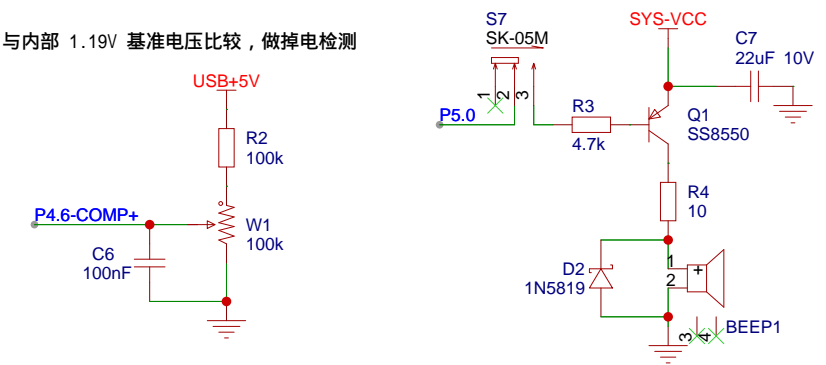
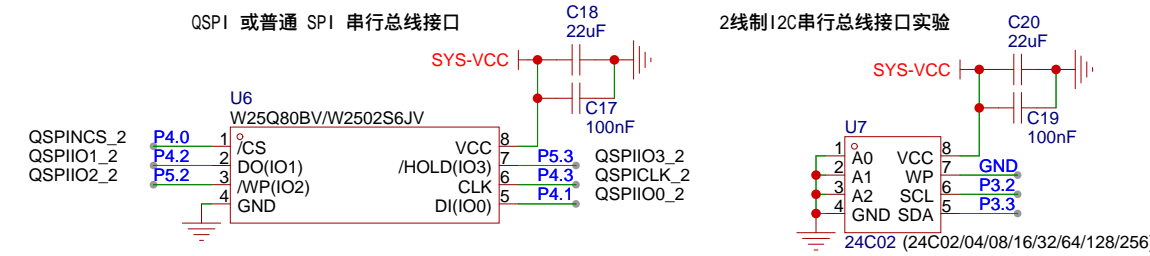
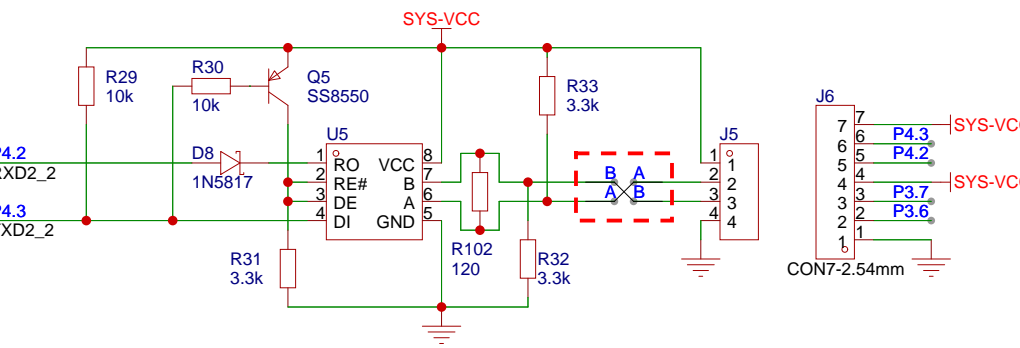
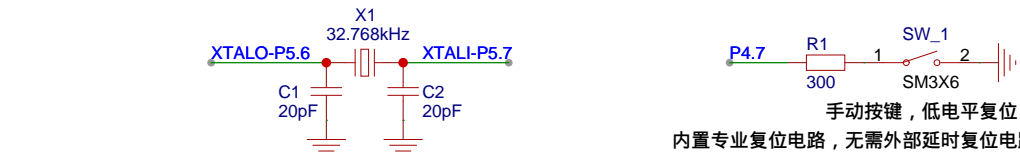
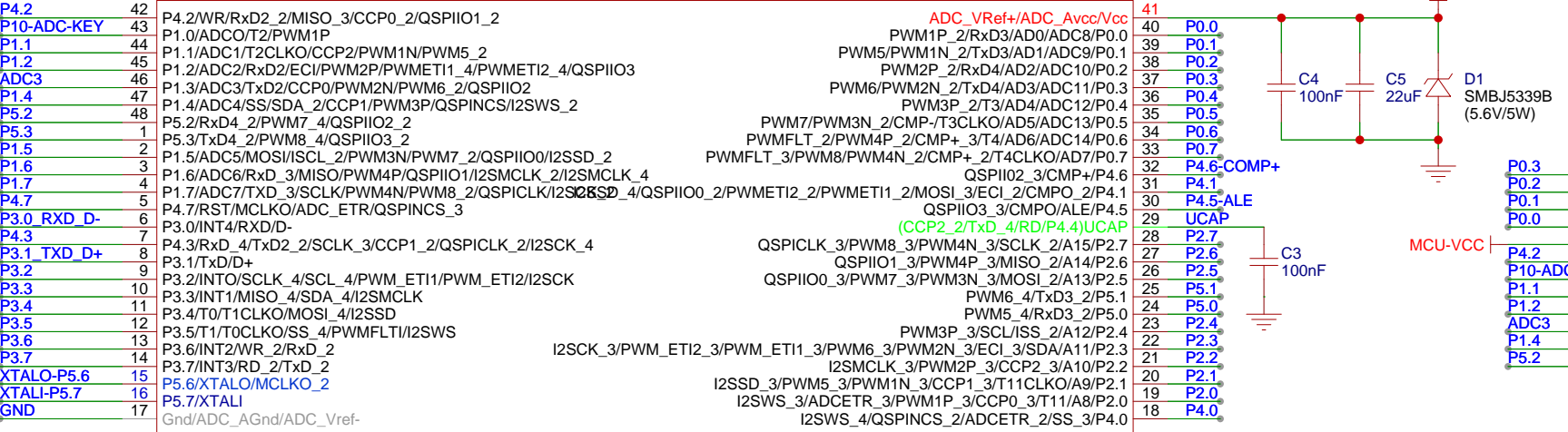


