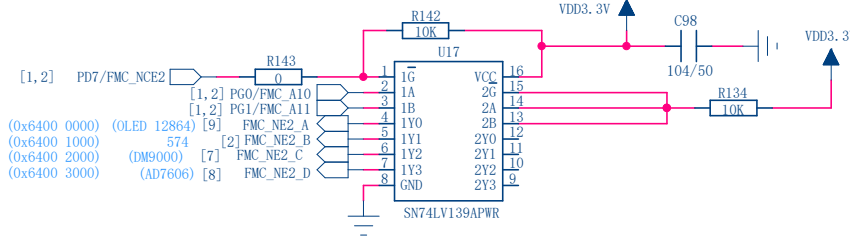
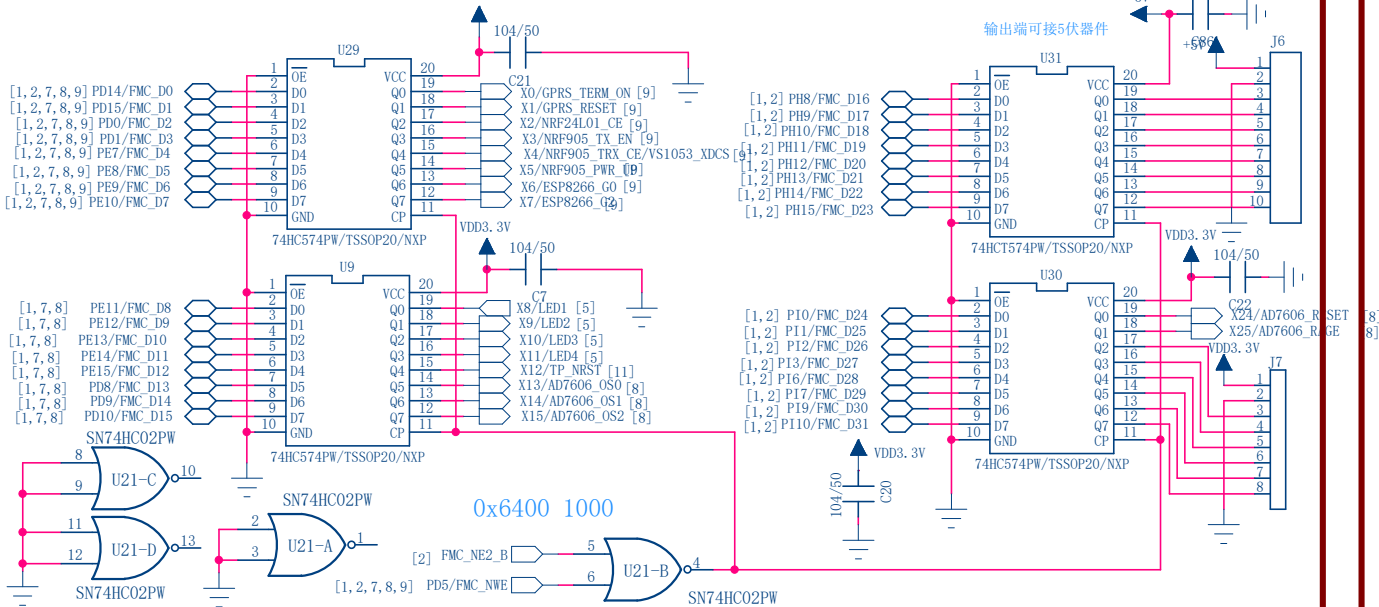


COMPANY:			
安富莱电子 www.armfly.com			
TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)			
SIZE: A3	SHEET NAME: [1]CPU		REV: 1.0
DRAWN BY: armfly	DATE: 2021-03-16	SHEET: 1 OF 11	

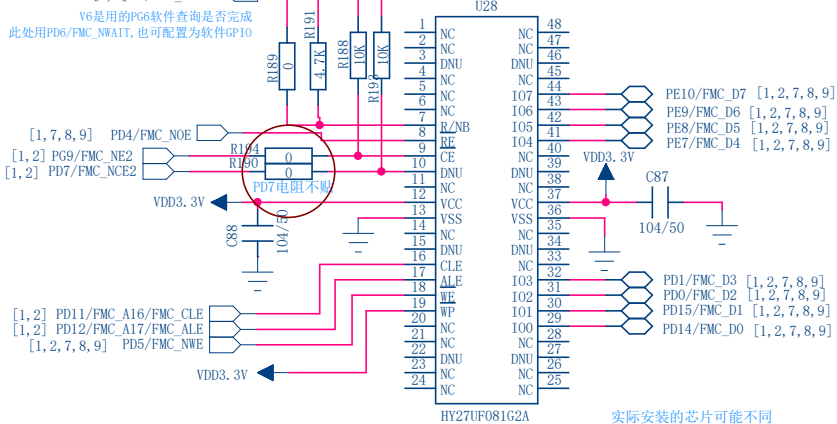
地址译码器



输出IO扩展电路

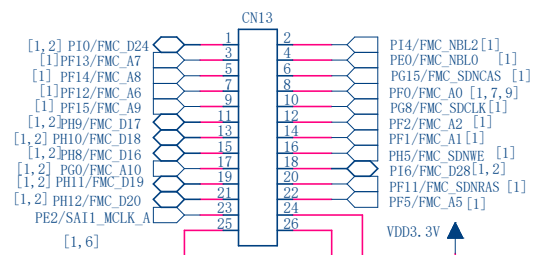


NAND FLASH(128M字节)  
0x7000 0000

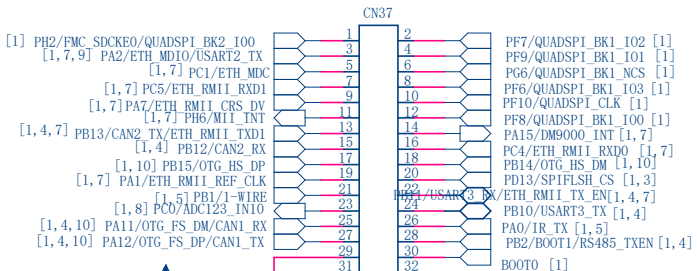
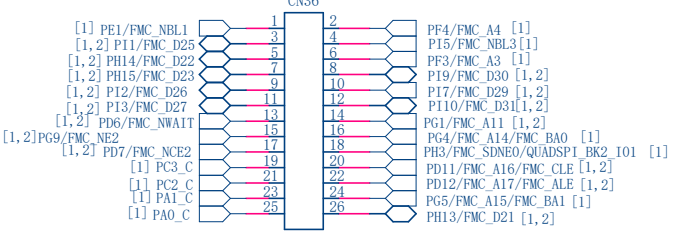


