

3.2 Inch 480x800 Pixels IPS TFT LCD with RGB/MCU Dual Interface and All Viewing Angles

Basic Information



Product Specification

- Size: 3.2 Inch
- Operating Temperature: -20°C To 70°C
- Driver Ic: HX8369
- Fpc Connect: 39 Pins
- Connectivity: ZIF FPC
- Surface Luminance: 350 Cd/m² (typical)
- Response Time: 25 Ms
- Aa Size: 41.76×69.6mm
- Highlight: **3.2 inch IPS TFT LCD screen ,
480x800 pixels TFT LCD display ,
RGB MCU dual interface LCD**



Product Description

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

Product Specifications

Product:	3.2" IPS TFT LCD	Resolution:	480x800 Pixels
Interface:	RGB Interface	Viewing Direction:	IPS All Viewing Angles
Touch Screen:	Without Touch Screen	Pin Number:	39 Pins
Connection:	ZIF FPC	Surface Luminance:	350 Cd/m ²
Driver IC:	HX8369	Operating Temp.:	-20 To +70
Storage Temp.:	-30 To +80	Compliance:	ISO9001 & RoHS Compliant

Product Introduction

This 3.2-inch TFT LCD module features 480×800 pixel resolution, IPS full-viewing angle technology, and RGB/MCU dual interface options. Designed for small-sized high-definition applications requiring wide viewing angles and multi-interface compatibility, this module targets industrial and embedded scenarios with its compact structure and superior picture quality.

Core Display Features

- Size and Resolution:** 3.2 inches (portrait mode), 480×800 pixels, high pixel density for sharp text and graphics
- Panel Type:** IPS hard screen with full viewing angle (up, down, left, right ≥ 80°), consistent colors without deviation
- Brightness & Contrast:** Typical 300-350 cd/m², contrast ratio 500:1, excellent visibility for indoor and outdoor use
- Color:** 16.7M colors (24-bit) for vivid colors and smooth transitions
- Backlight:** WLED technology with low power consumption and long lifespan (approximately 40,000 hours)

Interface and Driver Capabilities

- RGB Interface (High-Speed):** 18/24 bit parallel, 60Hz refresh rate, suitable for high-definition video and dynamic UI, compatible with STM32 and FPGA
- MCU Interface (Low-Speed/General):** 8/16 bit 8080 parallel, minimal pins, simple wiring, compatible with low-end MCUs and single-chip microcontrollers for easy development
- Driver IC:** Supports common controllers including LG4573, ST7789, ILI9341 with 3.3V power supply and low power consumption

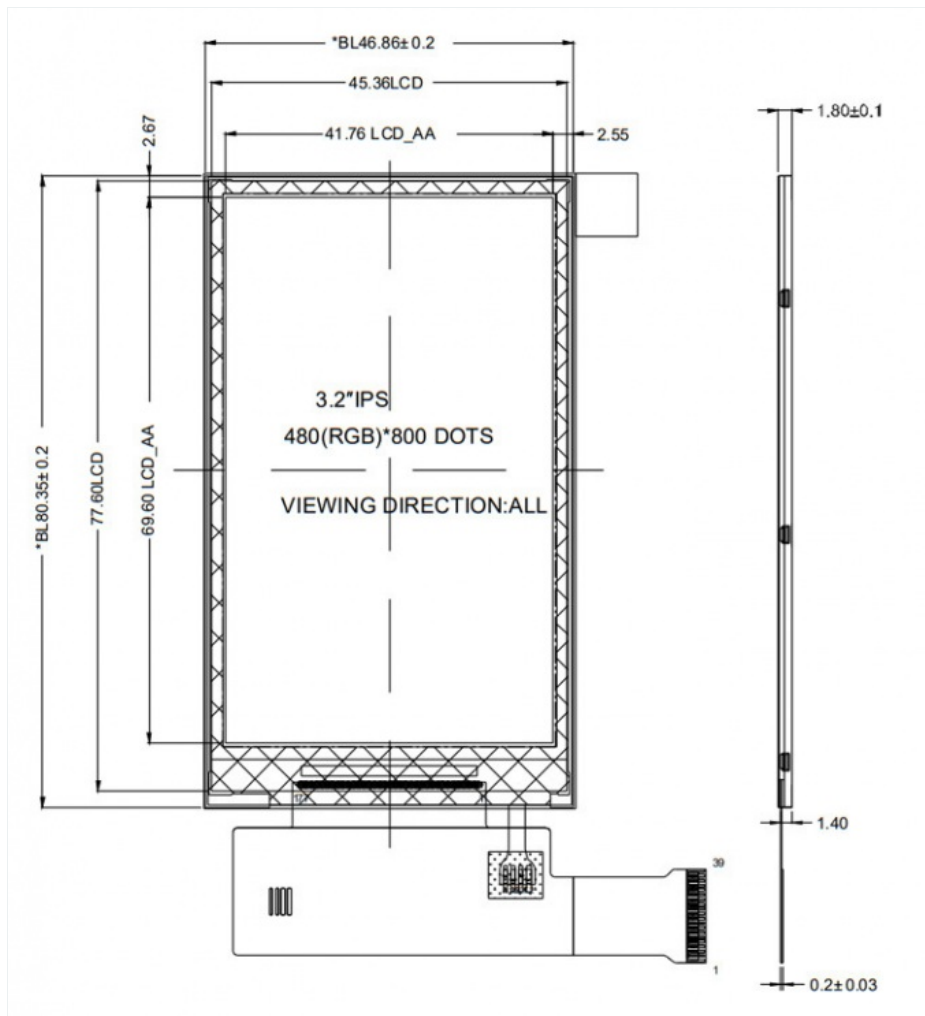
Structure and Environmental Specifications