与内部 1.19V 基准电压比较，做掉电检测

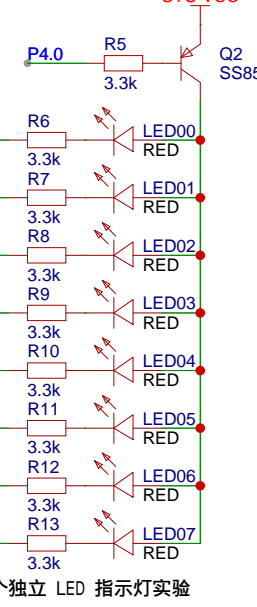
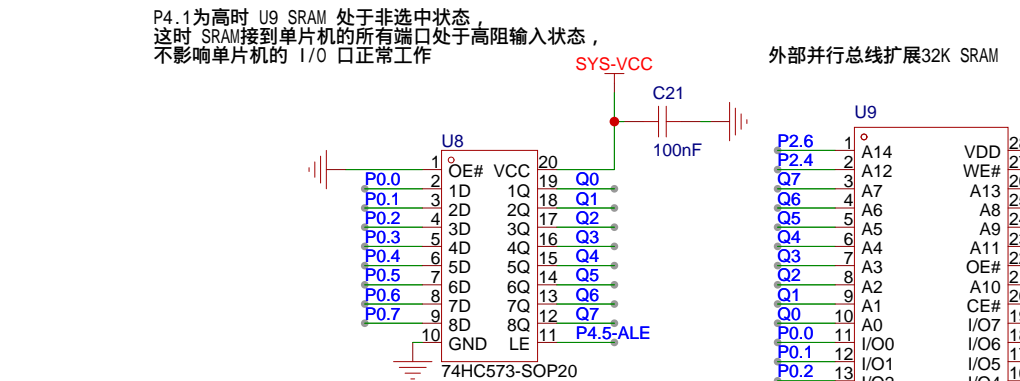


