

Test platform introduction:

Development board: Raspberry Pi development board for each model

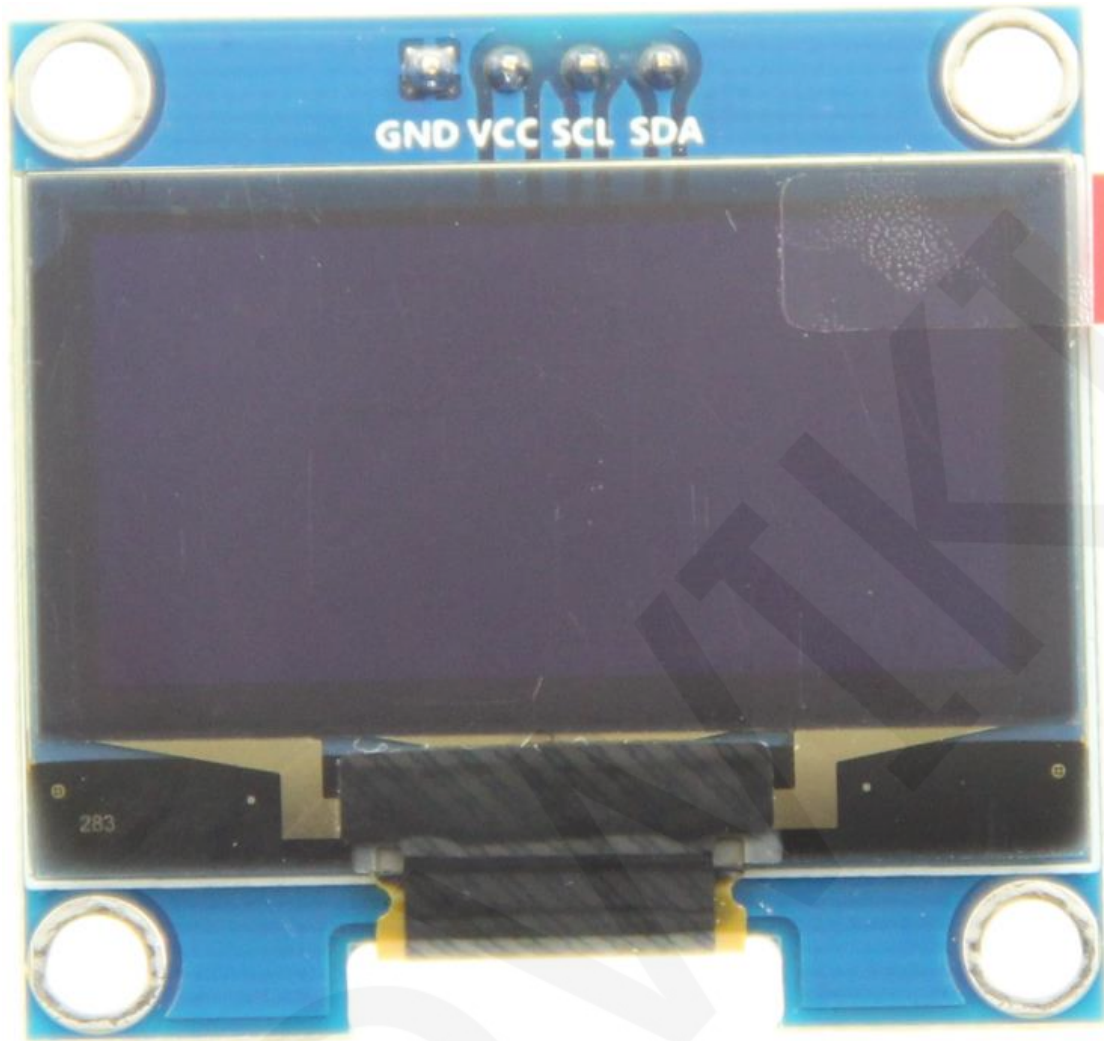
