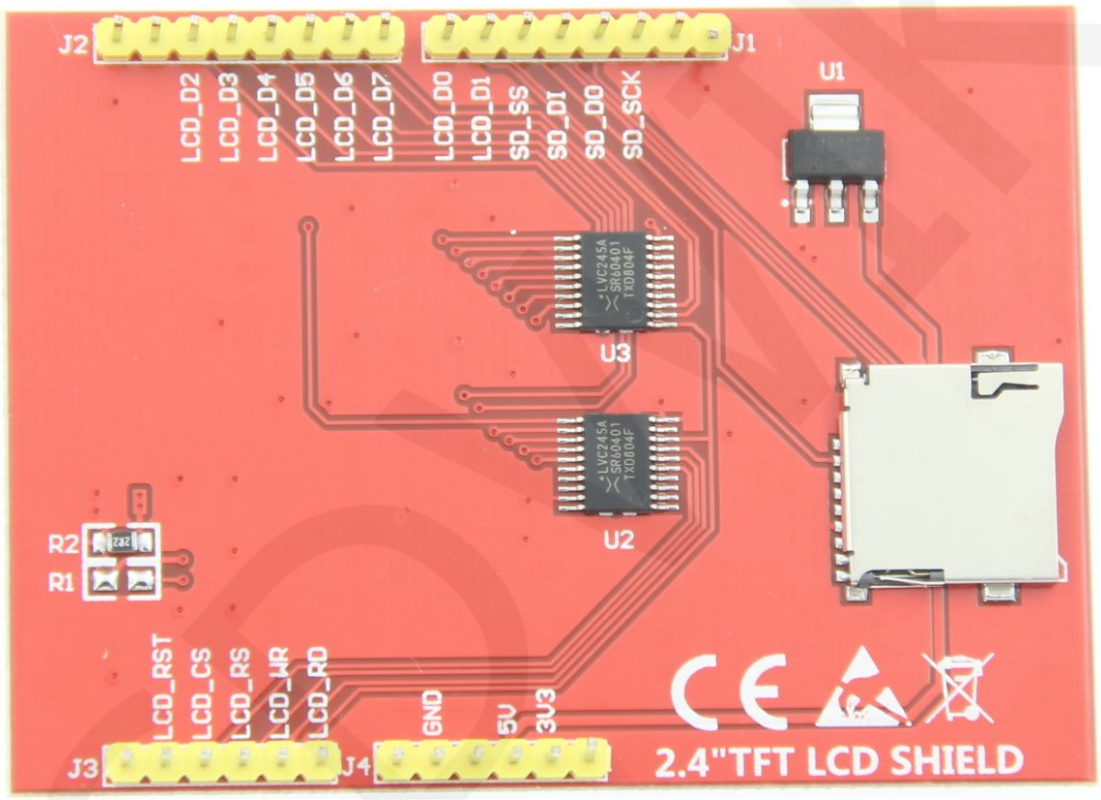
Test platform introduction:

Development board: Arduino UNO,MEGA2560

MCU:AVR_ATmega328,AVR_ATmega2560

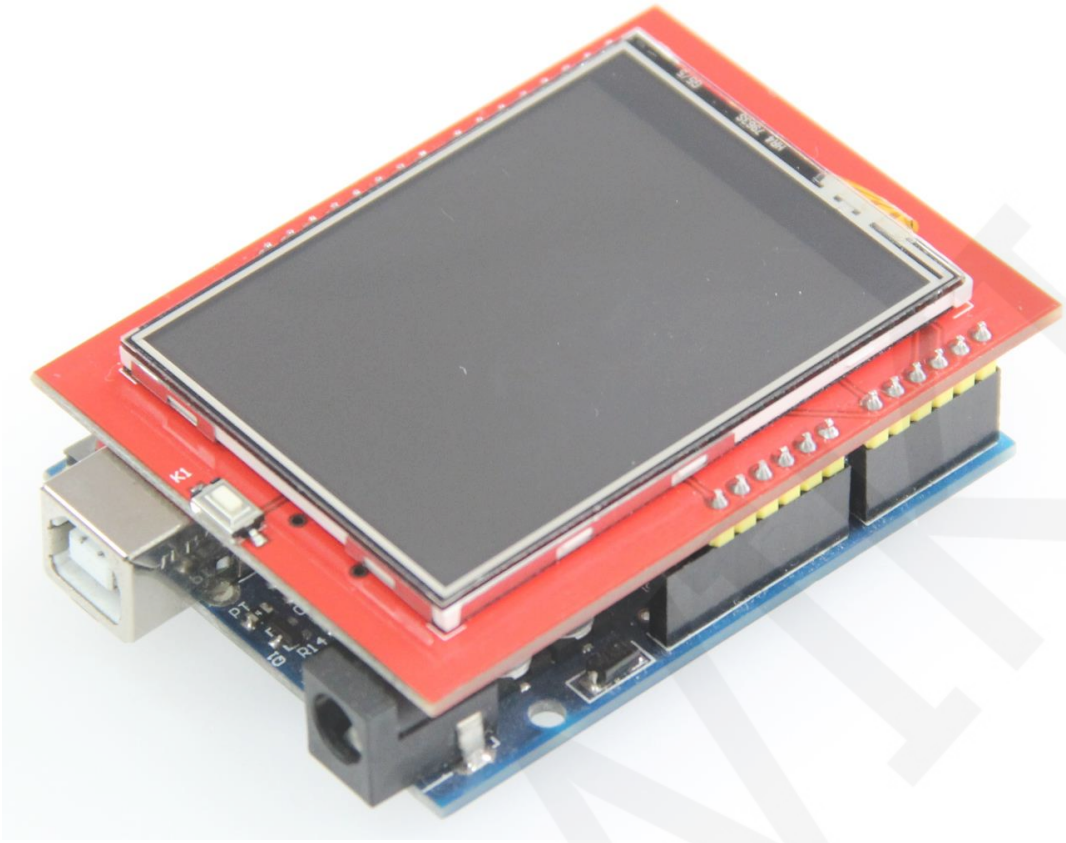
Wiring instructions:

This module can be directly inserted into the Arduino UNO and Mega2560, no need to manually wire

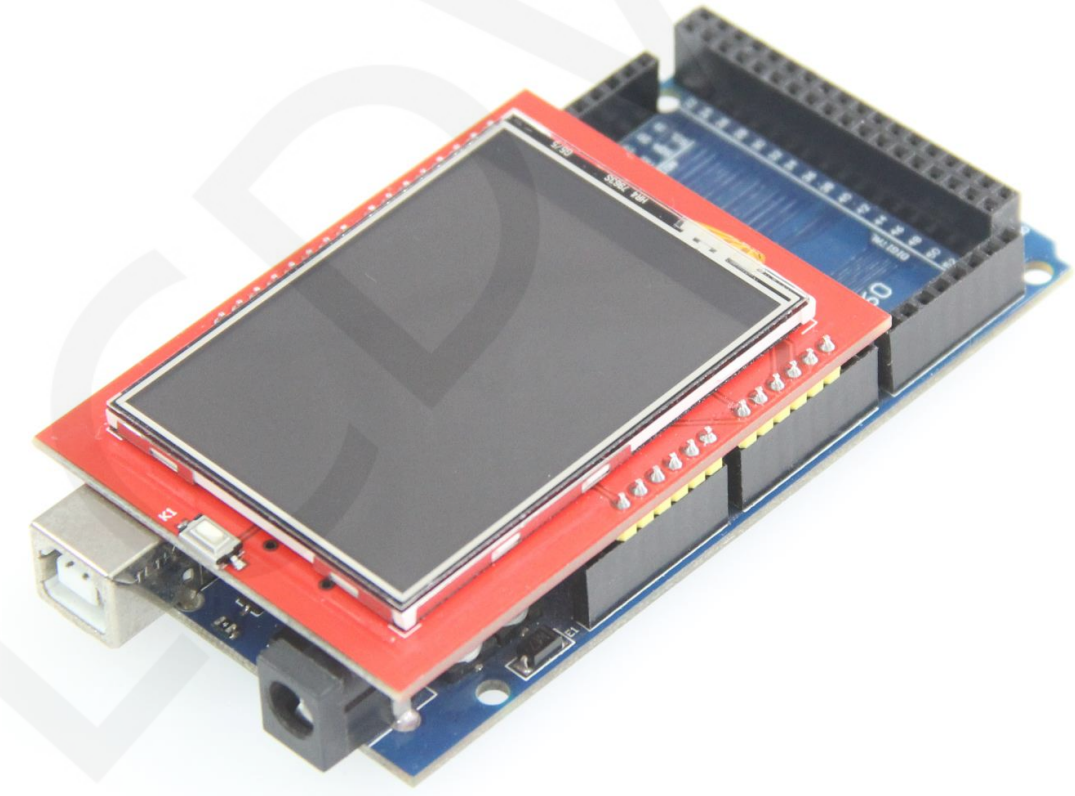


Pin silk screen picture

Note: Pins that are not marked with silkscreen are not used.



