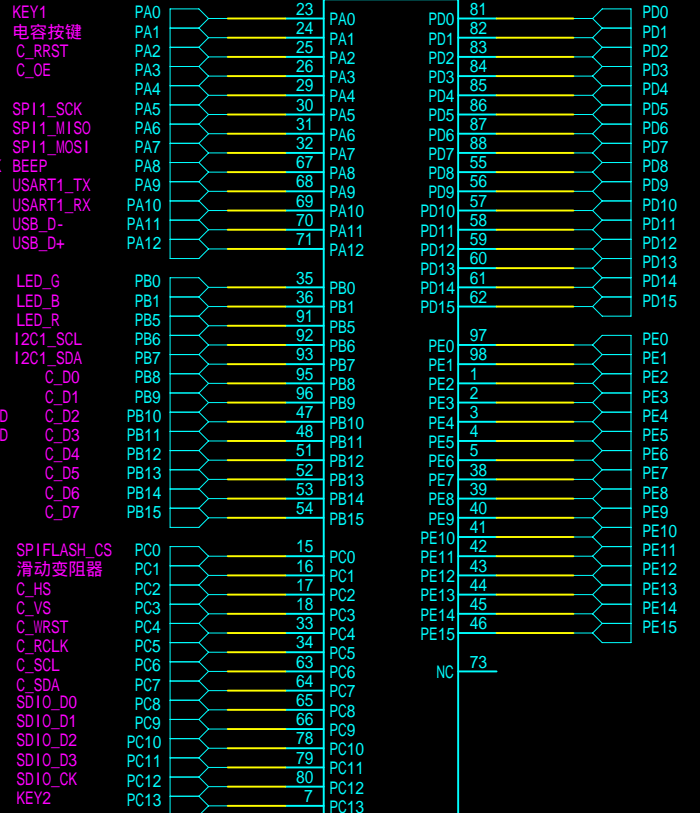


MCU_GPIO_A

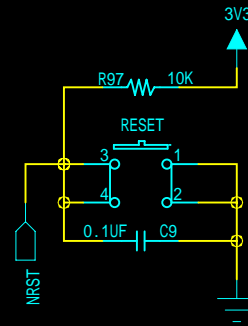
C_ : 表示Camera



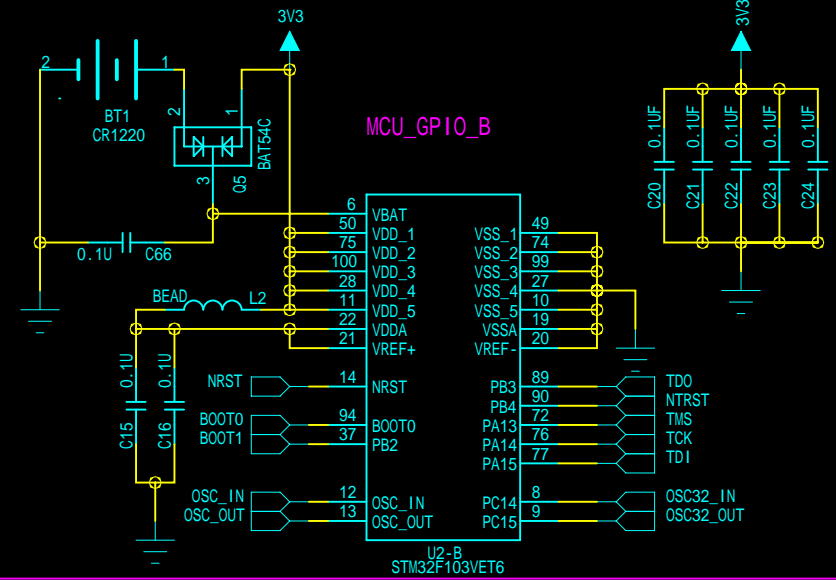
U2-A

STM32F103VET6

复位电路



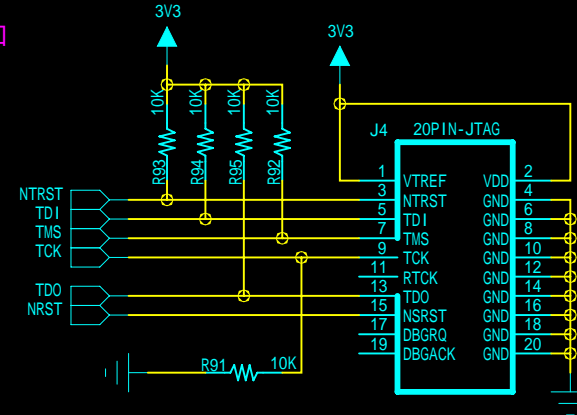
MCU_GPIO_B



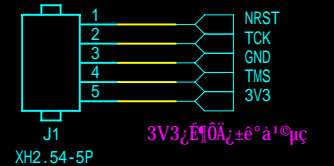
U2-B

STM32F103VET6

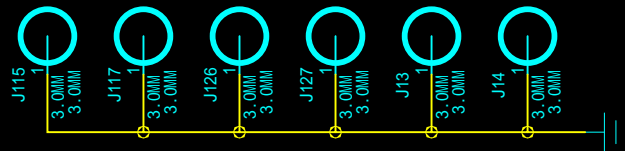
JTAG下载接口



NRST 为 MCU 的复位引脚，连接到 MCU 的 NRST 引脚。



3M 螺丝孔



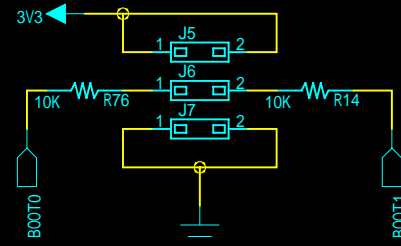
