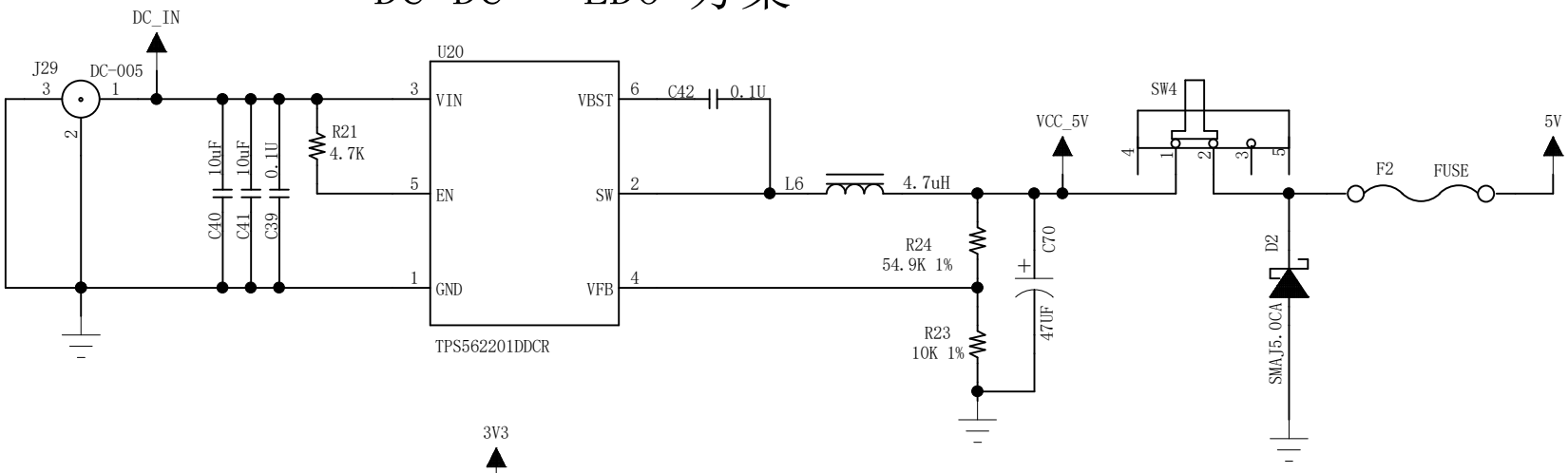
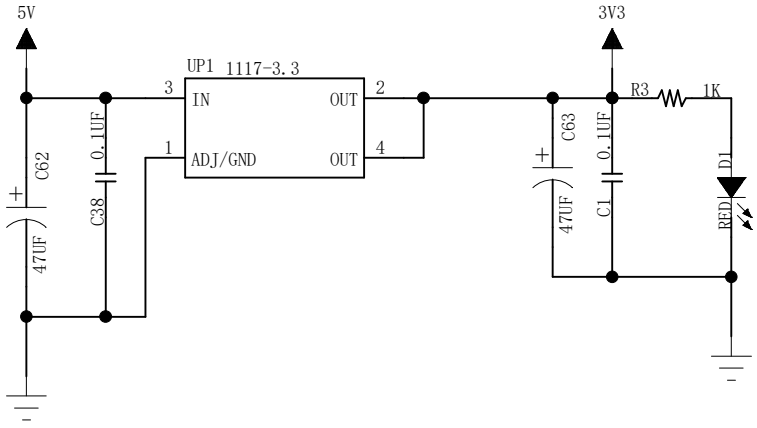
电源供电