网标左边或右边[]内的数字表示该网络存在的页号，这是设计软件自动添加的

SDRAM (32M字节 总线宽度32位) 0x6400 0000



5V电压引出排针

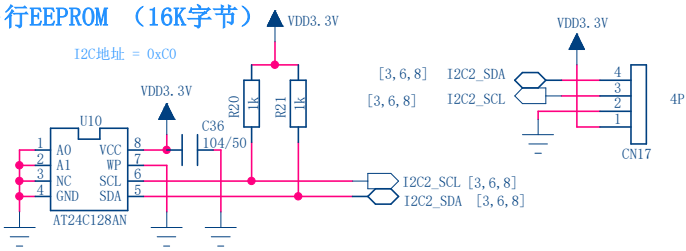


COMPANY: 安富莱电子 www.armfly.com			
TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)			
SIZE: A3	SHEET NAME: [2]SDRAM_IOEXPANDOR	REV: 1.0	
DRAWN BY: armfly	DATE: 2021-03-16	SHEET: 2 OF 11	

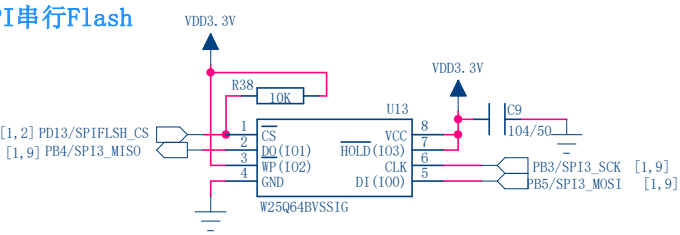
### I2C口线



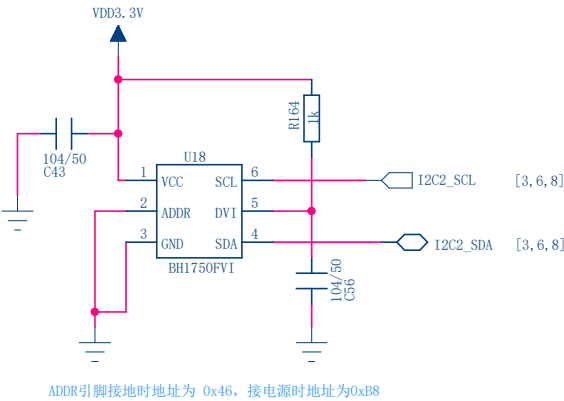
### 串行EEPROM（16K字节）



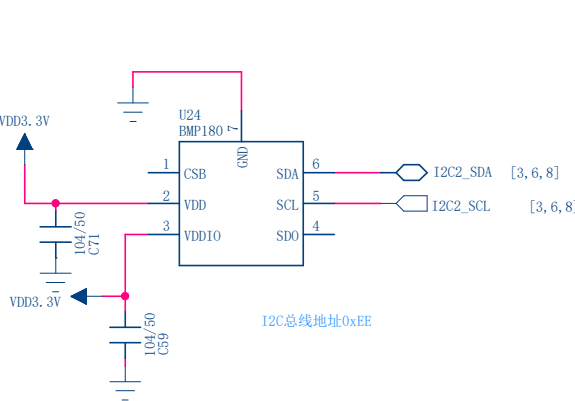
### SPI串行Flash



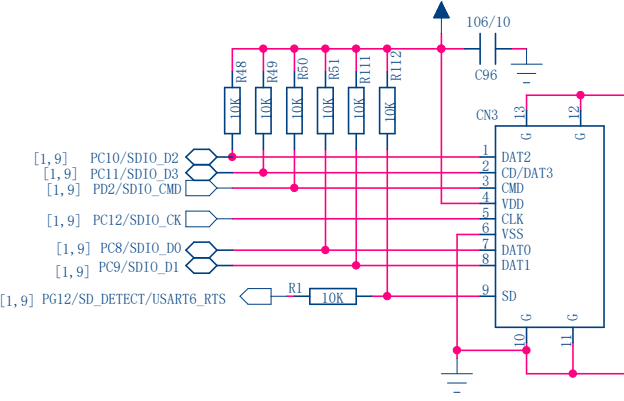
### 光照度传感器



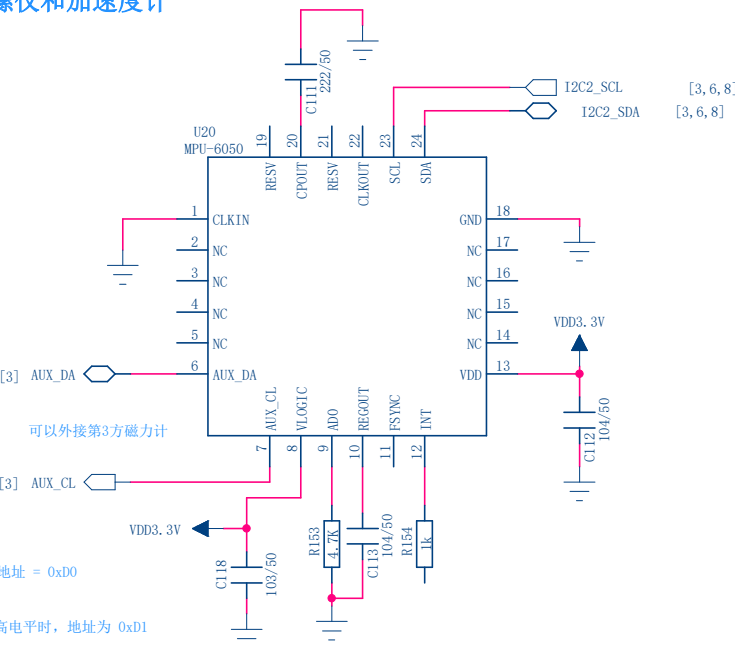
### 气压传感器（带温度）



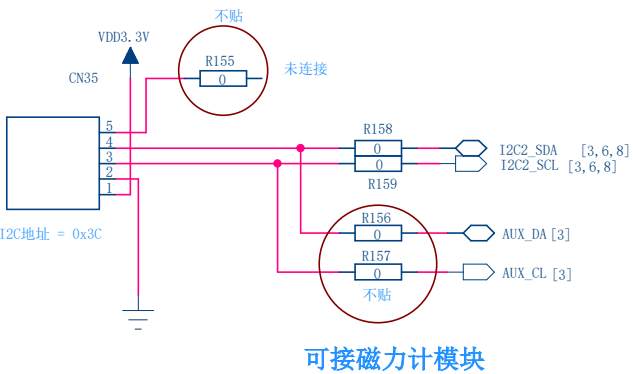
### Micro SD 卡座



### 三轴陀螺仪和加速度计



### 三轴磁力计（电子指南针）接口



COMPANY:

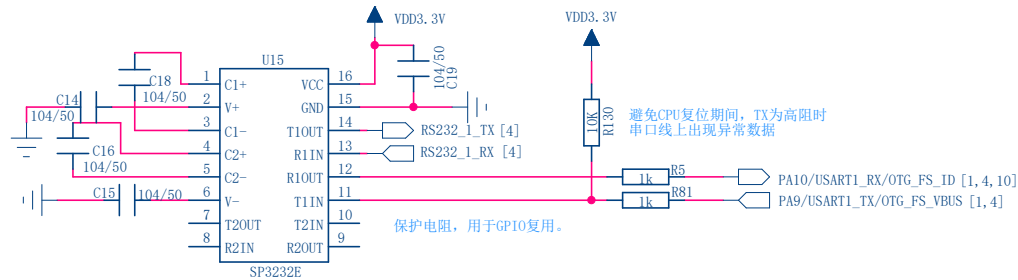
安富莱电子 www.armfly.com

TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)

