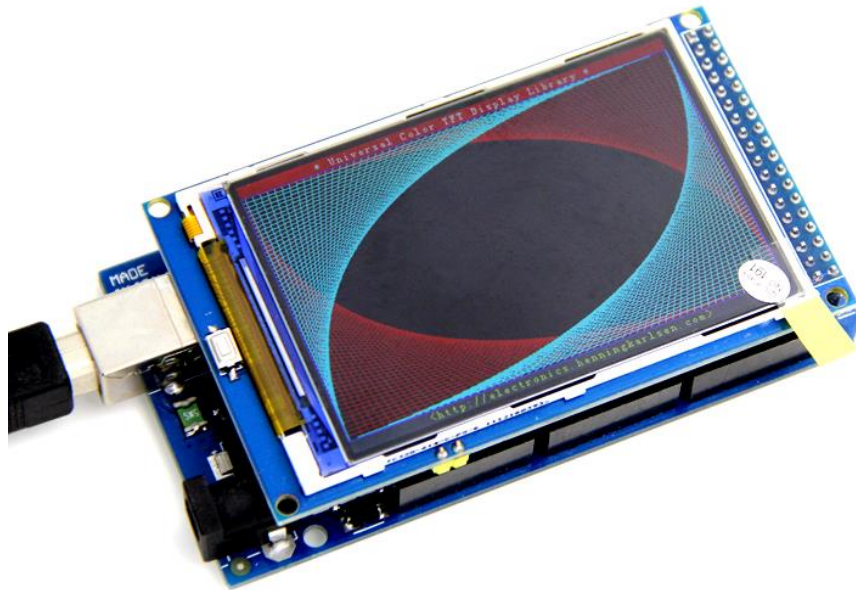

User Manual(TF038)



Overview

This module is 3.2" TFT LCD with 262K color 480x 320 resolutions. The controller of this LCD module is ILI9481, 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**
- **With Full-angle IPS TFT panel**
- **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	3.2 inch a-si TFT LCD Module
Glass Type	TFT
Display Resolution	480XRGBX320 Pixels
Back light	6 chip HighLight white LEDs
Control IC	ILI9481
Interface	16Bit parallel interface
PCB Module size	89.92mmX54.25mm
LCD Area(WxHxT)	50.74mmX78.35mmX1.88mm
Active Area(WxH)	67.68mmX45.12mm
Module weight	TDB

Electrical Characteristics

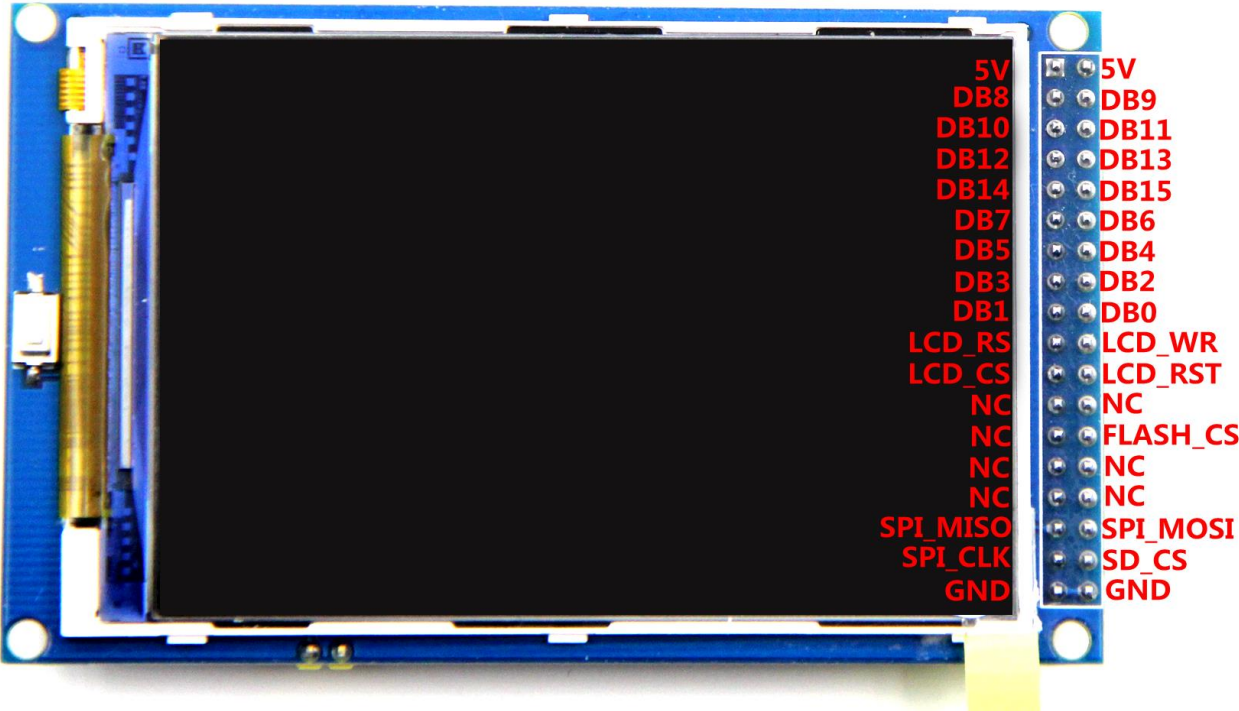
Specification	Min	Type	Max	Unit
Power Voltage(VDD/VCC)	3.3	5	5.5	VDC
IO Pins Voltage	MCU Voltage = 3.3V	3	3.3	V
	MCU Voltage = 5V	4.5	5	
BackLight Voltage	2.8	3.2	3.3	V
Current Consumption	-	100	-	mA

