

2.4 Inch TFT LCD Display with 240x320 Pixels Resolution and SPI Interface for Industrial Applications

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: BBI
- Certification: ISO9001 RoHS
- Minimum Order Quantity: 1000
- Price: 0.78-7USD
- Packaging Details: CARTON
- Delivery Time: 3-4WEEKS
- Payment Terms: T/T
- Supply Ability: 300000/MONTH



Product Specification

- Viewing Angle: 12 O'clock
- Dimensions: 42.72(W) X 59.46(H) X 2.34(T)
- Luminance: 400 Cd/m²
- Resolution: 240*320 Pixels
- Connection: Plug-in
- Panel Type: TFT
- Backlight Type: LED
- Touch Screen: Customized
- Highlight: **2.4 Inch TFT LCD Display ,
240x320 Pixels TFT Screen,
SPI Interface LCD Module**



Product Description

2.4 Inch TFT LCD Display TN Mode 240x320 Pixels 262K Full Color SPI Interface

Product Overview

2.4-inch TFT LCD display featuring TN mode technology with 240x320 pixel resolution and 262K full color capability through SPI interface.

Technical Specifications

Product	2.4 Inch IPS TFT LCD	Resolution	240*320 Pixel
Touch Screen	Without	Viewing Direction	12H
Interface	SPI	Pin Number	10 Pins (24pin Optional)
Connection	Plug-in	Surface Luminance	400 Cd/m2 (Customizable)
Driver IC	ST7789V	LED Lifetime	40,000 Hours
Operating Temperature	-20°C To +70°C	Compliance	REACH & RoHS Compliant

Detailed Features

Display Mode	Normally Black, Transmissive	Unit	/
Viewing Direction	12 O'clock	Unit	/
Colors	262K	Unit	/
Drive IC	ST7789	Unit	/
Interface Type	4 Line SPI	Unit	/
Dimensional Outline	42.72(W) x 59.46(H) x 2.34(T)	Unit	mm
Active Area	36.72(W) x 48.96(H)	Unit	mm
Resolution	240 RGB(H) x 320(V)	Unit	pixels
Pixel Pitch	0.153(W) x 0.153(H)	Unit	mm

Product Introduction

The 2.4-inch TFT liquid crystal display is a widely used display device with a diagonal length of approximately 2.4 inches (6.1 centimeters). The module features a thin, lightweight structure with thickness typically under 3mm, making it ideal for integration into various small devices.

Display Technology: Utilizes TFT (Thin Film Transistor) technology with independent switch devices for each pixel, enabling high-speed refresh and precise color control. TN (Twisted Nematic) mode provides fast response speed and cost-effectiveness, with optimal viewing at the 12 o'clock direction.

Resolution and Color: QVGA resolution of 240x320 pixels delivers clear text and graphics presentation. 262K full color capability provides rich color representation for general display requirements.

Interface Type: SPI (Serial Peripheral Interface) offers pin efficiency, simple connection, and fast communication speed. Compatible with mainstream MCUs including STM32 and ESP32 for simplified circuit design and programming.

Performance Parameters: Brightness up to 300cd/m², contrast ratio of 500:1, operating temperature range of -20°C to +70°C, and storage temperature range of -30°C to +80°C for reliable performance across diverse environmental conditions.

Application Areas

Smart Home: Information display and operation interface for smart door locks, temperature control panels, and lighting controllers

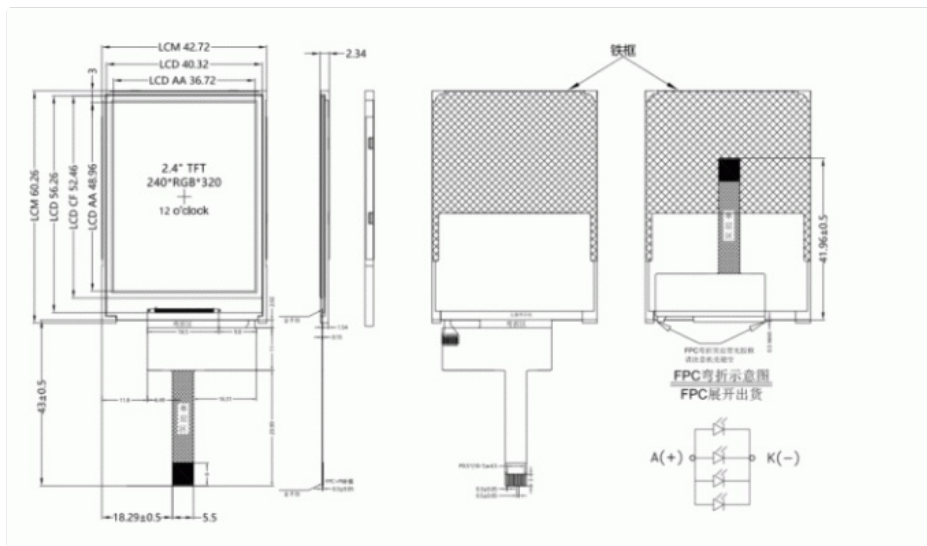
Industrial Control: Data acquisition terminals, portable detectors, and PLC controllers for clear parameter display

Medical Electronics: Blood pressure monitors, glucose meters, and heart rate monitors with stable reading display

Consumer Electronics: Learning machines, electronic photo albums, game consoles, and handheld audio/video players

Communication & Security: Walkie-talkies, wireless control terminals, and access control devices for status display and menu operations





Pin Configuration

Pin.No	Symbol	Description
1	GND	Ground
2	RESET	LCM Reset pin
3	SCL	Serial clock pin
4	RS	Register select pin RS='1': Display data. RS='0': Command data.
5	CS	Chip select pin ("Low" enable)
6	SDA	Serial data input
7	SDO	Serial data output
8	VCC	Power supply for Analog (2.8V-3.3V)
9	LED+	Anode of Backlight
10	LED-	Cathode of Backlight

Frequently Asked Questions

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

No problem. Please send us your specifications or drawing. If you don't have specifications, provide samples and we'll recommend suitable options or customize based on your requirements.

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 segment type LCD modules requiring size modifications or display content changes, a new LCD glass module is needed requiring new tooling.

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

Yes, we can change the display type according to your request.

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

Yes, we can customize LCD modules. Please provide your drawing or specifications including outline size, display information, glass thickness, polarizer, display type, connector mode, temperature ranges, supply voltage, and viewing direction.

What is leading time for tooling?

Typically 15 to 25 days after drawing confirmation and tooling payment. Exact timing will be provided upon drawing confirmation.

Can you send us samples for checking?

Yes, sample orders are available.

What is the Leading Time?

Standard products in stock: 1 day after payment. Mass production for special orders: 15-30 days. We'll notify you if we can complete earlier.



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