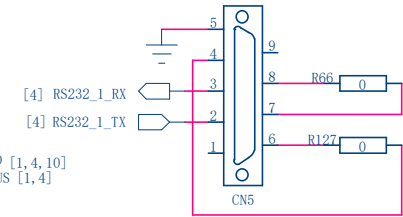
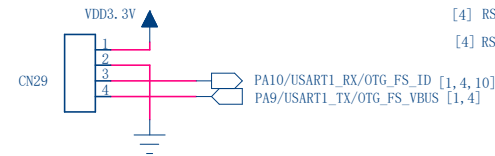
SIZE: A3 SHEET NAME: [3]I2C\_FLASH\_SD REV: 1.0

DRAWN BY: armfly DATE: 2021-03-16 SHEET: 3 OF 11

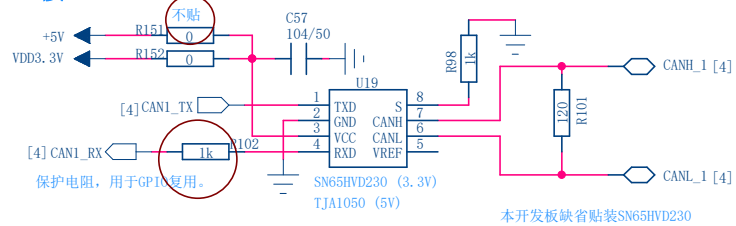
## RS232串口 (USART1)



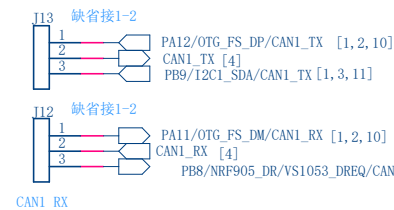
模块相同，可直接连接。



## CAN接口1

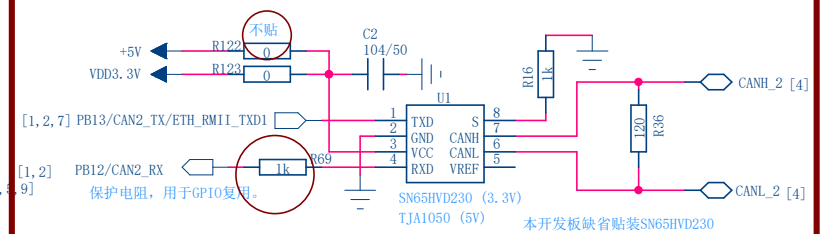


CAN1 TX

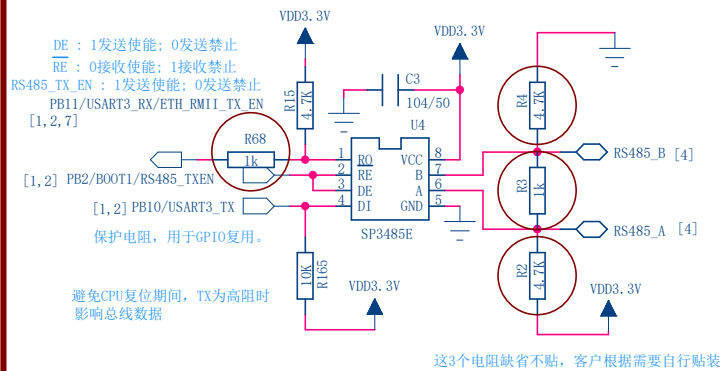


CAN1 RX

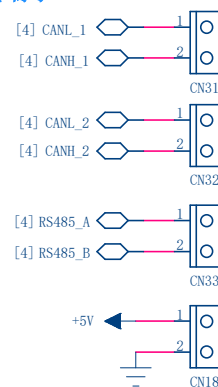
## CAN接口2



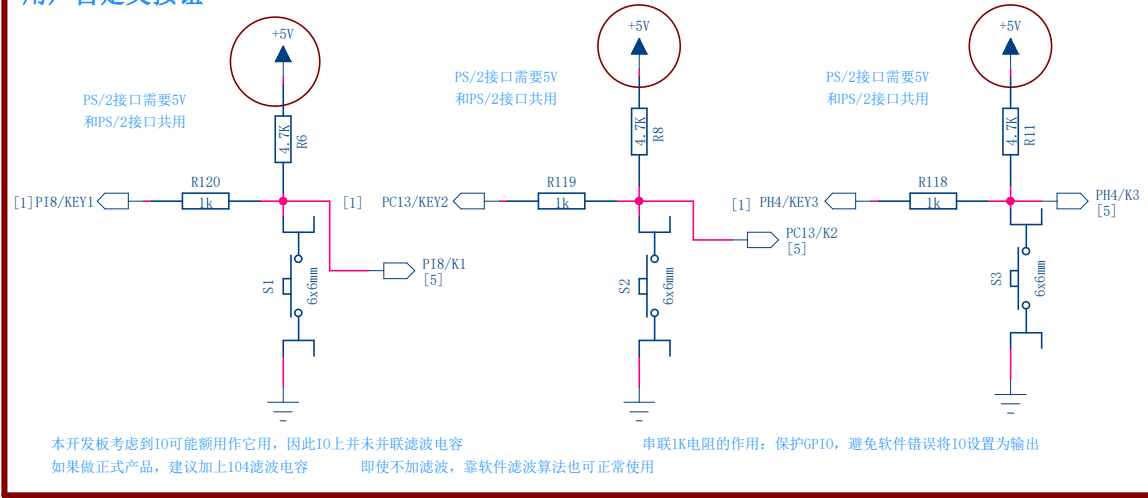
## RS485 (USART3)