Hardware

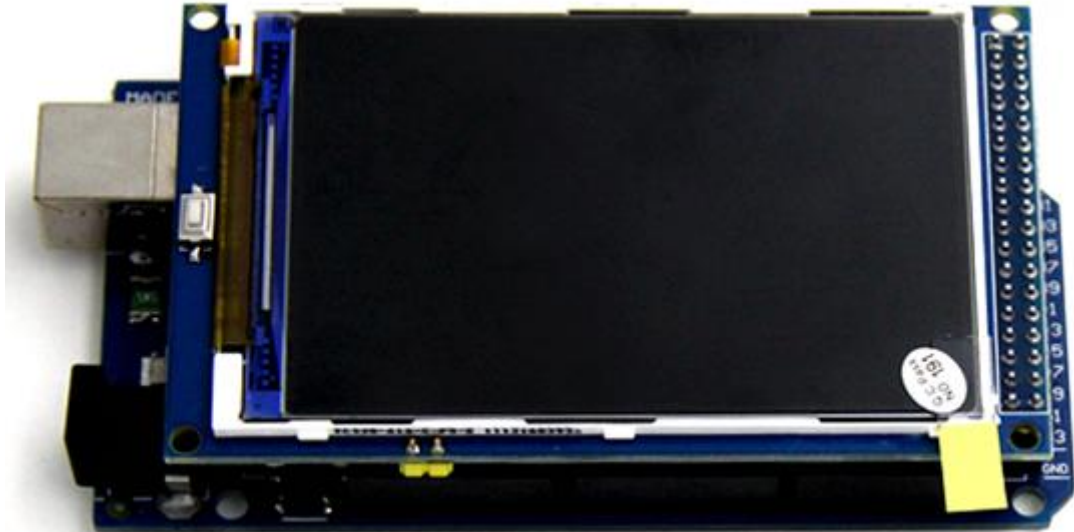
Pin Map			
No	Pin	Type*	Description
1	5V	P	5V Power Supply in
2	5V	P	5V Power Supply in
3	LCD_DB8	I	Data Bus
4	LCD_DB9	I	Data Bus
5	LCD_DB10	I	Data Bus
6	LCD_DB11	I	Data Bus
7	LCD_DB12	I	Data Bus
8	LCD_DB13	I	Data Bus
9	LCD_DB14	I	Data Bus
10	LCD_DB15	I	Data Bus
11	LCD_DB7	I	Data Bus
12	LCD_DB6	I	Data 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 Sellaction
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 Sellaction
35	GND	G	Ground
36	GND	G	Ground