System: Raspbian for Raspberry Pi

GPIO library: bcm2835、wiringpi

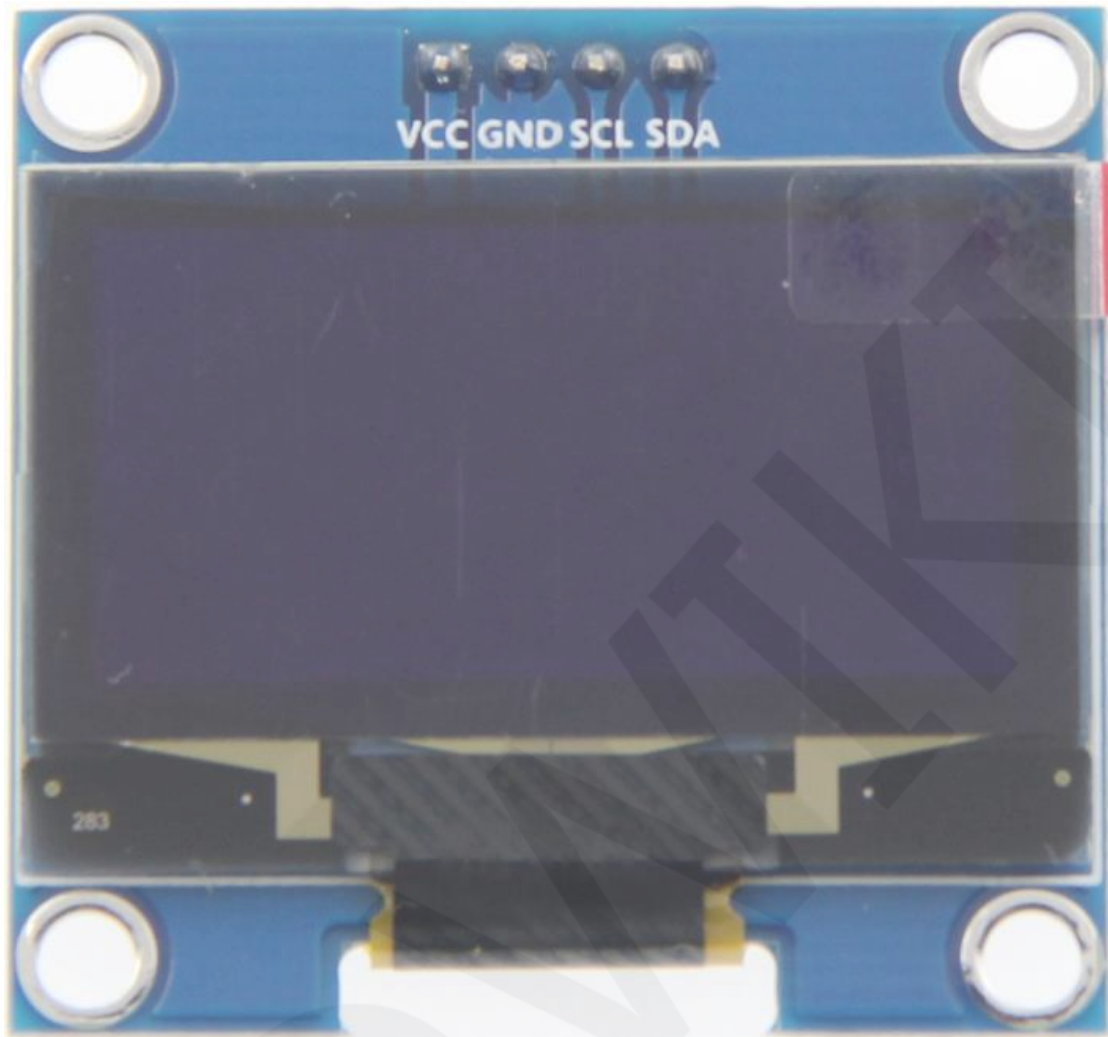
Wiring instructions:

wiringPi 编码	BCM 编码	功能名	物理引脚 BOARD编码		功能名	BCM 编码	wiringPi 编码
		3.3V	1	2	5V		
8	2	SDA.1	3	4	5V		
9	3	SCL.1	5	6	GND		
7	4	GPIO.7	7	8	TXD	14	15
		GND	9	10	RXD	15	16
0	17	GPIO.0	11	12	GPIO.1	18	1
2	27	GPIO.2	13	14	GND		
3	22	GPIO.3	15	16	GPIO.4	23	4
		3.3V	17	18	GPIO.5	24	5
12	10	MOSI	19	20	GND		
13	9	MISO	21	22	GPIO.6	25	6
14	11	SCLK	23	24	CE0	8	10
		GND	25	26	CE1	7	11
30	0	SDA.0	27	28	SCL.0	1	31
21	5	GPIO.21	29	30	GND		
22	6	GPIO.22	31	32	GPIO.26	12	26
23	13	GPIO.23	33	34	GND		
24	19	GPIO.24	35	36	GPIO.27	16	27
25	26	GPIO.25	37	38	GPIO.28	20	28
		GND	39	40	GPIO.29	21	29

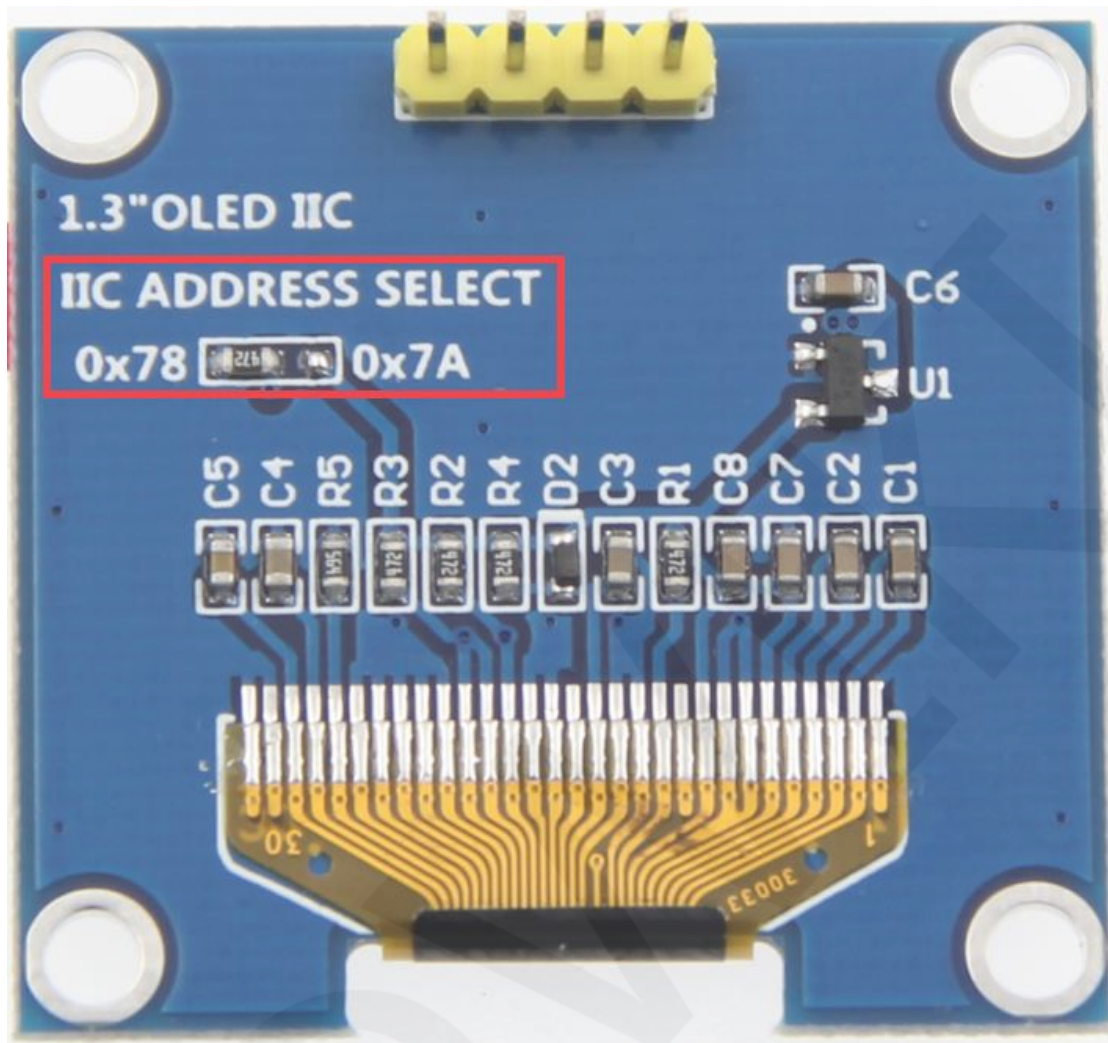
Picture1. GPIO map



Picture 2. Module pin silk screen (1 pin is GND)



Picture 3. Module pin silk screen (1 pin is VCC)



Picture 4. Rear view of the module

NOTE:

1. This module supports IIC slave device address switching (shown in red box in Picture 3), as follows:
 - A. Solder the 0x78 side resistance, disconnect the 0x7A side, then select the 0x78 slave address (default);
 - B. Solder the 0x7A side resistance, disconnect the 0x78 side, then select the 0x7A slave address;
2. The hardware switches the IIC from the set address, and the software also needs to be modified accordingly. For the specific modification method, see the following IIC slave device address modification instructions.

Raspberry Pi test program wiring instructions			
Number	Module Pin	Corresponding to development board wiring pin	Remarks
1	GND	GND (Physical pin: 6,9,14,20,25,30,34,39)	OLED power ground
2	VCC	5V/3.3V (Physical pin: 1,2,4)	OLED power positive (3.3V~5V)
3	SCL	Physical pin: 5 BCM coding: 3 wiringPi coding: 9	OLED IIC bus clock signal
4	SDA	Physical pin: 3 BCM coding: 2 wiringPi coding: 8	OLED IIC bus data signal

NOTE:

Physical pin refers to the GPIO pin code of the RaspBerry Pi development board.

BCM encoding refers to the GPIO pin coding when using the BCM2835 GPIO library.

WiringPi coding refers to the GPIO pin coding when using the wiringPi GPIO library.