MARK 点



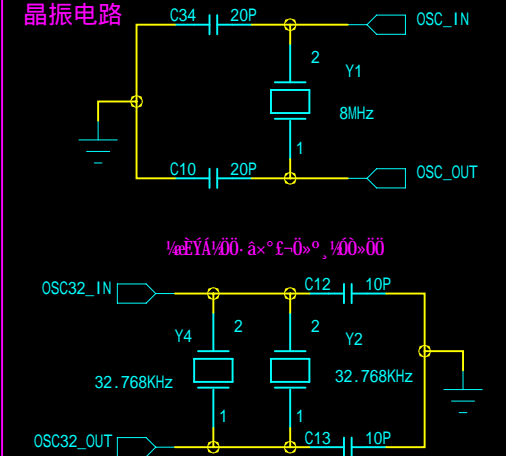
BOOT设置

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



晶振电路



SD卡

容量：最大支持32GB外扩

Microcontroller Pin	Signal Name	SD Card Pin	SD Card Label
PC8	SDIO_D0	7	DATA0
PC9	SDIO_D1	8	DATA1
PC10	SDIO_D2	1	DATA2
PC11	SDIO_D3	2	CM/DATA3
PC12	SDIO_CLK	5	CLK
PD2	SDIO_CMD	3	CMD
-	-	4	VDD
-	-	6	VSS

Additional components shown include resistors R13-R18 (10K), a 3V3 supply, and a capacitor C5 (0.1UF).