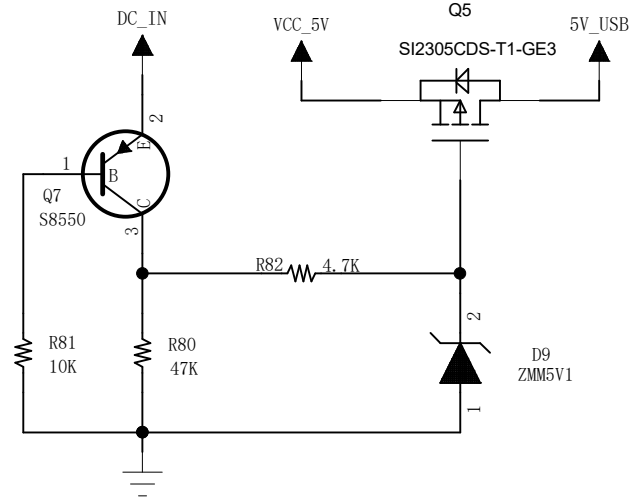
DI_IN：6-12V

DC DC + LDO 方案



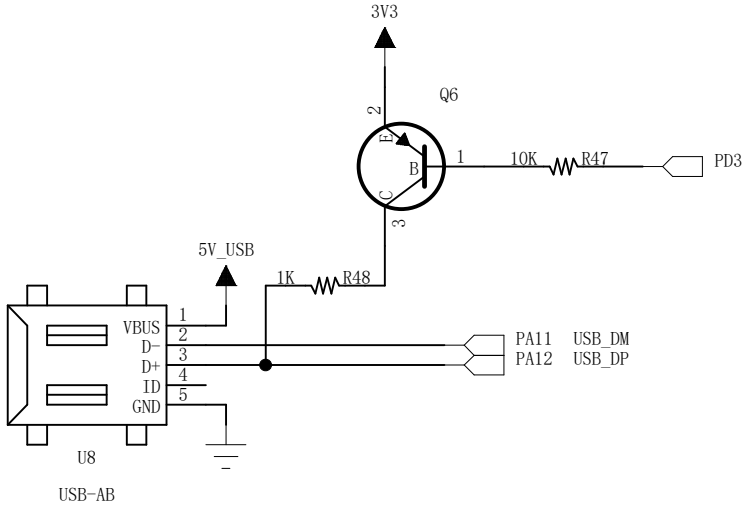


3V3输出



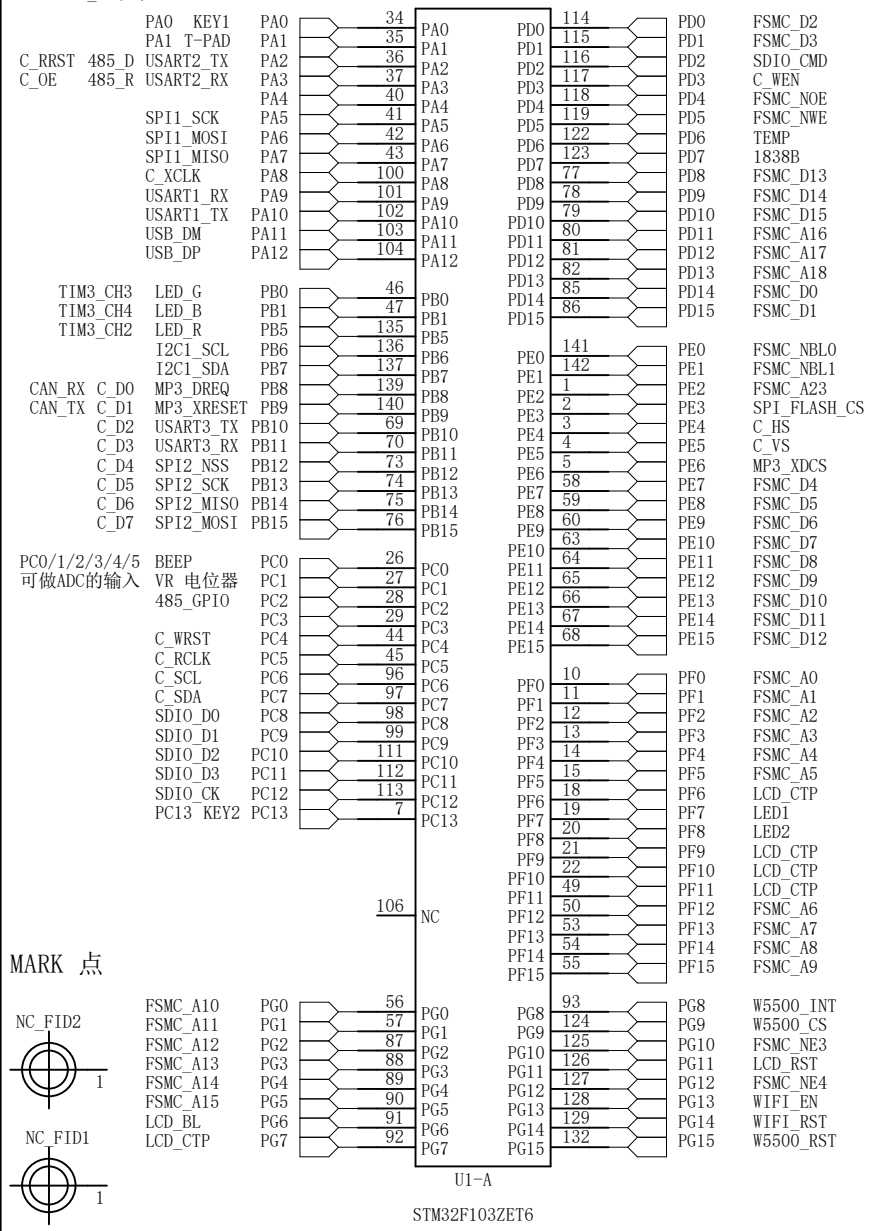
外部电源供电时断开USB供电，防止灌电流，保护电脑USB口

USB-Device



MCU_GPIO_A

C_：表示Camera

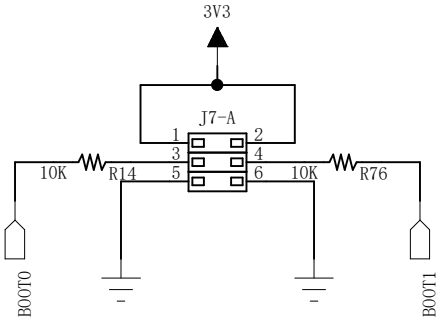


MARK 点

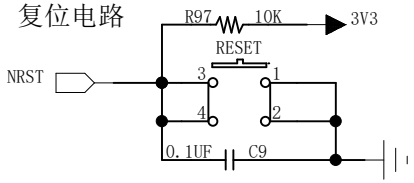
BOOT设置

BOOT0	BOOT1	启动方式
0	X	内部FLASH
1	0	系统存储器/ISP模式
1	1	内部SRAM

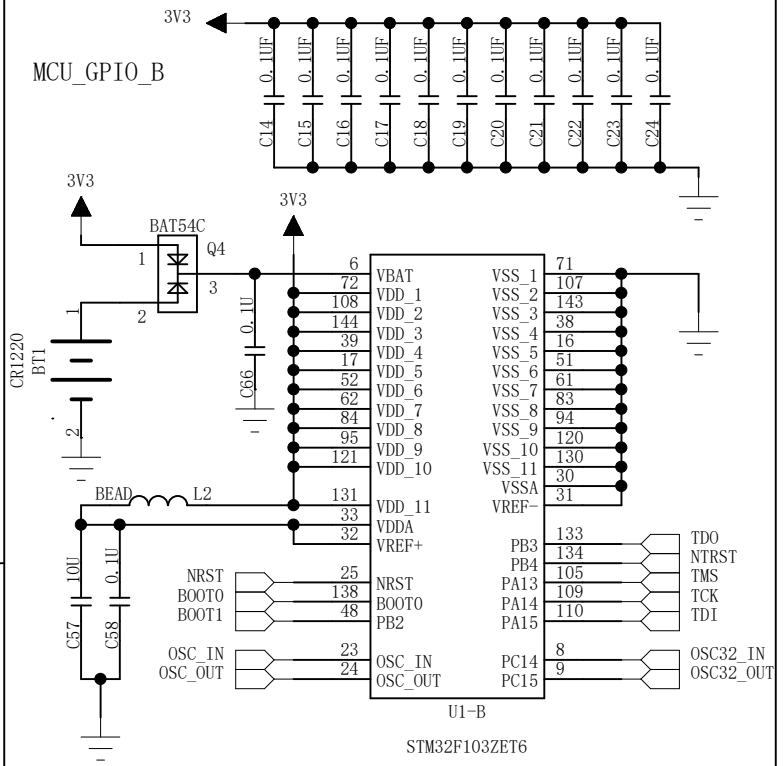
默认配置是内部FLASH，BOOT0&1接地



复位电路

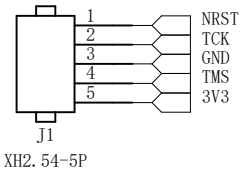


MCU_GPIO_B

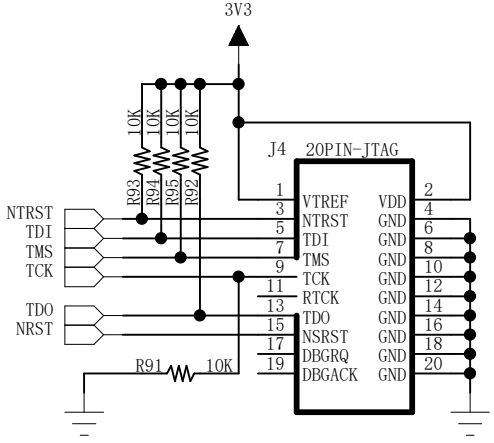


JTAG下载接口

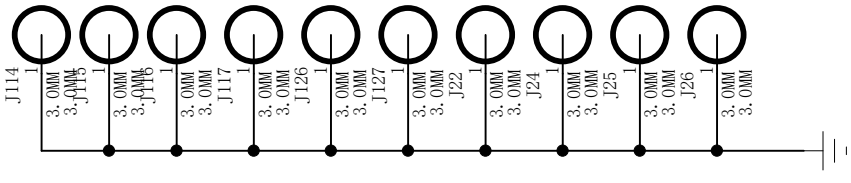
