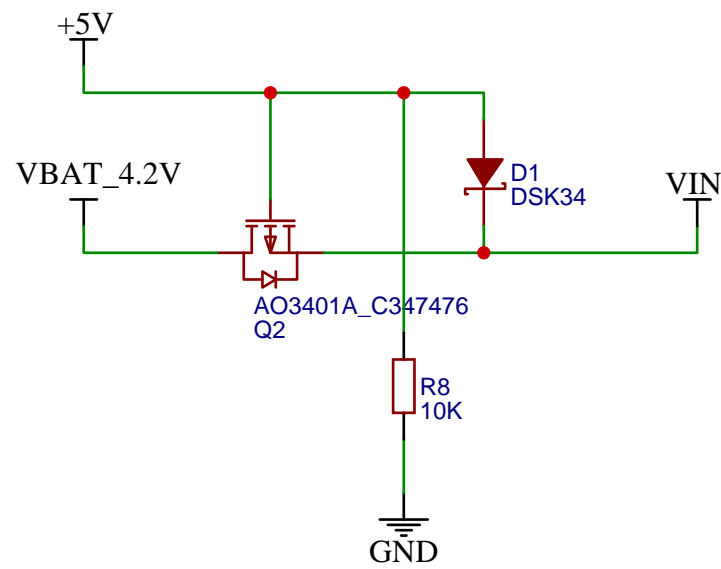
TITLE: 01_USB_DOWNLOAD		REV: 1.0
立创EDA	Company: Your Company	Sheet: 1/1
	Date: 2021-09-21	Drawn By: mazhiliang