UNO directly inserted picture



Mega2560 directly inserted picture

Direct insertion instructions for Arduino UNO and MEGA2560 microcontroller test program pins			
Number	**Module Pin**	**Corresponding to UNO and MEGA2560 development board direct plug pins**	**Remarks**
1	**5V**	5V	Power positive 5V pin
2	**3V3**	3.3V	Power positive 3.3V pin
3	**GND**	GND	Power ground pin
4	**LCD_D0**	8	8-bit data bus pin
5	**LCD_D1**	9	
6	**LCD_D2**	2	
7	**LCD_D3**	3	
8	**LCD_D4**	4	
9	**LCD_D5**	5	
10	**LCD_D6**	6	
11	**LCD_D7**	7	
12	**LCD_RST**	A4	LCD reset control pin
13	**LCD_CS**	A3	LCD chip select control pin
14	**LCD_RS**	A2	LCD register / data selection control pin
15	**LCD_WR**	A1	LCD write control pin
16	**LCD_RD**	A0	LCD read control pin
17	**SD_SS**	10	SD card selection control pin
18	**SD_DI**	11	SD card input pin
19	**SD_DO**	12	SD card output pin
20	**SD_SCK**	13	SD card clock control pin

Demo function description:

1. This set of test program procedures is applicable to UNO and Mega2560 platforms;
2. This module uses the 8-bit parallel port bus to transmit data, so the test program must be set to 8-bit mode. For details, please check the mode setting instructions;
3. Please select the corresponding 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 and the TouchScreen library. Before compiling, you need to copy the dependent libraries 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 swipe test that does not depend on the library, can be used to detect the LCD hardware;
   B. Example_02_clear_screen is a simple solid color brush test;
   C. Example_03_colligate_test is a comprehensive test, including graphics, lines, text display;
   D. Example_04_display_graph is a graphical display test, including graphics drawing and filling test；
   E. Example_05_display_scroll for character and graphic scroll display test；
   F. Example_06_display_string is a character display test；
   G. Example_07_read_piexl is a test for reading pixel color values；
   H. Example_08_display_phonecall for phone dialing interface display and touch test；
   I. Example_09_show_bmp_picture is a picture display test, read the bmp picture in the SD card and display it (only for UNO platform)；
   J. Example_10_switch_test for switch display and touch test；
   K. Example_11_touch_pen for touch stroke drawing test；
   L. SDCard Exten Example for the Arduino platform SD card function test, including writing and reading；
   M. TouchScreen_Calibr is a touch screen calibration program；

Mode setting description:

Open the lcd_mode.h file of the LCDWIKI_KBV library, as shown below:

```
//if using 8bit mode,set the below macro definition to 1
//if using 16bit mode,set the below macro definition to 0
#define CONFIG_USE_8BIT_BUS 1

//if using 8bit mode on Mega2560 and the data pin is from 22 to 29,please uncomment the below macro definition
//if using 8bit mode on UNO and the data pin is from 2 to 9,please comment the below macro definition
//#define USE_8BIT_SHIELD_ON_MEGA
```

CONFIG_USE_8BIT_BUS 1 //Use 8-bit mode

CONFIG_USE_8BIT_BUS 0 //Use 16-bit mode

define USE_8BIT_SHIELD_ON_MEGA //If defined, use the MEGA2560 platform 8-bit mode

//#define USE_8BIT_SHIELD_ON_MEGA // if not defined, use UNO platform 8-bit mode

This module needs to use the UNO platform 8-bit mode.

Note: Different hardware corresponds to different modes. If the mode is switched on the software, the hardware should be modified accordingly. Otherwise, the module will not work properly if the hardware and software modes do not match.