NRST可接可不接



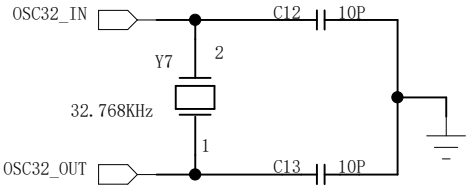
3V3可对目标板供电

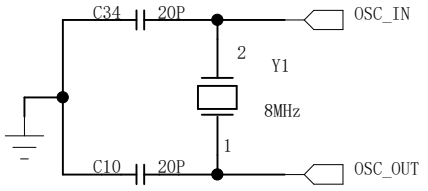


3M 螺丝孔

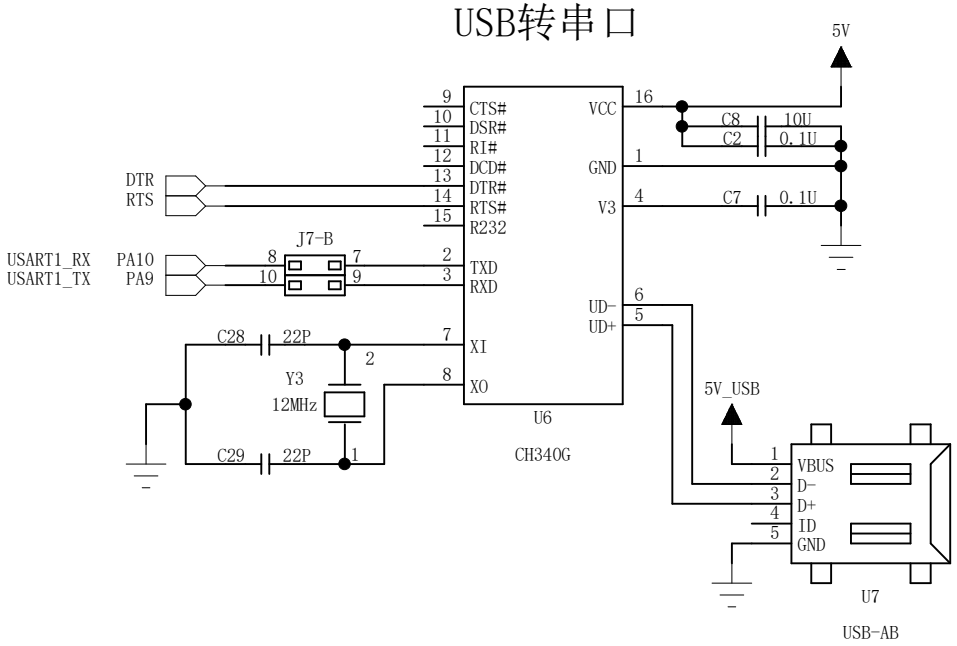


晶振电路

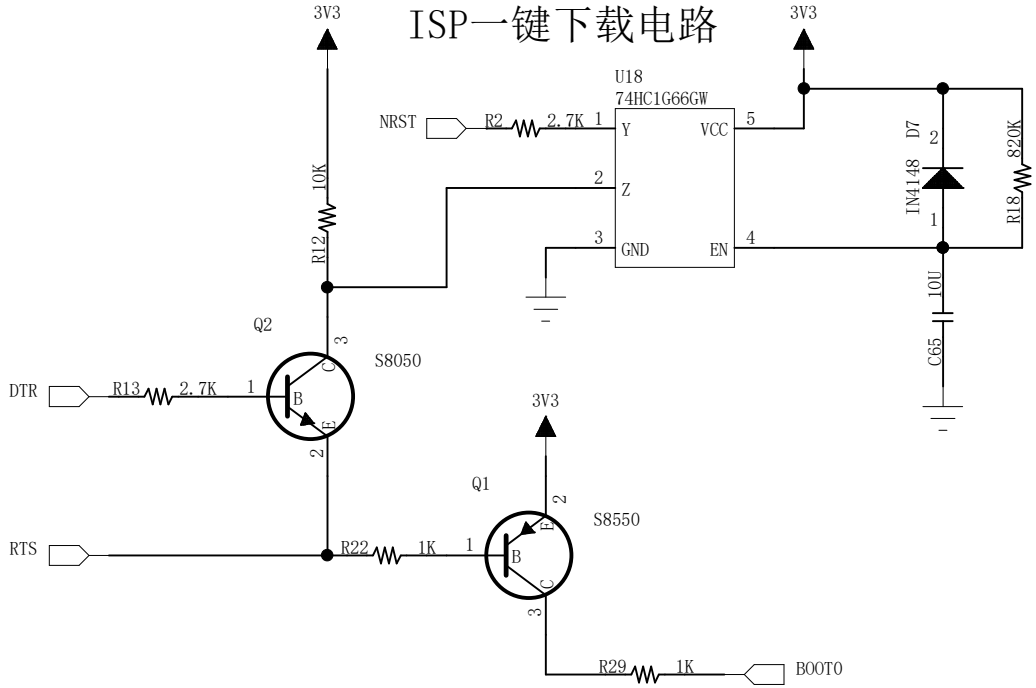




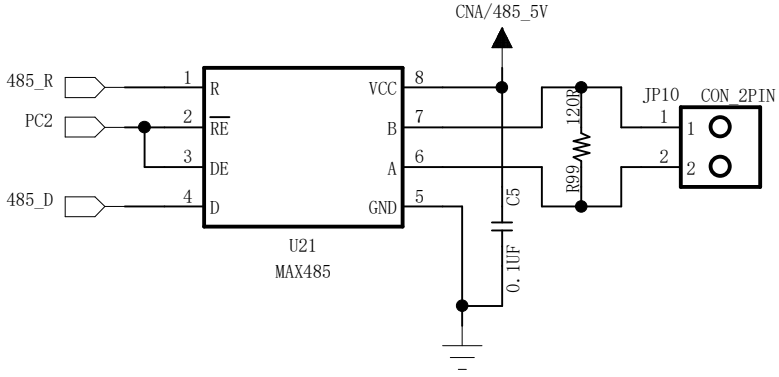
USB转串口

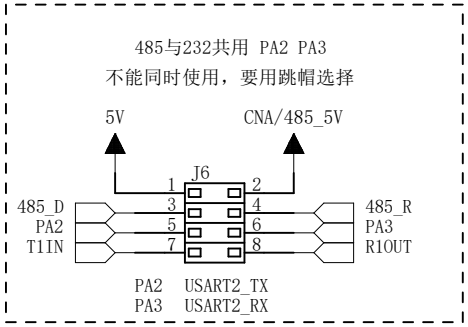


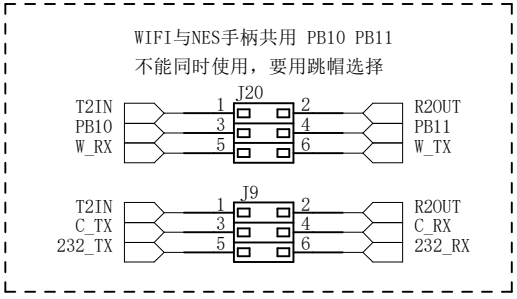
ISP一键下载电路

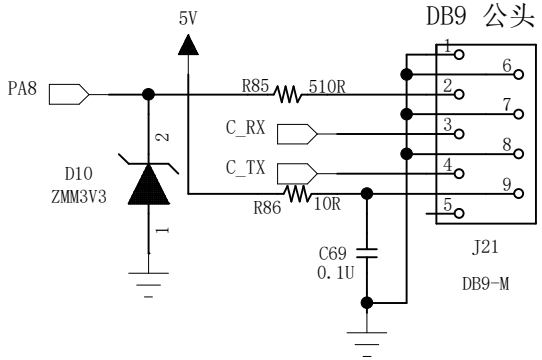


485

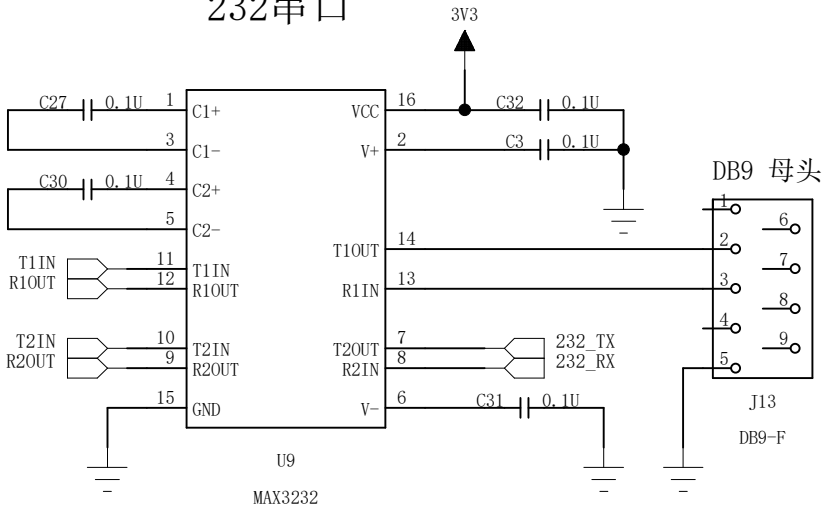


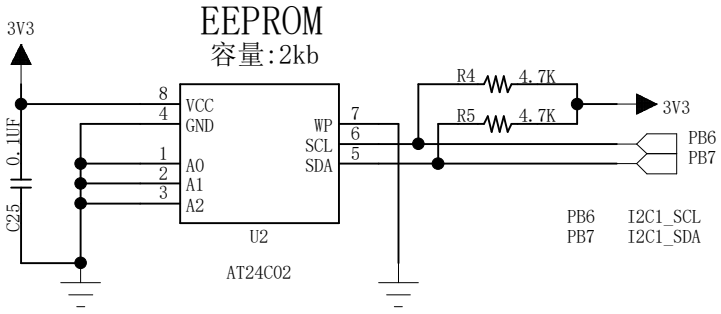


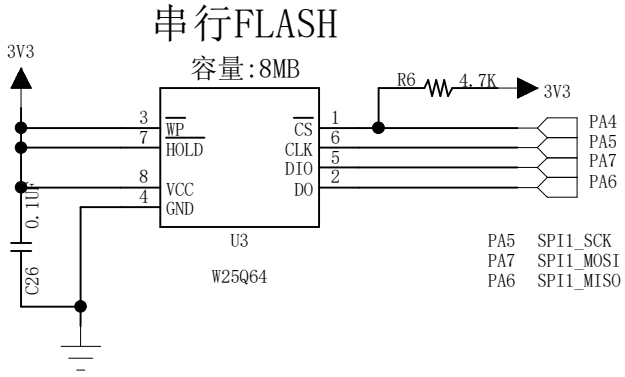


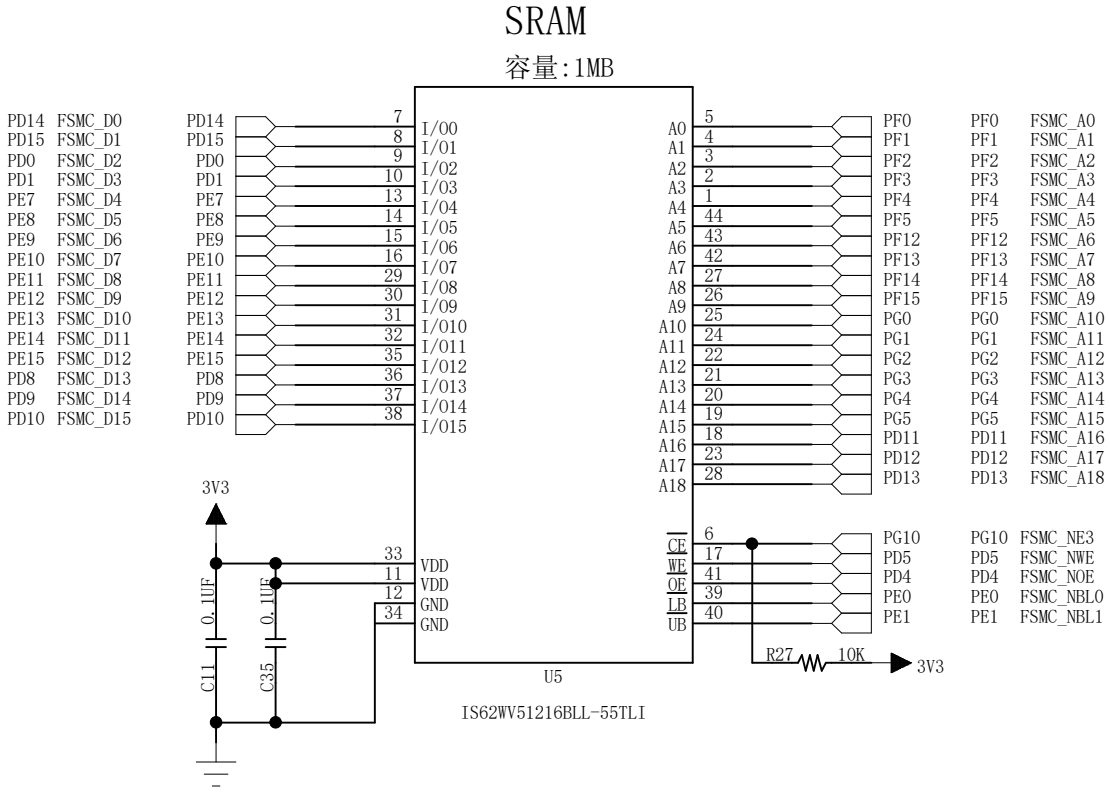


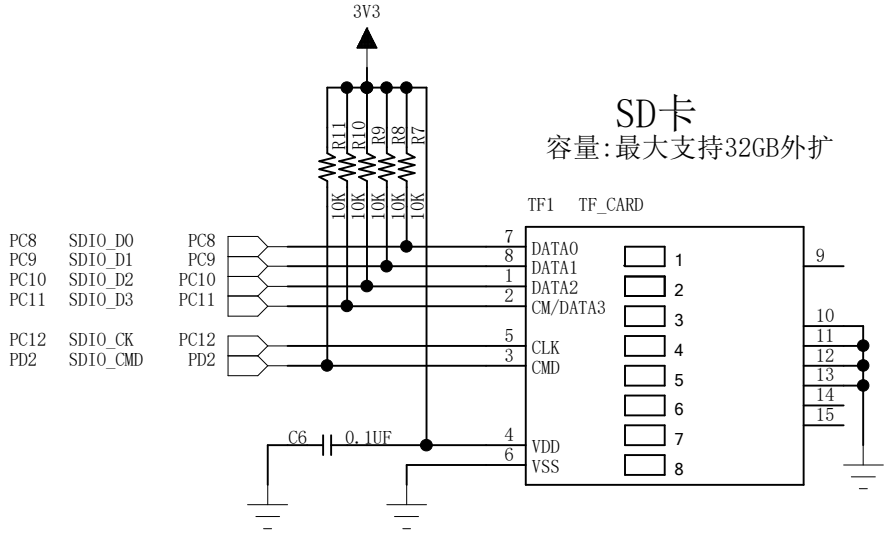