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

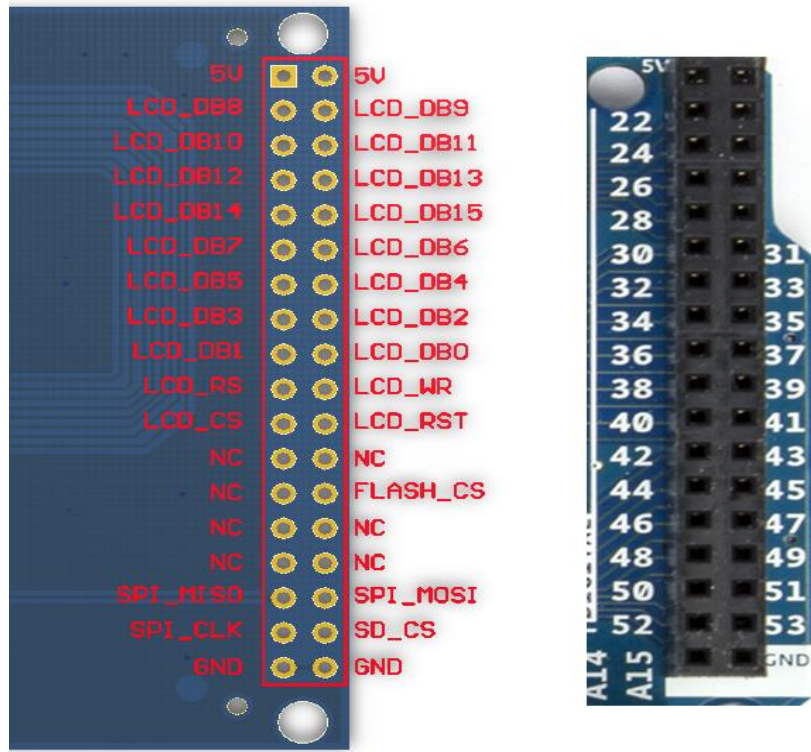
PinMap



How to Connect with Mega2560

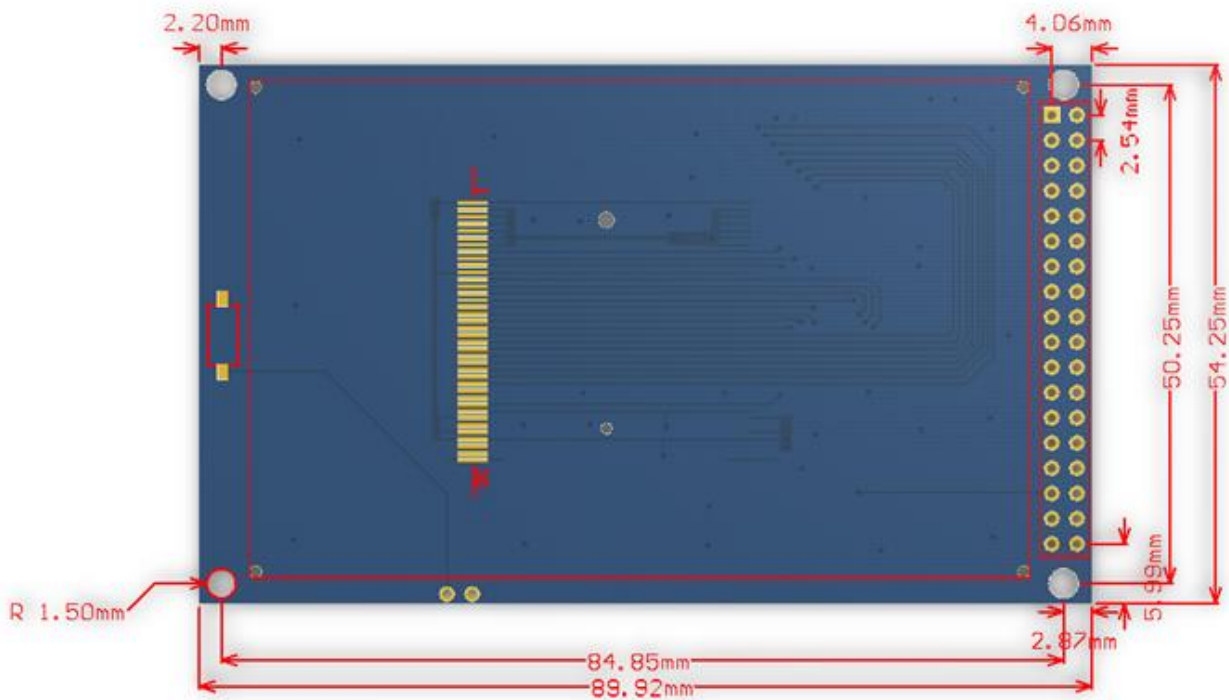


