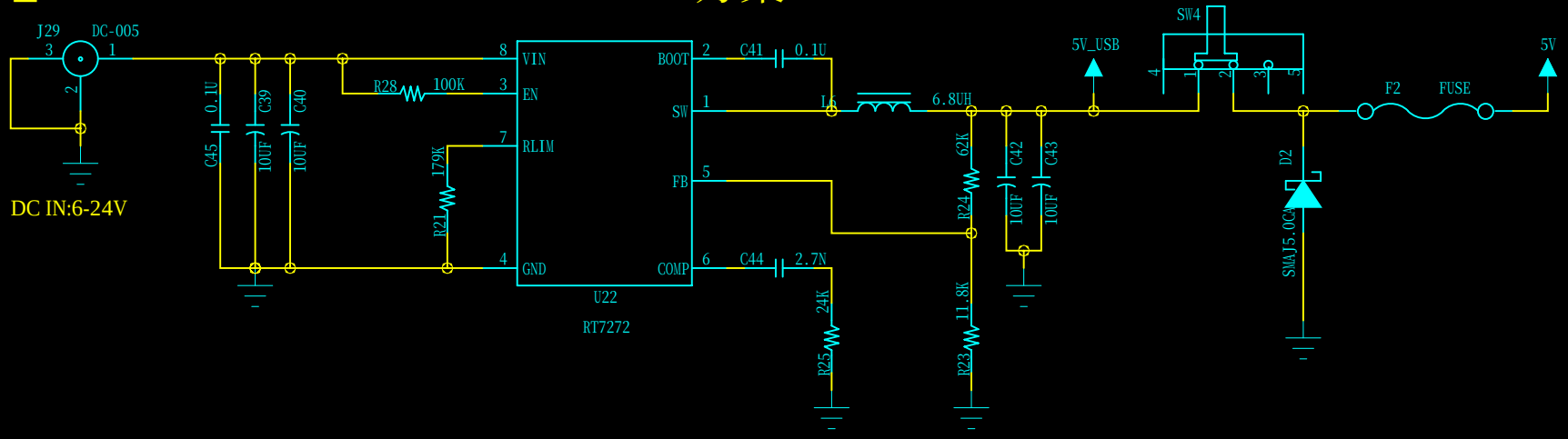
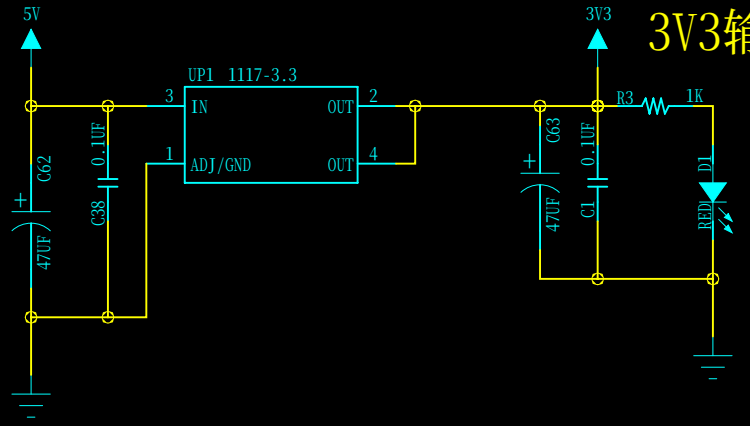
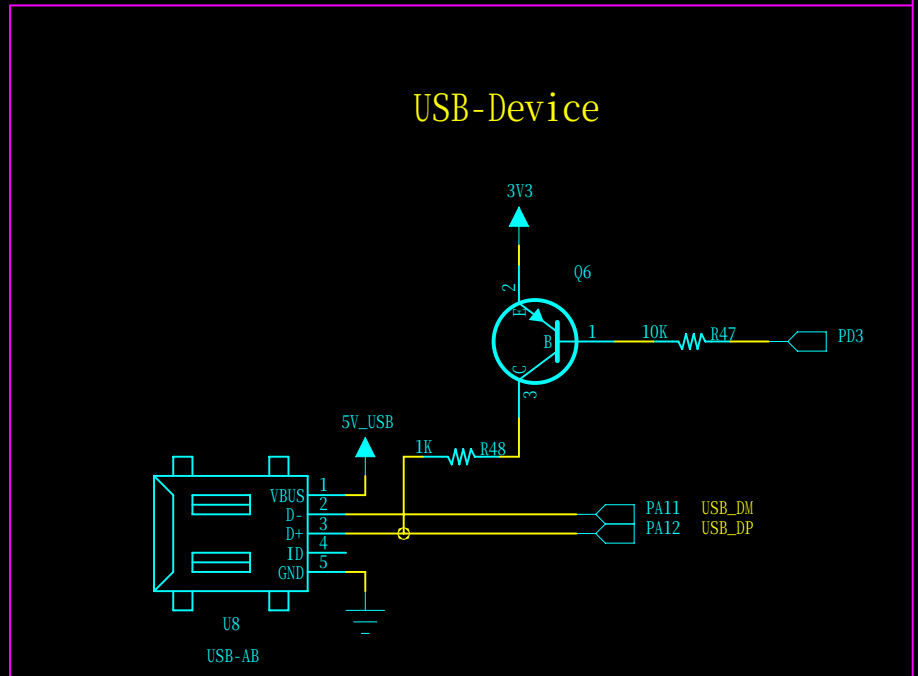
电源供电

