3.5-inch 320x480 RGB ILI9488 MCU Interface TFT LCD Display Module with 16.7M Colors

Our Product Introduction

Basic Information

Product Specification

- Display Size: 3.5 Inches
- Interface: MCU (16-bit Parallel)
- Display Color: 16.7 M
- Connect: Plugging (customizable
- Screentype: LCD TFT
- Pin Number: 32pins
- Operating Temp.: -20°C To +70°C
- Operating Voltage: 2.6V – 3.3V (logic)

Product Description

3.5-inch 320x480 RGB, ILI9488 MCU Interface TFT LCD Display Module

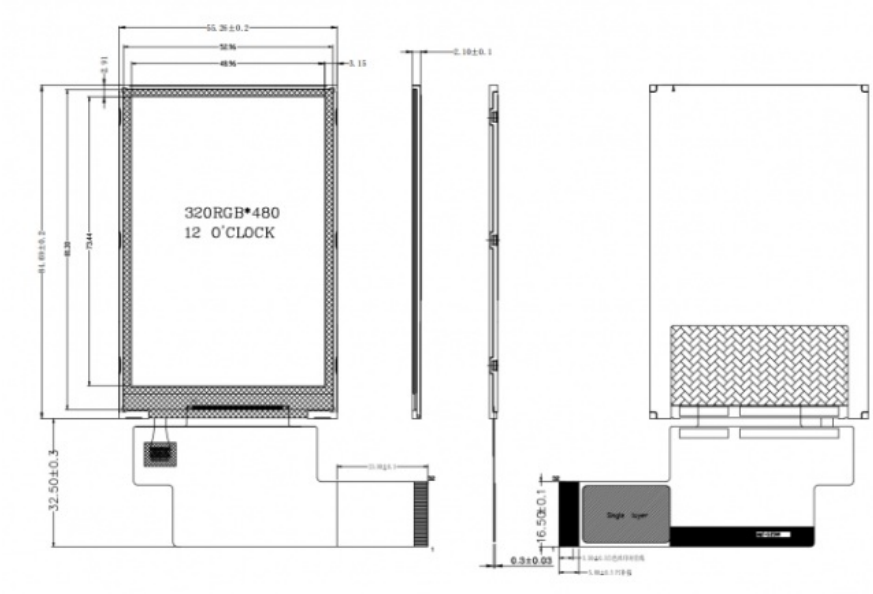
Product Overview

The 3.5-inch 320×480 RGB, ILI9488 single-chip interface TFT liquid crystal display module is a color display solution specifically designed for embedded systems. The core uses the ILI9488 driver chip, combined with a 3.5-inch TFT liquid crystal panel.

Technical Specifications

Display Type	TFT LCD, RGB
Screen Size	3.5 Inches
Resolution	320x480 Pixels
Viewing Direction	12:00
Interface	MCU (16-bit Parallel)
Operating Voltage	2.6V - 3.3V (logic)
Pin Number	32 Pins
Connection	Plugging (customizable)
Surface Luminance	200cd/m² (nits)
Operating Temperature	-20°C To +70°C

Mechanical Dimensions



Pin Interface Definition

NO.	PIN NAME	I/O	Description
1-2	K	O	LED Cathode
3-4	A	O	LED Anode

NO.	PIN NAME	I/O	Description
5	NC	-	Set open
6-7	GND	I	Ground
8-9	VCC	I	Power Supply 2.8V Voltage
10	NC	-	Set open
11	WR	I	Write strobe signal input pin
12	RS	I	Register select signal
13	CS	I	Input pin for chip selection signal
14	RD	I	Read strobe signal input pin
15-30	DB0-DB15	I/O	Display Data I/O
31	RESET	I	LCM Reset input signal
32	GND	I	Ground

Core Parameters & Features

Core Parameters

Size: 3.5 inches (diagonal), typical dimensions approximately 54.46×82.94mm

Resolution: 320 (RGB)×480 (HVGA), vertical screen ratio 2:3

Color: RGB true color, supports 16-bit / 18-bit / 24-bit color depth, up to 16.77 million colors

Driver chip: ILI9488 (includes GRAM, timing control, gamma correction)

Interfaces: Compatible with MCU 8-bit / 16-bit parallel, 4-wire SPI and other single-chip interfaces

Brightness: 300-450 cd/m², visible in strong light

Viewing angle: standard TN or optional IPS full viewing angle

Operating temperature: -20 ~+70 (industrial-grade wide temperature range)