锂电充电、5V升压输出、4LED电量显示

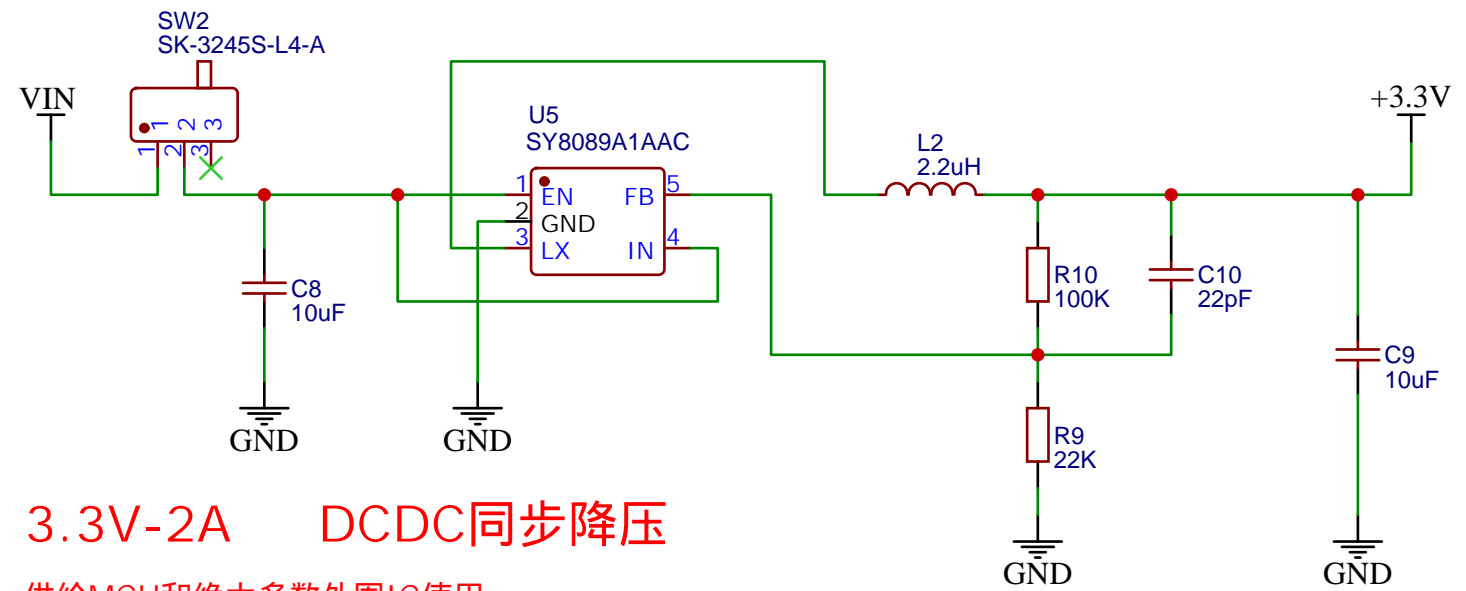


18650锂电过充、过放、过流保护



USB/锂电-电源自动切换

SW2电源开关开通并且锂电有电的情况下
3.3V电压域为UPS（不间断电源），极大程度的方便了脱机测试

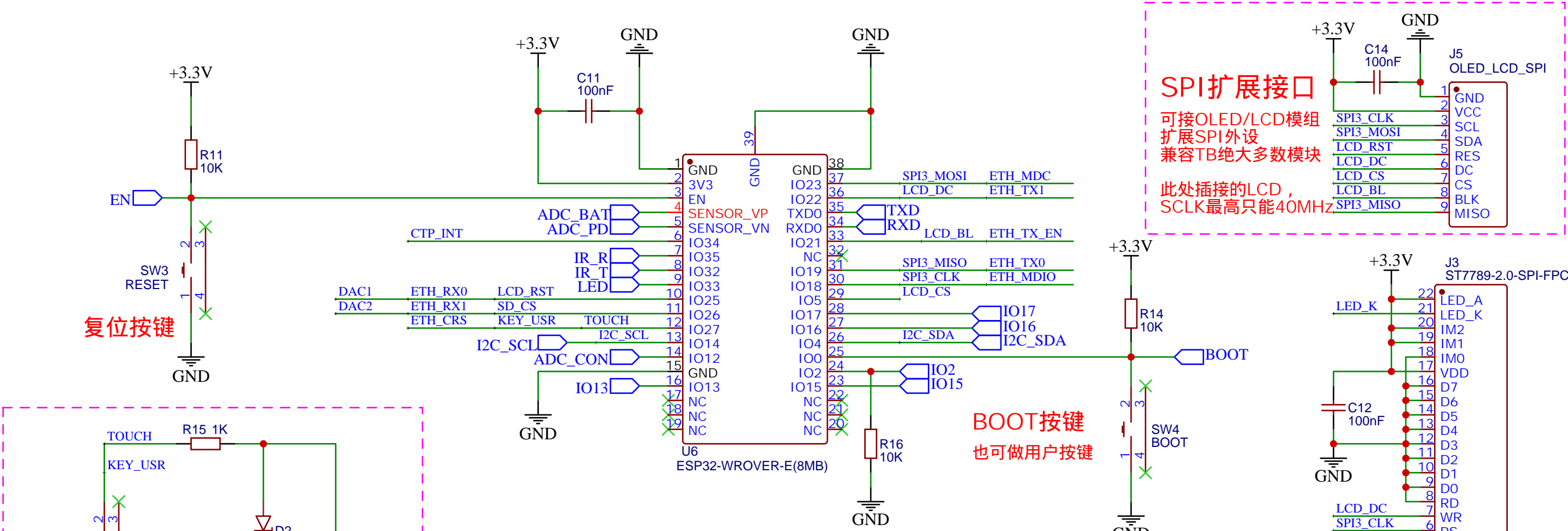


3.3V-2A DCDC同步降压

供给MCU和绝大多数外围IC使用

TITLE: 02_POWER		REV: 1.0
Company: Your Company		Sheet: 1/1
Date: 2021-09-21		Drawn By: mazhiliang