ED

3V

PB5 470R R26 R G D3

PB0 330R R24 G

PB1 100R R44 B

RGBLED_5MM

TIM3_CH3	LED_G	PB0
TIM3_CH4	LED_B	PB1
TIM3_CH2	LED_R	PB5

串行FLASH
容量: 8MB

U3
W25Q64

PC0
PA5
PA7
PA6

PA5 SPI1_SCK
PA7 SPI1_MOSI
PA6 SPI1_MISO

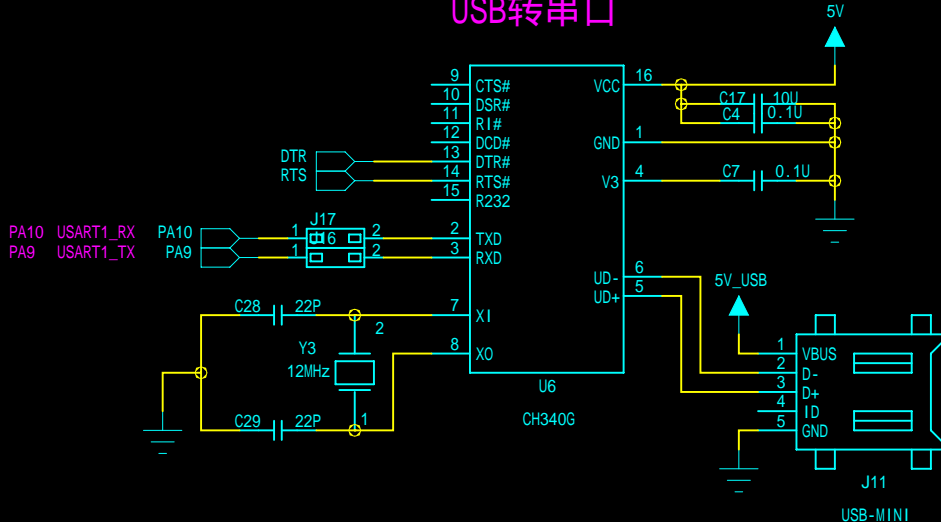
PC0做ADC引脚时，把J2跳端断开

按键

The image shows two circuit diagrams for push-button switches. The top diagram features a push-button switch K1 with terminals 1, 2, 3, and 4. Terminal 1 is connected to a 4.7K resistor R4, which is connected to a 3V3 supply. Terminal 2 is connected to a 1K resistor R7, which is connected to the PA0 pin of a microcontroller. Terminal 3 is connected to a 104 capacitor C6, which is connected to the 3V3 supply. Terminal 4 is connected to ground. The bottom diagram is identical but uses a push-button switch K2 and a microcontroller pin PC13. The components are R5 (4.7K), R11 (1K), C14 (104), and a 3V3 supply.

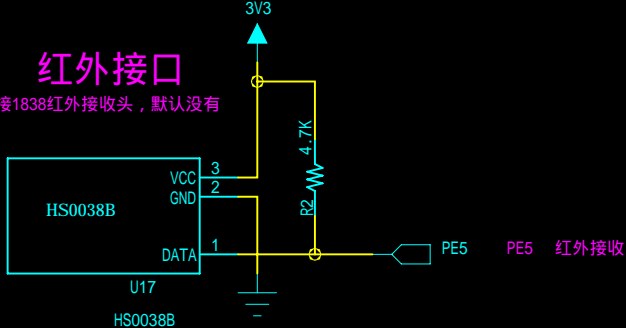
The diagram shows an AT24C02 EEPROM (U1) connected to a 3V3 power supply. The VCC pin (pin 8) is connected to 3V3 through a 0.1uF capacitor (C11). The GND pin (pin 4) is connected to ground. The address pins A0 (pin 1), A1 (pin 2), and A2 (pin 3) are connected to ground. The data pins WP (pin 7), SCL (pin 6), and SDA (pin 5) are connected to an I2C interface. The SCL pin is connected to 3V3 through a 4.7k resistor (R21). The SDA pin is connected to 3V3 through a 4.7k resistor (R25). The I2C interface is labeled with PB6 and PB7 pins, and the I2C1_SCL and I2C1_SDA labels.