- Form Factor:** Thin and lightweight (approximately 3.25mm thickness), standard plug-in FPC for easy assembly
- Operating Temperature:** -20 to +70 with industrial-grade stability
- Storage Temperature:** -30 to +80
- Optional Touch:** Integrated resistive (RTP) or capacitive (CTP) touch screen options available for human-computer interaction

Main Applications

- Industrial Control:** PLC human-machine interfaces, equipment control panels, data collectors suitable for harsh conditions
- Smart Handheld Devices:** Portable detectors, medical monitors, IoT terminals balancing high-definition with low power consumption
- Smart Home:** Central control panels, smart switches, video doorbells providing clear interaction interfaces
- Consumer Electronics:** Beauty devices, game consoles, mini household appliances suitable for portable designs
- Embedded Development:** STM32/Arduino prototypes, DIY projects with RGB/MCU dual interface compatibility for most controllers

Product Drawing



Pin Definition

NO.	PIN NAME	I/O	Description
1	GND	I	Ground
2	IOVCC	I	Power Supply 2.8V/1.8V Voltage
3	VCC	I	Power Supply 2.8V Voltage
4	CS	I	Input pin for chip selection signal
5	SCL	I	SPI Clock Signal
6	SDA	I/O	SPI Interface Input/output Pin
7	RESET	I	LCM Reset input signal
8	ENABLE	I	Input Data enable control
9	DOTCLK	I	Clock Signal to Sample each date
10	HSYNC	I	Horizontal Synchronizing Signal
11	VSYNC	I	Vertical Synchronizing Signal
12-17	B0-B5	I/O	Display Data I/O
18-23	G0-G5	I/O	Display Data I/O
24-29	R0-R5	I/O	Display Data I/O
30	NC	-	Set Open
31	LED-K	O	LED Cathode
32	NC	-	Set Open

33	LED-A	O	LED Anode
34	NC	-	Set Open
35	XL	I	Touch Panel Pin
36	XR	I	Touch Panel Pin
37	YU	I	Touch Panel Pin
38	YD	I	Touch Panel Pin
39	GND	I	Ground



Our Service

- Free repair within one year after shipment
- Replacement within 30 days after shipment for product-related issues
- Custom logo printing and model number application available

Established shipping partnerships with competitive 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 customer specifications or drawings

Frequently Asked Questions

Q: I want an LCD display with 8 digits and outline size of 65x30x2.8mm. Can you provide this?

A: Yes, we can accommodate this request. Please send us your specifications or drawing. If you don't have specifications, we can recommend suitable standard products or customize based on your requirements.

Q: This LCD is what we want, but the size is too large. Do you have smaller sizes? Can the display content be modified?

A: For segment type LCD modules, modifying outline size or display content requires a new LCD glass module, which involves creating new tooling.

Q: This LCD display is HTN type, but I want STN type. Can you make this change?

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

Q: Can you customize a new LCD module for us?

A: Yes, we specialize in custom LCD modules. Please send your drawing or provide details including outline size, display information, glass thickness, polarizer type, display type, connector mode, temperature specifications, supply voltage, viewing direction, and drive conditions.

Q: What is the lead time for tooling?

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

Q: Can you send samples for evaluation?

A: Yes, sample orders are available.

Q: What is your standard lead time?

A: 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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