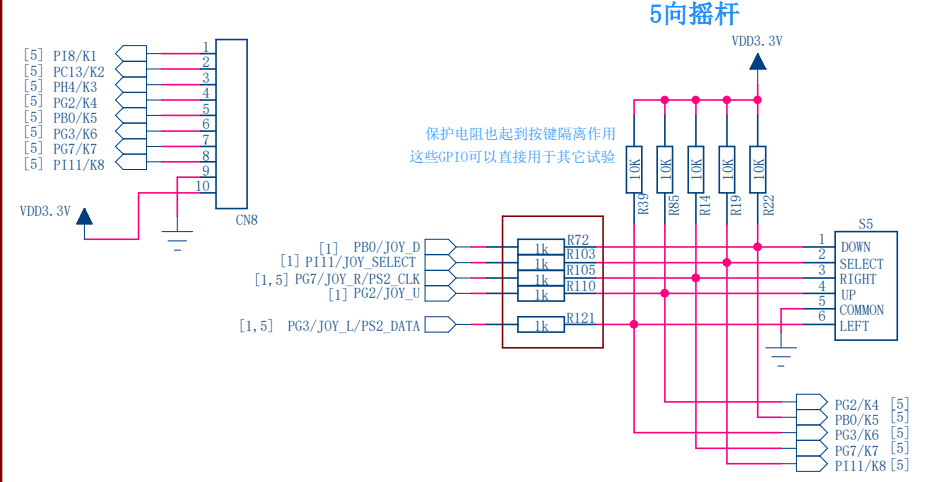
## KF128 接线端子



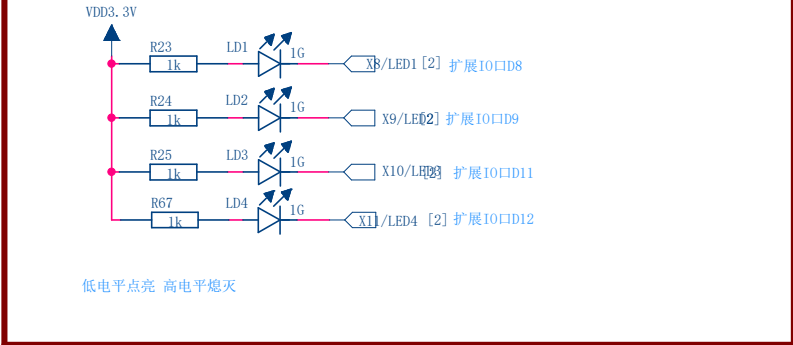
## 用户自定义按钮



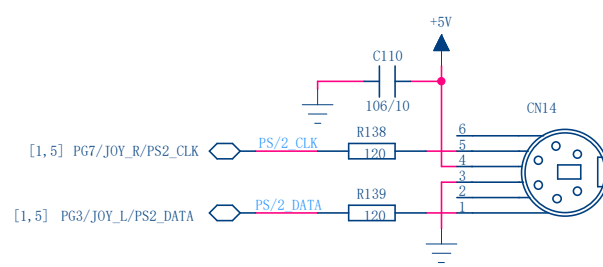
## 外接10P按钮排针



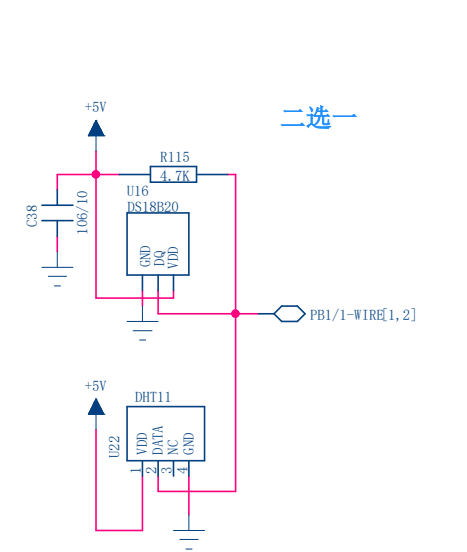
## 用户自定义LED指示灯



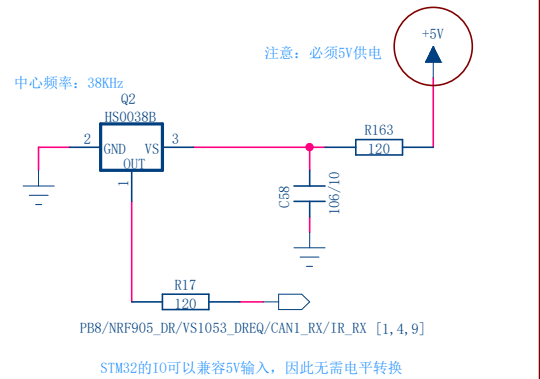
## PS/2接口 可连接键盘，鼠标，扫描枪



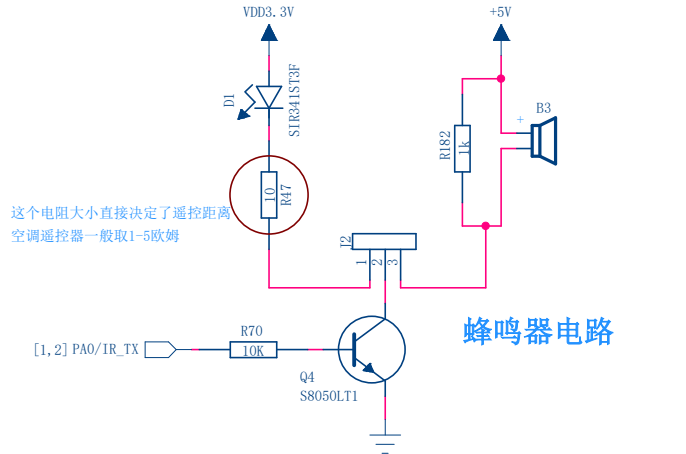
## 1-WIRE接口



## 红外接收



## 红外发射



## 蜂鸣器电路

COMPANY:

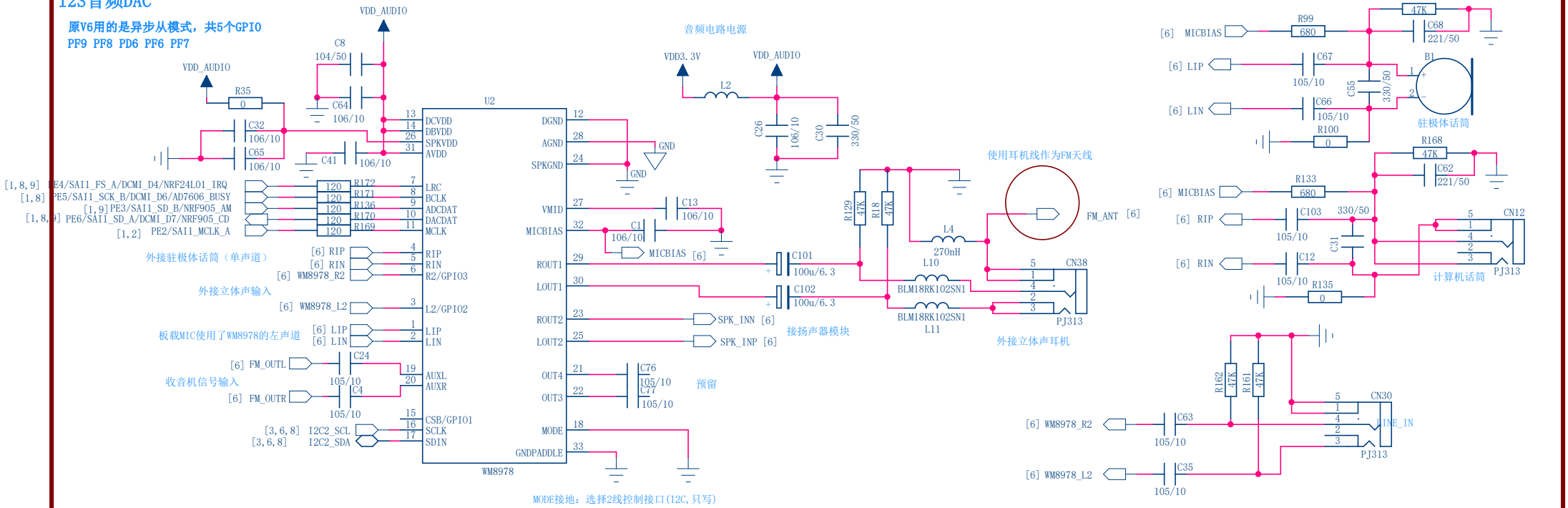
安富莱电子 www.armfly.com

TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)

