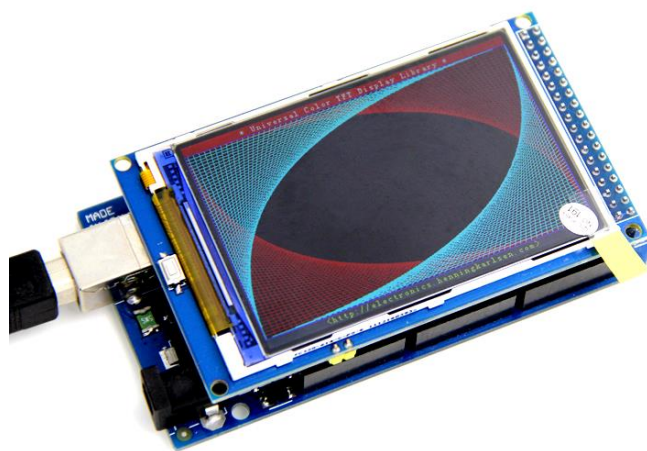


MAR3513-User Manual

3.5inch LCD Module For Mega2560



Overview

MAR3513 module is 3.5" TFT LCD with 262K color 480x 320 resolutions. The controller of this LCD module is ILI9486/ILI9488, it supports 16-wires DataBus interface. Moreover, this module includes the 5V-3.3V power conversion circuit and Level conversion circuit, This Module can Directly inserted into the **Arduino Mega2560 Board** ,it also includes the SD card socket and SPI FLASH circuit.

Features

- **Support Arduino Mega2560 Directly inserted**
- **OnBoard level conversion chip for 5V/3.3V MCU**
- **Compatible with 3.3/5V operation voltage level**
- **Compatible with Arduino-Series development Board.**
- **Compatible with UTFT / UTFT_Buttons / Utouch Library for arduino.**
- **provided 12-examples with Arduino ,3-examples with STM32**
- **With SD Card Socket**
- **With SPI FLASH circuit**

Specifications

| Item | Description |
|--------------------|-----------------------------|
| Display Type | 3.5 inch TFT LCD Module |
| Glass Type | TFT |
| Display Resolution | 480XRGBX320 Pixels |
| Back light | 6 chip HighLight white LEDs |
| Control IC | ILI9486/ILI9488 |
| Interface | 16Bit parallel interface |
| PCB Module size | 96.60mmX60.30mm |
| LCD Area(WxHxT) | 84.96mmX55.5mmX2.55mm |
| Active Area(WxH) | 73.44mmX48.96mm |
| Module weight | TDB |

Electrical Characteristics

| Specification | Min | Type | Max | Unit | |
|------------------------|--------------------|------|-----|------|---|
| Power Voltage(VDD/VCC) | 4.5 | 5 | 5.5 | VDC | |
| IO Pins Voltage | MCU Voltage = 3.3V | 2.8 | 3.3 | 3.6 | V |
| | MCU Voltage = 5V | 4.5 | 5 | 5.5 | |
| BackLight Voltage | 2.8 | 3.2 | 3.3 | V | |
| Current Consumption | - | 150 | - | mA | |

