

## Test platform introduction:

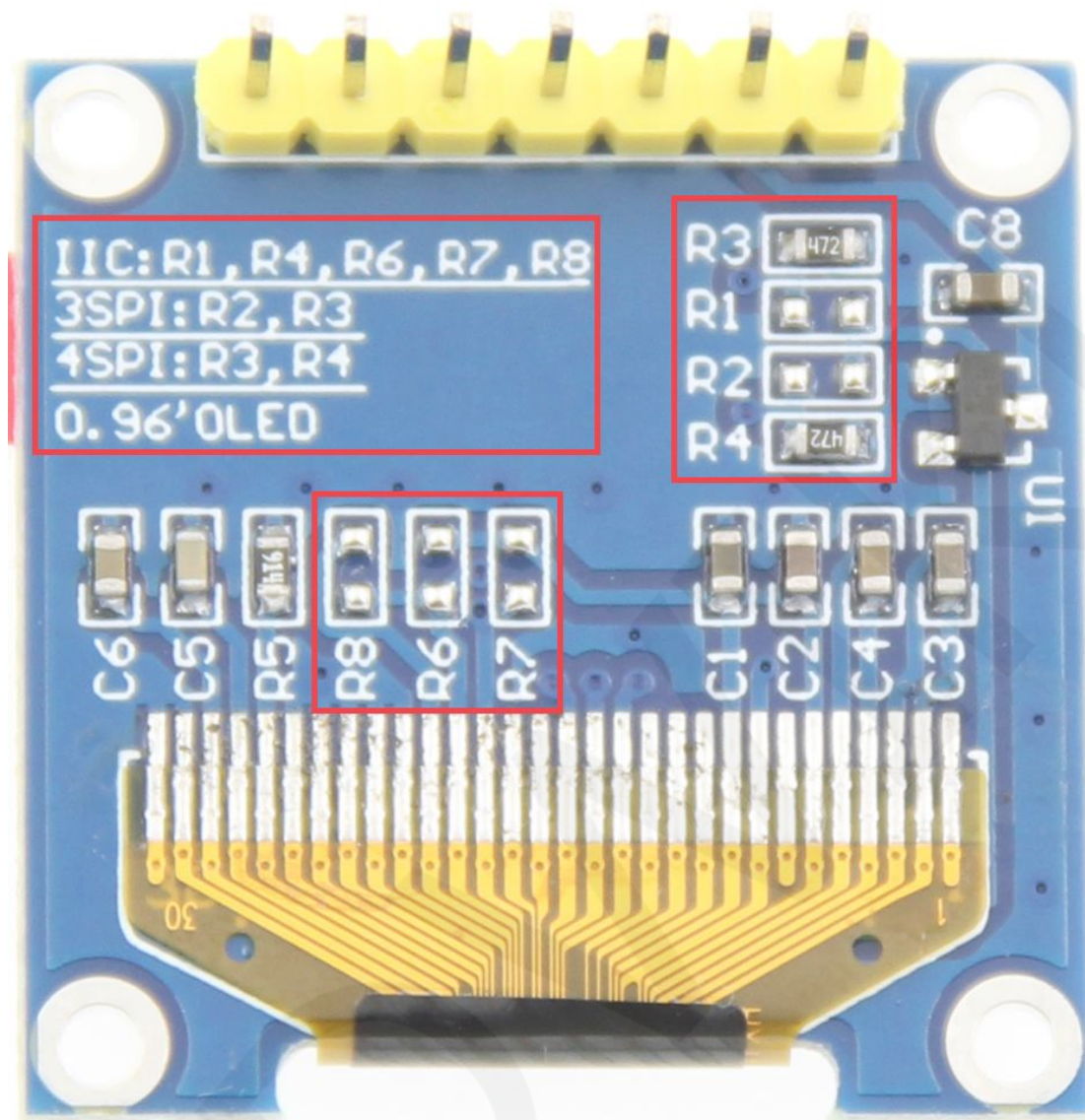
Development board: Arduino UNO/MEGA2560

MCU: AVR\_ATmega328P/AVR\_ATmega2560(corresponding to the development board in order)