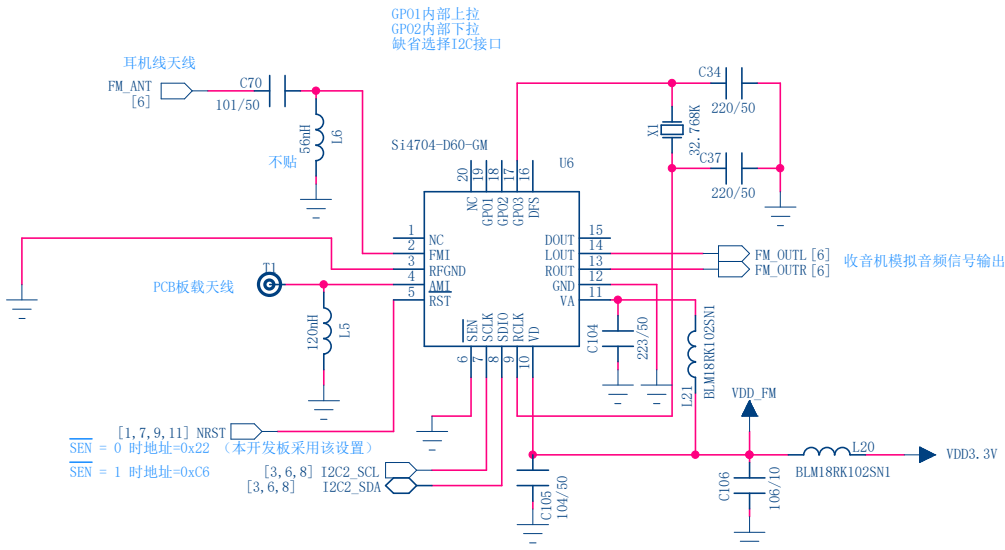
SIZE: A3 SHEET NAME: [5]KEY\_LED\_PS2\_IR REV: 1.0

DRAWN BY: armfly DATE: 2021-03-16 SHEET: 5 OF 11

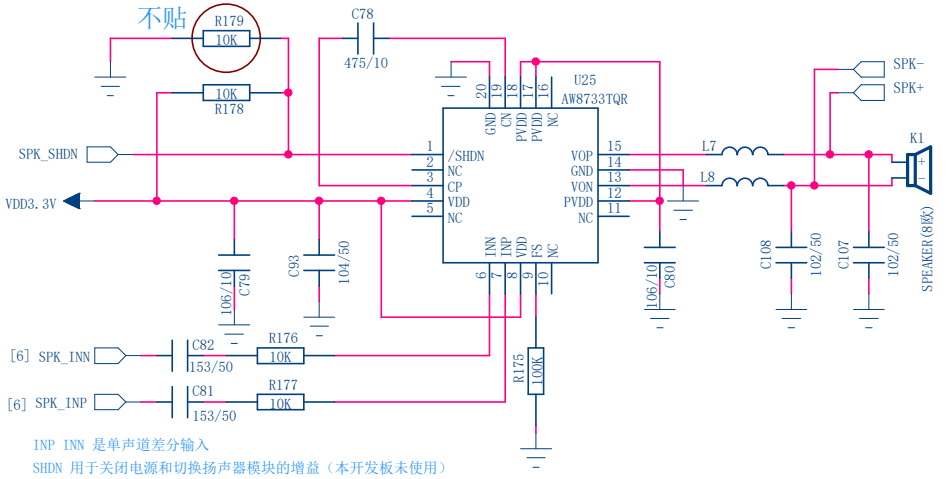
原V6用的是异步从模式，共5个GPIO  
PF9 PF8 PD6 PF6 PF7



## FM收音机模块



## AW8733功放模块排针接口



COMPANY:

安富莱电子 [www.armfly.com](http://www.armfly.com)

TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)

SIZE: A3

SHEET NAME:

