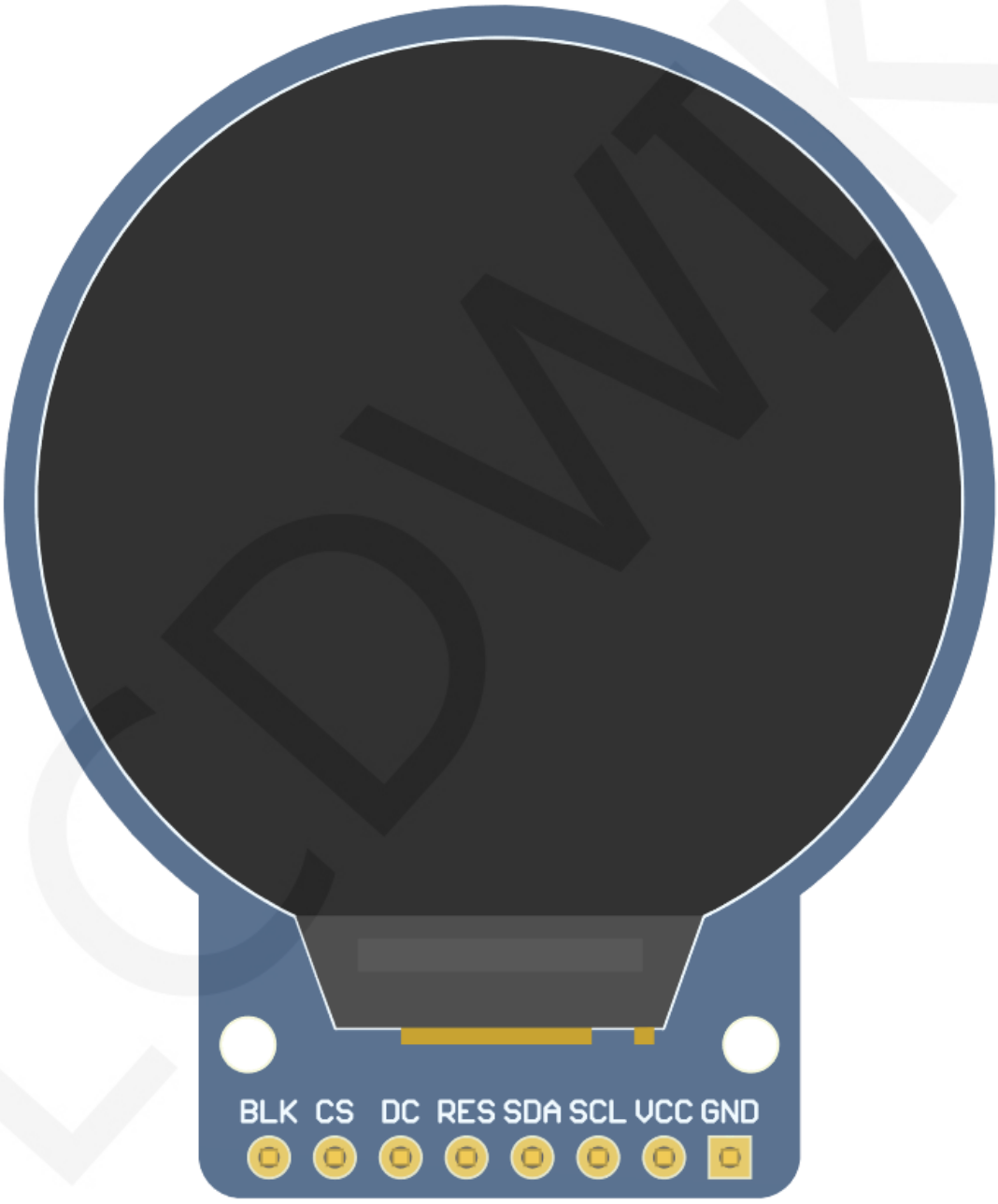
## Test platform introduction:

Development board: Arduino UNO official version / MEGA2560 official version

MCU：AVR_ATmega328P/AVR_ATmega2560(corresponding to the development board in order)

## Wiring instructions:




**Picture 1. Pin silkscreen picture**

## important:

1. The following pin numbers 1~8 refer to the module pin numbers of our company with PCB backplane. If you are buying 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: DC is 6 feet on our module. It may be x pin on different size bare screen. The following wiring instructions tell you that the DC signal is connected to the P12 pin of the MCU. of.
2. About VCC supply voltage: The IPS display module can be connected to 3.3V or 5V.
3. About backlight voltage: The module with PCB backplane has integrated triode backlight control circuit, only need to input high level or PWM wave on BL pin to backlight. If you are buying a bare screen, the LEDAx is connected to 3.0V-3.3V, and the LEDKx can be grounded.

| Arduino UNO microcontroller test program wiring instructions | | | |
|---|---|---|---|
| Number | Module Pin | Corresponding to UNO development board wiring pins | Remarks |
| 1 | GND | GND | LCD Power ground pin pin |
| 2 | VCC | 5V/3.3V | LCD Power supply positive pin |
| 3 | SCL | 13 | LCD SPI bus clock pin |
| 4 | SDA | 11 | LCD SPI bus write data pin |
| 5 | RES | A4 | LCD reset control pin (valid for low level, The module has a reset circuit, and this pin can not be connected) |
| 6 | DC | A3 | LCD data / command selection control pin (0-command, 1-data) |
| 7 | CS | A2 | LCD chip selection control pin (effective at |

| | | | |
|---|---|---|---|
| | | | low level) |
| 8 | **BLK** | A0 | Backlight control pin (can not be connected, recommended not to be connected, because connecting backlight will cause serious burning) |

| Arduino MEGA2560 microcontroller test program wiring instructions | | | |
|---|---|---|---|
| **Number** | **Module Pin** | **Corresponding to MEGA2560 development board wiring pins** | **Remarks** |
| 1 | **GND** | GND | LCD Power ground pin pin |
| 2 | **VCC** | 5V/3.3V | LCD Power supply positive pin |
| 3 | **SCL** | 52 | LCD SPI bus clock pin |
| 4 | **SDA** | 51 | LCD SPI bus write data pin |
| 5 | **RES** | A4 | LCD reset control pin (valid for low level, The module has a reset circuit, and this pin can not be connected) |
| 6 | **DC** | A3 | LCD data / command selection control pin (0-command, 1-data) |
| 7 | **CS** | A2 | LCD chip selection control pin (effective at low level) |
| 8 | **GND** | A0 | Backlight control pin (can not be connected, recommended not to be connected, because connecting backlight will cause serious burning) |

## Demo function description:

1. This set of test program procedures is applicable to UNO and Mega2560 platforms;
2. This set of test programs uses the SPI bus to transfer data, including software spi and hardware spi functions;
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 depends on the LCDWIKI library. Before compiling, you need to copy the LCDWIKI library in the Install libraries directory of the test package to the libraries folder of the Arduino project directory (the default Arduino project directory is C:\Users\Administrator\ Documents\Arduino\libraries);
6. This set of test procedures contains the following test items:
   A. Example_01_Simple_Test is a simple screen brushing test independent of the library, which can be used to detect LCD hardware
   B. Example_02_clear_screen is a simple brush screen test, the screen is cycled in black, white, red, green and blue colors;
   C. Example_03_colligate_test is a comprehensive test, showing graphics, lines and statistics program running time;
   D. Example_04_display_graph is a graphical display test, showing various graphics;
   E. Example_05_display_scroll is a rotation test;
   F. Example_06_display_string is a text display test, showing Chinese and English in different sizes;
   G. Example_07_display_The clock is a simulation test of the round clock dial, which shows the clock running