STC大学计划实验箱 STC8051U V1.6 原理图 1/2
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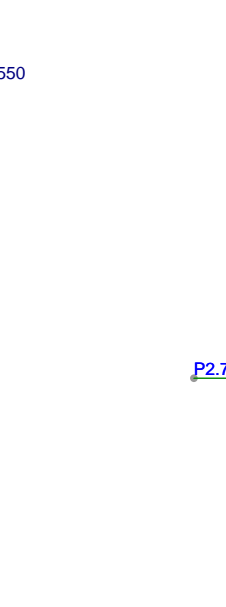
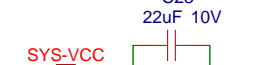
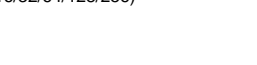
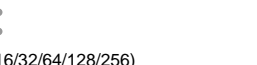
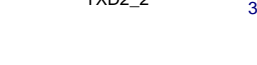
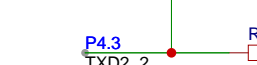
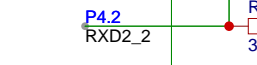
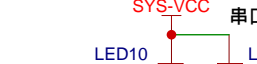
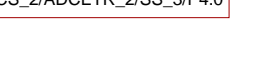
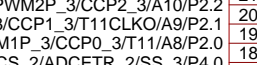
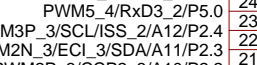
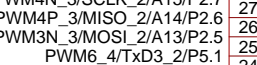
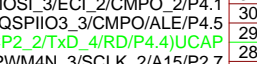
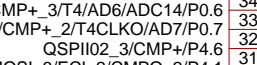
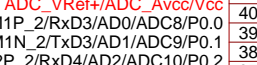
主控芯片使用 STC8051U-LQFP48
可以直接仿真，不需外部晶振，不需外部复位，宽电压 2.0~5.5V
供电方式：从电脑取5V电



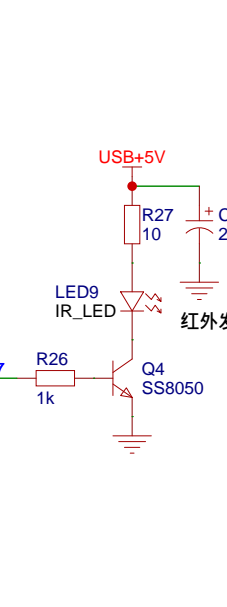
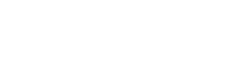
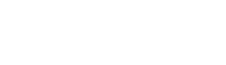
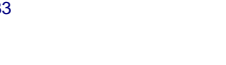
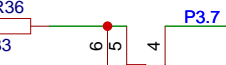
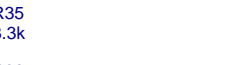
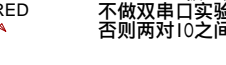
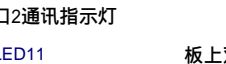
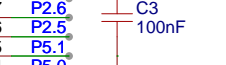
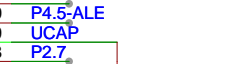
需要打开内部上拉电阻
如果MCU内部没有上拉电阻，需要外接上拉电阻



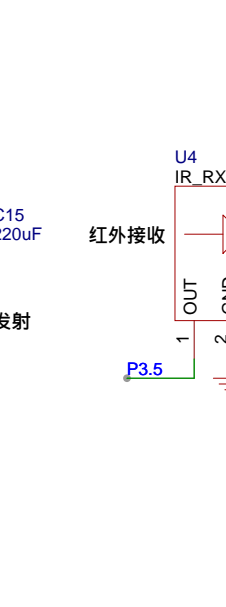
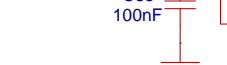
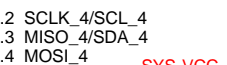
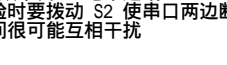
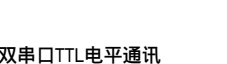
8个独立 LED 指示灯实验



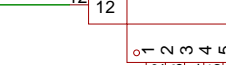
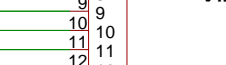
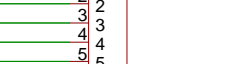
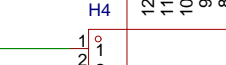
8个独立 LED 指示灯实验