[6]WM8978 FM SPK

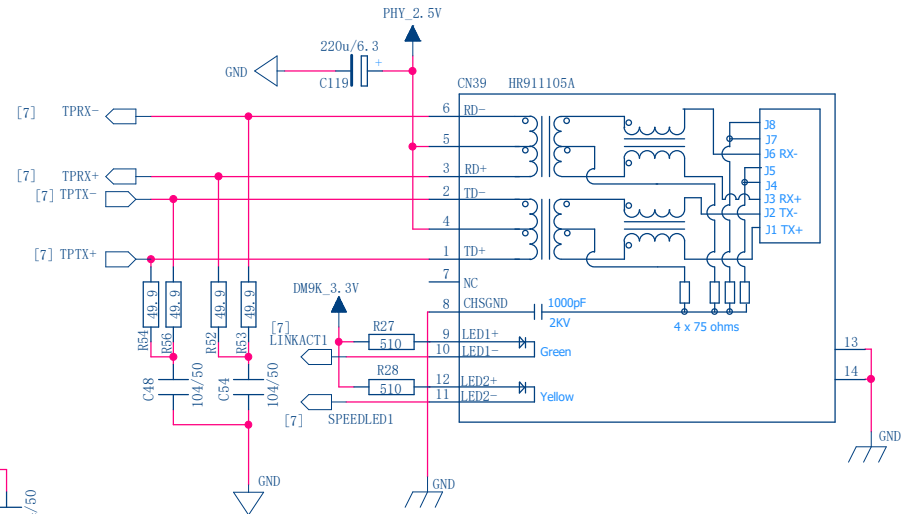
REV: 1.0

DRAWN BY: armfly

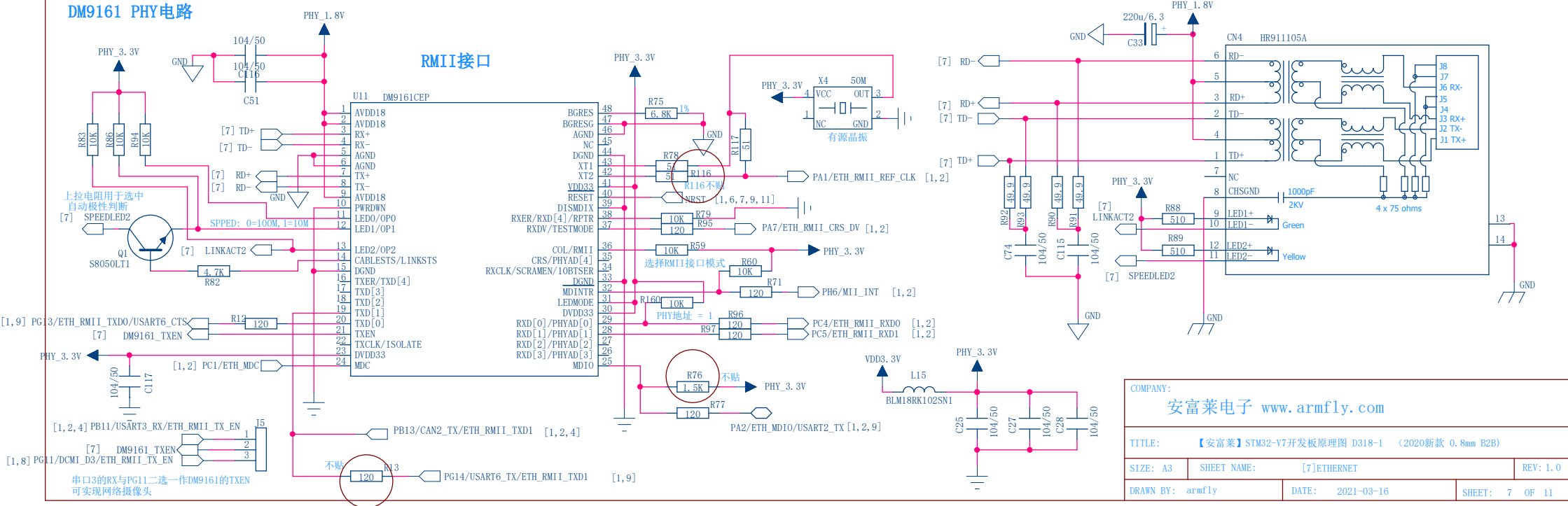
DATE: 2021-03-16

SHEET: 6 OF 11

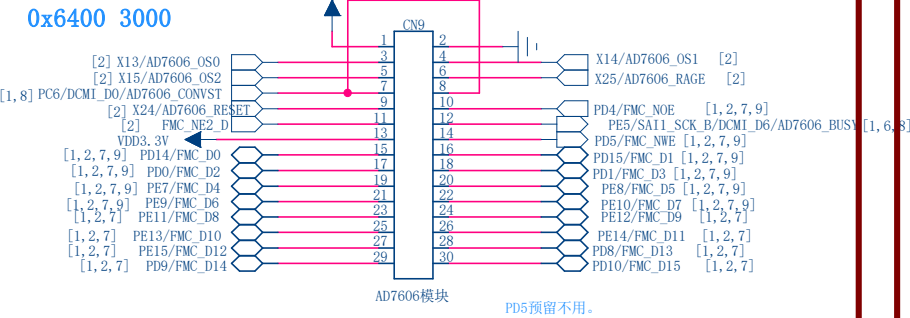
0x6400 2000



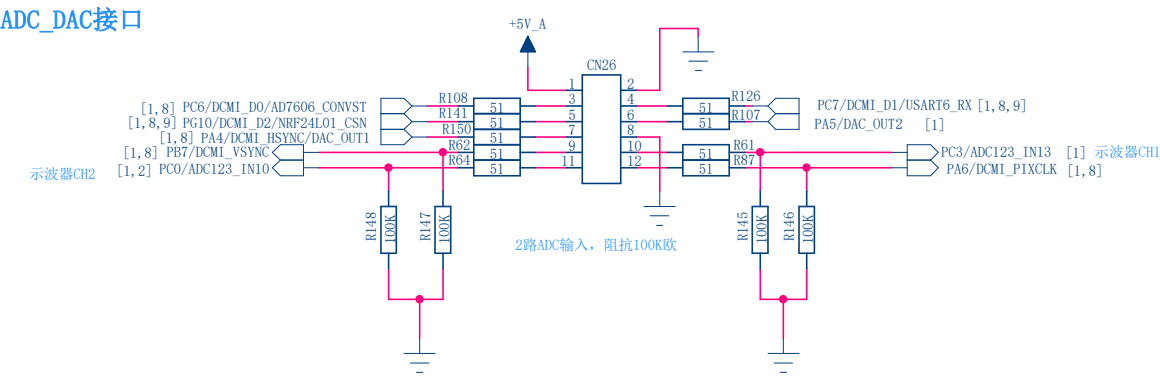
## RMII接口



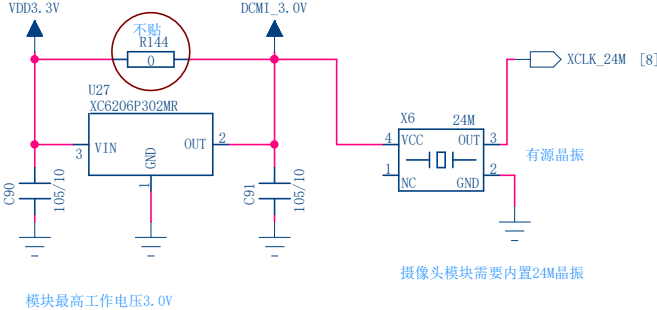
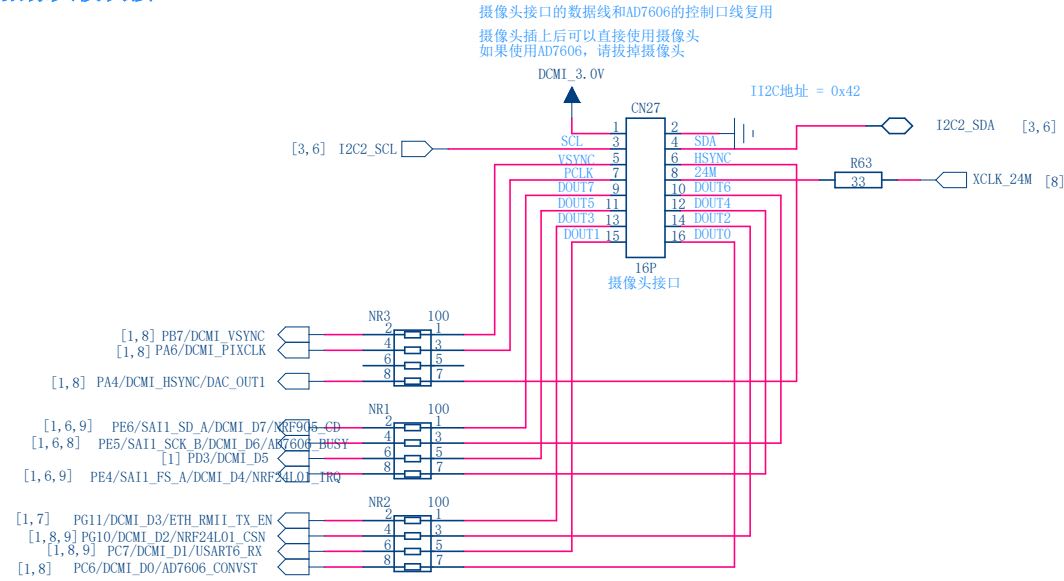
AD7606\_8通道16位ADC模块接口