USB转串口

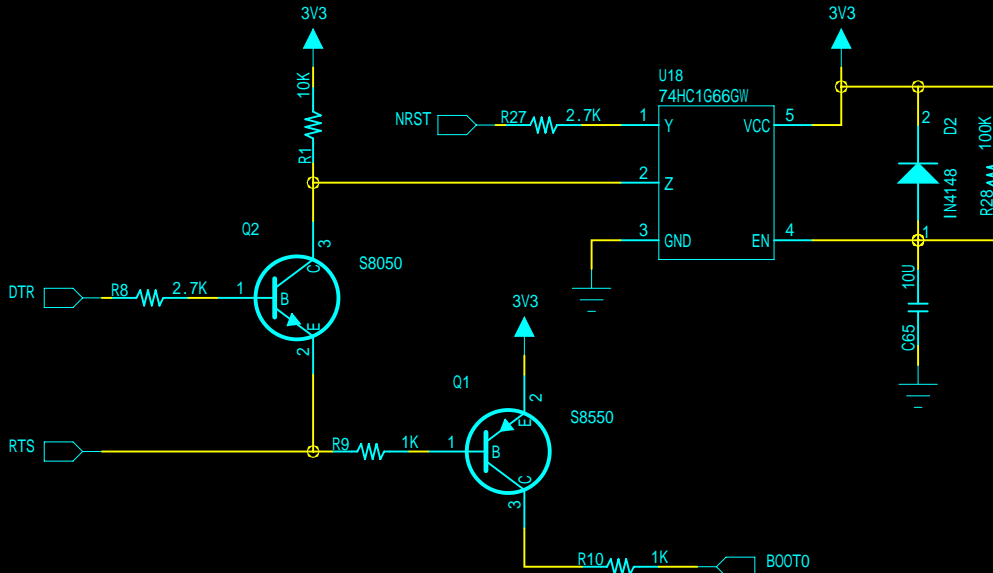


红外接口

可外接1838红外接收头，默认没有

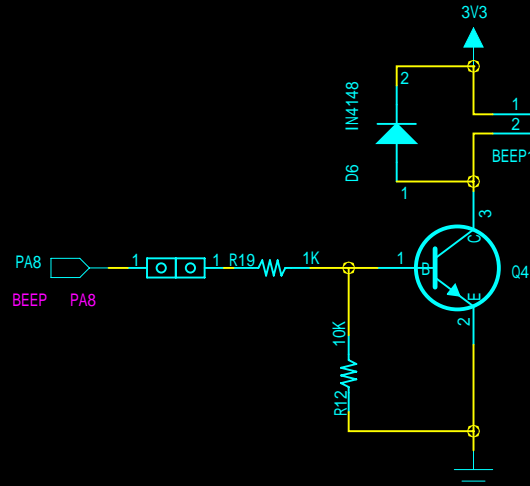
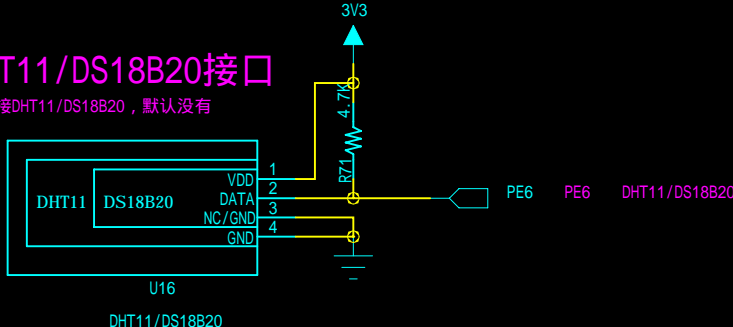