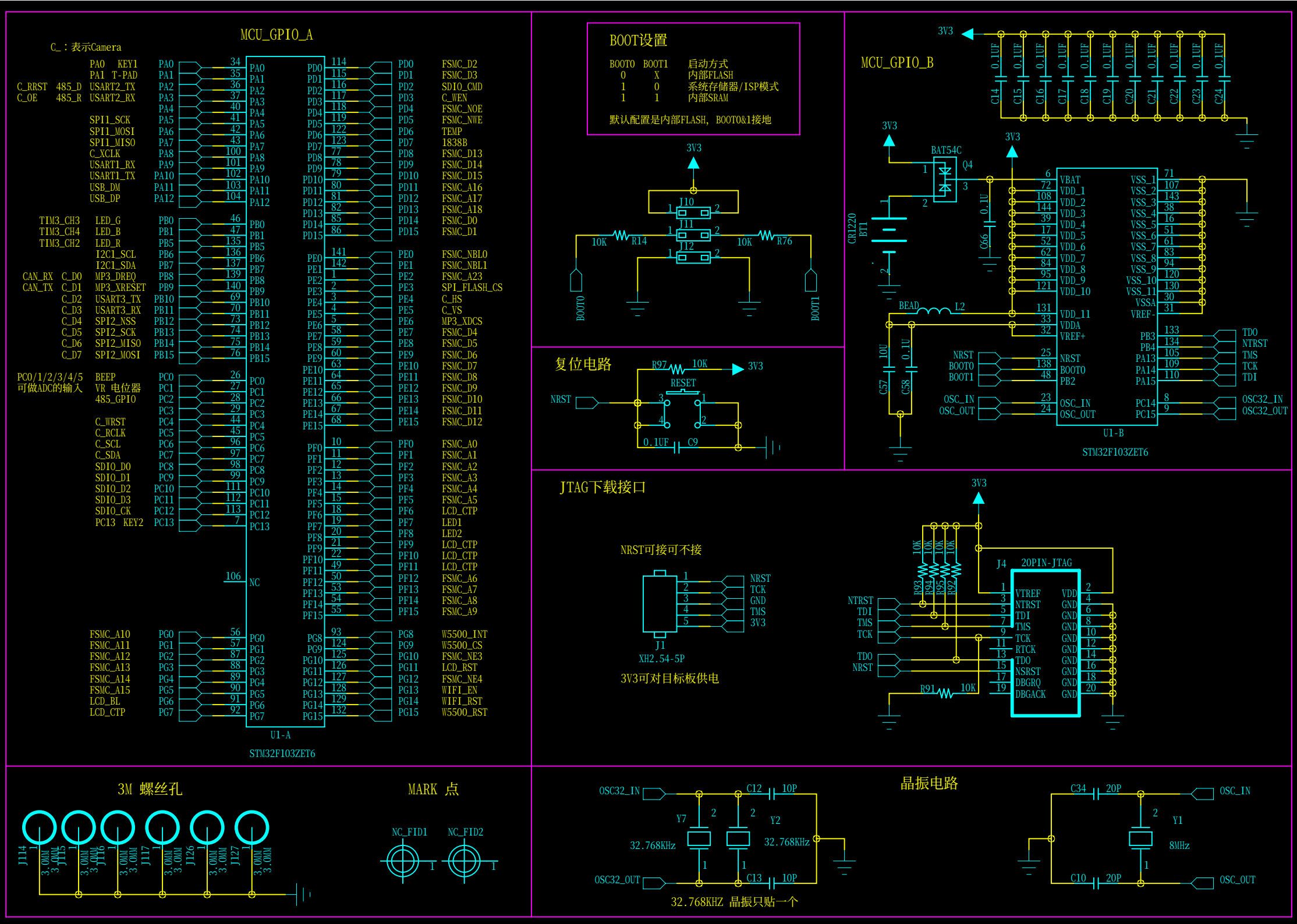
DI_IN：6-12V

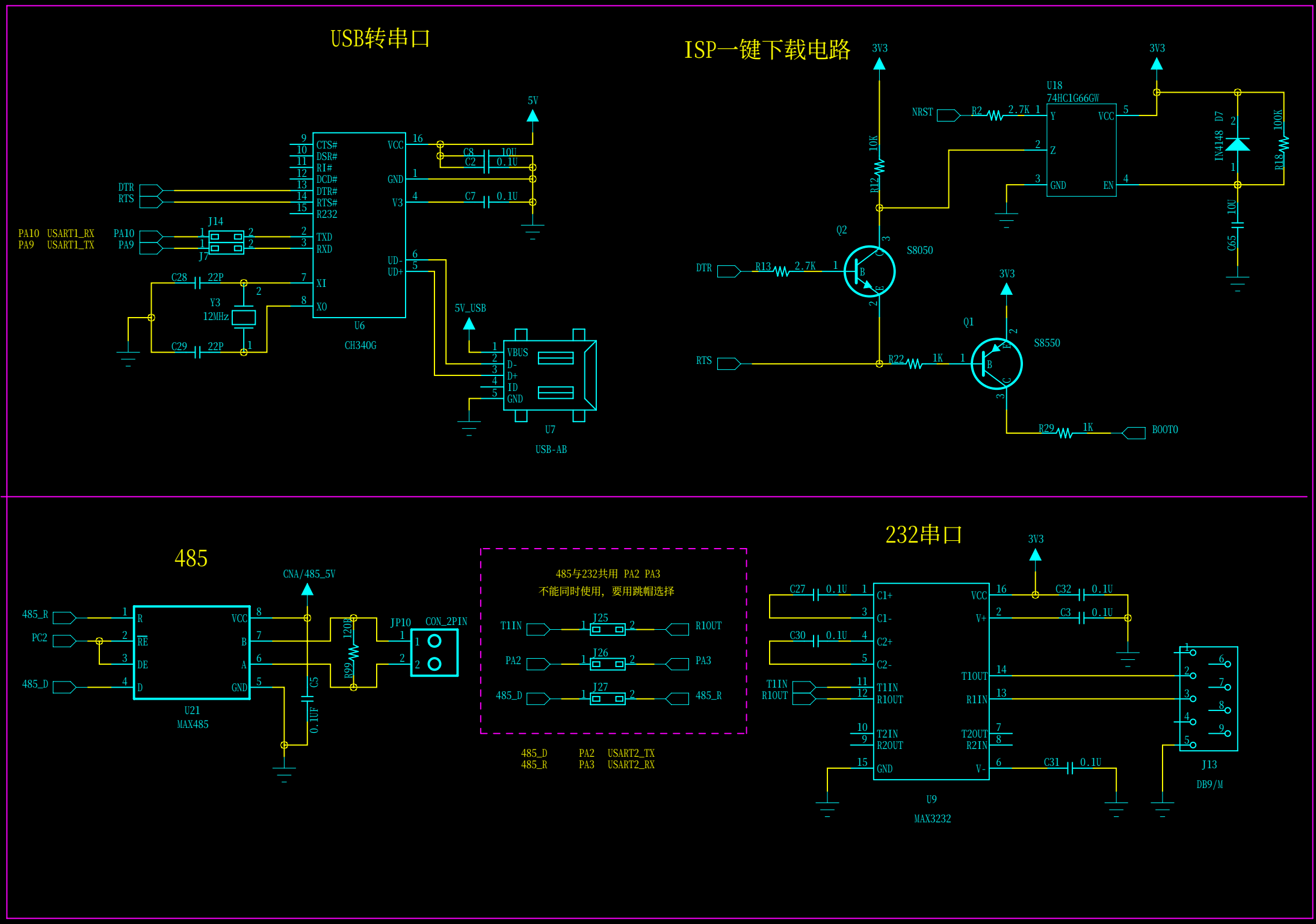
DC DC + LDO 方案

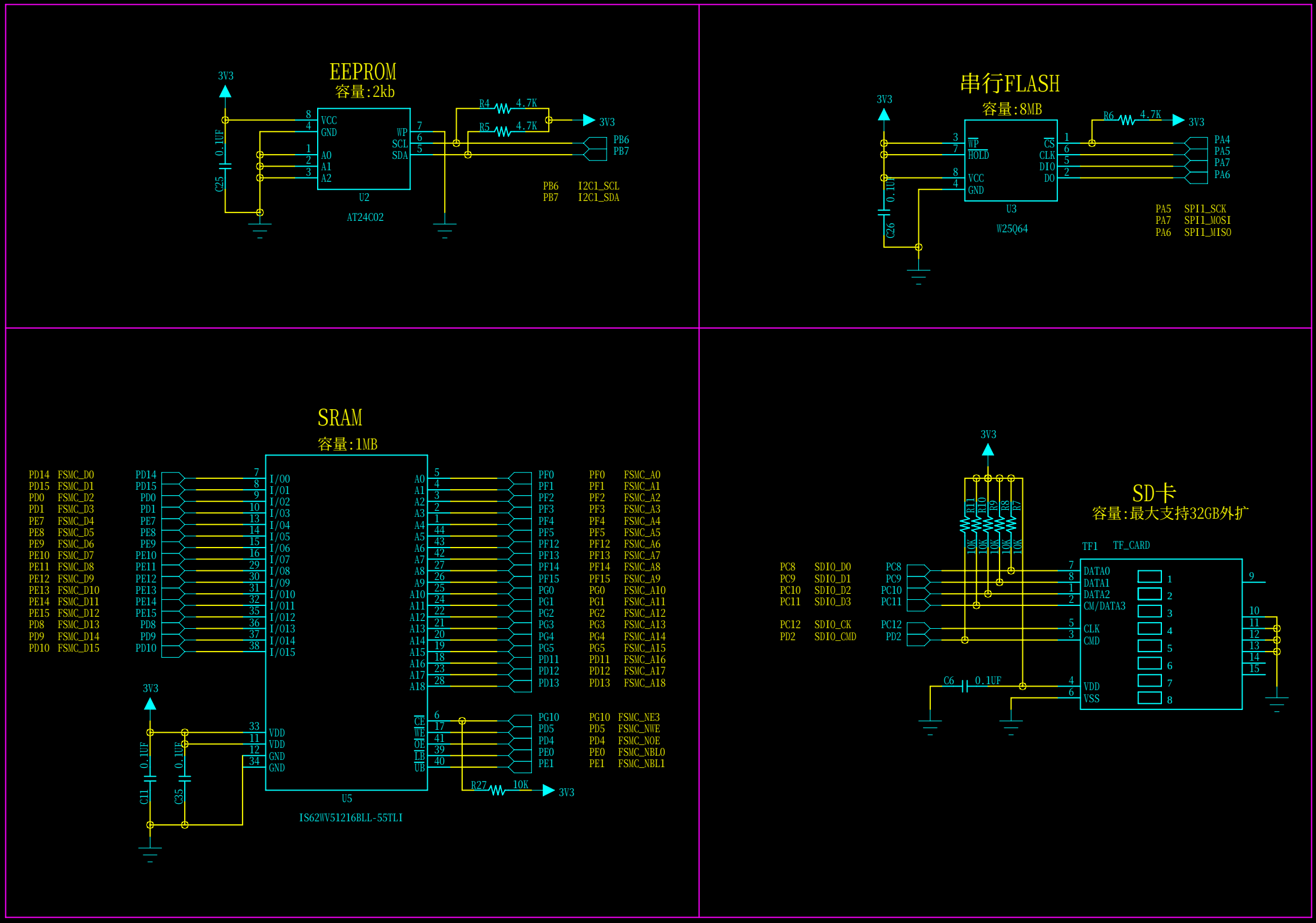




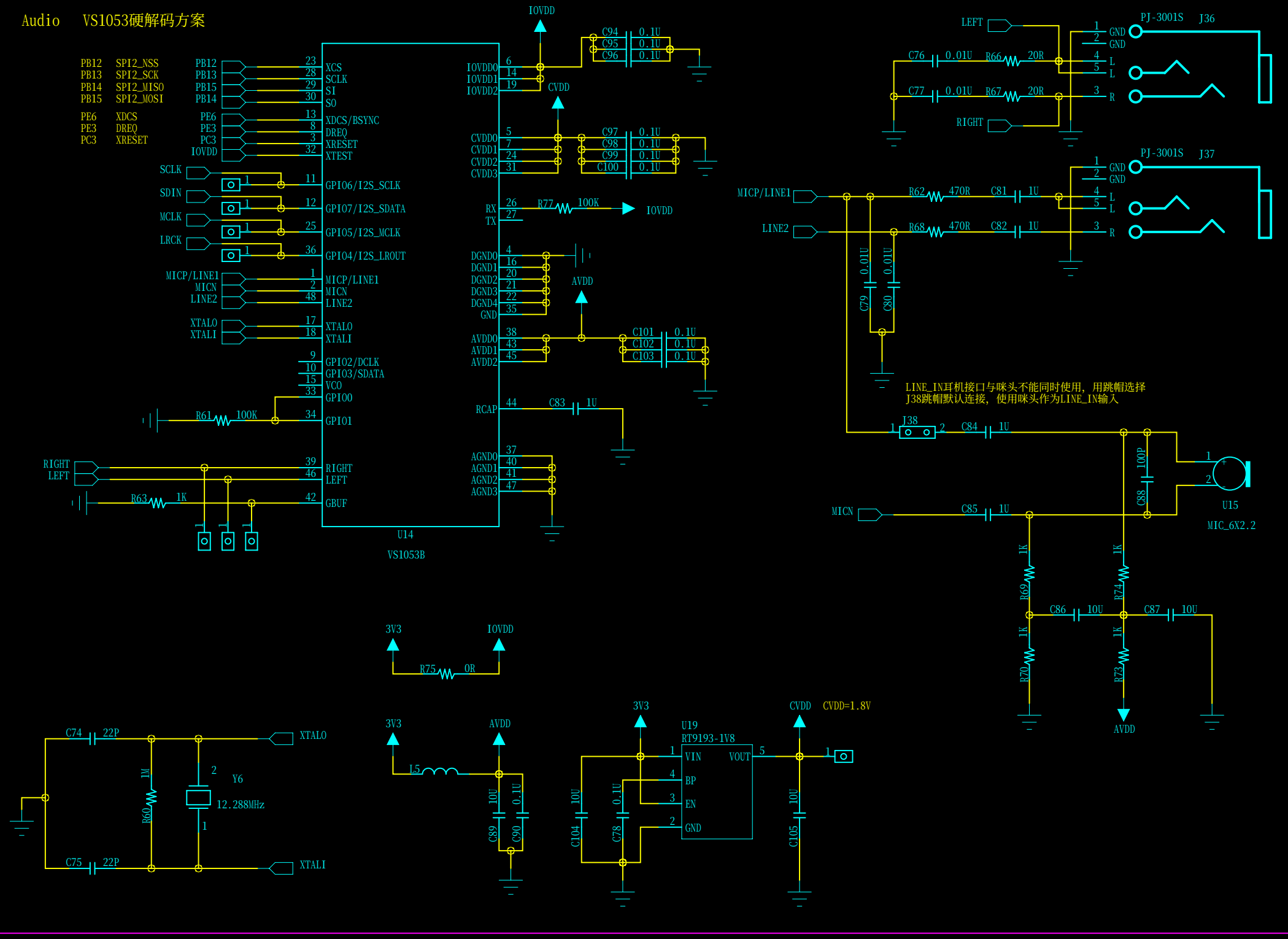



MCU_GPIO_A
C_：表示Camera
PA0 KEY1
PA1 T-PAD
C_RRST 485_D USART2_TX
C_OE 485_R USART2_RX
SPI1_SCK
SPI1_MOSI
SPI1_MISO
C_XCLK
USART1_RX
USART1_TX
USB_DM
USB_DP
TIM3_CH3 LED_G
TIM3_CH4 LED_B
TIM3_CH2 LED_R
I2C1_SCL
I2C1_SDA
CAN_RX C_D0 MP3_DREQ
CAN_TX C_D1 MP3_XRESET
C_D2 USART3_TX
C_D3 USART3_RX
C_D4 SPI2_NSS
C_D5 SPI2_SCK
C_D6 SPI2_MISO
C_D7 SPI2_MOSI
PC0/1/2/3/4/5 BEEP
可做ADC的输入 VR 电位器
485_GPIO
C_WRST
C_RCLK
C_SCL
C_SDA
SDIO_D0
SDIO_D1
SDIO_D2
SDIO_D3
SDIO_CK
PC13 KEY2
NC
FSMC_A10
FSMC_A11