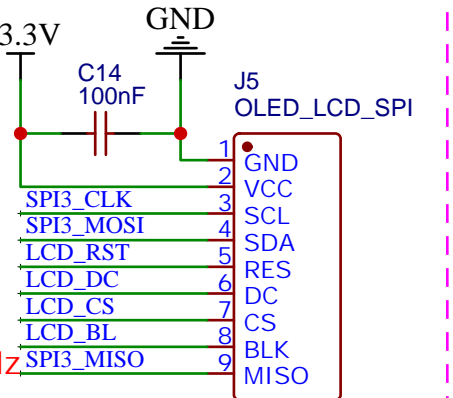




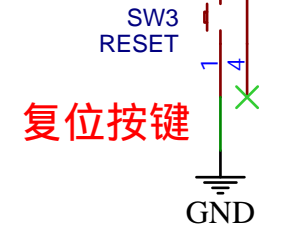
SPI扩展接口

可接OLED/LCD模组
扩展SPI外设
兼容TB绝大多数模块

此处插接的LCD,
SCLK最高只能40MHz

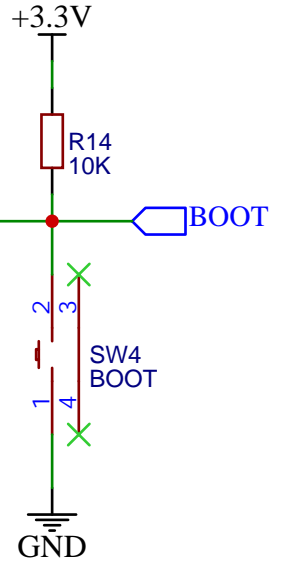


复位按键



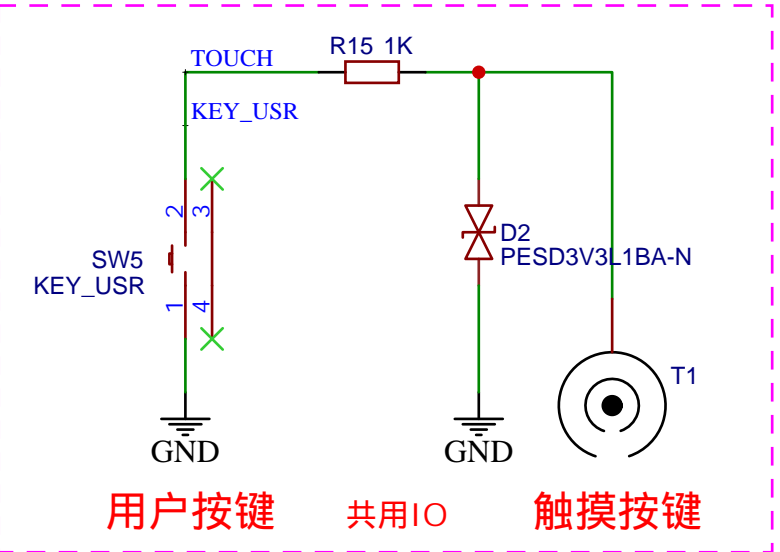
BOOT按键

也可做用户按键



IO2需连接一10K下拉电阻, 以使ESP32能正常下载程序

ESP32 IO全引出



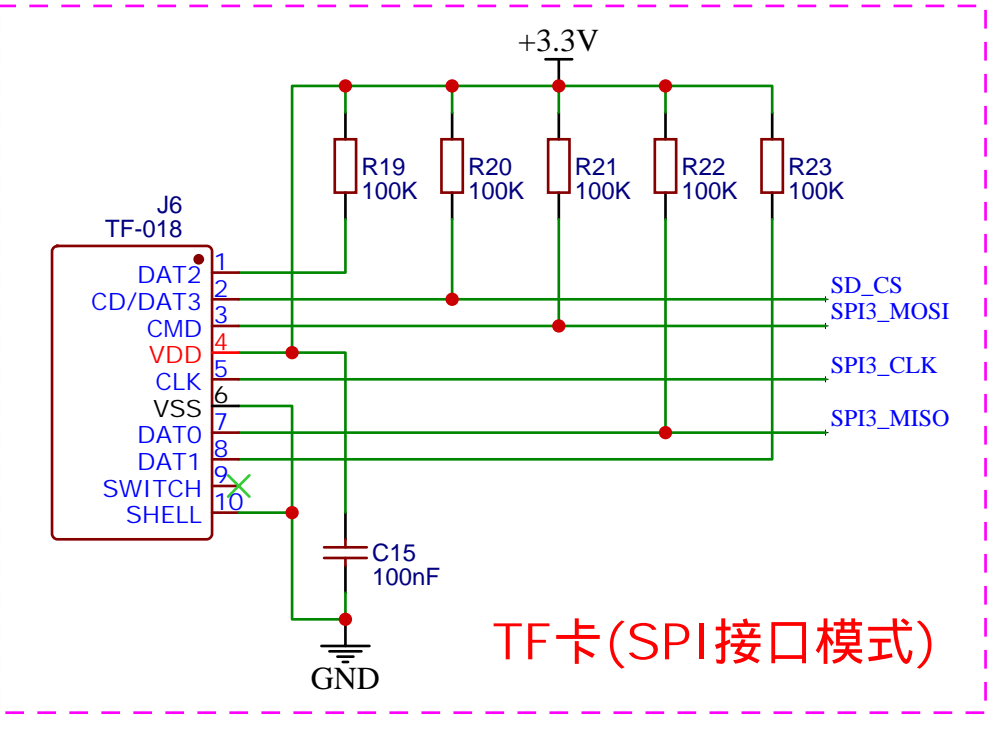
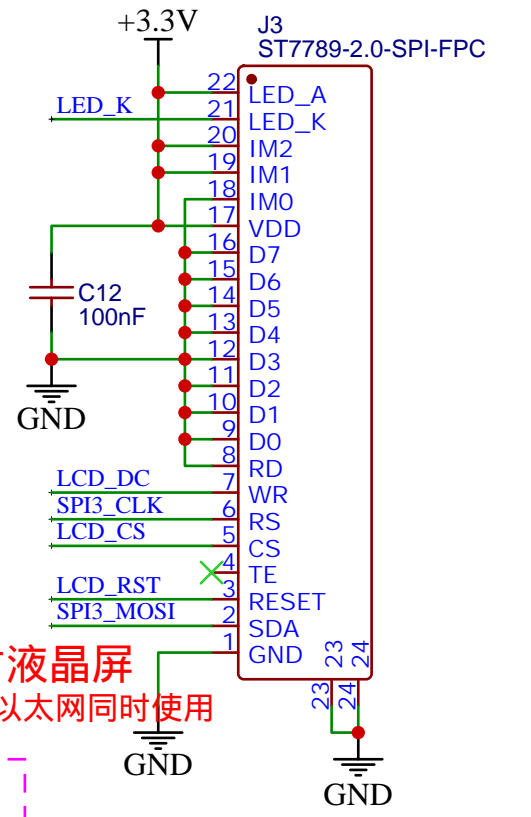
用户按键

共用IO

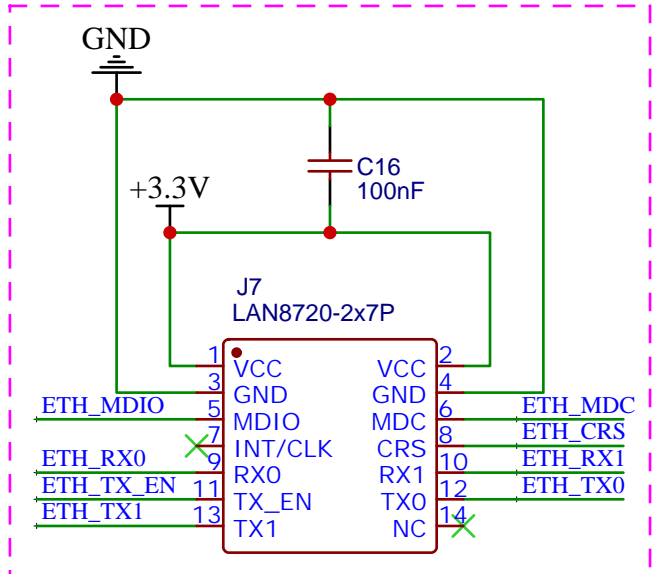
触摸按键

ST7789V - 2.0寸液晶屏

【注意】LCD不能与有线以太网同时使用

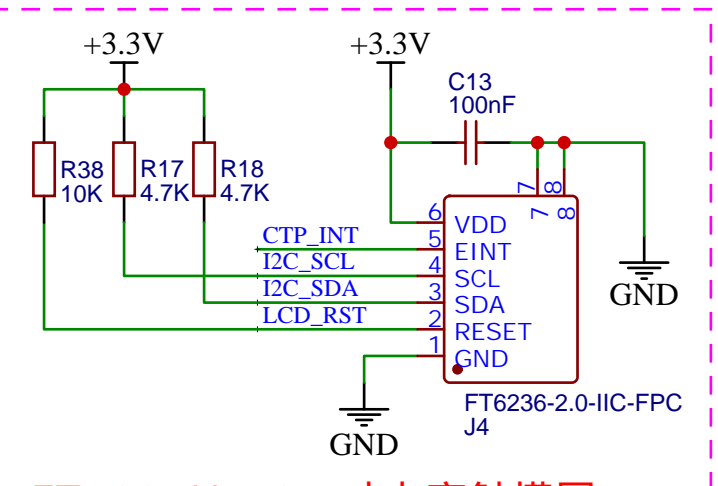


TF卡(SPI接口模式)