Power supply: 3.3V single power supply, low power consumption

Main Features

Built-in display cache, no need for external display memory, reducing the burden on the single-chip microcontroller

Support for local refresh, vertical scrolling, sleep power saving, gamma adjustment

Capable of electro-resistance / capacitor touch (optional), suitable for human-computer interaction

FPC soft ribbon cable connection, thin volume, easy integration

Anti-static, wide temperature stability, suitable for industrial and outdoor scenarios

Main Applications

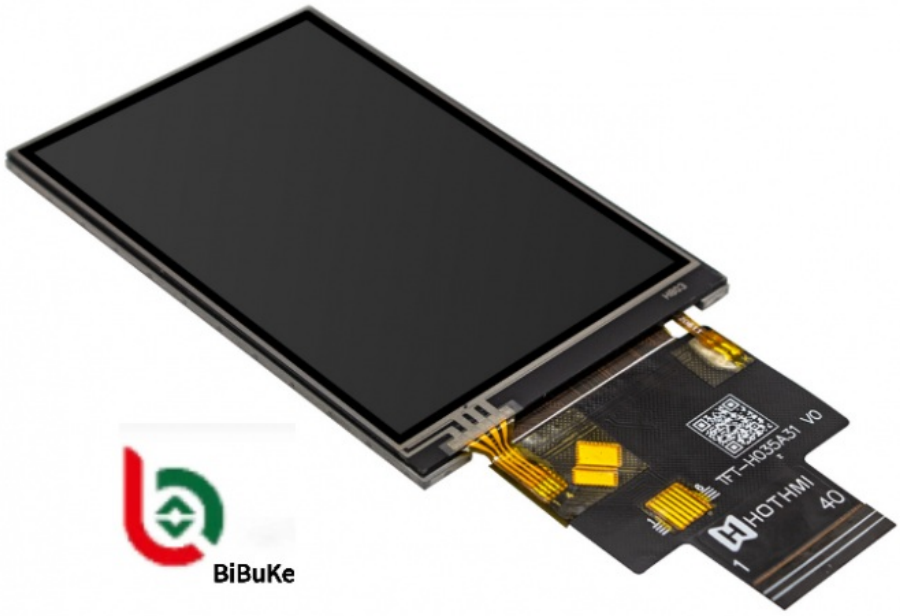
Industrial control and instrumentation: Industrial HMI human-machine interface, CNC panel, measurement instrument, data display, PLC status monitoring, stable display of parameters, curves, menus.

Embedded development and education platform: Development boards such as Arduino, STM32, 51, Raspberry Pi, etc. are compatible with display for prototype interface, data visualization, experimental demonstration.

Portable intelligent devices: Handheld terminals, POS machines, time clock machines, blood glucose meters, blood oxygen meters, vehicle small screens, navigation / instrument display.

Smart home and consumer electronics: Thermostats, security panels, small household appliance displays, early education machines, game consoles, portable players interface.

Vehicle and outdoor equipment: Vehicle instruments, rearview mirror display, outdoor detection instruments, GPS navigation small screens, wide temperature high-brightness suitable for complex environments.



Frequently Asked Questions

I want the LCD display 8 digits and the outline size is 65x30x2.8mm?

No problem. Firstly, please kindly send us your specification/ drawing paper. If you have not the specification, you can also provide your samples; we will recommend the suitable one if it is standard products. Or we can customize for you based on your own requirement.

This LCD is just what we want, but it is big size, do you have any smaller size? And the display content need to be changed a little.

For the segment type LCD module, if you need modify the outline size or display content, a new LCD glass module is need. We have to open new tooling for you.

This LCD display is HTN type, but I want STN type, can you make?

That's all right. We can change for you as per you request.

I want customize a new LCD module. Can you do?

Yes, we can. Please send your drawing paper. If you have not, please advise me the outline size of the LCD display, display information (Glass thickness, Polarizer, Display Type, Connector mode, Storage Temp. Operating Temp. Supply Voltage, Viewing direction, drive condition), we can customize for you.

What is leading time for tooling?

General speaking, it will cost 15 to 25 days after drawing paper confirmation and tooling charge payment, we can report you the exact time when you confirm the drawing paper.

Can you send us samples for checking?

Yes. Samples order is available.

What is the Leading Time?

If we have stock for the standard ones, the leading time is one day after payment. If it is the mass production for special ones, the leading time is about 15-30 days. suppose we can finish earlier, we will report the information in advanced.

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