232串口



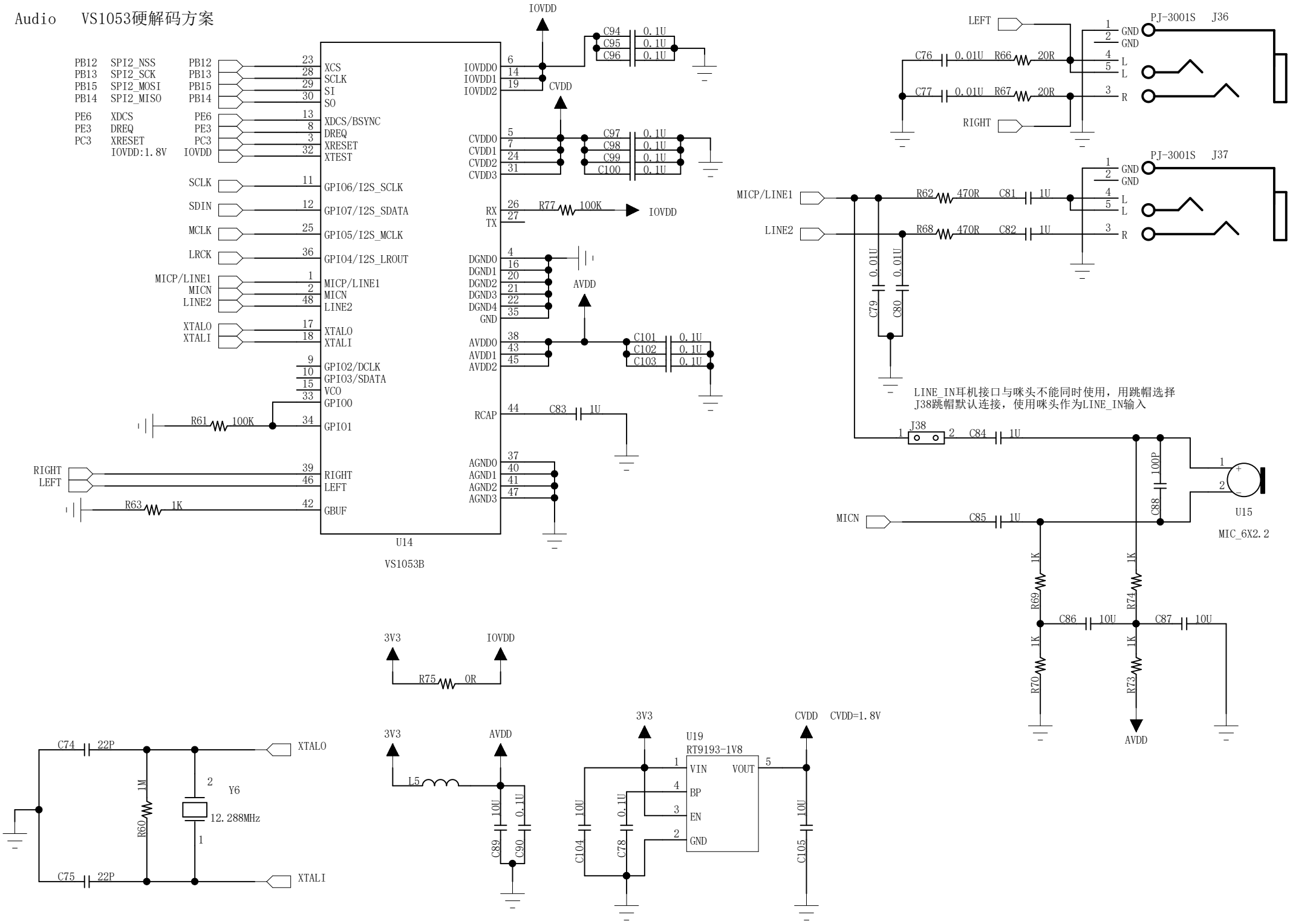

EEPROM
容量:2kb
3V3
C25
0.1UF
VCC
GND
A0
A1
A2
WP
SCL
SDA
U2
AT24C02
R4 4.7K
R5 4.7K
3V3
PB6
PB7
PB6 I2C1_SCL
PB7 I2C1_SDA


串行FLASH
容量:8MB
3V3
C26
0.1UF
WP
HOLD
VCC
GND
CS
CLK
DIO
DO
U3
W25Q64
R6 4.7K
3V3
PA4
PA5
PA7
PA6
PA5 SPI1_SCK
PA7 SPI1_MOSI
PA6 SPI1_MISO

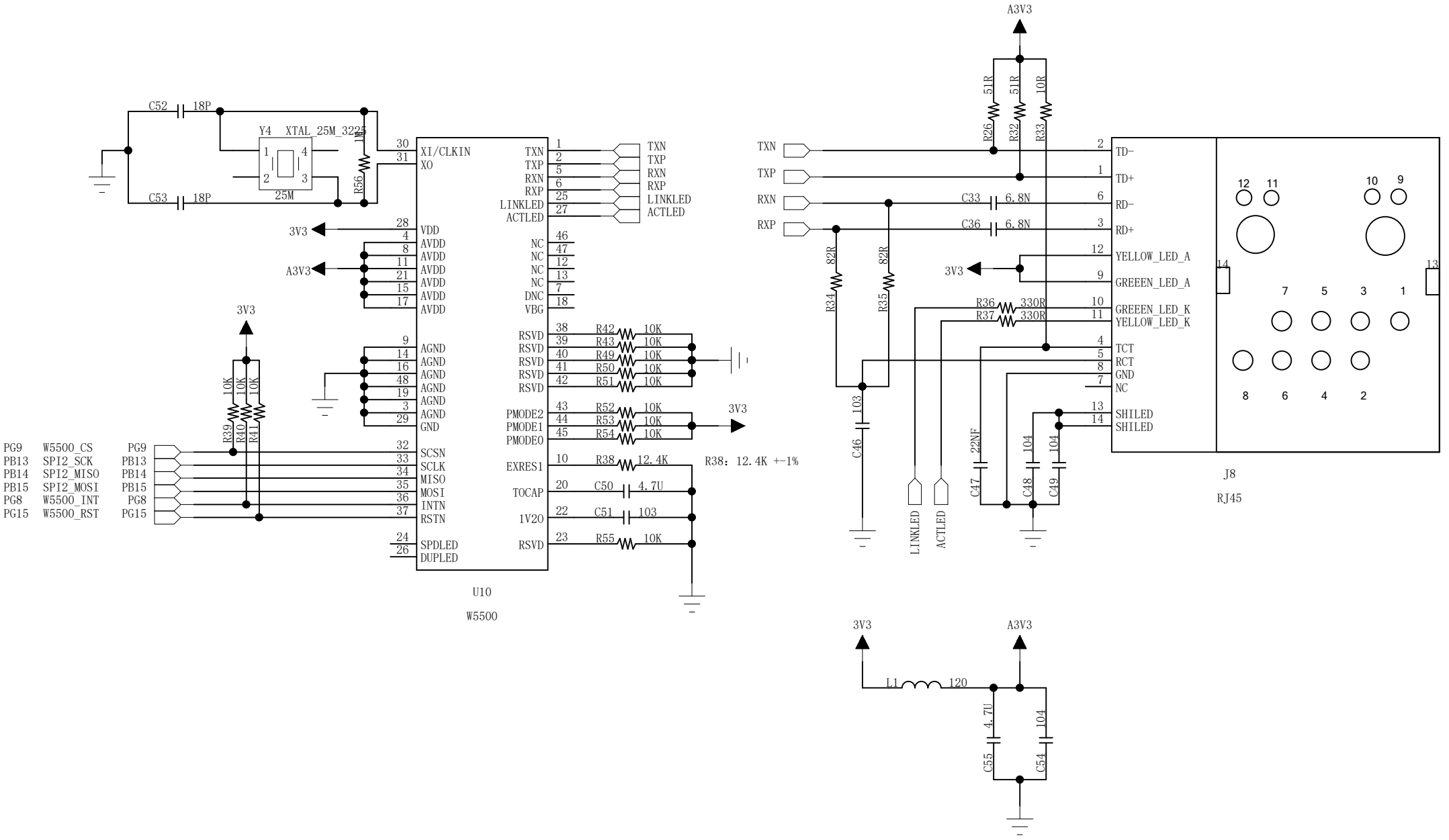

SRAM
容量:1MB
PD14 FSMC_D0
PD15 FSMC_D1
PD0 FSMC_D2
PD1 FSMC_D3
PE7 FSMC_D4
PE8 FSMC_D5
PE9 FSMC_D6
PE10 FSMC_D7
PE11 FSMC_D8
PE12 FSMC_D9
PE13 FSMC_D10
PE14 FSMC_D11
PE15 FSMC_D12
PD8 FSMC_D13
PD9 FSMC_D14
PD10 FSMC_D15
I/00
I/01
I/02
I/03
I/04
I/05
I/06
I/07
I/08
I/09
I/010
I/011
I/012
I/013
I/014
I/015
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
PF0 PF0 FSMC_A0
PF1 PF1 FSMC_A1
PF2 PF2 FSMC_A2
PF3 PF3 FSMC_A3
PF4 PF4 FSMC_A4
PF5 PF5 FSMC_A5
PF12 PF12 FSMC_A6
PF13 PF13 FSMC_A7
PF14 PF14 FSMC_A8
PF15 PF15 FSMC_A9
PG0 PG0 FSMC_A10
PG1 PG1 FSMC_A11
PG2 PG2 FSMC_A12
PG3 PG3 FSMC_A13
PG4 PG4 FSMC_A14
PG5 PG5 FSMC_A15
PD11 PD11 FSMC_A16
PD12 PD12 FSMC_A17
PD13 PD13 FSMC_A18
3V3
C11
C35
0.1UF
VDD
VDD
GND
GND
CE
WE
OE
LB
UB
PG10 PG10 FSMC_NE3
PD5 PD5 FSMC_NWE
PD4 PD4 FSMC_NOE
PE0 PE0 FSMC_NBL0
PE1 PE1 FSMC_NBL1
R27 10K
3V3
U5
IS62WV51216BLL-55TLI


