# 7.0inch LCD module instructions

# 1. Interface definition



Number	Pin Name	Pin Description
1	GND	power ground pin
2	EX_3.3V	Undefined, reserved as the positive pin of the power supply (connected to 3.3V)
3	NC	Undefined, reserved
4	RS	LCD register / data selection control pin (high level: register, low level: data)
5	WR	LCD write control pin
6	RD	LCD read control pin
7~14	DB8~DB15	LCD data bus high 8-bit pin
15	CS	LCD reset control pin( low level enable)
16	F_CS	SPI FLASH chip select control pin(low level enable)
17	REST	LCD reset control pin( low level reset)
18	5V	Power supply positive pin (connected to 5V)
19	LED_A	LCD backlight control pin(it needs to be used according to the selection)
20	NC/INT	There is no definition when connecting the resistance touch screen, Used as interrupt pin when connected to capacitive touch screen

21~28	DB0~DB7	LCD data bus low 8-bit pin
29	T_CLK	Resistance touch screen SPI bus clock pin
30	T_CS	Resistive touch screen chip selection pin (low level enable)
31	T_DIN	Resistance touch screen SPI bus write data pin
32	NC/CRT	There is no definition when connecting the resistance touch screen, Used as reset pin when connected to capacitive touch screen (low level reset)
33	T_DO	Resistance touch screen SPI bus read data pin
34	T_IRQ	Resistance touch screen interrupt detection pin (active at low level)
35	SD_DO	SD card SDIO bus read data pin
36	SD_CLK	SD card SDIO bus clock pin
37	SD_DIN	SD card SDIO bus write data pin
38	SD_CS	SD card pin selection (low level enable)
39	NC/SDA	There is no definition when connecting the resistance touch screen, As IIC bus data pin when connected to capacitive touch screen
40	NC/SCL	There is no definition when connecting the resistance touch screen, Used as IIC bus clock pin when connected to capacitive touch screen

# Note:

- A. The pins beginning with T are the relevant pins of the resistive touch screen;
- B. The pins beginning with SD are SD card related pins;
- C. Pins beginning with F are SPI flash related pins;
- D. NC/ starts with relevant pins of capacitive touch screen;
- E. The rest are LCD related pins;
- F. SPI flash is not welded. If you need to use it, please weld it yourself.

# 2. Program wiring instructions

# **STC12LE5A60S2 Program wiring instructions:**

LCD module		51 connection wiring
5V	>	5V
GND	>	GND
PB0~PB7	>	P00~P07
PB8~PB15	>	P20~P27
WR	>	P36
RD	>	P37
RS	>	P35
REST	>	P12
CS	>	P10
LED_A	>	If it is necessary to use 3.3V
T_IRQ	>	P34
T_DIN	>	P30
T_DO	>	P31
T_CS	>	P14
T_CLK	>	P17

# **STM32F103RCT6 Program wiring instructions:**

LCD module		STM32 connection wiring
5V	>	5V
GND	>	GND
DB0~DB15	>	PB0~PB15
WR	>	PC7
RD	>	PC6
RS	>	PC8
REST	>	PC4
CS	>	PC9
LED_A	>	PC10
T_IRQ	>	PC1
T_DIN	>	PC3
T_DO	>	PC2
T_CS	>	PC13
T_CLK	>	PC0

# **STM32F407VET6 Program wiring instructions:**

LCD module		STM32 connection wiring
5V	>	5V
GND	>	GND
DB0	>	PD14
DB1	>	PD15
DB2	>	PD0

DB3	>	PD1
DB4	>	PE7
DB5	>	PE8
DB6	>	PE9
DB7	>	PE10
DB8	>	PE11
DB9	>	PE12
DB10	>	PE13
DB11	>	PE14
DB12	>	PE15
DB13	>	PD8
DB14	>	PD9
DB15	>	PD10
WR	>	PD5
RD	>	PD4
RS	>	PD11
REST	>	reset pin
CS	>	PD7
LED_A	>	PB15
T_IRQ	>	PB1
T_DIN	>	PB2
T_DO	>	PC4
T_CS	>	PC13
T_CLK	>	PB0

#### Note:

- A. The module power supply must be connected to 5V, otherwise the backlight will not light up;
- B. There are three ways of backlight control: normally on, ssd1963 PWM control brightness, and pin control. By default, pin control is used, and only led is required\_ A pin input high level, can enable the backlight drive circuit, light the backlight, input low level to extinguish the backlight. The backlight brightness can be adjusted by inputting PWM signal.
- C. When the 7-inch backlight is at its brightest, the total current of the module can reach about 420mA, so be sure to use a stable power supply and qualified power supply line.