Top view



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

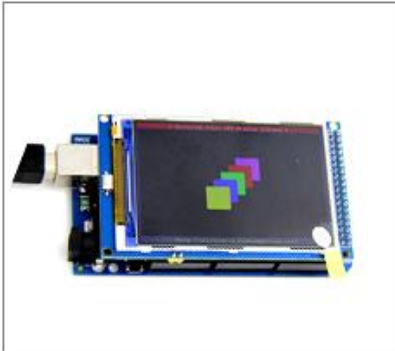
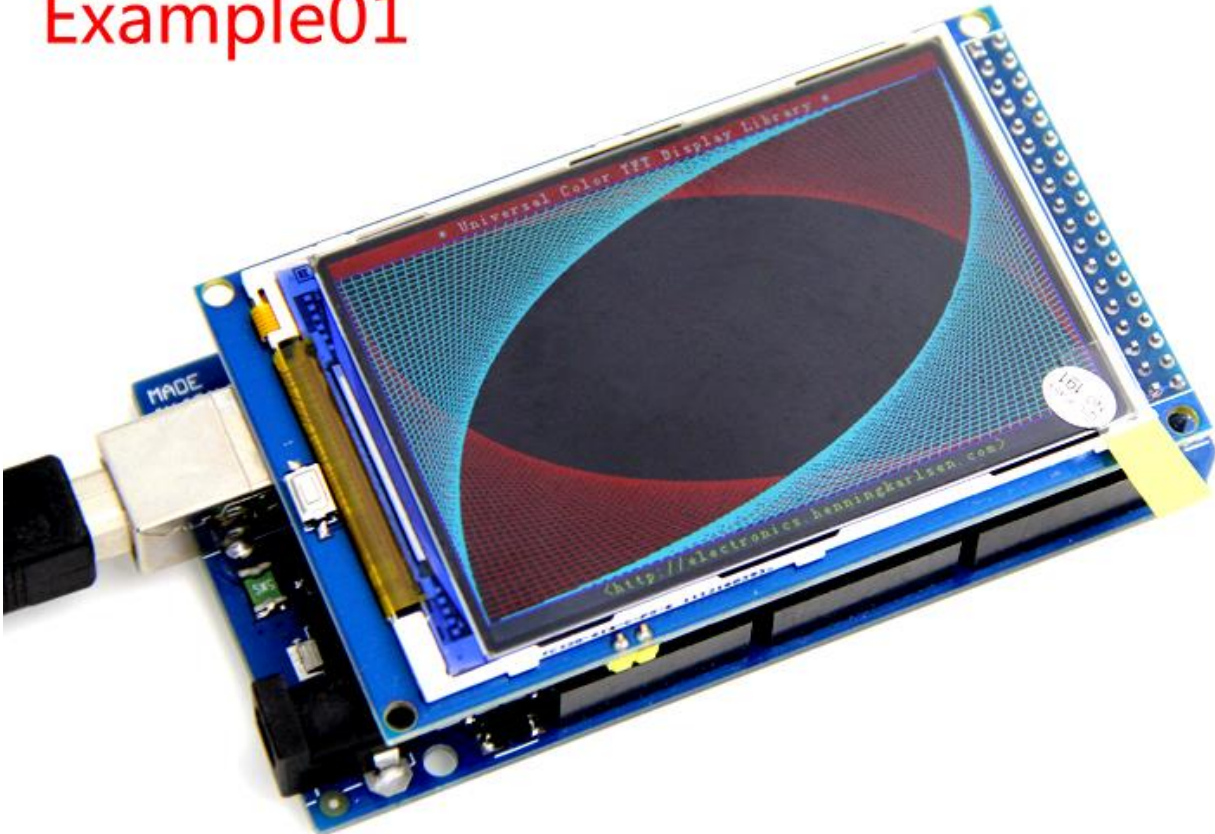
Develop toos and Documents