SD卡
容量:最大支持32GB外扩
3V3
R11
R10
R9
R8
R7
10K
TF1 TF_CARD
PC8 SDIO_D0
PC9 SDIO_D1
PC10 SDIO_D2
PC11 SDIO_D3
PC12 SDIO_CK
PD2 SDIO_CMD
DATA0
DATA1
DATA2
CM/DATA3
CLK
CMD
VDD
VSS
C6
0.1UF

Audio　VS1053硬解码方案



以太网　　W5500方案　　集成硬件TCP/IP协议栈

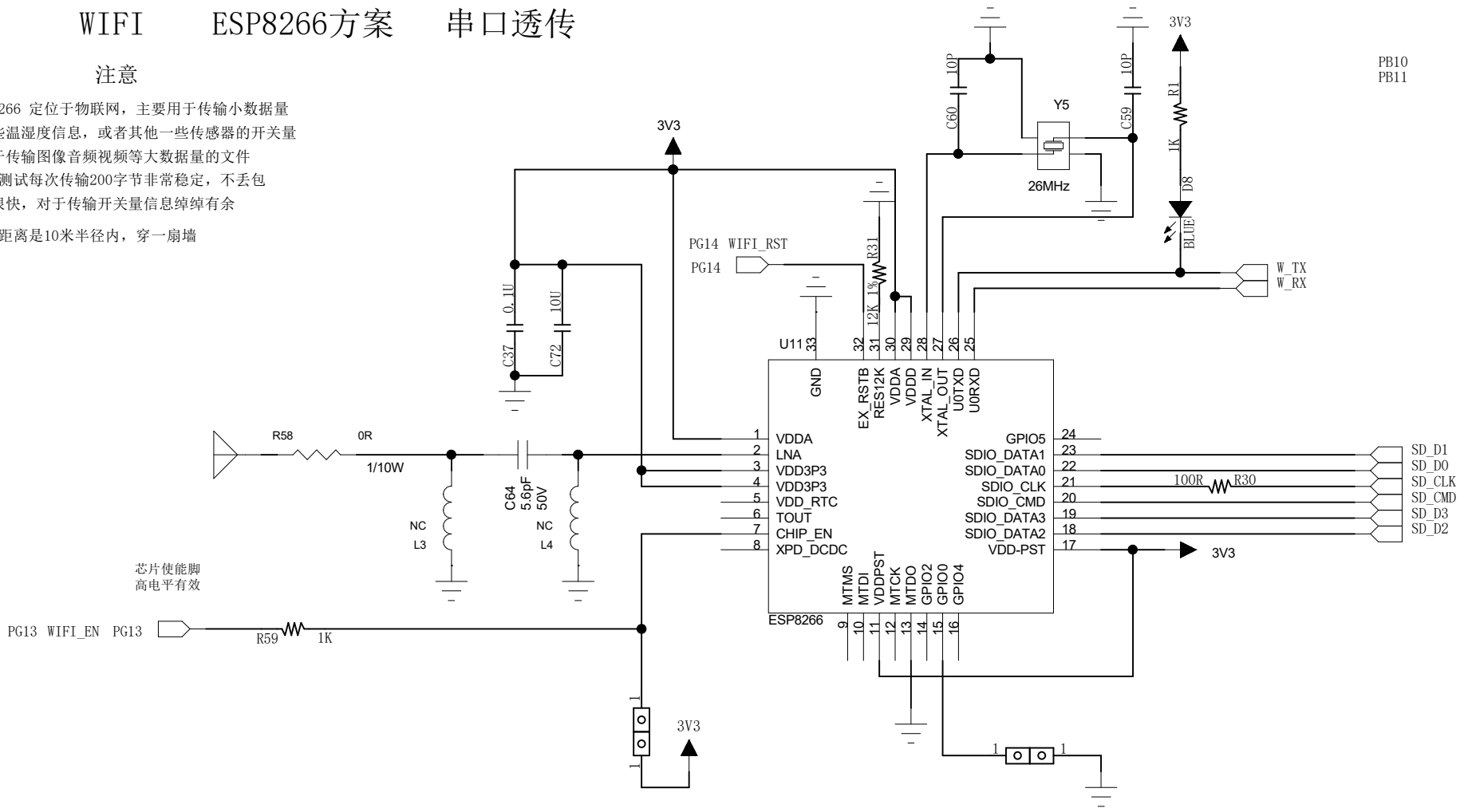


WIFI　　ESP8266方案　　串口透传

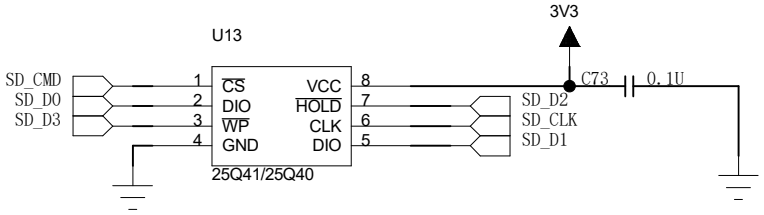
注意

1、ESP8266 定位于物联网，主要用于传输小数据量
比如一些温湿度信息，或者其他一些传感器的开关量
不能用于传输图像音频视频等大数据量的文件
2、我们测试每次传输200字节非常稳定，不丢包
速度也很快，对于传输开关量信息绰绰有余

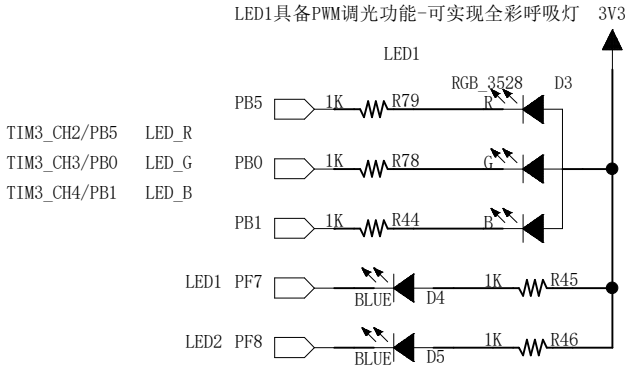
3、测试距离是10米半径内，穿一扇墙



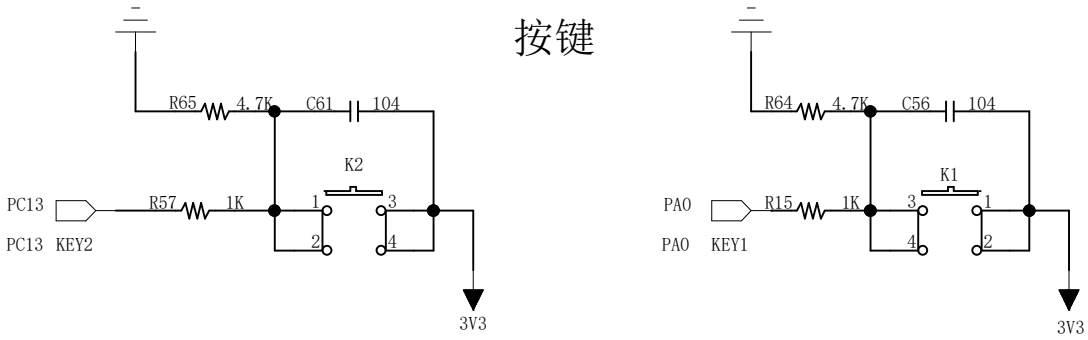
ESP8266 IO	STM32 IO	
URXD	PB10	USART3_TX
UTXD	PB11	USART3_RX
CH-PD	PG13	
RST	PG14	