ISP一键下载电路



DHT11/DS18B20接口

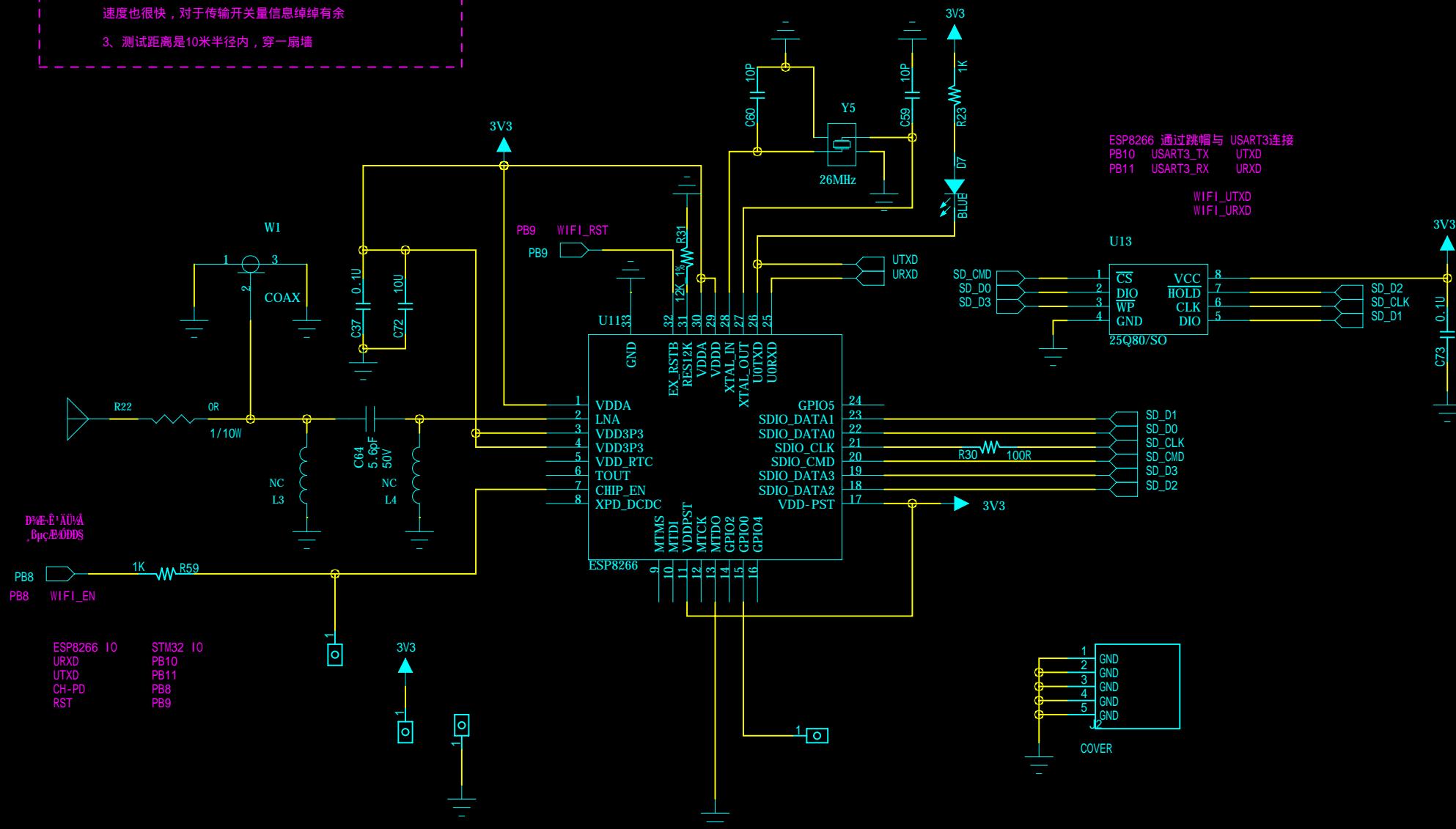
可外接DHT11/DS18B20，默认没有



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



Wiring diagram for the NRF-PORT module. The module is connected to a breadboard. On the left side of the breadboard, there are two blue headers labeled PC5 and PC4. PC5 is connected to pin 3 of the module's CE pin. PC4 is connected to pin 8 of the module's IRQ pin. A red 3V3 voltage source is connected to pin 2 of the module's 3V3 pin and pin 1 of the module's GND pin. On the right side of the breadboard, there are four blue headers labeled PC6, PA5, PA7, and PA6. PC6 is connected to pin 4 of the module's CSN pin. PA5 is connected to pin 5 of the module's SCK pin. PA7 is connected to pin 6 of the module's MOSI pin. PA6 is connected to pin 7 of the module's MISO pin. The module is labeled 'JP1' and 'NRF-PORT'.