Hardware

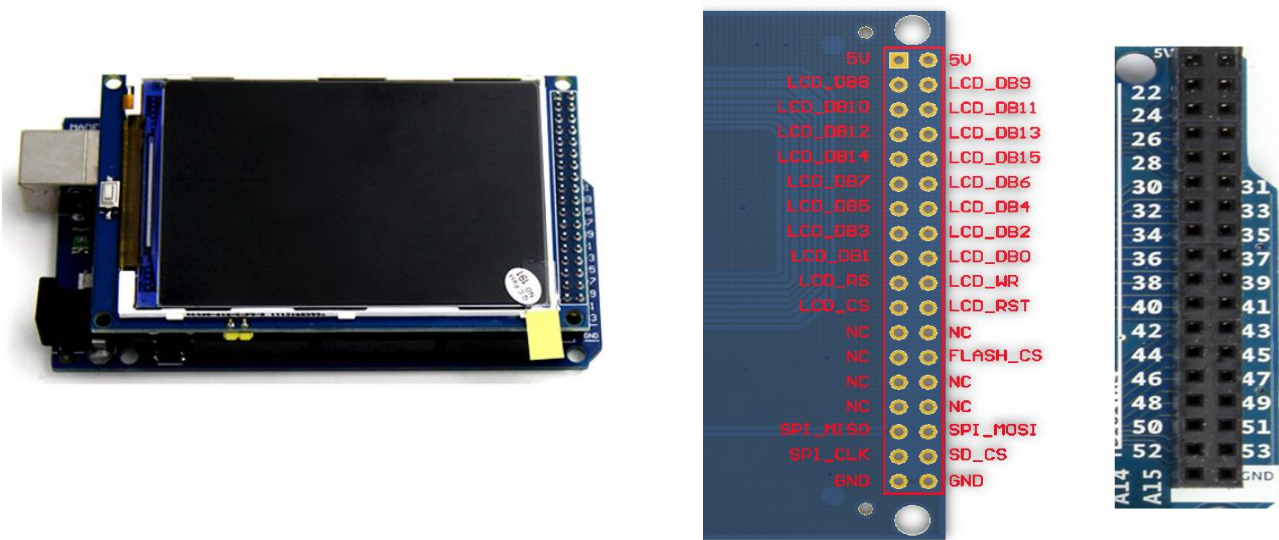
| Pin Map | | | |
|---------|----------|-------|--|
| No | Pin | Type* | Description |
| 1 | 5V | P | 5V Power Supply in |
| 2 | 5V | P | 5V Power Supply in |
| 3 | LCD_DB8 | I | Data Bus |
| 4 | LCD_DB9 | I | Data Bus |
| 5 | LCD_DB10 | I | Data Bus |
| 6 | LCD_DB11 | I | Data Bus |
| 7 | LCD_DB12 | I | Data Bus |
| 8 | LCD_DB13 | I | Data Bus |
| 9 | LCD_DB14 | I | Data Bus |
| 10 | LCD_DB15 | I | Data Bus |
| 11 | LCD_DB7 | I | Data Bus |
| 12 | LCD_DB6 | I | Data Bus |
| 13 | LCD_DB5 | I | Data Bus |
| 14 | LCD_DB4 | I | Data Bus |
| 15 | LCD_DB3 | I | Data Bus |
| 16 | LCD_DB2 | I | Data Bus |
| 17 | LCD_DB1 | I | Data Bus |
| 18 | LCD_DB0 | I | Data Bus |
| 19 | LCD_RS | I | LCD Cammand/Data Selection(0:cammand;1:Data) |
| 20 | LCD_WR | I | LCD Write signal |
| 21 | LCD_CS | I | LCD Chip Selection,Low level active |
| 22 | LCD_RST | I | LCD Reset(Low level Enable) |
| 23 | NC | - | No connection |
| 24 | NC | - | No connection |
| 25 | NC | - | No connection |
| 26 | FLASH_CS | I | Exten circuit: SPI_FLASH Chip Sellation |
| 27 | NC | - | No connection |
| 28 | NC | - | No connection |
| 29 | NC | - | No connection |
| 30 | NC | - | No connection |
| 31 | SPI_MISO | O | Exten circuit: SPI Bus Data output |
| 32 | SPI_MOSI | I | Exten circuit: SPI Bus Data input |
| 33 | SPI_CLK | I | Exten circuit: SPI Bus Clock |
| 34 | SD_CS | I | Exten circuit: Extern SDCard Chip Sellation |
| 35 | GND | G | Ground |
| 36 | GND | G | Ground |