FSMC_A12
FSMC_A13
FSMC_A14
FSMC_A15
LCD_BL
LCD_CTP
FSMC_D2
FSMC_D3
SDIO_CMD
C_WEN
FSMC_NOE
FSMC_NWE
TEMP
1838B
FSMC_D13
FSMC_D14
FSMC_D15
FSMC_A16
FSMC_A17
FSMC_A18
FSMC_D0
FSMC_D1
FSMC_NBL0
FSMC_NBL1
FSMC_A23
SPI_FLASH_CS
C_HS
C_VS
MP3_XDCS
FSMC_D4
FSMC_D5
FSMC_D6
FSMC_D7
FSMC_D8
FSMC_D9
FSMC_D10
FSMC_D11
FSMC_D12
FSMC_A0
FSMC_A1
FSMC_A2
FSMC_A3
FSMC_A4
FSMC_A5
LCD_CTP
LED1
LED2
LCD_CTP
LCD_CTP
LCD_CTP
FSMC_A6
FSMC_A7
FSMC_A8
FSMC_A9
W5500_INT
W5500_CS
FSMC_NE3
LCD_RST
FSMC_NE4
WIFI_EN
WIFI_RST
W5500_RST
U1-A
STM32F103ZET6
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
3V3
J10
J11
J12
10K R14
10K R76
BOOT0
BOOT1
复位电路
R97 10K
RESET
NRST
0.1UF C9
MCU_GPIO_B
BAT54C Q4
CR1220 BT1