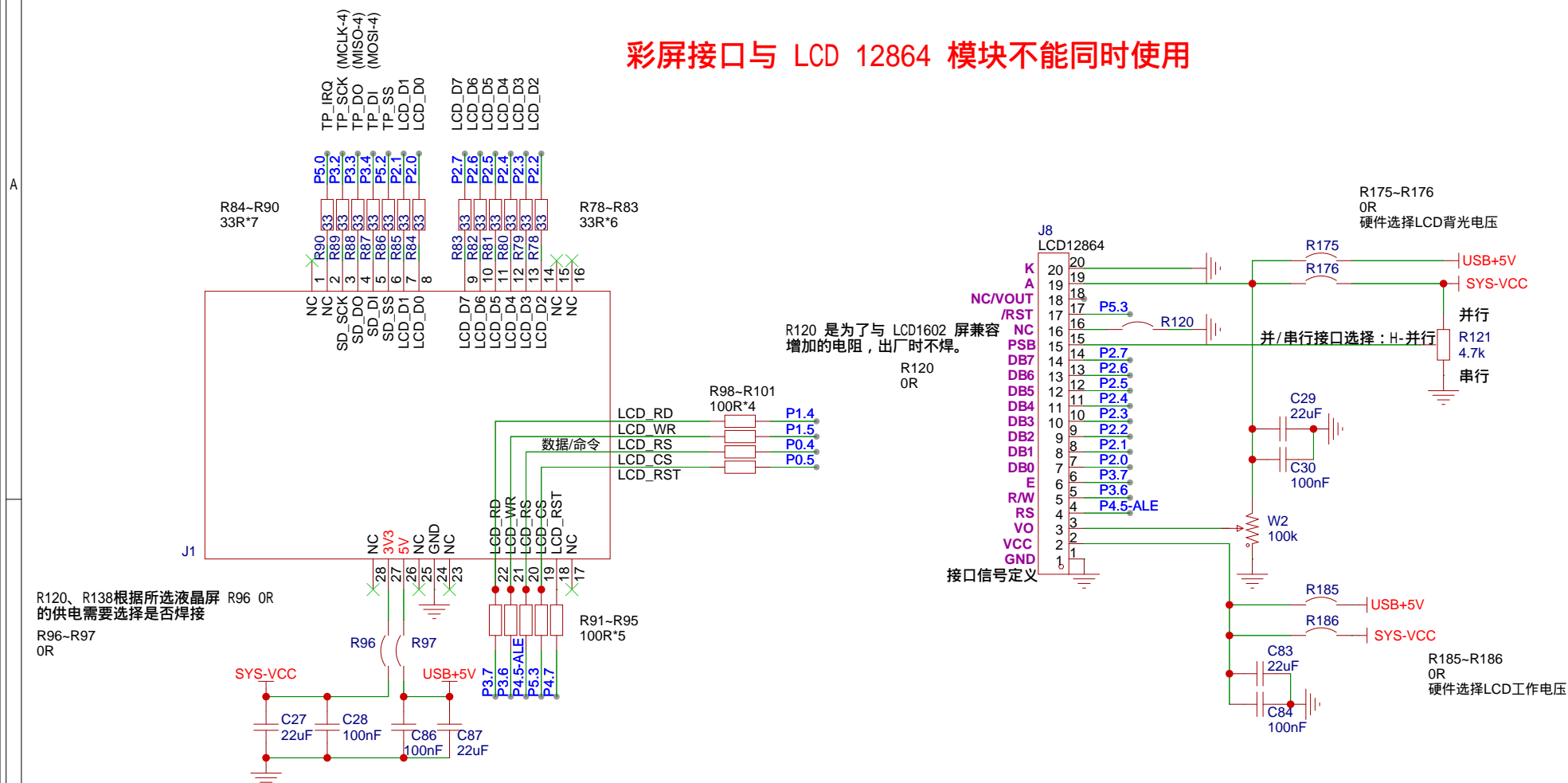
8个独立 LED 指示灯实验



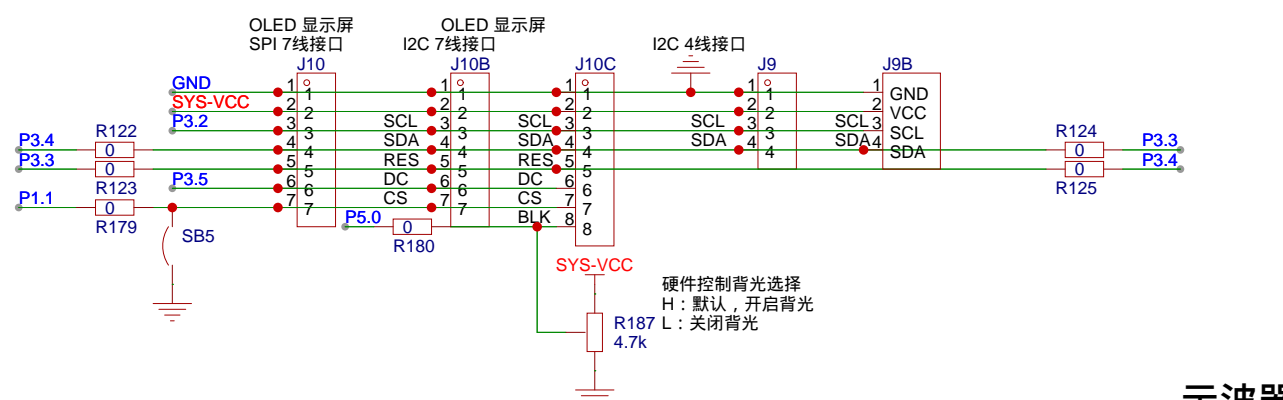
8个独立 LED 指示灯实验



彩屏接口与 LCD 12864 模块不能同时使用

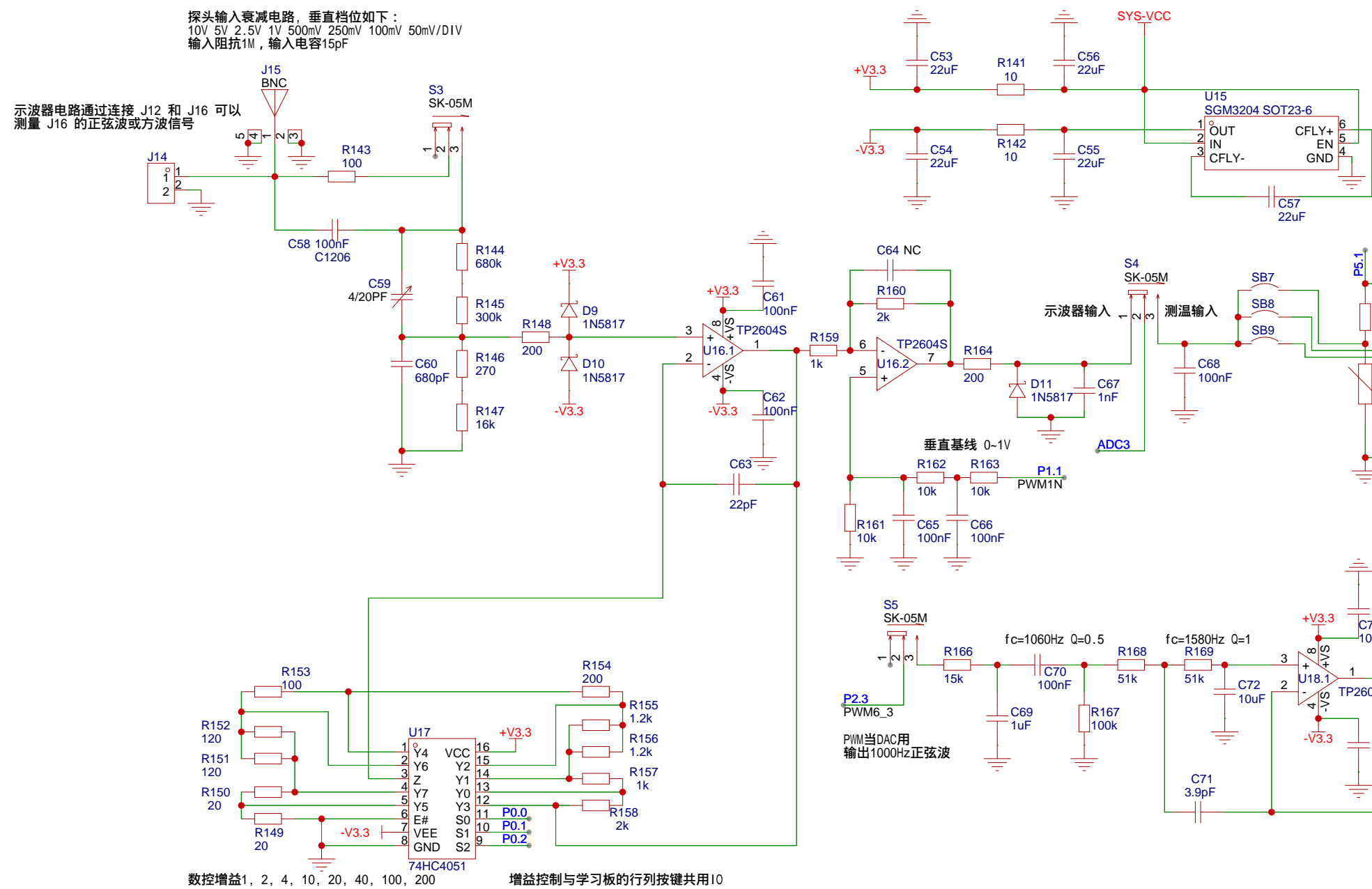


使用 I2C 接口时只焊右边的 R128、R129，不焊左边的 R124、R125
J10、J10B 共用一个 7 芯插座，因此在 PCB 板上只有 J10，没有 J10B
出厂默认使用 SPI 接口，只焊左边的 R122、R123
使用 SPI 接口时只焊左边的 R122、R123，不焊右边的 R124、R125