## Wiring instructions:



Picture 1. Module pin silk screen



Picture 2. Rear view of the module

### NOTE:

1. This module supports IIC, 3-wire SPI and 4-wire SPI interface bus mode switching (shown in red box in Figure 2). The details are as follows:
  - A. Using 4.7K resistance to solder only R3 and R4 resistors, then choose 4-wire SPI bus interface (default);
  - B. Using 4.7K resistance to solder only R2 and R3 resistors, then select the 3-wire SPI bus interface;
  - C. Using 4.7K resistance to solder only R1, R4, R6, R7 and R8 resistors, then select the IIC bus interface;

2. After the interface bus mode is switched, you need to select the corresponding software and the corresponding wiring pins (as shown in Figure 1) for the module to operate normally. The corresponding wiring pins are described as follows:
  - A. select the 4-wire SPI bus interface, all pins need to be used;
  - B. select the 3-wire SPI bus interface, only the DC pin does not need to be used(it can not be connected), other pins need to be used;
  - C. select the IIC bus interface, only need to use the four pins GND, VCC, D0, D1, At the same time, the RES pin is connected to the high level (can be connected to the VCC), the DC and CS pins are connected to the power GND;

### important:

1. The following pin numbers 1~7 refer to the module pin number of our company with PCB backplane. If you purchase a bare screen, please refer to the pin definition of the bare screen specification, refer to the wiring according to the signal type instead of directly according to the following. The module pin number is used for wiring. For example: CS is 7 feet on our module. It may be x pin on different size bare screen. The following wiring instructions tell you that the CS signal is connected to the A5 pin of the MCU. of.
2. About VCC supply voltage: The OLED display module can be connected to 3.3V or 5V.

Arduino UNO microcontroller test program wiring instructions			
Number	Module Pin	Corresponding to UNO development board wiring pins	Remarks
1	GND	GND	OLED power ground
2	VCC	5V/3.3V	OLED power positive (3.3V~5V)

3	D0	13	OLED SPI and IIC bus clock signals
4	D1	11	OLED SPI and IIC bus data signals
5	RES	A4	OLED reset signal, low level reset (this pin need to connected to the high level (can be connected to the VCC) when selecting IIC bus)
6	DC	A3	OLED command / data input select signal, high level: data, low level: command (this pin is not required(it can not be connected) when selecting 3-wire SPI bus; this pin need to connected to the power GND when selecting IIC bus)
7	CS	A5	OLED chip select signal, low level enable (this pin need to connected to the power GND when selecting IIC bus)

### Arduino MEGA2560 microcontroller test program wiring instructions

Number	Module Pin	Corresponding to MEGA2560 development board wiring pins	Remarks
1	GND	GND	OLED power ground
2	VCC	5V/3.3V	OLED power positive (3.3V~5V)
3	D0	53	OLED SPI and IIC bus clock signals
4	D1	51	OLED SPI and IIC bus data signals
5	RES	A4	OLED reset signal, low level reset (this pin need to connected to the high level (can be connected to the VCC) when selecting IIC bus)
6	DC	A3	OLED command / data input select signal, high level: data, low level: command (this pin is not required(it can not be connected) when selecting 3-wire SPI bus; this pin need to connected to the power GND when selecting IIC bus)

7	CS	A5	OLED chip select signal, low level enable (this pin need to connected to the power GND when selecting IIC bus)
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## Demo function description:

1. This set of test program procedures is applicable to UNO and Mega2560 platforms;
2. This test program uses two standard SPI buses (3-wire SPI and 4-wire SPI) to transmit data. Each standard SPI contains software spi and hardware spi function tests;
3. Please select the corresponding test program and development board to follow the above wiring instructions for wiring;
4. The version of the Arduino IDE used in this test program is 1.8.5. Please use the same or higher version for testing.
5. This set of test programs need to rely on the LCDWIKI library. Before compiling, you need to copy the LCDWIKI library in the Install libraries directory to the directory where the Arduino test program library is located (the default is C:\Users\Administrator\Documents\Arduino\libraries);
6. This set of test procedures contains the following test items:
  - A. Example\_01\_clear\_screen is a simple brush screen test, the screen is cycled in black and white color order;
  - B. Example\_02\_colligate\_test is a comprehensive test, showing graphics, lines and statistics program running time;
  - C. Example\_03\_display\_string is a text display test, showing Chinese and English in different sizes;
  - D. Example\_04\_display\_picture is a picture display test, displaying a monochrome BMP picture and a menu interface;