ADC\_DAC接口

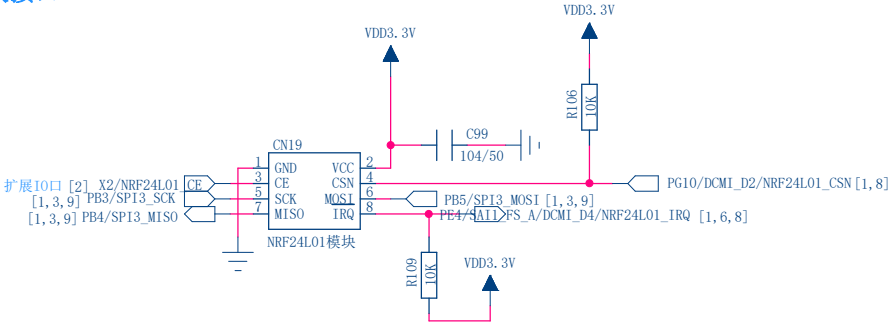


摄像头模块接口

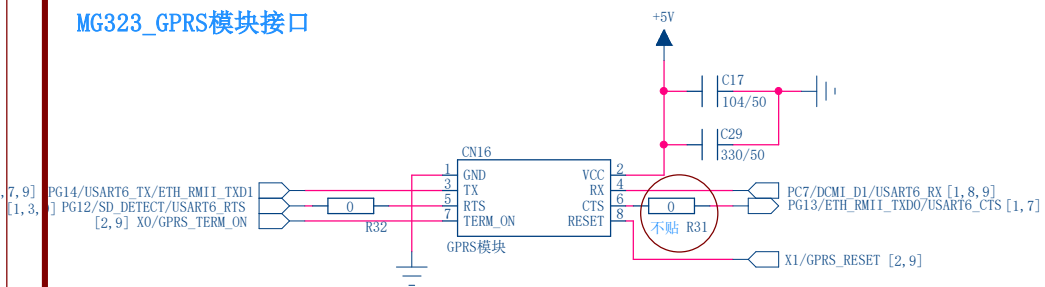




NRF24L01模块接口



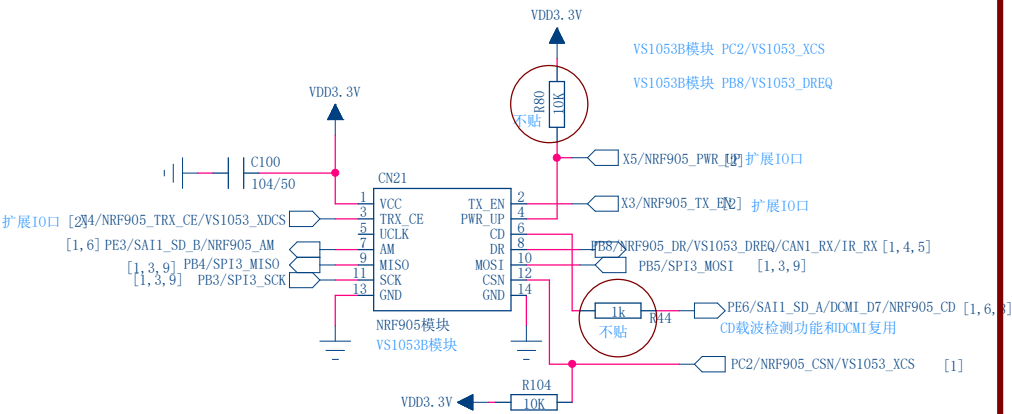
MG323\_GPRS模块接口



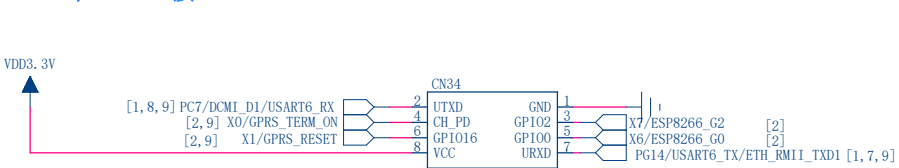
华为MG323\_GPRS模块供电电压范围：3.3V - 4.8V  
最大峰值电流 2A GPRS模式时平均电流 460mA

