

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

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

- Product Type: TFT LCD Screen
- Pin Number: 18 PIN
- Active Area: 48.60(W)x64.80 (H) (mm)
- Touch Screen: Customized
- Outline Size: 54.0(W)x77.4(H)x2.4(T)(mm)
- Backlight Technology: LED
- Pins Number: 25 Pins
- Viewing Angle: 12 O'clock
- Highlight: **3.2 Inch TFT LCD Display, 240x320 Pixels TFT LCD Screen, SPI Interface LCD Display Module**



Product Description

3.2 Inch SPI TFT LCD Display 240×320 Pixels

High-quality 3.2-inch TFT LCD display with 240×320 resolution, ZIF FPC 18-pin interface, and ST7789V/ILI9341 driver IC compatibility.

Key Features

Product: 3.2" Inch TFT LCD Display

Resolution: 240×320

Viewing Direction: 12 O'clock

Interface: 4-line SPI

Outline Dimension: 54.0(W)×77.4(H)×2.4(T) mm

Active Area: 48.60(W)×64.80(H) mm

Pin Number: 18 Pins

Connection: FPC Plugging

Surface Luminance: 350 Cd/m² (nits)

LED Lifetime: 40,000 Hours

Certification: ISO9001:2015 / ISO14001:2015

Compliance: RoHS & REACH Compliant

Product Overview

This 3.2-inch SPI TFT liquid crystal display is a versatile small-sized display device ideal for various applications requiring clear visual interfaces.

Size and Resolution: The diagonal size is 3.2 inches with 240×320 pixel resolution, providing clear image and text display suitable for applications with moderate display area and accuracy requirements.

Interface Type: Features ZIF (Zero Insertion Force) FPC (Flexible Printed Circuit) with 18 pins for convenient connection and disassembly, offering high reliability and flexibility with adaptable installation options.

Driver IC: Compatible with ST7789V or ILI9341 driver chips. ST7789V provides stable performance and efficient LCD driving with multiple interface options. ILI9341 supports 262K color display with extensive data capabilities and strong community support for development.

Display Technology: Utilizes TFT (Thin Film Transistor) liquid crystal display technology with fast response speed, vibrant colors, and high contrast. The SPI (Serial Peripheral Interface) communication requires minimal signal lines, conserving MCU pin resources.

Applications

Industrial Automation: Operation interfaces for PLC controllers, industrial robots, and equipment for parameter setting and status monitoring

Instrumentation: Display and operation windows for detection instruments, analysis equipment, and measurement devices

Smart Home: Control panels for lighting, climate control, security systems, and home automation

Handheld Devices: Portable terminals, mobile payment systems, and field detection equipment requiring clear displays

BIGBOOK TFT LCD Module Series

Standard TFT LCD Module sizes: 1.44", 1.77", 2.0", 2.4", 2.8", 3.2", 3.5", 4"(3.97"), 4.3", 5", 7", 8", 9", 10.1"

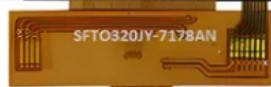
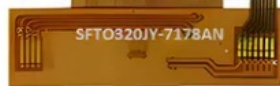
Developed 4.0"(3.97") LCD module with IPS glass technology