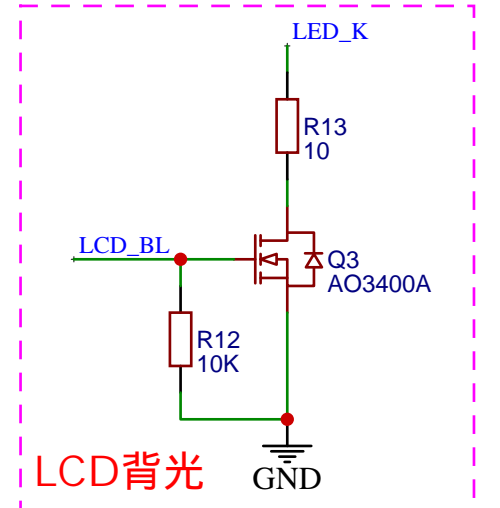
LAN8720以太网扩展

【注意】有线以太网不能与LCD同时使用



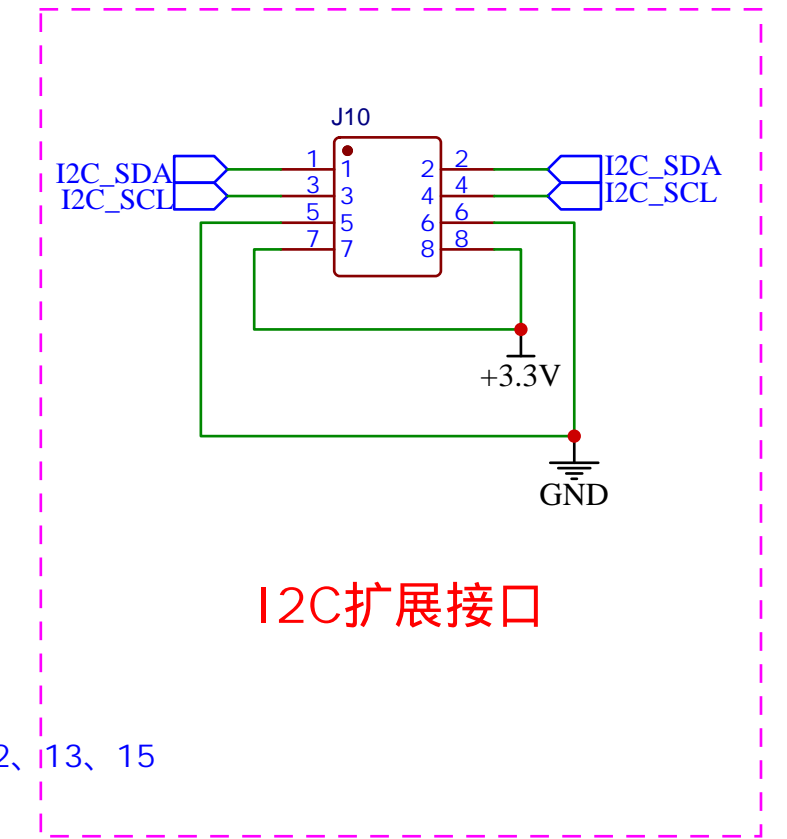
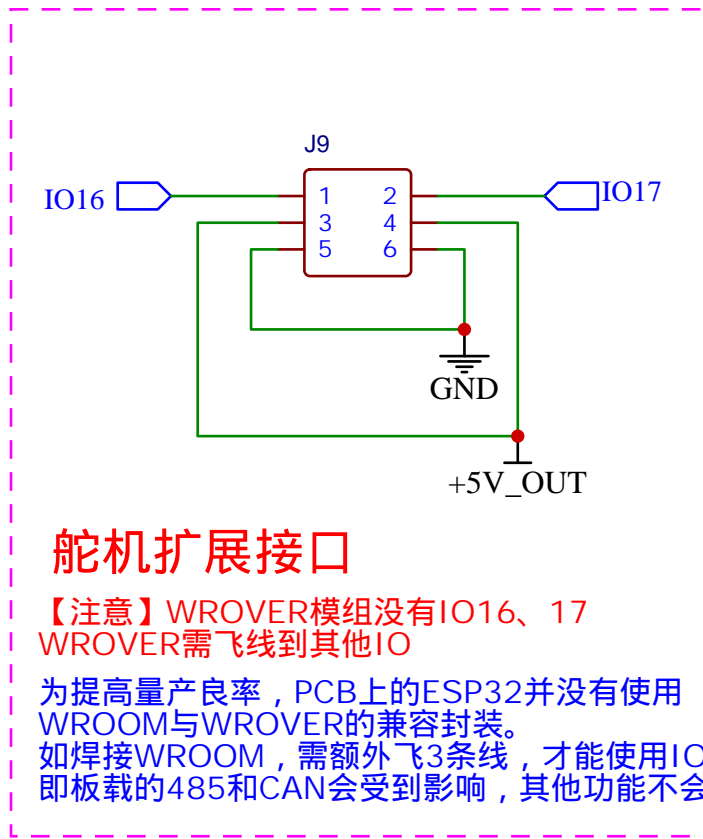