Q66 0.1U
BEAD L2
C57 10U
C58 0.1U
VBAT
VDD_1
VDD_2
VDD_3
VDD_4
VDD_5
VDD_6
VDD_7
VDD_8
VDD_9
VDD_10
VDD_11
VDDA
VREF+
NRST
BOOT0
PB2
OSC_IN
OSC_OUT
VSS_1
VSS_2
VSS_3
VSS_4
VSS_5
VSS_6
VSS_7
VSS_8
VSS_9
VSS_10
VSS_11
VSSA
VREF-
PB3 TDO
PB4 NTRST
PA13 TMS
PA14 TCK
PA15 TDI
PC14 OSC32_IN
PC15 OSC32_OUT
U1-B
STM32F103ZET6
JTAG下载接口
NRST可接可不接
J1
XH2.54-5P
3V3可对目标板供电
J4 20PIN-JTAG
R93 10K
R94 10K
R95 10K
R92 10K
R91 10K
VTREF
NTRST
TDI
TMS
TCK
RTCK
TDO
NSRST
DBGRQ
DBGACK
VDD
GND
3M 螺丝孔
J114 3.0MM
J115 3.0MM
J116 3.0MM
J117 3.0MM
J126 3.0MM
J127 3.0MM
MARK 点
NC_FID1
NC_FID2
晶振电路
OSC32_IN
OSC32_OUT
C12 10P
C13 10P
Y7 32.768KHz
Y2 32.768KHz
32.768KHZ 晶振只贴一个
C34 20P
C10 20P
Y1 8MHz
OSC_IN
OSC_OUT