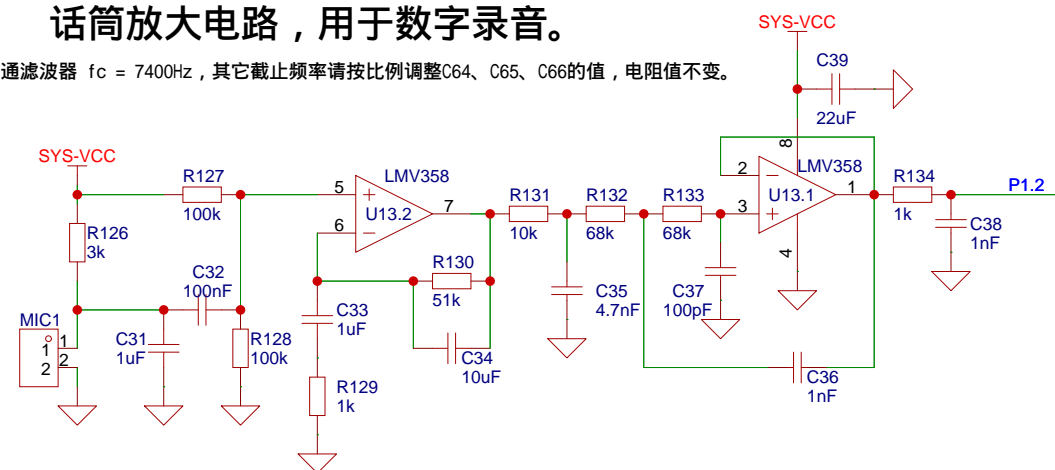
示波器输入电路、数控放大和负电压电路

+3.3V、-3.3V电源产生电路



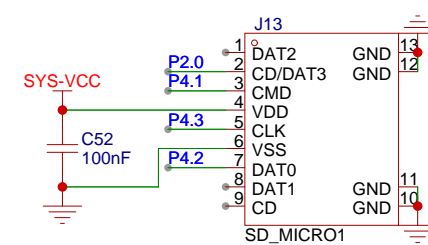
话筒放大电路，用于数字录音。

3阶巴特沃斯低通滤波器 $f_c = 7400\text{Hz}$ ，其它截止频率请按比例调整C64、C65、C66的值，电阻值不变。

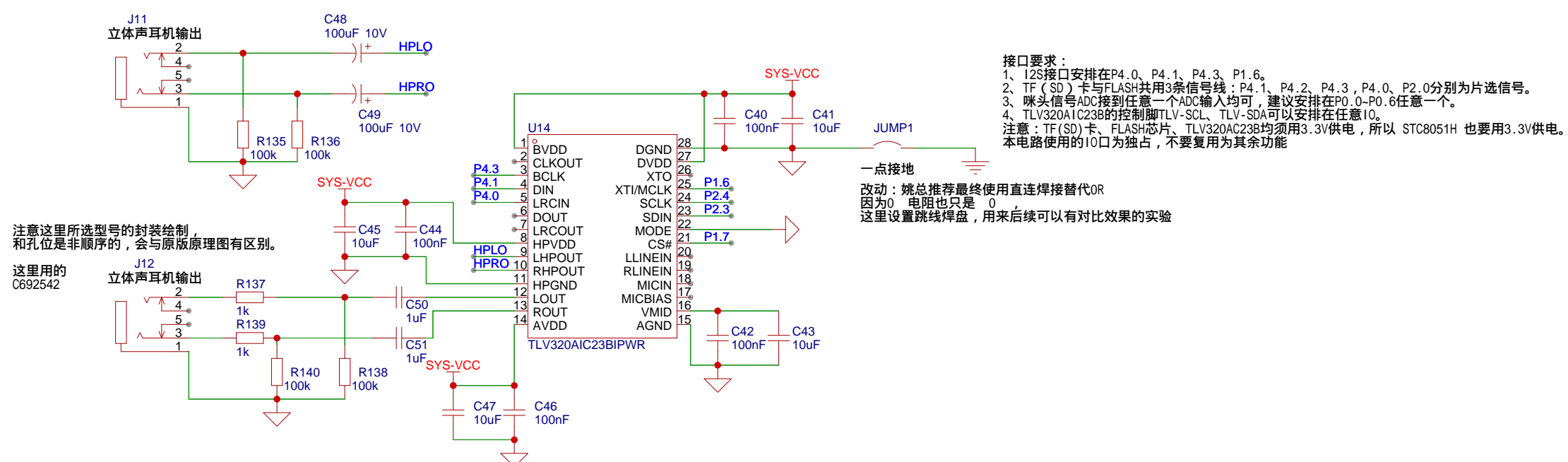


TF卡插座

TF(SD)卡与FLASH芯片公用SPI的3条信号线。



线路输出+电子音量+耳机放大输出




接口要求：

- 1、12S接口安排在P4.0、P4.1、P4.3、P1.6。
- 2、TF(SD)卡与FLASH共用3条信号线：P4.1、P4.2、P4.3，P4.0、P2.0分别为片选信号。
- 3、喇叭信号ADC接到任意一个ADC输入均可，建议安排在P0.0-P0.6任意一个。
- 4、TLV320AI023B的控制脚TLV-SDA、TLV-SDA可以安排在任意I/O。

注意：TF(SD)卡、FLASH芯片、TLV320AC023B均须用3.3V供电，所以 STC8051H 也要用3.3V供电。本电路使用的10口为独占，不要复用于其余功能。

资料下载网址：www.STCAI.com
学习交流社区论坛：www.STCAIMCU.com

| | | | | | | |
|---|------------|-------------------------------------|----|----------------|------------|-----|
| 原理图 | Schematic2 | | | 更新日期 | 2024-07-01 | |
| | | | | 创建日期 | | |
| 图页 | P2 | | | 物料编码 | | |
| 绘制 | STC团队，RHYS | Project_2024-06-24_STC8051U_PlanBox | | | | |
| 审阅 | RHYS | | | | | |
| | | | | | | |
| | | 版本 | 尺寸 | 页 | 2 | 共 2 |
|  | | V1.6 | A4 | STC团队设计/RHYS复刻 | | |