

# MAR3528

## Overview

MAR3528 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**
- **OnBorad 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	85.49mmX55.62mm
LCD Area(WxHxT)	84.96mmX55.5mmX2.55mm
Active Area(WxH)	73.44mmX48.96mm
Module weight	TDB

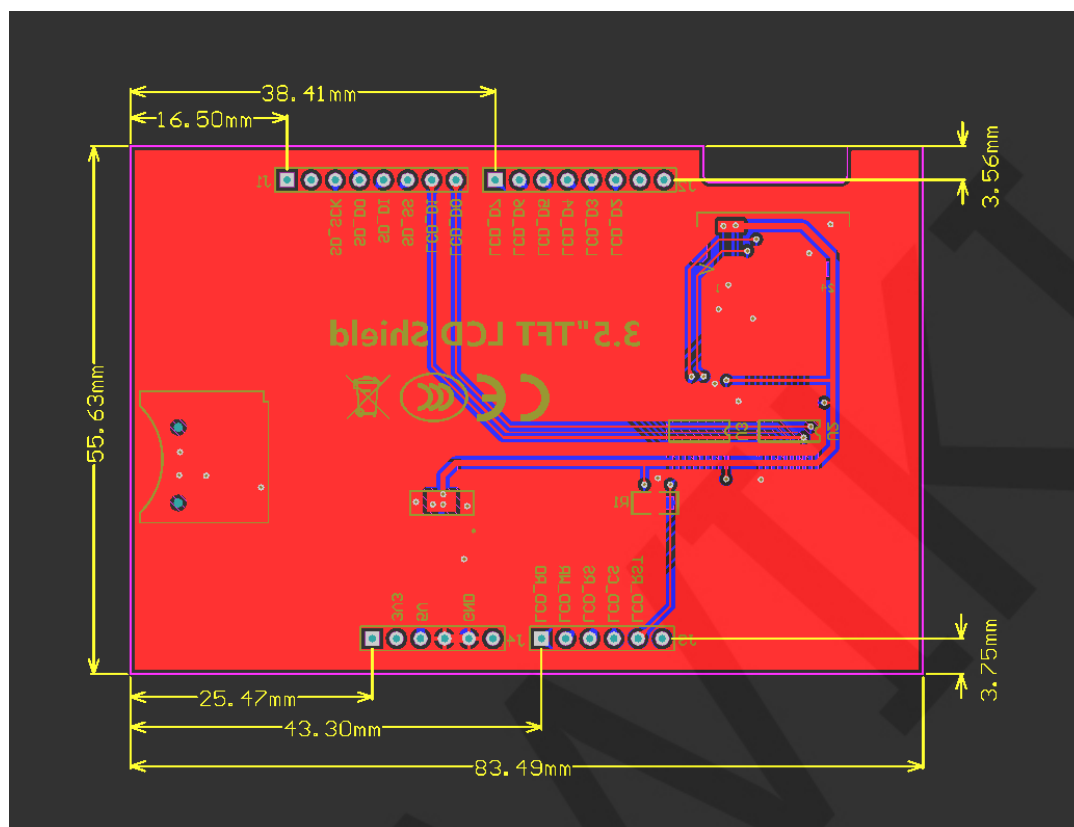
## Electrical Characteristics

Specification	Min	Type	Max	Unit
Power Voltage(VDD/VCC)	3.3	5	5.5	VDC
IO Pins Voltage	MCU Voltage = 3.3V	3	3.3	V
	MCU Voltage = 5V	4.5	5.5	
BackLight Voltage	2.8	3.2	3.3	V
Current Consumption	-	120	-	mA

## Hardware

LCD Pins	instruction
LCD_RST	Reset Signal
LCD_CS	Chip Select
LCD_RS	Command/Data Select
LCD_WR	Write Signal
LCD_RD	Read Signal
GND	Power GND
5V	Power VCC
3V3	No Connected
LCD_D0	LCD Data Bit0
LCD_D1	LCD Data Bit1
LCD_D2	LCD Data Bit2
LCD_D3	LCD Data Bit3
LCD_D4	LCD Data Bit4
LCD_D5	LCD Data Bit5
LCD_D6	LCD Data Bit6
LCD_D7	LCD Data Bit7
SD_SS	SD-card Chip Select Signal
SD_DI	SD-card SPI Bus MOSI Signal
SD_DO	SD-card SPI Bus MISO Signal
SD_SCK	SD-card SPI Bus SCLK Signal

## Module Structure



## How to Connect with C51&STM32

LCD Pins	STM32F103RCT6 Pins	STC12LE5A60S2 Pins	Instruction
LCD_RST	PC5	P3.3	Reset Signal
LCD_CS	PC9	P1.3	Chip Select
LCD_RS	PC8	P1.2	Command/Data Select
LCD_WR	PC7	P1.1	Write Signal
LCD_RD	PC6	P1.0	Read Signal
GND	GND	GND	Power GND
5V	5V	5V	Power VCC
3V3	3.3V/NC	3.3V/NC	No Connected
LCD_D0	PB0	P2.0	LCD Data Bit0
LCD_D1	PB1	P2.1	LCD Data Bit1
LCD_D2	PB2	P2.2	LCD Data Bit2
LCD_D3	PB3	P2.3	LCD Data Bit3
LCD_D4	PB4	P2.4	LCD Data Bit4
LCD_D5	PB5	P2.5	LCD Data Bit5
LCD_D6	PB6	P2.6	LCD Data Bit6
LCD_D7	PB7	P2.7	LCD Data Bit7
SD_SS	NC	NC	No Connected
SD_DI	NC	NC	No Connected
SD_DO	NC	NC	No Connected
SD_SCK	NC	NC	No Connected

P.S. Touch function is not supported with C51&STM32 Test code.

## How to Connect with UNO&Mega2560

LCD Pins	Arduino UNO&2560 Pins	instruction
LCD_RST	A4	Reset Signal
LCD_CS	A3	Chip Seselect
LCD_RS	A2	Command/Data Seselect
LCD_WR	A1	Write Signal
LCD_RD	A0	Read Signal
GND	GND	Power GND
5V	5V	Power VCC
3V3	3.3V/NC	No Connected
LCD_D0	8	LCD Data Bit0
LCD_D1	9	LCD Data Bit1
LCD_D2	2	LCD Data Bit2
LCD_D3	3	LCD Data Bit3
LCD_D4	4	LCD Data Bit4
LCD_D5	5	LCD Data Bit5
LCD_D6	6	LCD Data Bit6
LCD_D7	7	LCD Data Bit7
SD_SS	10	SD-card Chip Seselect signal
SD_DI	11	SD-card SPI Bus MOSI Signal
SD_DO	12	SD-card SPI Bus MISO Signal
SD_SCK	13	SD-card SPI Bus SCLK Signal

### Arduino code instruction:

- 1)Firstly,copy the Library floder "..\Arduino Demo\_UNO&Mega2560\Install libraries" to your Arduino IDE install Library path.
- 2)insert your LCD onto Arduino Board,pins to pins.
- 3)Power on,use the Examples for test.
- 4)the "Example05-ShowBMP" and "SDCard Exten Examples" need a SD-Card,and it only support UNO Board.

## Revision History

Rev.	Description	Release date
V1.0	Initial version	2015/8/25
V1.1	Correction.	2016/9/15
V1.2	Correction.	2017/6/15