* : P:Power supply;G:Ground;I:Input;O:Output

PinMap

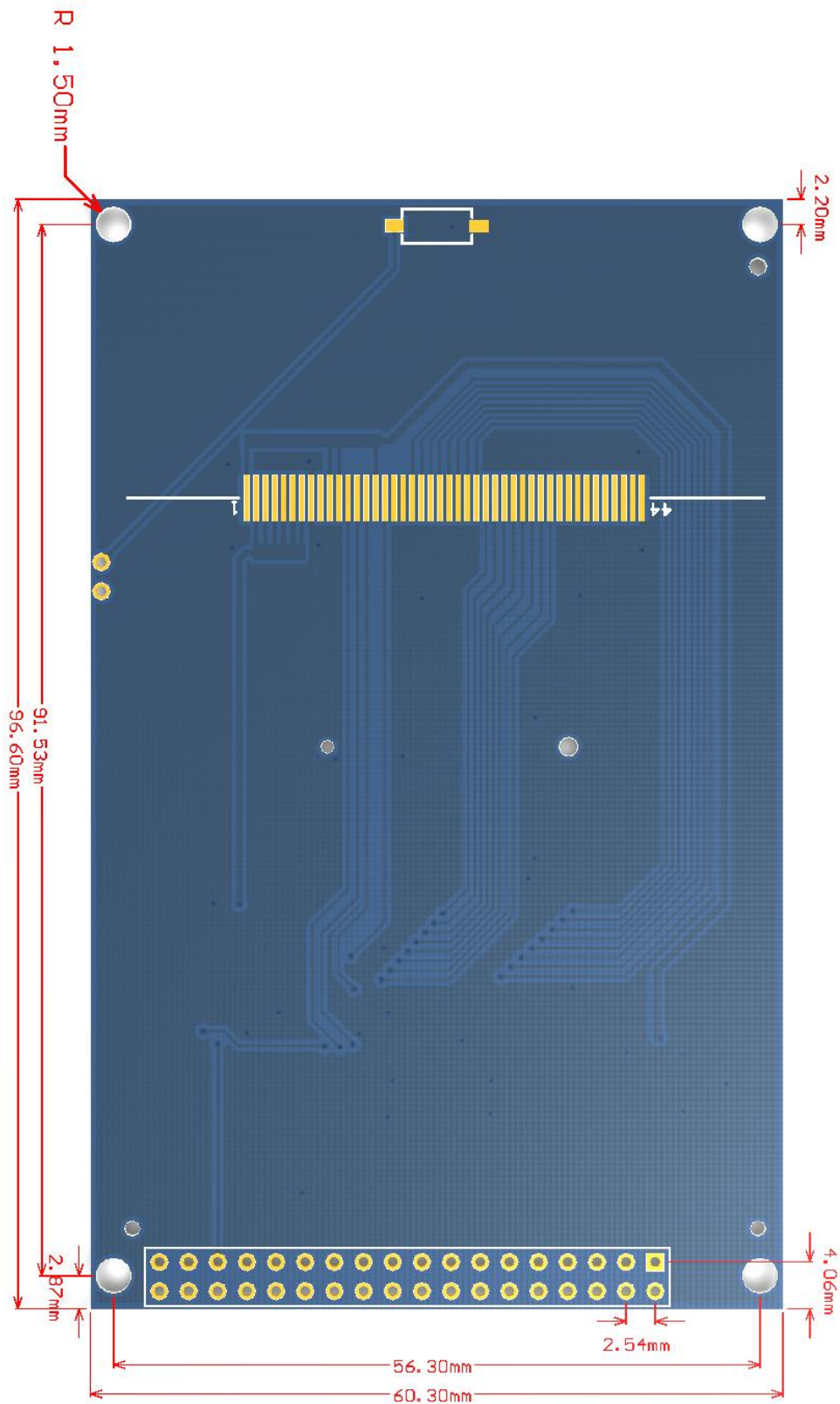


How to Connect with Mega2560



Top view

Module Structure



Development Document

- 6 examples with UTFT librarie for Arduino.
- 6 SDCard Exten examples with SD library for Arduino.
- 3 examples for STM32.
- 1 examples for C51.
- Develop toos and documents.

The development of information we provide:

3.2寸Arduino_IPS模块配套资料320X480

- Arduino Demo_Mega2560
 - Example01-UTFT_Demo_480x320
 - Example02-UTFT_ViewFont
 - Example03-UTFT_Buttons_Demo
 - Example04-UTouch_ButtonTest
 - Example05-UTFT_Textrotation_Demo
 - Example06-UTFT_Buttons_Bitmap_Demo
- Install libraries
- SDCard Exten Example
 - CardInfo
 - Datalogger
 - DumpFile
 - Files
 - listfiles
 - ReadWrite
- C51 Demo_STC12LE5A60S2
 - Example01
- STM32 Demo_STM32F103RCT6
 - Example01-Simple Test
 - Example02-Show Pictures from SDCard
 - Example03-uCosII+uCgui
- tft_drivers
- Tools-Image2Lcd 2.9
- Tools-PctoLCD200
- User Manual