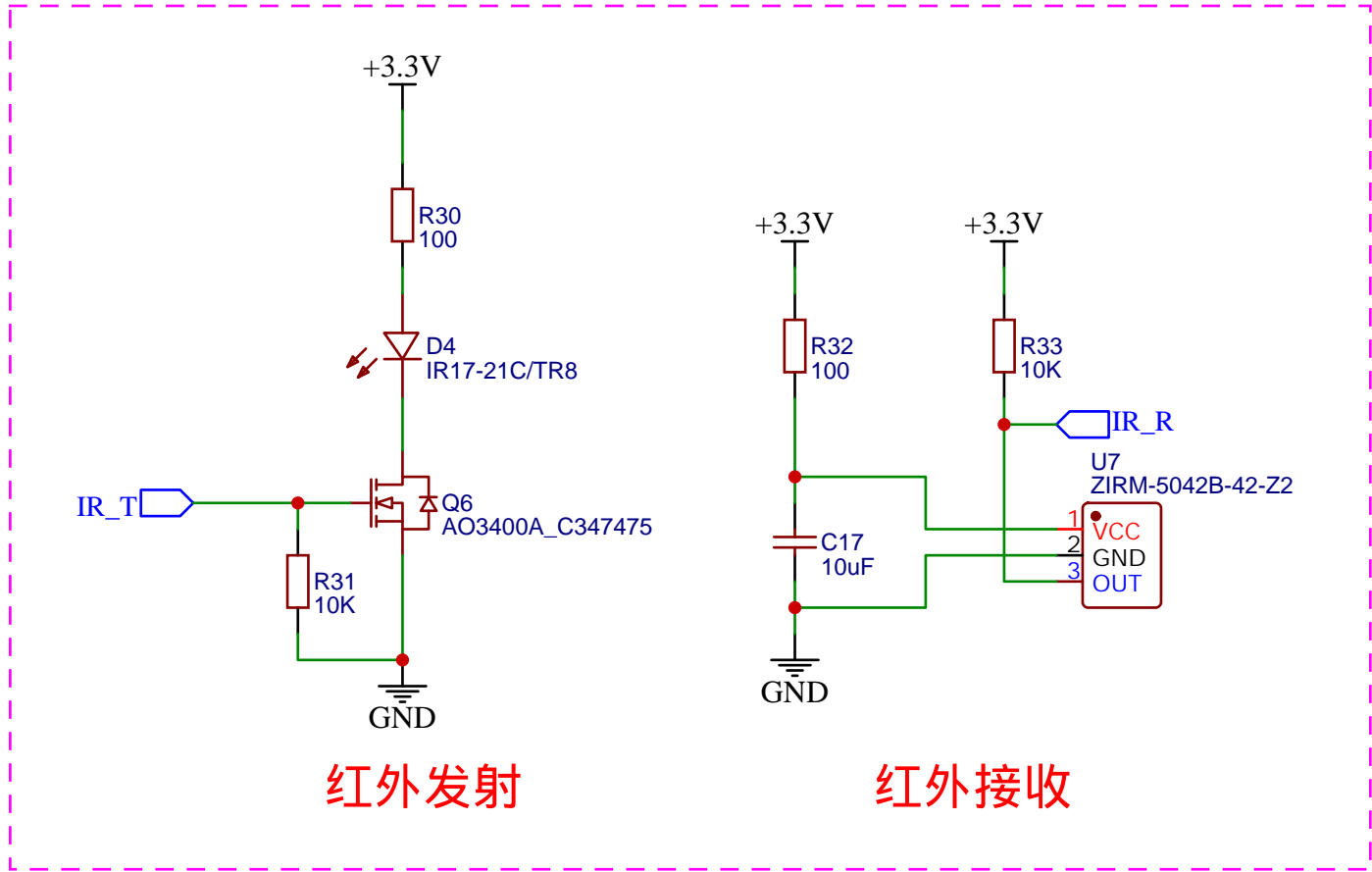
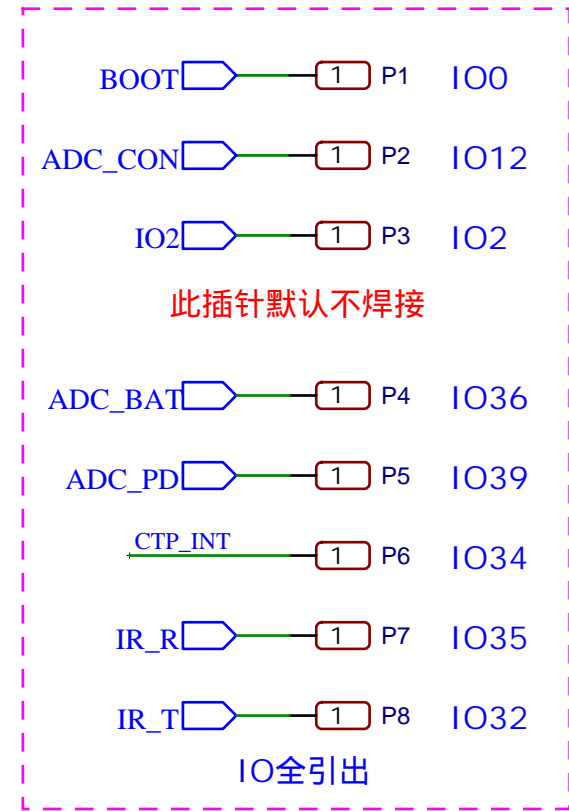
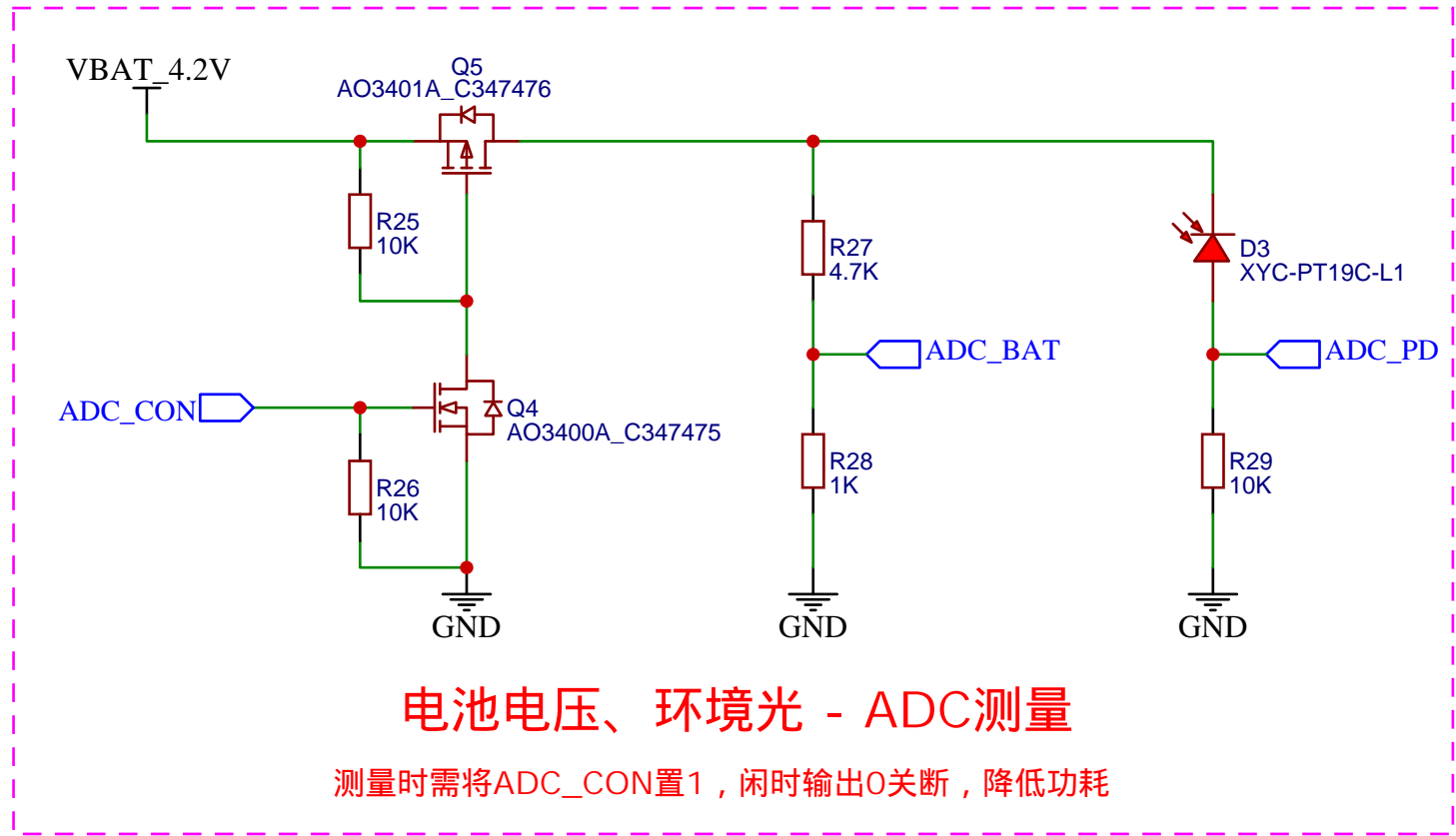
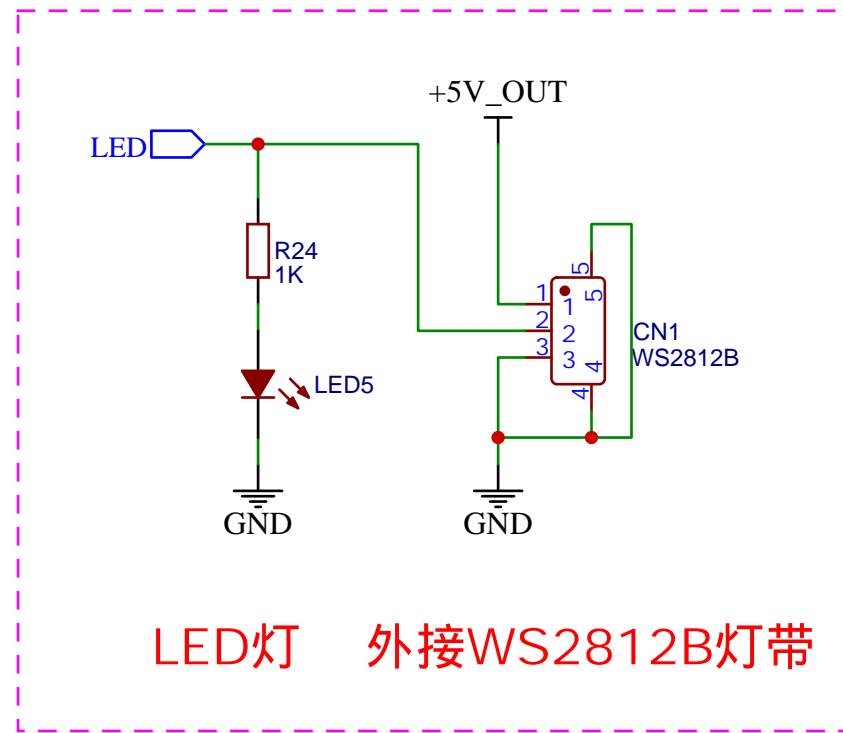
FT6236U - 2.0寸电容触摸屏