The diagram shows the SDIO_6X2P module with the following connections:

- PC8** is connected to pin **1**.
- PC9** is connected to pin **3**.
- PC10** is connected to pin **5**.
- PC11** is connected to pin **7**.
- PB8** is connected to pin **9**.
- PB9** is connected to pin **11**.
- PD2** is connected to pin **2**.
- PC12** is connected to pin **4**.
- PC6** is connected to pin **6**.
- PC7** is connected to pin **8**.
- GND** is connected to pin **10**.
- 3V3** is connected to pin **12**.

PC2 C_HS
PC3 C_VS

HREF 不需要用到

PA8 C_XCLK
PC5 C_RCLK
PA2 C_RRST
PC4 C_WRST

PA8 不用到, 用有源晶振

PD3 C_WEN
PA3 C_OE

D00 2
D01 4
D02 6
D03 8
D04 10
D05 12
D06 14
D07 16

S10_C 18
S10_D 20

VDD 1
GND 19

3V3

JP7

CAMERA-PORT

PB8 PB8 C_D0
PB9 PB9 C_D1
PB10 PB10 C_D2
PB11 PB11 C_D3
PB12 PB12 C_D4
PB13 PB13 C_D5
PB14 PB14 C_D6
PB15 PB15 C_D7

PC6 PC6 C_SCL
PC7 PC7 C_SDA

17
11
9
7
5
13
15
3

HREF
VSVNC
XCLK
RCLK
RRST
WRST
WEN
OE

Schematic diagram of the SPI_6X2P connector. The connector is a 12-pin header labeled JP3. The connections are as follows:

Pin	Signal
1	PB12
3	PB14
5	PC6
7	PB8
9	PB1
11	5V
2	PB13
4	PB15
6	PC7
8	PB9
10	GND
12	3V3

The diagram shows the connection between the PA4 pin of the ATmega328P and the MOSI pin of the SPI_6X2P module. The ATmega328P is represented by a black box with pins labeled PA4, PA6, PE5, PC13, PB0, 5V, and GND. The SPI_6X2P module is represented by a black box with pins labeled CS, MISO, IO1, IO2, IO3, IO4, GND, and 3V3. The PA4 pin is connected to the CS pin of the SPI_6X2P module. The MOSI pin of the SPI_6X2P module is connected to the PA4 pin of the ATmega328P. The 5V pin of the ATmega328P is connected to the 5V pin of the SPI_6X2P module. The GND pin of the ATmega328P is connected to the GND pin of the SPI_6X2P module. The 3V3 pin of the SPI_6X2P module is connected to the 3V3 pin of the ATmega328P.

用了PE和PD端口

FSMC_D0 PD14 18 DB00 2 LCD_RESET PE1 LCD_RST
 FSMC_D1 PD15 17 DB01 28 LCD_BL PE12 LCD_BL
 FSMC_D2 PD0 16 DB02 22 LCD_CS PD7 FSMC_NE1
 FSMC_D3 PD1 15 DB03 19 PD4 FSMC_NOE
 FSMC_D4 PE7 14 DB04 20 PD5 FSMC_NWE
 FSMC_D5 PE8 13 DB05 21 PD11 FSMC_A16
 FSMC_D6 PE9 12 DB06
 FSMC_D7 PE10 11 DB07
 FSMC_D8 PE11 10 DB08
 FSMC_D9 PE12 9 DB09
 FSMC_D10 PE13 8 DB10
 FSMC_D11 PE14 7 DB11
 FSMC_D12 PE15 6 DB12
 FSMC_D13 PD8 5 DB13
 FSMC_D14 PD9 4 DB14
 FSMC_D15 PD10 3 DB15

3V3 31 3V3
 1
 GND
 32
 GND

JP8

5V 29 5V
 GND 30

WF3.2LCD

JP5 6X2P_SMD

Pin	Pin	Pin	Pin
PB6	1	I01	102
PB5	3	I03	104
PA2	5	I05	106
PA3	7	I07	108
PB10	9	I09	110
PB11	11	I011	112

