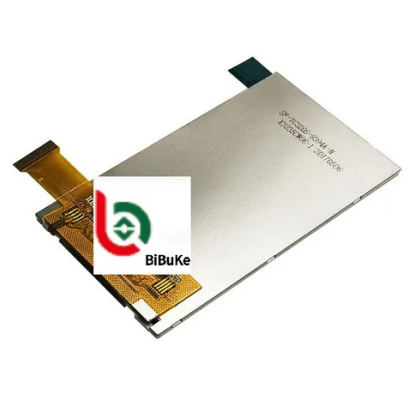
3.2 Inch IPS TFT LCD Screen with 480x800 Pixels Resolution and Optional RGB/MCU Interface

Our Product Introduction

Basic Information

Product Specification

- Color Gamut: RGB
- Drive Ic: HX8369
- Connectivity: ZIF FPC
- Resolution: 480x800 Pixels
- Light Source: LED
- Screentype: TFT LCD
- Pin Number: 39 PIN
- Surface Luminance: 350
- Highlight: **3.2 inch IPS TFT LCD screen**, **480x800 resolution TFT LCD**, **RGB/MCU interface LCD screen**



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Our Product Introduction

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Product Description

3.2 Inch IPS TFT LCD Screen 480x800 Pixels RGB/MCU Interface Optional

Product Overview

Product	3.2" IPS TFT LCD
Resolution	480x800 Pixels
Interface	RGB Interface
Touch Screen	Without Touch Screen
Connection	ZIF FPC
Driver IC	HX8369
Viewing Direction	IPS All Viewing Angles
Pin Number	39 Pins
Surface Luminance	350 Cd/m²
Operating Temp.	-20 To +70
Storage Temp.	-30 To +80

This 3.2-inch IPS full-view TFT LCD module features a vertical screen with 16:9 aspect ratio and physical resolution of 480×800 pixels. It supports both RGB and MCU interface options, making it a mainstream small-sized high-definition embedded display. Standard configuration includes FPC flexible cable output, with optional capacitive/resistive touch screens available.

Display Hardware Parameters

The panel utilizes IPS liquid crystal technology providing full-view visibility with viewing angles up to 170° in all directions. No color shift, whiteing, or picture inversion occurs when viewed from side angles. The color gamut supports 1670 million true colors with regular brightness ranging from 350 to 500 cd/m². High-brightness versions are suitable for outdoor low-light environments.

Contrast ratio exceeds 500:1 with WLED backlight module providing over 40,000 hours lifespan. Common driving ICs include LG4573 or ST7701S. The module operates at 3.3V with industrial temperature range of -20°C to +70°C, ensuring stable operation in various environmental conditions. The compact design features approximately 3mm thickness for easy integration into product casings.

Dual Interface Features (RGB/MCU Selectable)

RGB Interface: No built-in screen memory - picture data is directly output from main control chip memory with continuous synchronous refreshing. Maximum refresh rate of 60FPS ensures smooth dynamic pictures, short videos, and UI animations without lag. Suitable for STM32, ARM, Linux development boards, and high-end microcontrollers. Ideal for products requiring animations and video playback.

MCU (8080) Interface: Built-in GRAM memory allows microcontrollers to send instructions for picture modification. Extremely low power consumption during idle/static states saves energy. Fewer wiring pins simplify connections. Compatible with low-cost microcontrollers (51, GD32 low-end models). Suitable for devices displaying text, fixed icons, and parameter values where static display advantages are prominent.

Main Product Applications

Industrial Handheld Instruments: Portable thermometers, gas detectors, power inspection instruments, digital controllers. Compact design suits 3.2-inch vertical screens with industrial temperature range for outdoor and workshop conditions.

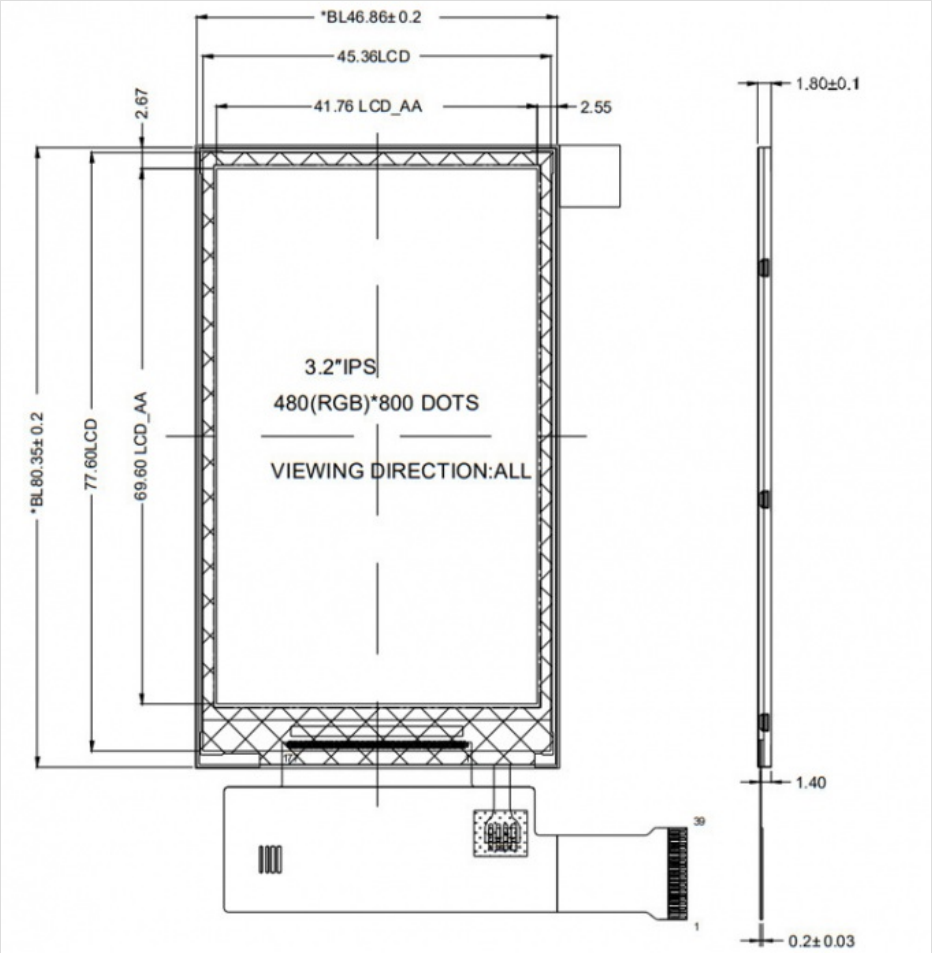
Small Medical Equipment: Finger blood oxygen meters, portable nebulizer controllers, home physiotherapy devices, insulin pump control panels. IPS wide viewing angle facilitates parameter viewing from multiple angles by medical staff.