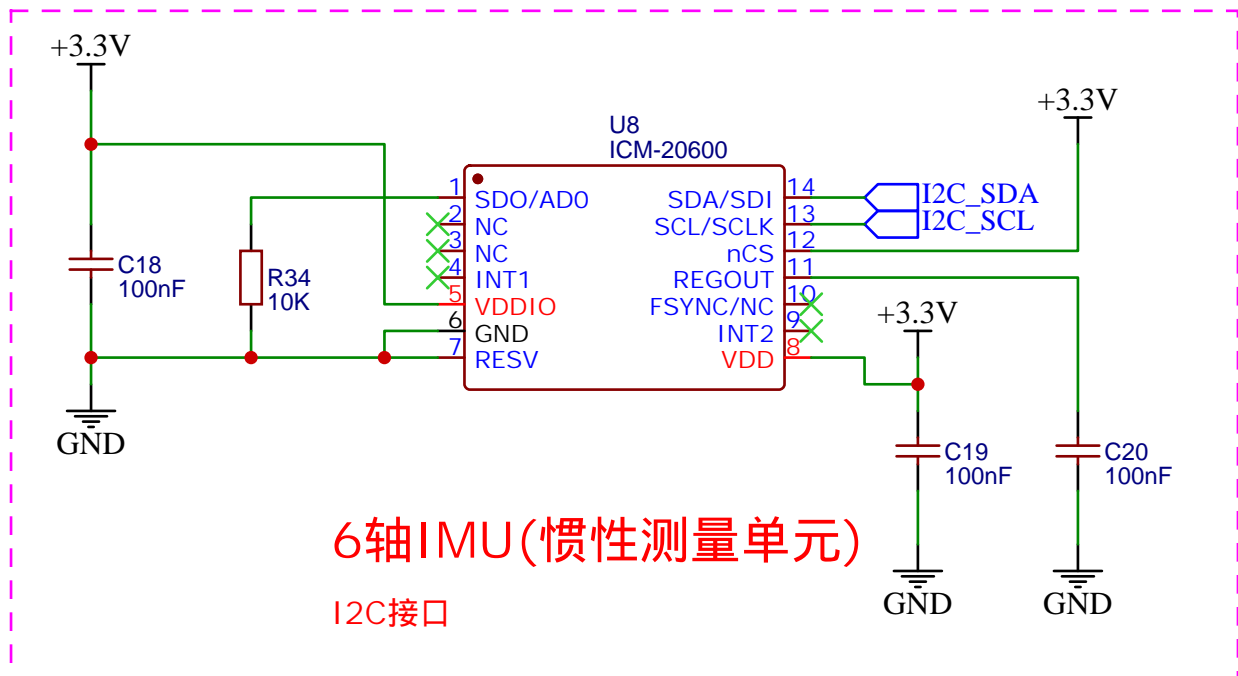
【注意】同I2C不要挂载AHT10/20设备
会导致器件冲突, 器件地址均为0x38。