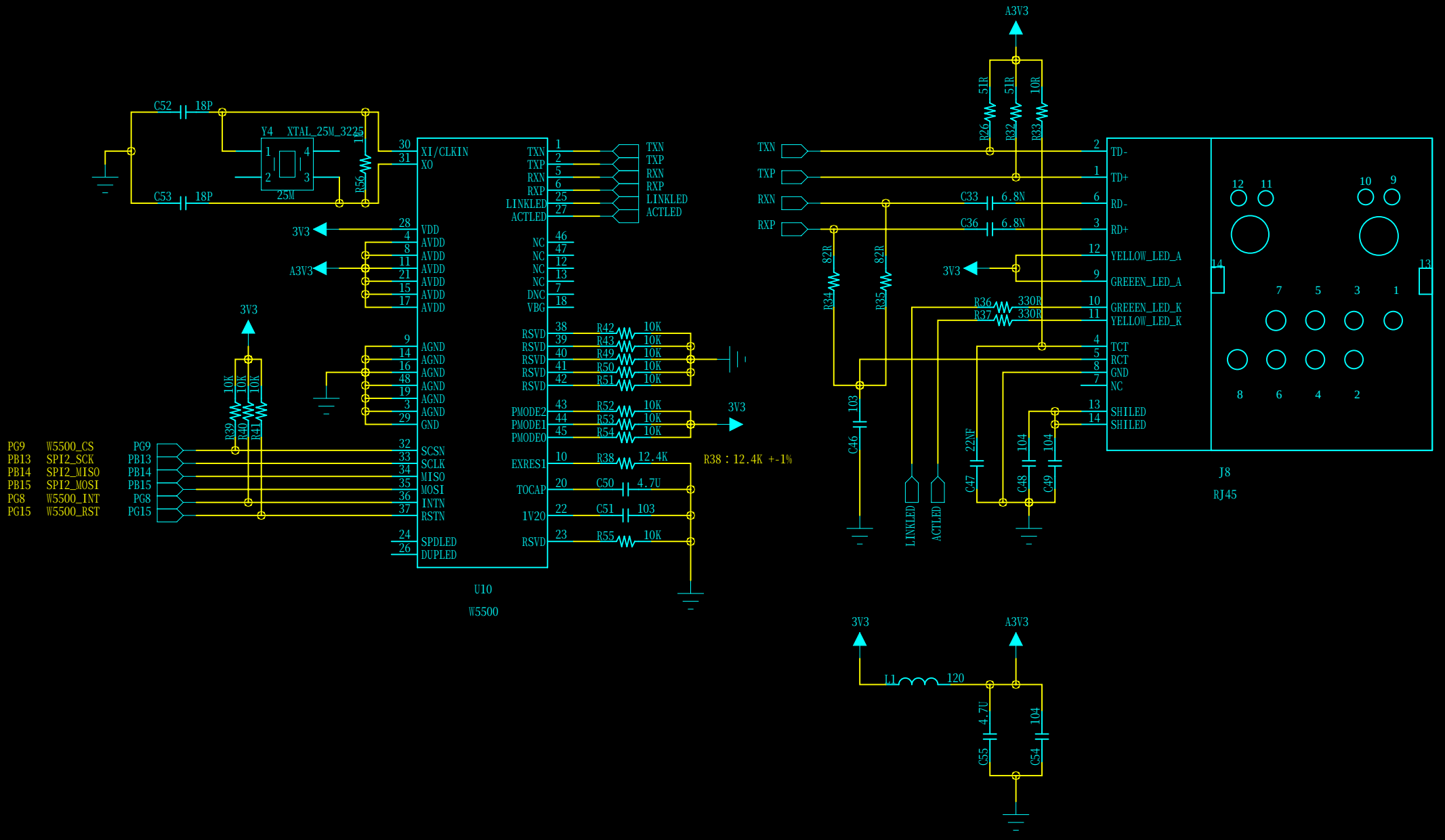

USB转串口
ISP一键下载电路
485
232串口
U6
CH340G
U7
USB-AB
U21
MAX485
U9
MAX3232
U18
74HC1G66GW
Q1
S8550
Q2
S8050
J13
DB9/M
485与232共用 PA2 PA3
不能同时使用，要用跳帽选择
485_D PA2 USART2_TX
485_R PA3 USART2_RX
PA10 USART1_RX
PA9 USART1_TX
CNA/485_5V
3V3
5V
5V_USB
BOOT0