⑥ Examples for Arduino

⑥ Exten-SDCard Examples for Arduino

① Examples for C51

③ Examples for STM32

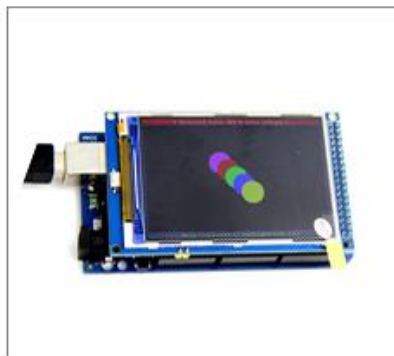
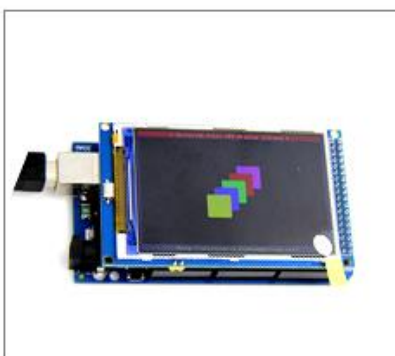
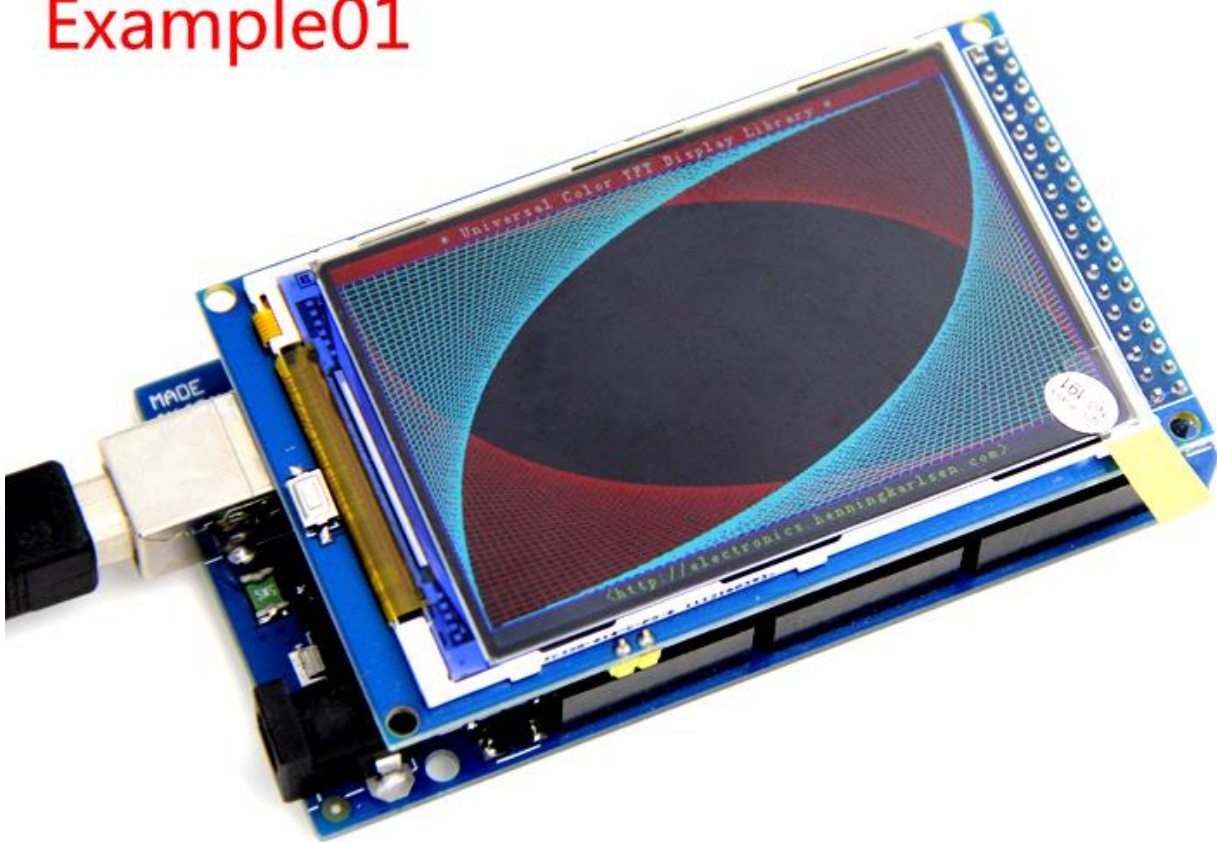
Develop toos and Documents