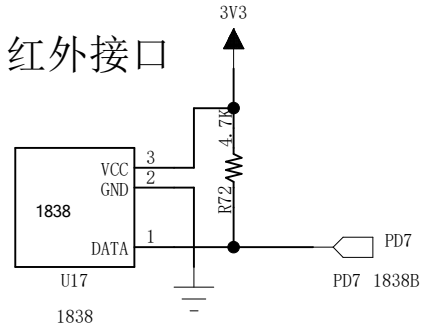
LED



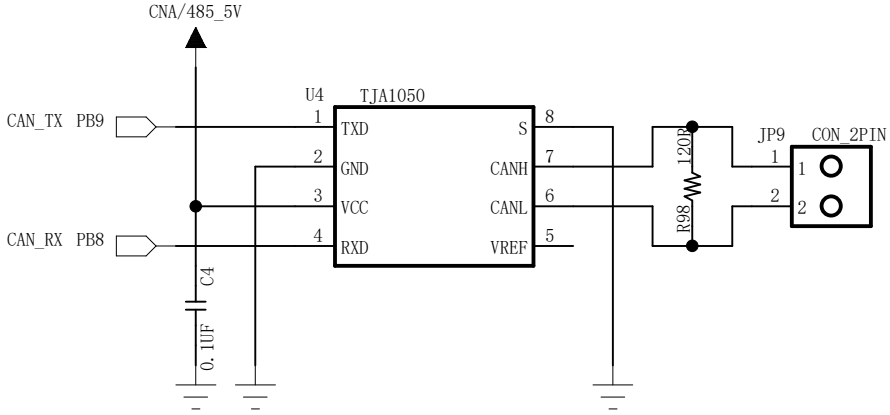
按键



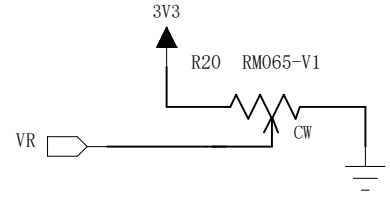
红外接口



CAN



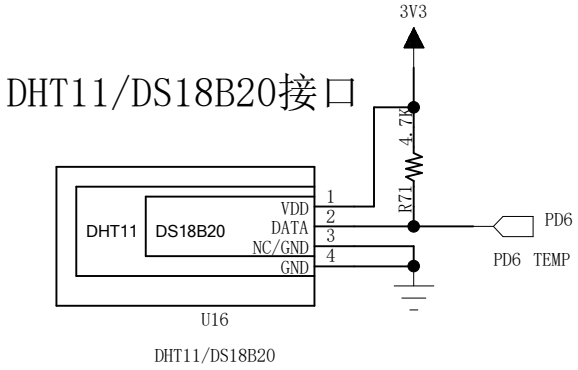
ADC/DAC

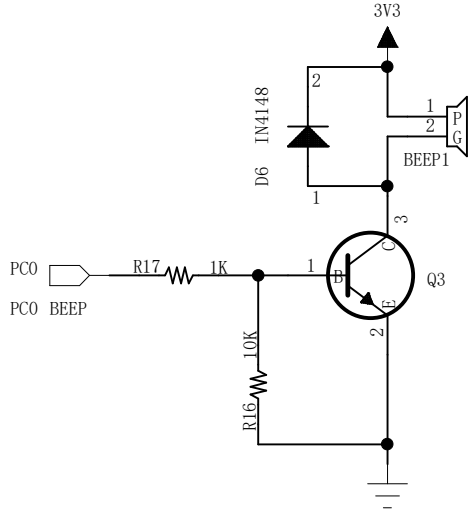


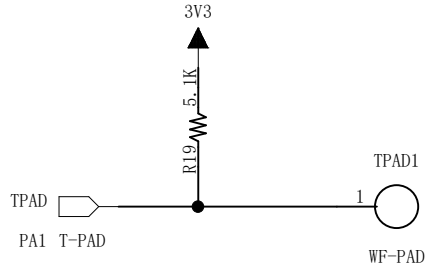
贴片滑动变阻器

J16跳帽接上，PC1接到电位器

DHT11/DS18B20接口

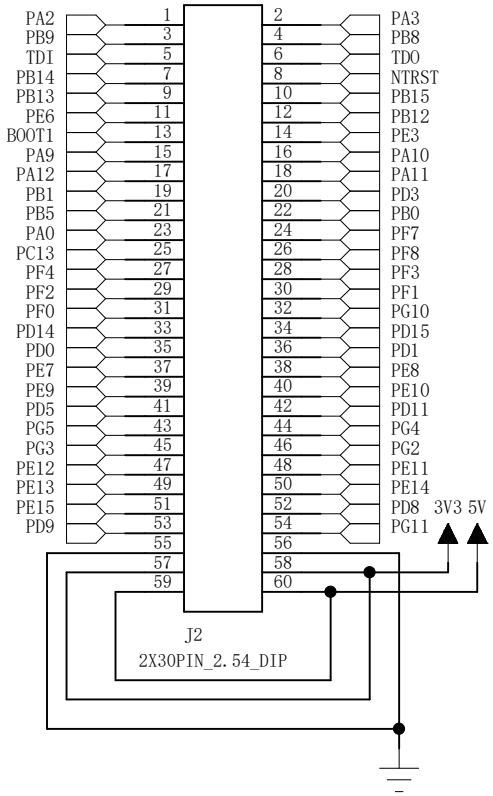


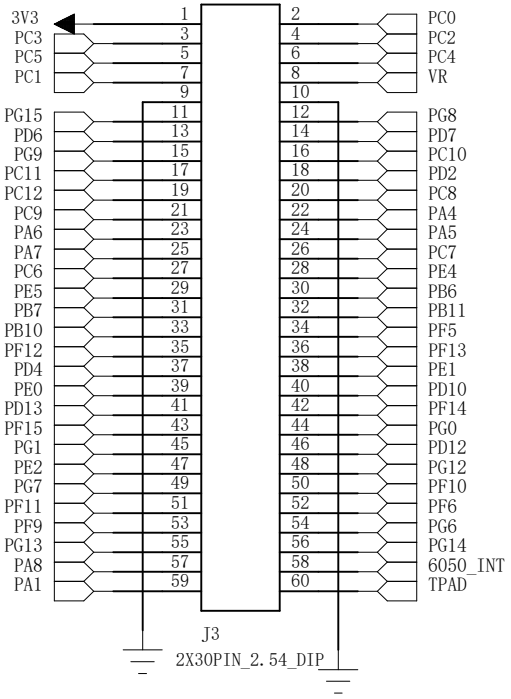


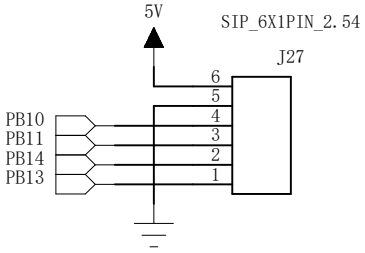


电容按键

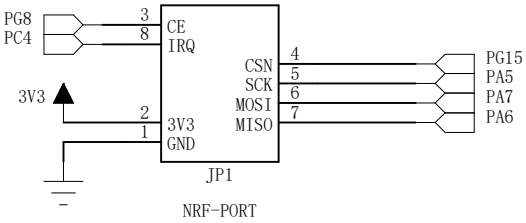