EEPROM
容量:2kb
3V3
0.1UF
C25
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
0.1UF
C26
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/O0
I/O1
I/O2
I/O3
I/O4
I/O5
I/O6
I/O7
I/O8
I/O9
I/O10
I/O11
I/O12
I/O13
I/O14
I/O15
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
PF0 FSMC_A0
PF1 FSMC_A1
PF2 FSMC_A2
PF3 FSMC_A3
PF4 FSMC_A4
PF5 FSMC_A5
PF12 FSMC_A6
PF13 FSMC_A7
PF14 FSMC_A8
PF15 FSMC_A9
PG0 FSMC_A10
PG1 FSMC_A11
PG2 FSMC_A12
PG3 FSMC_A13
PG4 FSMC_A14
PG5 FSMC_A15
PD11 FSMC_A16
PD12 FSMC_A17
PD13 FSMC_A18
CE
WE
OE
LB
UB
PG10 FSMC_NE3
PD5 FSMC_NWE
PD4 FSMC_NOE
PE0 FSMC_NBL0
PE1 FSMC_NBL1
R27 10K
3V3
VDD
VDD
GND
GND
C11 0.1UF
C35 0.1UF
U5
IS62WV51216BLL-55TLI
3V3
R11 10K
R10 10K
R9 10K
R8 10K
R7 10K
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
TF1 TF_CARD
SD卡
容量:最大支持32GB外扩