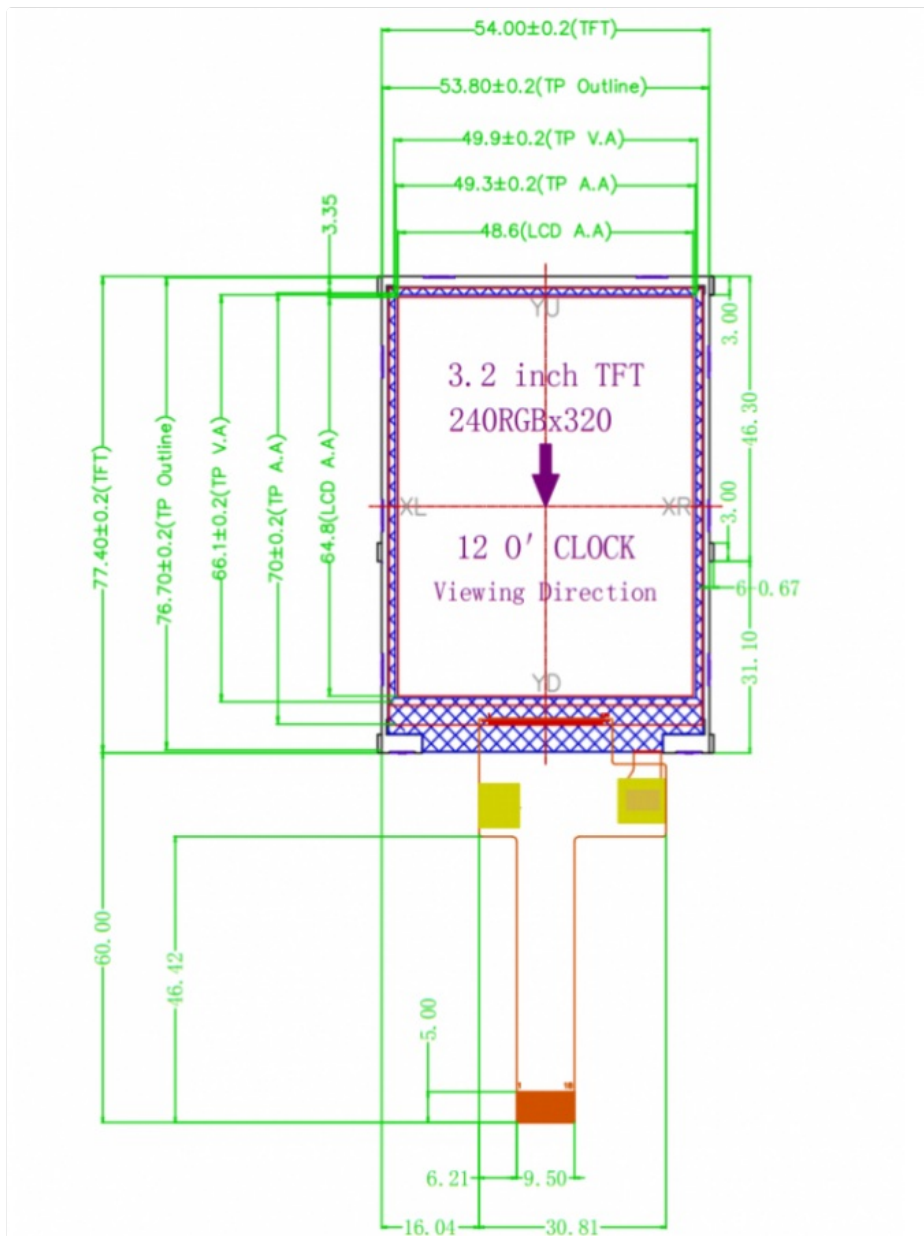
Available 2.4" to 7.0" TFT LCD with ZIF FPC connection

Standard capacitive touch panels for 3.2", 3.5", 4.3", 5.0", 7", 8", 10.1" sizes

High transmittance resistive touch panels for 4.3" and 7" displays

Custom capacitive touch panel solutions available





Interface Pin Definition

PIN No.	Symbol	Description
1	GND	Ground
2	RESET	This signal will reset the device and must be applied to properly initialize the chip. Signal is active low.
3	SCL	This pin is used for serial interface clock
4	D/C	Display data/command selection pin in 4-line serial interface
5	CSX	Chip selection pin, Low enable. High disable.
6	SDA	SPI interface input pin. Data is latched on the rising edge of the SCL signal. If not used, fix this pin at VDD1 or DGND level.
7	SDO	SPI interface output pin. Data is output on the falling edge of the SCL signal. If not used, leave this pin open.
8	GND	Ground
9	VDD	Power Supply for Analog, Digital System and Booster Circuit
10	LEDA	Anode of Backlight (2.9V-3.3V Typical:3.1V)
11	LEDK	Cathode of Backlight

12	LEDK	Cathode of Backlight
13	LEDK	Cathode of Backlight
14	LEDK	Cathode of Backlight
15	XL	Touch panel Logical foot
16	YU	Touch panel Logical foot
17	XR	Touch panel Logical foot
18	YD	Touch panel Logical foot

Frequently Asked Questions

I want the LCD display 8 digits and the outline size is 65×30×2.8mm. Is this possible?

Yes, we can accommodate your requirements. Please provide your detailed specifications or drawing. If you don't have specifications, you can send samples and we'll recommend suitable standard products or customize according to your needs.

This LCD is what we want, but it's too large. Do you have smaller sizes? Also, we need to modify the display content slightly.

For segment type LCD modules requiring size modifications or display content changes, we will need to create new LCD glass modules, which involves opening new tooling.

This LCD display is HTN type, but I want STN type. Can you manufacture this?

Absolutely. We can modify the display type according to your specific requirements.

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

Yes, we specialize in custom LCD modules. Please provide your drawing or specifications including outline size, glass thickness, polarizer type, display type, connector mode, temperature specifications, supply voltage, and viewing direction requirements.

What is the lead time for tooling?

Typically, tooling requires 15 to 25 days after drawing confirmation and tooling charge payment. We will provide exact timelines upon drawing approval.

Can you send samples for evaluation?

Yes, sample orders are available for quality verification and testing.

What is the lead time for orders?

For standard products in stock, lead time is one day after payment. For mass production of custom orders, lead time is approximately 15-30 days. We will notify you promptly if we can complete orders earlier than expected.



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