Demo Effect

UTFT_Demo Test for Arduino

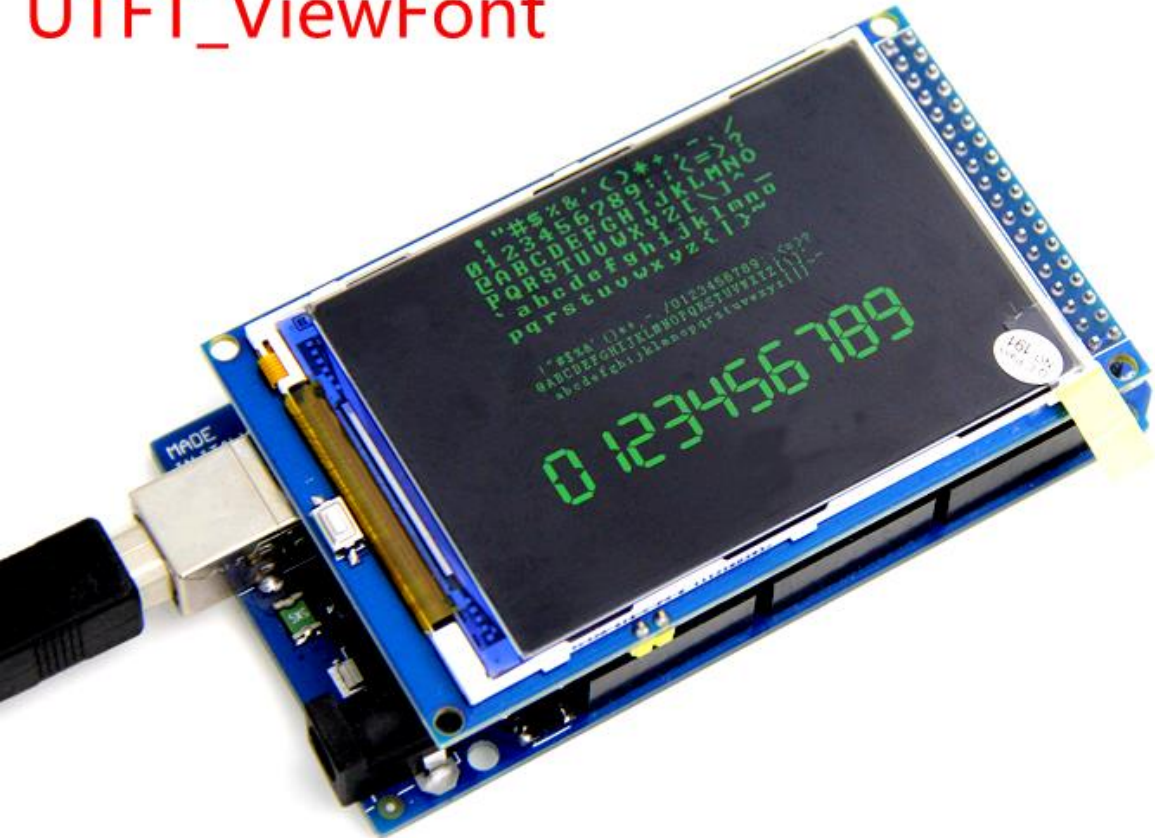
Mega2560

Example01

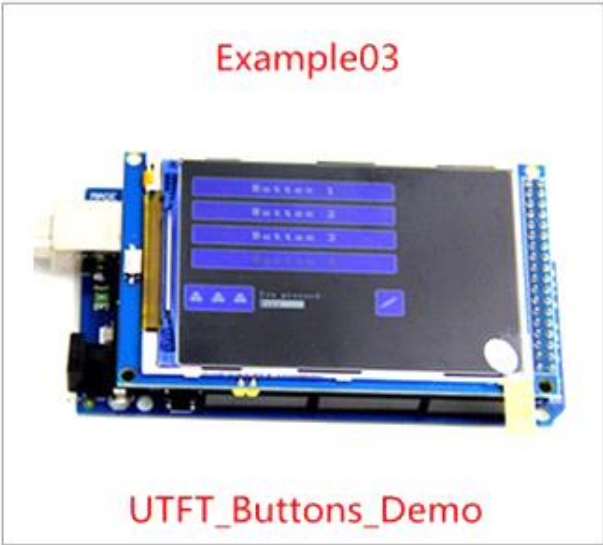


Example02

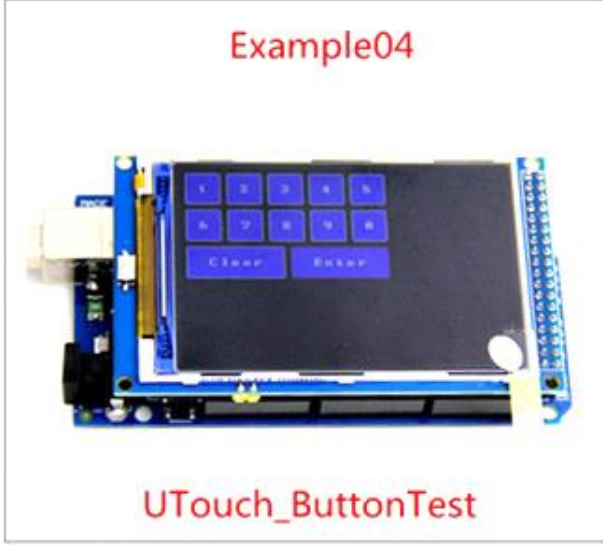
UTFT_ViewFont