LCD背光

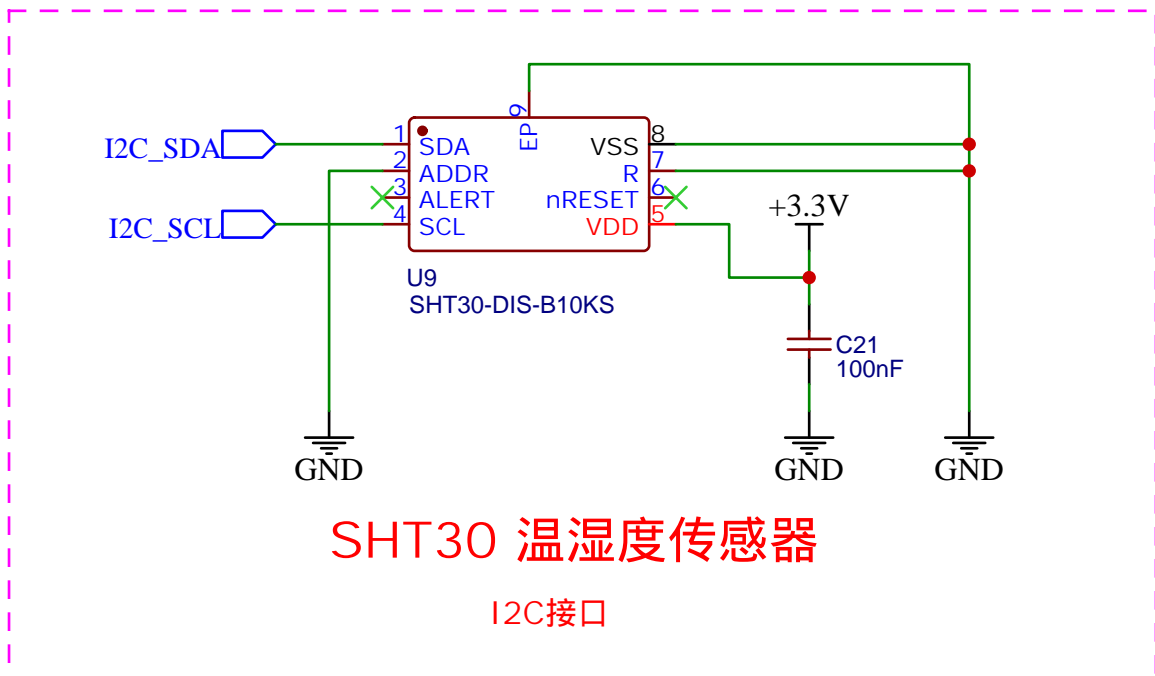
TITLE: 03_ESP32_LCD_ETH_SD_KEY		REV: 1.0
立创EDA	Company: Your Company	Sheet: 1/1
	Date: 2021-09-22	Drawn By: mazhiliang





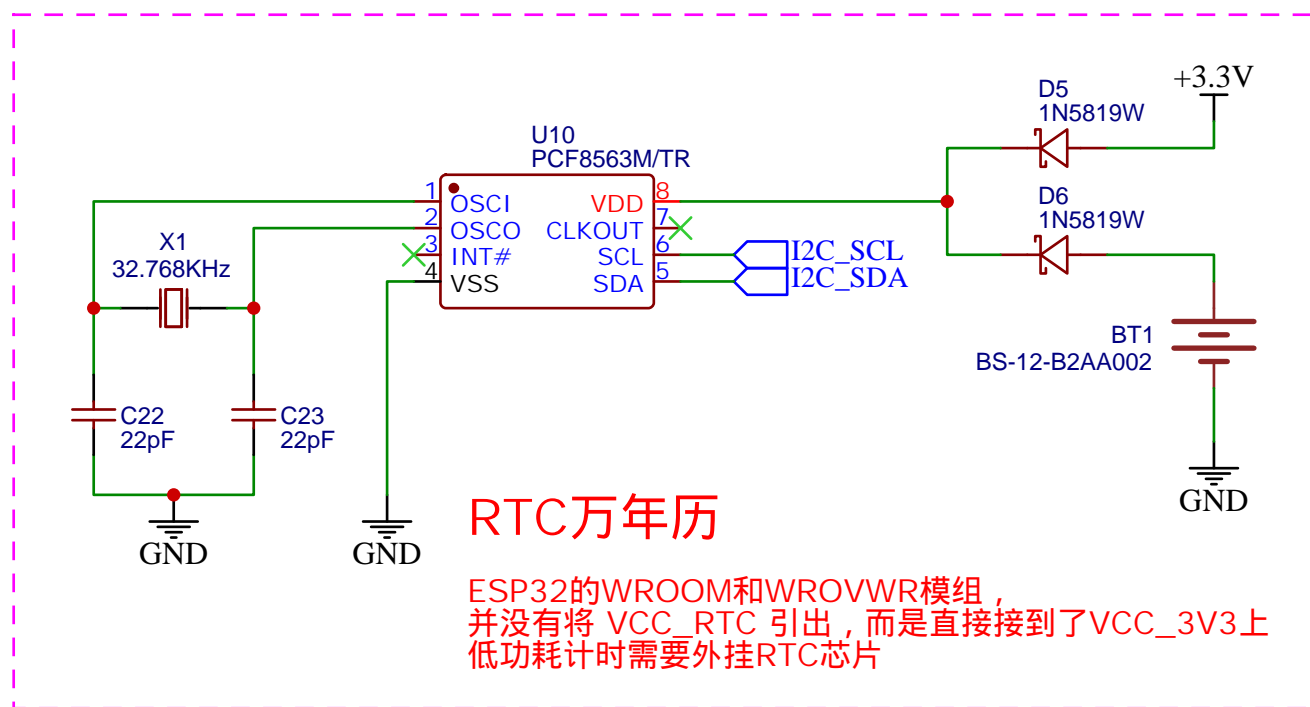
6轴IMU(惯性测量单元)