程序上用的是ADC的捕获功能



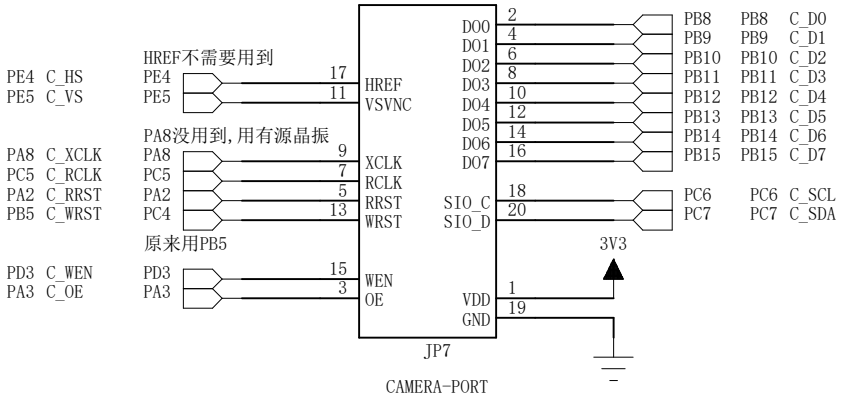




NRF24L01接口

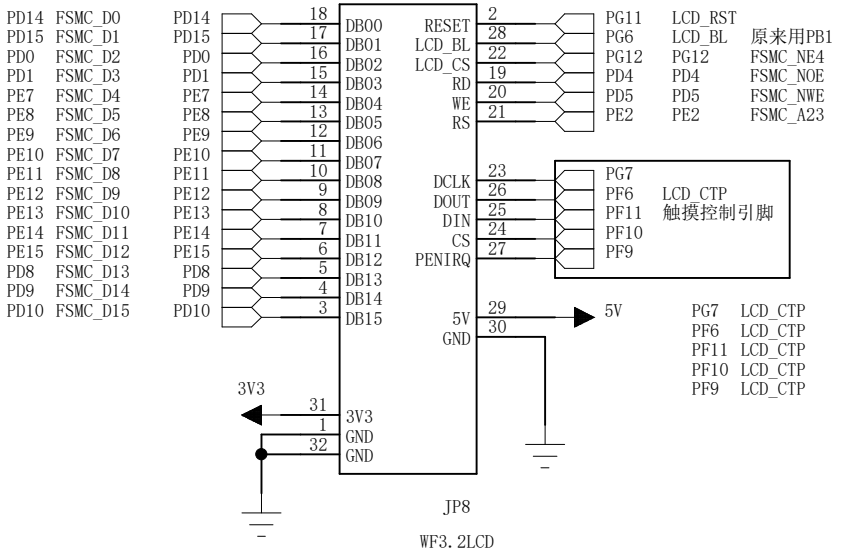


摄像头接口

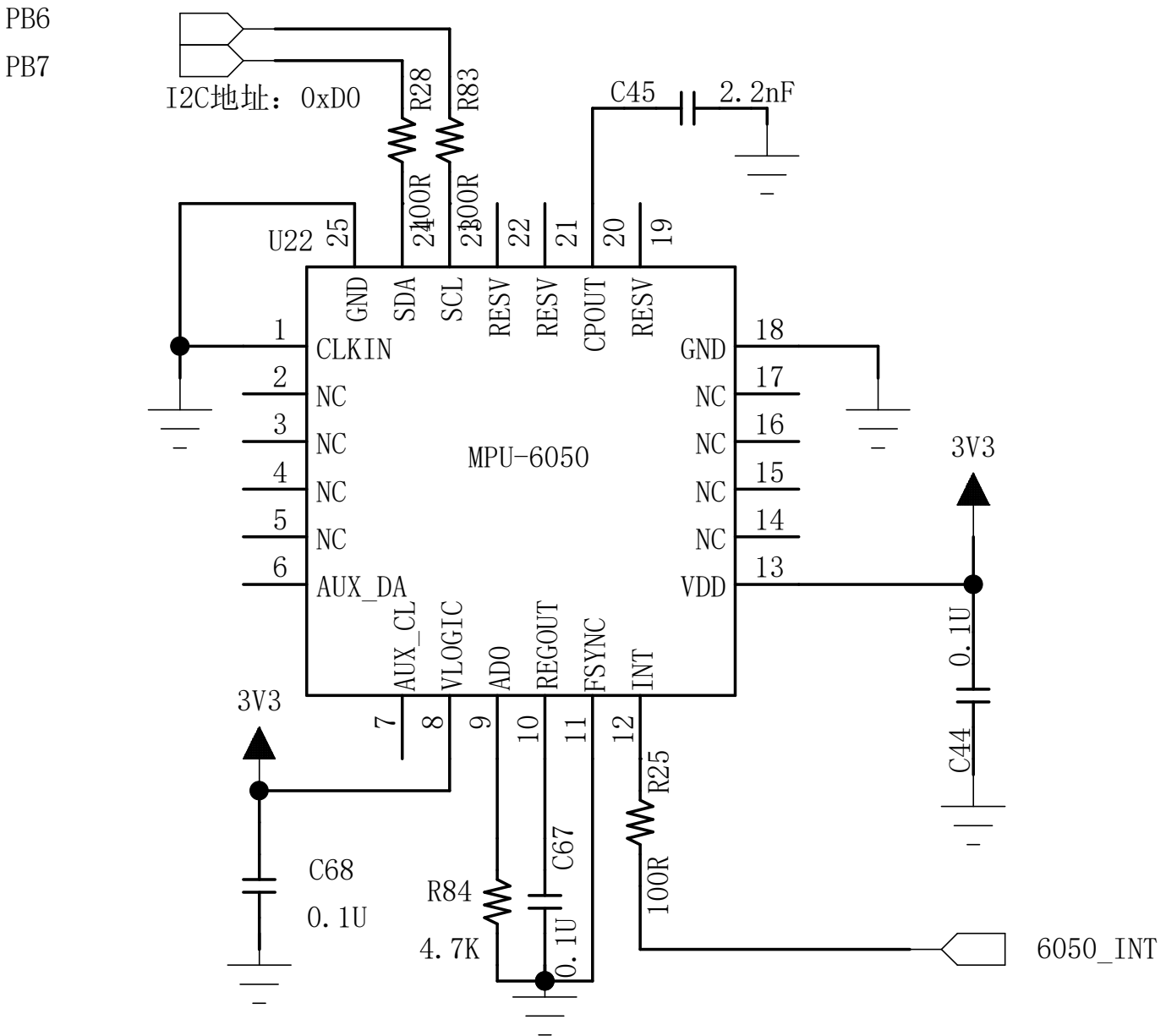


液晶接口

支持3.2寸/5寸液晶



六轴传感器


PB6
PB7
I2C地址：0xD0
R28
R83
400R
300R
C45
2.2nF
U22
25
24
23
22
21
20
19
GND
SDA
SCL
RESV
RESV
CPOUT
RESV
1
CLKIN
2
NC
3
NC
4
NC
5
NC
6
AUX_DA
18
GND
17
NC
16
NC
15
NC
14
NC
13
VDD
MPU-6050
AUX_CL
VLOGIC
AD0
REGOUT
FSYNC
INT
7
8
9
10
11
12
3V3
3V3
0.1U
C44
C68
0.1U
R84
4.7K
C67
0.1U
R25
100R
6050_INT