Audio VS1053硬解码方案



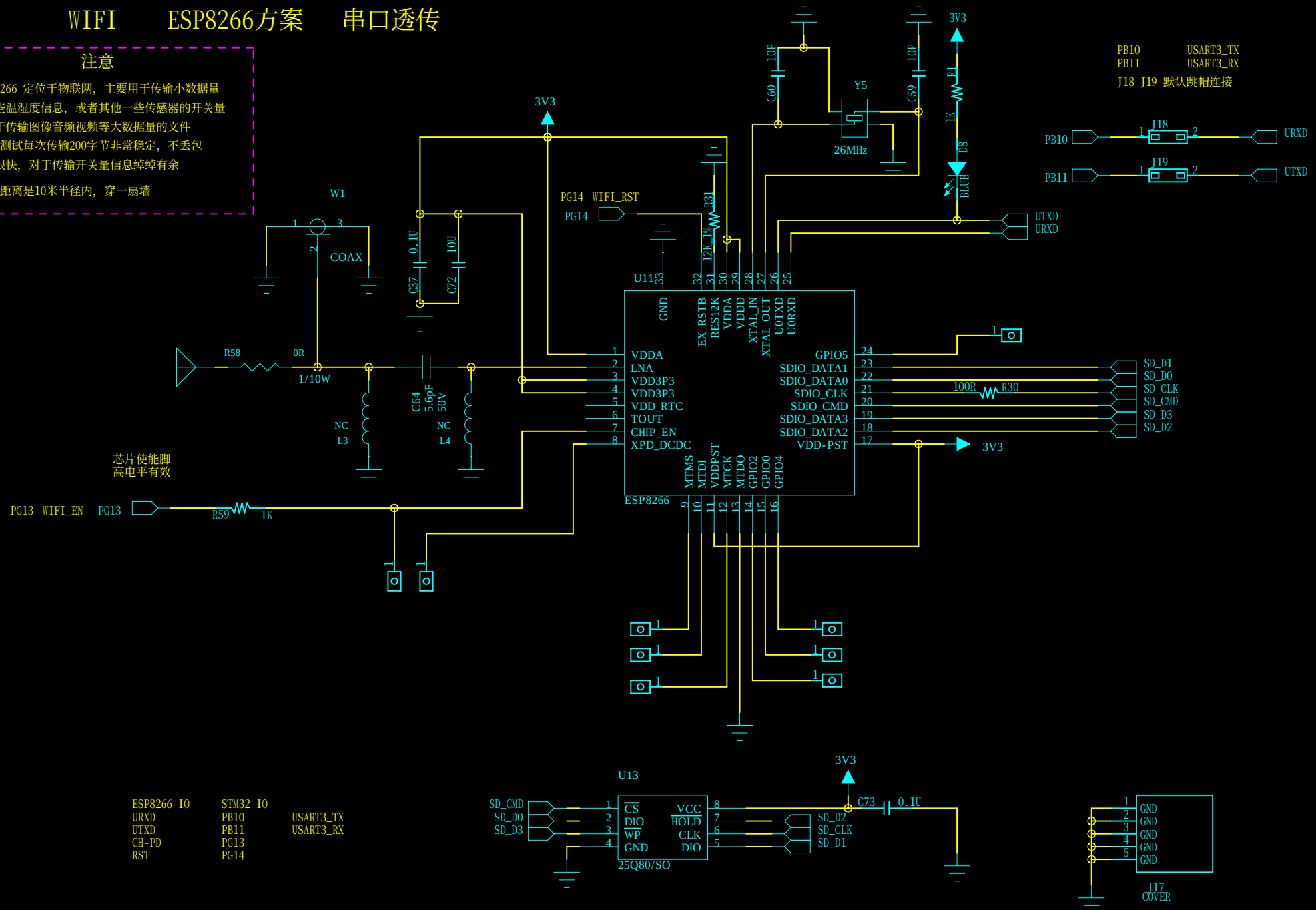
以太网　　W5500方案　　集成硬件TCP/IP协议栈



WIFI　ESP8266方案　串口透传

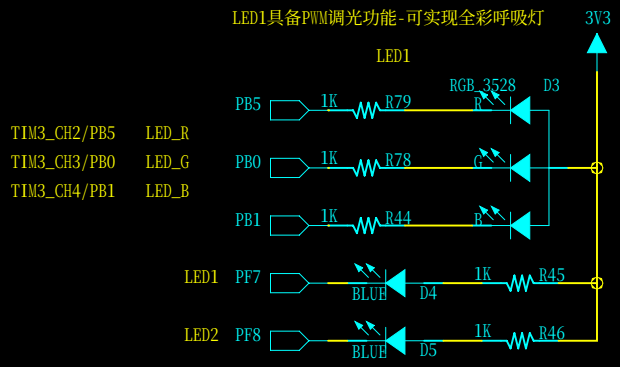
注意

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

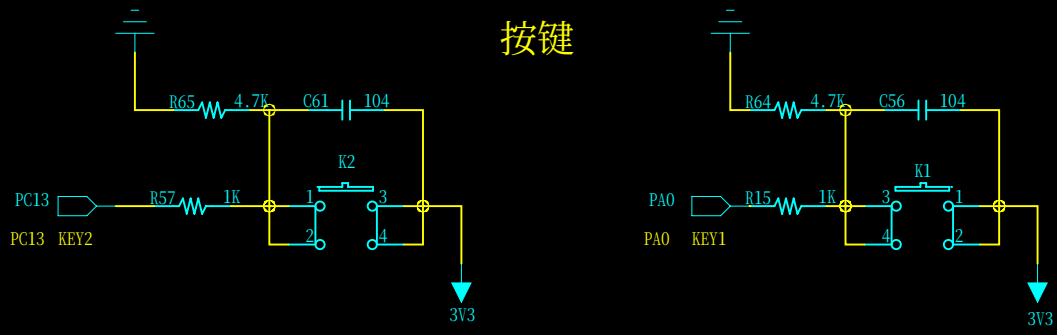


ESP8266 IO	STM32 IO	
URXD	PB10	USART3_TX
UTXD	PB11	USART3_RX
CH-PD	PG13	
RST	PG14	

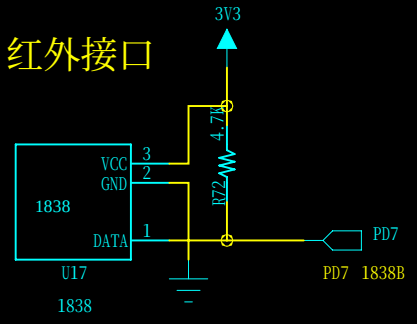
LED



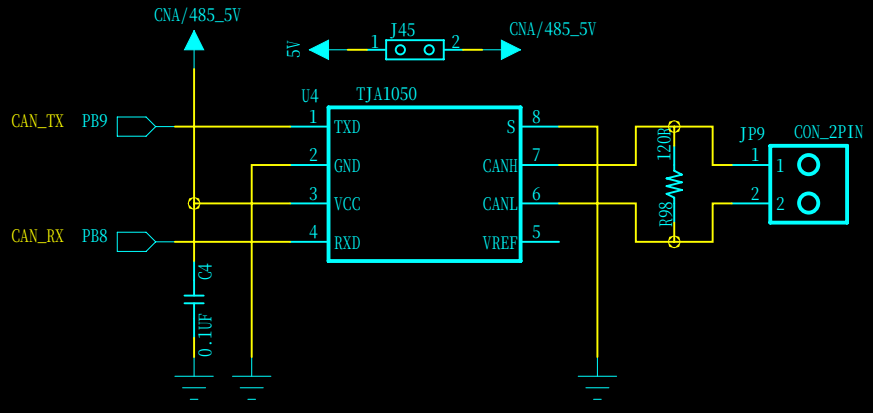
按键



红外接口

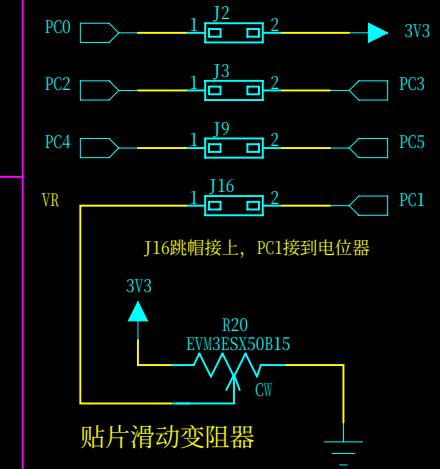


CAN



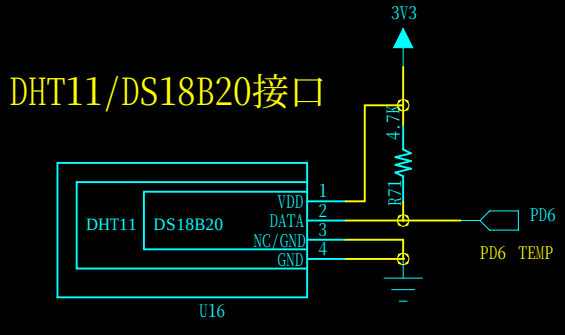
ADC/DAC