I2C接口



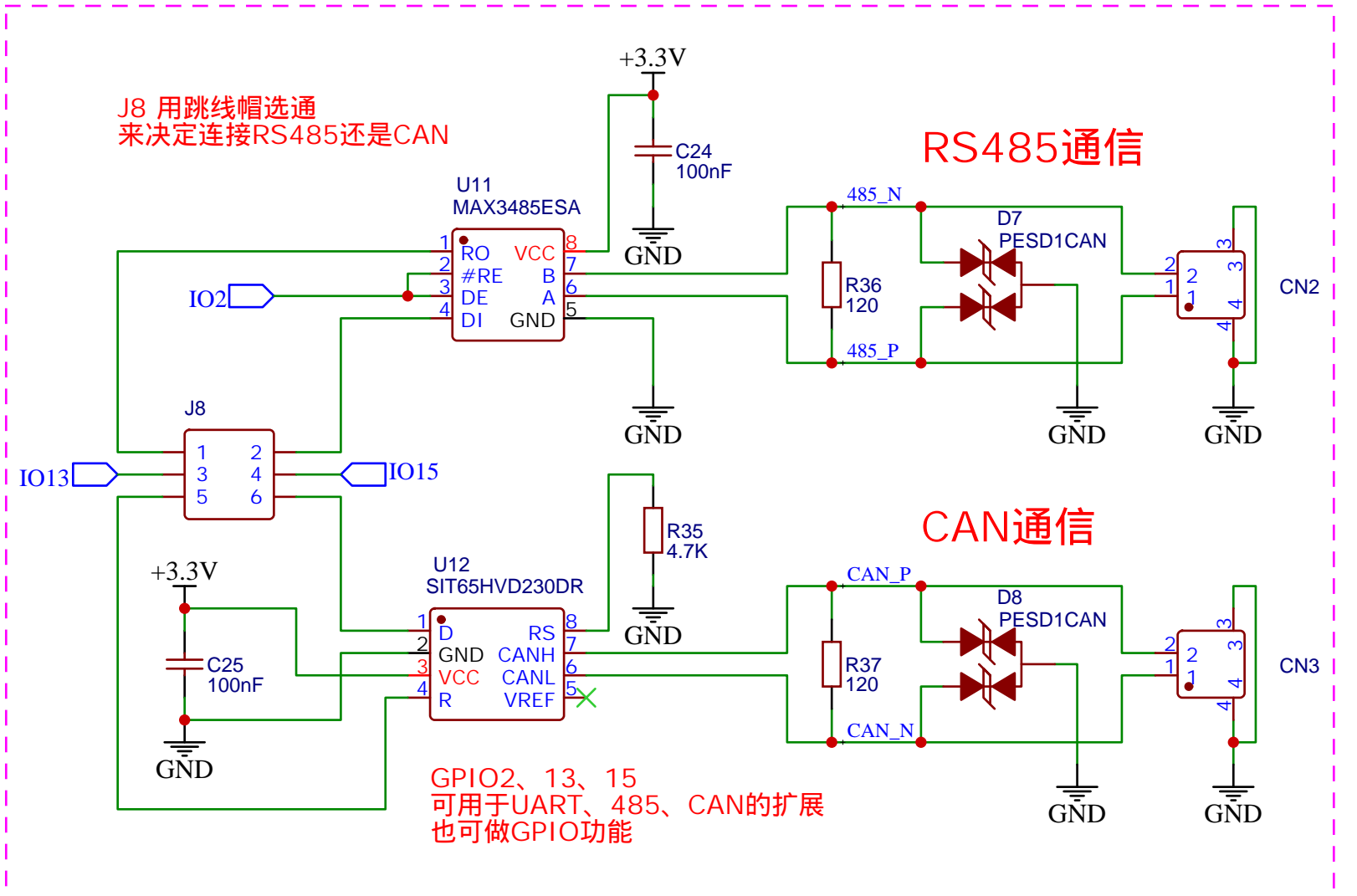
SHT30 温湿度传感器

I2C接口



RTC万年历

ESP32的WROOM和WROVWR模组，并没有将 VCC_RTC 引出，而是直接接到了VCC_3V3上
低功耗计时需要外挂RTC芯片



J8 用跳线帽选通
来决定连接RS485还是CAN

RS485通信

CAN通信

GPIO2、13、15
可用于UART、485、CAN的扩展
也可做GPIO功能

板框四周M3固定孔

- H1 MECH_HOLE_M3
 - H2 MECH_HOLE_M3
 - H3 MECH_HOLE_M3
 - H4 MECH_HOLE_M3
 - H5 MECH_HOLE_ST7789_CTP
- 电容屏固定位置

TITLE: 05_I2C_RTC_485_CAN		REV: 1.0
Company: Your Company		Sheet: 1/1
Date: 2021-09-24		Drawn By: mazhiliang