Which GPIO library is used in the code, the pin definition needs to use the corresponding GPIO library code, see Picture 1 GPIO map table for details.

Demo function description:

1. This set of test program is applicable to Raspberry Pi model development boards;
2. This set of test programs includes programs using bcm2835, wiringPi GPIO library, and python programs. For specific operation instructions, see the module user documentation;
3. This set of test programs uses the RaspberryPi hardware IIC bus to transfer data;
4. Please select the corresponding test program and development board to wire

according to the above wiring instructions;

5. This set of test procedures contains the following test items:

- A. the main interface displays the test;
- B. simple black and white color brush test;
- C. rectangle drawing and filling test
- D. circular drawing and filling test
- E. triangle drawing and filling test
- F. English display test;
- G. symbol and digital display test
- H. Chinese display test;
- I. BMP monochrome picture display test;
- J. menu display test

IIC slave device address modification instructions:

1. using the bcm2835, wiringPi GPIO library program IIC modified from the device address

A. Open the **iic.h** file in the source\include directory of the program and find the following:

```
#define IIC_SLAVE_ADDR 0x3C
```

B. Modify the **IIC_SLAVE_ADDR** macro definition (default is 0x3C (corresponding to 0x78)):

For example, change to 0x3D, then the IIC slave address is 0x3D (corresponding to 0x7A);

2. Python program IIC modified from the device address

A. Open the **oled.py** file in the source directory of the program and find the following:

```
IIC_SLAVE_ADDR = 0x3C
```

B. Modify the **IIC_SLAVE_ADDR** macro definition (default is 0x3C (corresponding

to 0x78)):

For example, change to 0x3D, then the IIC slave address is 0x3D (corresponding to 0x7A);