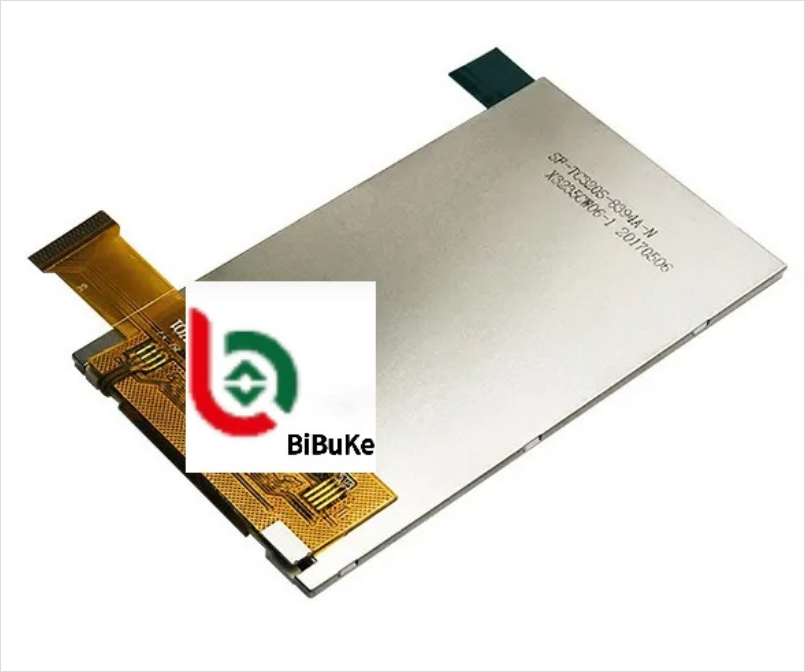
Smart Home Terminals: Indoor display screens for smart locks, bedside control panels, temperature switches, bathroom mirror displays. Vertical screen layout fits home decoration dimensions with optional capacitive touch control.

Consumer Electronics & DIY Development: Miniature handheld consoles, portable players, Raspberry Pi/STM32 training screens, DIY instruments. RGB interface for system UI, MCU interface for simple project development.

Security & Vehicle Accessories: Miniature indoor access control units, vehicle rearview mirror secondary screens, tire pressure displays. High-brightness versions suitable for outdoor viewing in strong light conditions.

Product Drawing


*BL46.86± 0.2
45.36LCD
41.76 LCD_AA
2.67
2.55
1.80±0.1
3.2"IPS
480(RGB)*800 DOTS
VIEWING DIRECTION:ALL
*BL80.35± 0.2
77.60LCD
69.60 LCD_AA
1.40
0.2± 0.03
39
1



Our Service

- Free repair within one year after product shipment
- Replacement within 30 days for product-related issues
- Custom logo printing and model number application
- Established shipping partnerships with volume discounts
- Professional technical support and responsive after-sales service team
- Comprehensive inspection and testing by engineers and QC/QA before shipment
- 24-hour response time for customer inquiries and issues
- Customization available based on specifications or drawings

Frequently Asked Questions

I want an LCD display with 8 digits and outline size of 65x30x2.8mm. Is this possible?

Yes, we can accommodate this requirement. Please send us your specifications or drawing. If you don't have specifications, you can provide samples and we'll recommend suitable options or customize based on your requirements.

This LCD is what we want, but the size is too big. Do you have smaller sizes? The display content also needs minor changes.

For segment type LCD modules, modifying outline size or display content requires a new LCD glass module. We would need to create new tooling for your specific requirements.

This LCD display is HTN type, but I want STN type. Can you make it?

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

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

Yes, we specialize in custom LCD modules. Please send your drawing or provide outline size, display information (glass thickness, polarizer, display type, connector mode, storage/operating temperature, supply voltage, viewing direction, drive conditions).

What is the lead time for tooling?

Typically 15 to 25 days after drawing confirmation and tooling charge payment. We will provide exact timing upon drawing confirmation.

Can you send samples for checking?

Yes, sample orders are available.

What is the lead time for production?

For standard products in stock: 1 day after payment. For mass production of special orders: approximately 15-30 days. We will notify you if we can complete earlier.

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