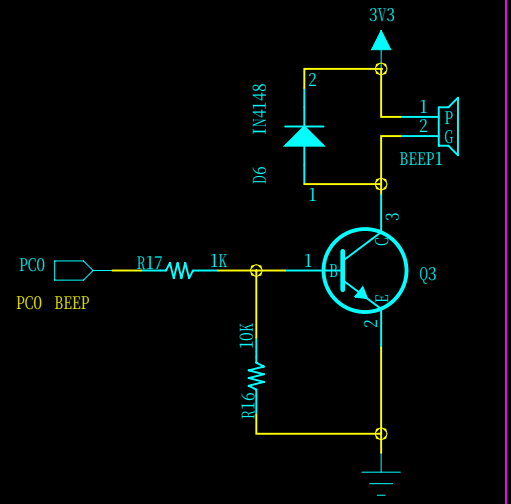
J2 J3 J9 J16组合成一个 2x4P 的排针

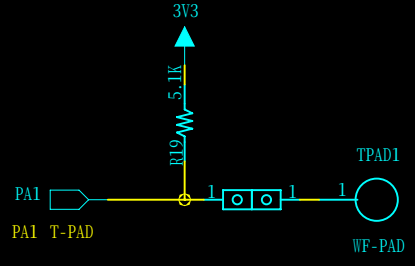


贴片滑动变阻器

DHT11/DS18B20接口



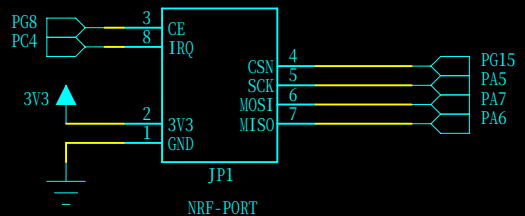




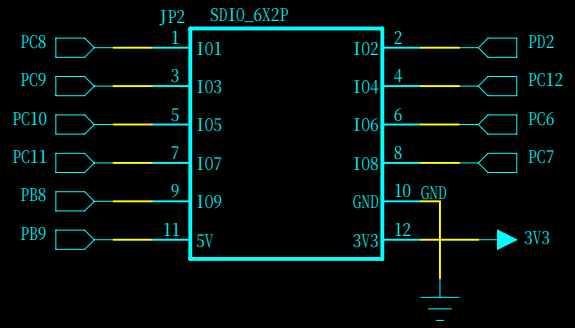
电容按键

程序上用的是ADC的捕获功能

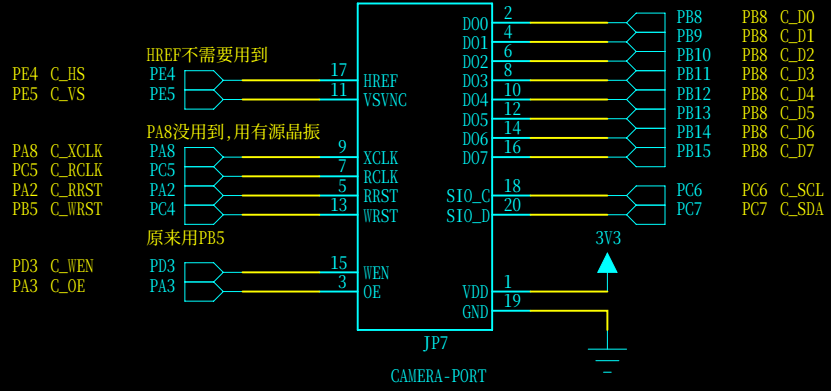
NRF24L01接口



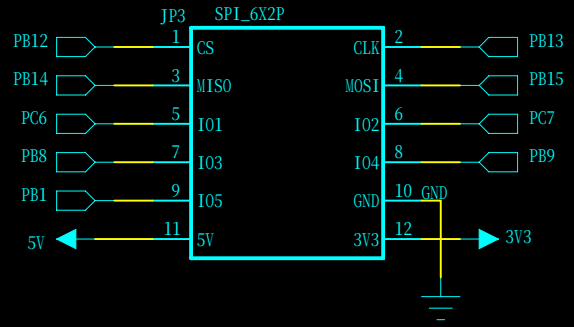
SDIO接口



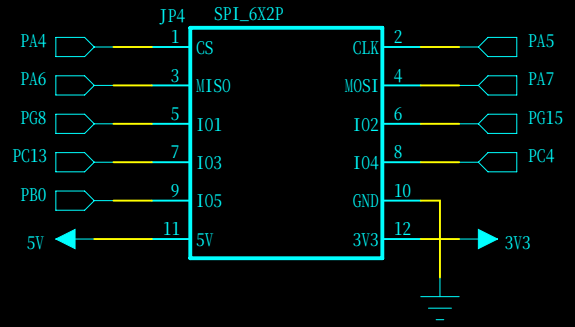
摄像头接口



SPI2/I2S接口

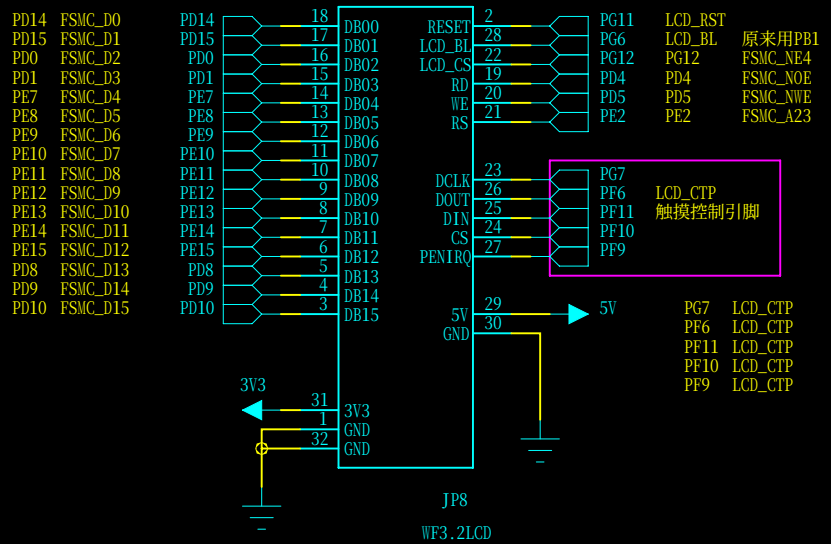


SPI1接口

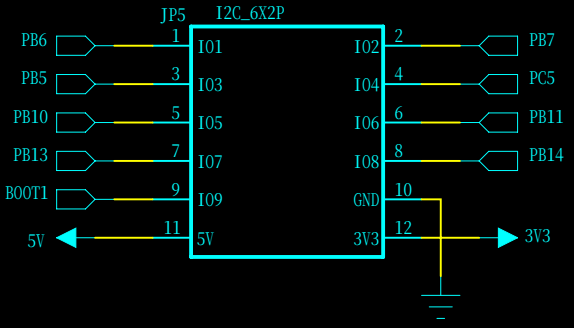


液晶接口

支持3.2寸/5寸液晶



I2C1 / 2 接口



UART1/ 2 接口