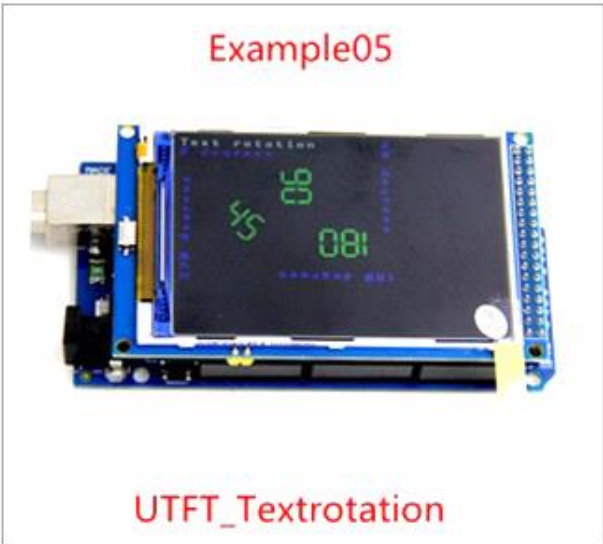
Example03



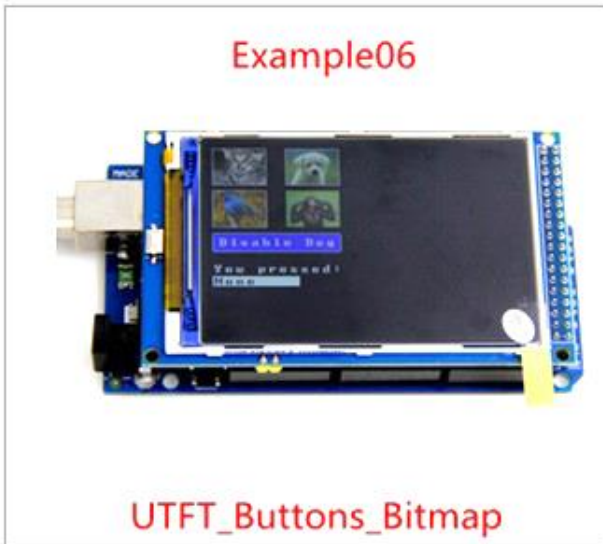
Example04



Example05



Example06



Revision History

Rev.	Description	Release date
V1.0	Initial version	2014/8/25
V1.1	Correction.	2014/9/15