由于GPRS电源消耗功率接近USB口供电最大500mA的极限  
因此使用GPRS模块时，请使用外部电源供电

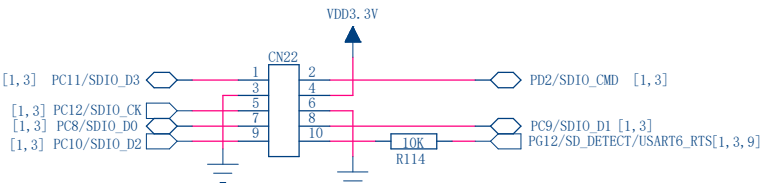
NRF905 通信模块接口



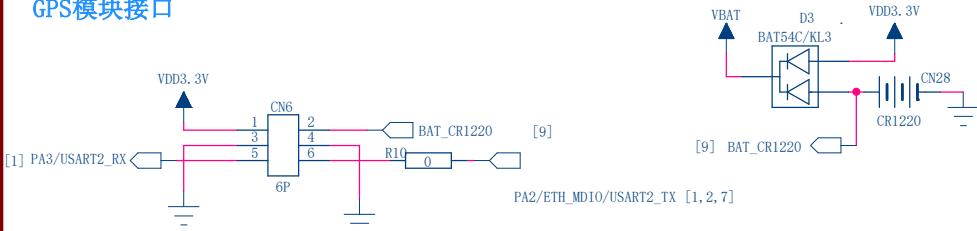
ESP8266串口WIFI接口



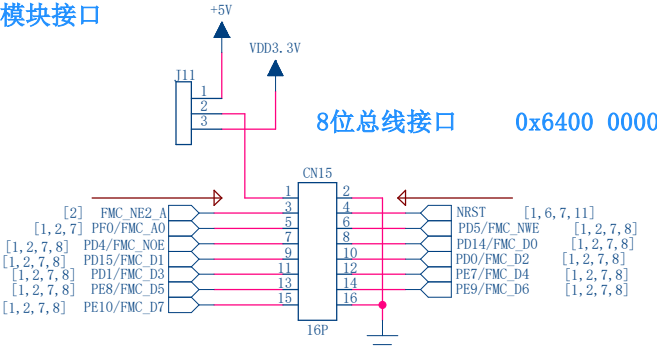
SDIO WIFI模块接口



GPS模块接口



OLED显示模块接口



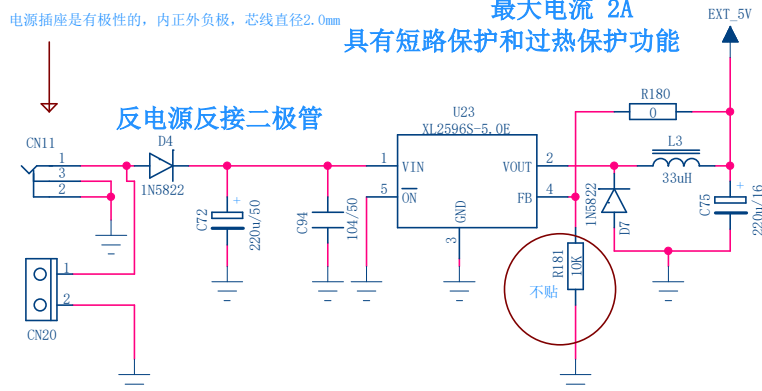
## 外部供电电源电路

输入电压范围：

输入电压范围：7~ 40V

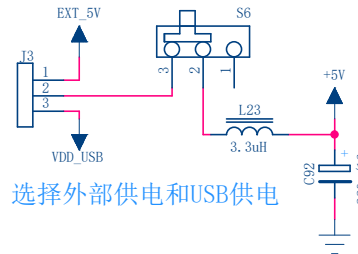
最大电流 2A

具有短路保护和过热保护功能



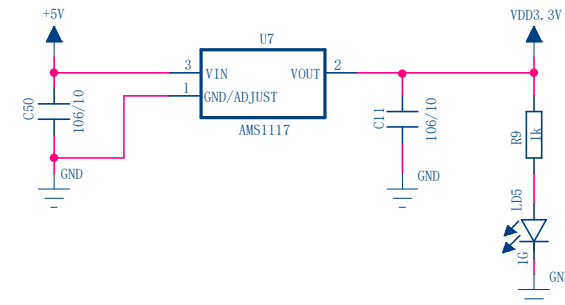
## 外部供电电源电路

电源开关

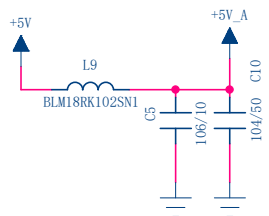


## 外部供电电源电路

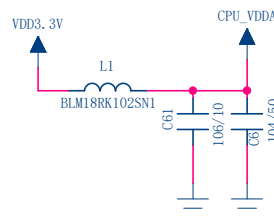
3.3V电源电路（提供给CPU和大部分外设）



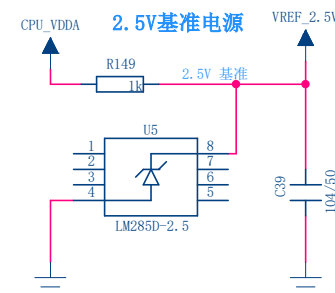
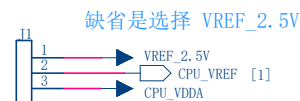
## ADC/DAC供电电源



## CPU内部模拟部分电源

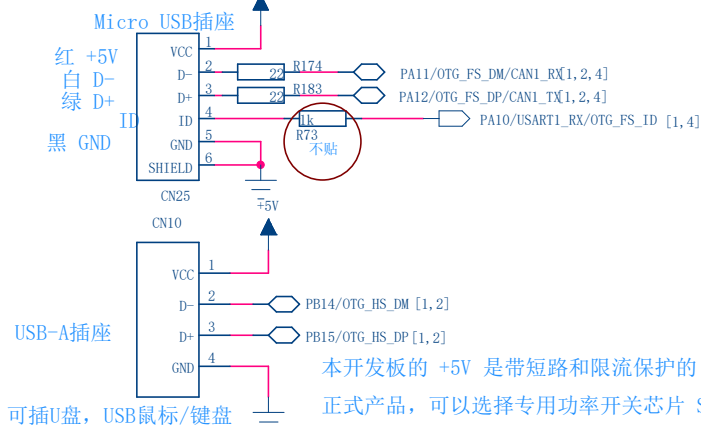


## 选择CPU内部ADC和DAC参考电压

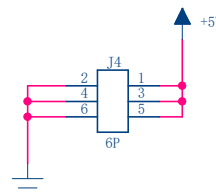


## USB HOST (USB 2.0 全速12Mbps)

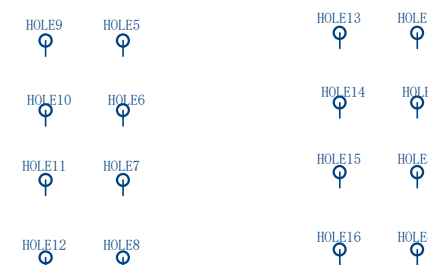
通过数据线连接到PC机



## 5V电压引出排针



## 安装孔



COMPANY:

安富莱电子 www.armfly.com

TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)

SIZE: A3

SHEET NAME: [10]POWER\_USB

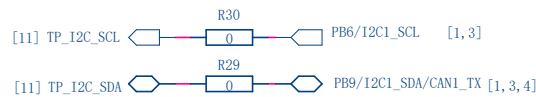
REV: 1.0

DRAWN BY: armfly

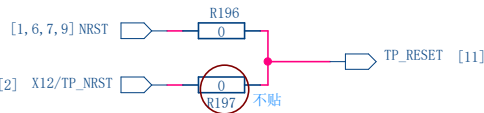
DATE: 2021-03-16

SHEET: 10 OF 11

电阻触摸板和电容触摸板控制接口I2C



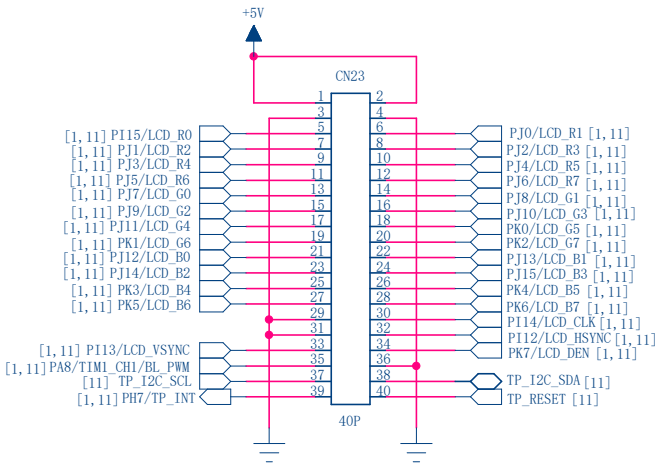
触摸IC复位信号



TFT LCD接口（24bit RGB）

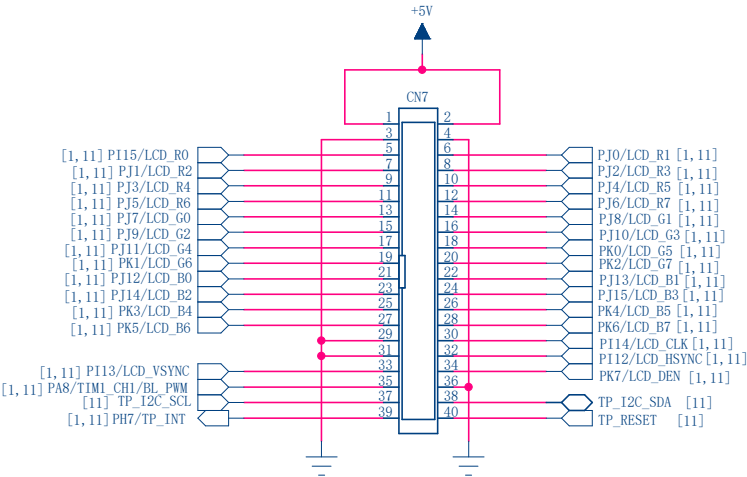
DC3-40P简易牛角插座2X20P（脚位与双排母左右镜像）

FMC地址：  
0x6C00 0000  
0x6C08 0000



TFT LCD接口（24bit RGB）

2\*20P加高2层双排母（2.54mm间距）



COMPANY:

安富莱电子 www.armfly.com

TITLE: 【安富莱】STM32-V7开发板原理图 D318-1 (2020新款 0.8mm B2B)

SIZE: A3 SHEET NAME: [11]LCD REV: 1.0

DRAWN BY: armfly DATE: 2021-03-16 SHEET: 11 OF 11