Demo Effect

UTFT_Demo Test for Arduino

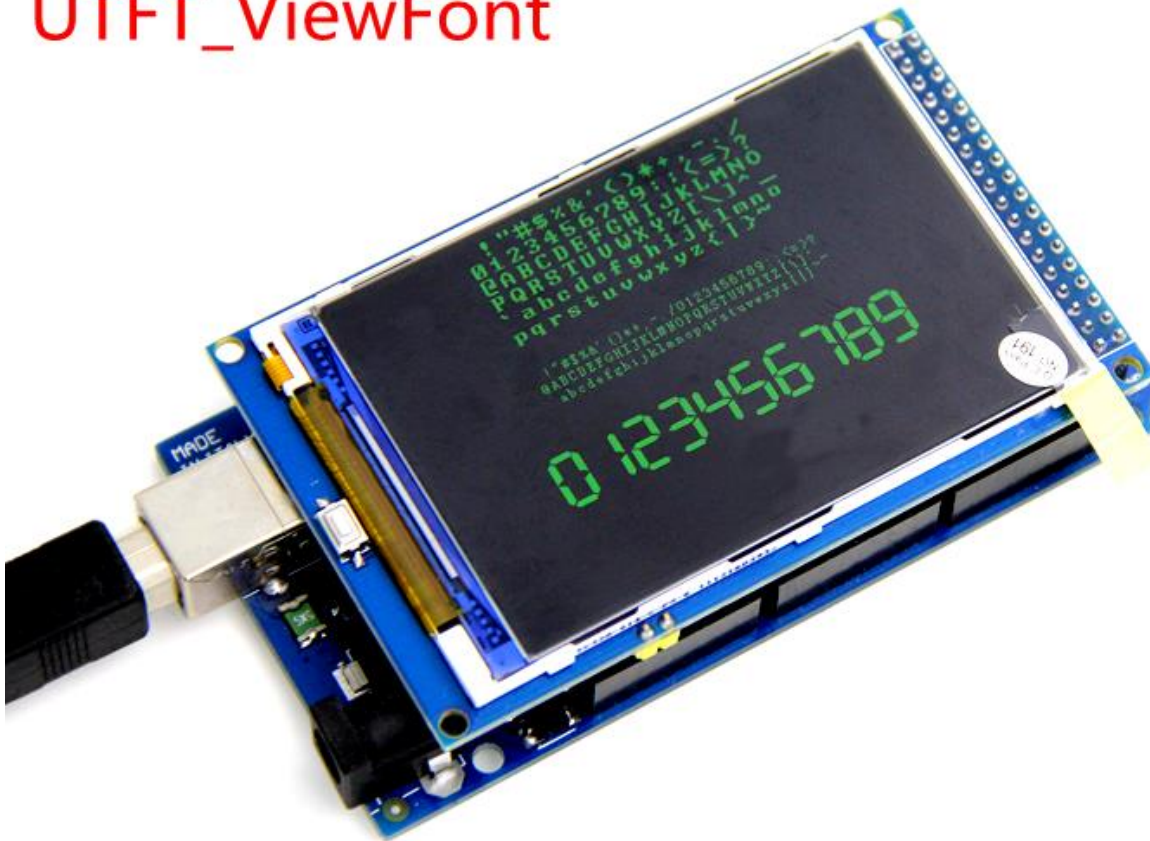
Mega2560

Example01



Example02

UTFT_ViewFont



Example03



UTFT_Buttons_Demo

Example04



UTouch_ButtonTest

Example05



UTFT_Textrotation

Example06



UTFT_Buttons_Bitmap

Revision History

| Rev. | Description | Release date |
|------|-----------------|--------------|
| V1.0 | Initial version | 2016/8/25 |
| V1.1 | Correction. | 2017/9/15 |