



2.8 Inch High Brightness 1000 cd/m² TFT LCD Module with 480x640 RGB Interface for Industrial and Medical Applications

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: BBI
- Certification: ISO9001 RoHS
- Minimum Order Quantity: 1000
- Price: 0.7-7USD
- Packaging Details: CARTON
- Delivery Time: 3-4WEEKS
- Payment Terms: T/T
- Supply Ability: 100000/MONTH



Product Specification

- Display Size: 2.8 Inches
- Outline Size: 46.2x65.2x2.3mm (±0.2mm)
- Pixel Arrangement: RGB-Stripe
- Backlighttype: LED
- Luminance: 1000 Cd/m²
- Operating Temperature: -20°C To 70°C
- Screentype: LCD TFT
- Operating Voltage: 3.3V
- Highlight: **2.8 Inch TFT LCD Module, High Brightness 1000 cd/m² LCD Display Module, 480x640 RGB Interface TFT Display Screen**



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Product Description

2.8 Inch High Brightness 480x640 RGB Interface TFT LCD Module

A compact, high-definition color display module engineered for embedded applications, featuring exceptional brightness and clarity in demanding environments.

Key Specifications & Features

Spec Category	Details
Brightness	1000 nits (cd/m ²) - 60% brighter than standard industrial displays
Screen Size	2.8 inches (diagonal), 43.2x57.6mm display area
Resolution	480RGB(H)x640(V) pixels - Perfect for detailed graphics and text
Interface	RGB interface with SPI control (pins 27-29), compatible with mainstream MCU
Viewing Angle	80°/80°/80°/80° (L/R/U/D) - Full-view clarity from any orientation
Contrast Ratio	1200:1 - Sharp distinction between light and dark elements
Backlight	LED side-light type (6 LEDs), 11.2-13.6V, 40,000-hour lifespan
Temperature Range	Operation: -20°C to 70°C; Storage: -30°C to 80°C - Resilient in extreme conditions
Dimensions	46.2x65.2x2.3mm (±0.2mm) - Slim design for compact installations

Product Core Introduction

This small-sized high-definition color display module is specifically designed for embedded scenarios. Featuring a 2.8-inch diagonal size with vertical screen orientation and 480x640 pixel resolution, it delivers high pixel density and detailed imagery. The module utilizes mainstream IPS TFT panel technology combined with RGB (TTL parallel) interface through a common 40-pin FPC connector.

Key Performance and Features

High Brightness: Capable of reaching 1000 cd/m² or more, with optional anti-glare (AG) coating for clear viewing in strong light conditions

Wide Viewing Angle: IPS panel achieves approximately 178° full viewing angle with minimal color deviation or brightness attenuation from side viewing

Low Power Consumption & Environmental Tolerance: Operates at 3.3V with constant current backlight drive; standard operating temperature of -20 to +70 suitable for industrial and vehicle applications

Form Options: Customizable configurations available without touch, resistive/capacitive touch (full bonding/frame bonding), with FPC flexible connection for convenient wiring in narrow spaces

Response Speed: Typical response time meets dynamic graphic display requirements, eliminating ghosting effects

Core Applications

Industrial Control and IoT: Small PLC touch screens, handheld data collectors, smart home control panels, sensor terminals requiring stable parameter display in factory/outdoor environments

Medical Portable Devices: Blood glucose meters, electrocardiogram monitors, handheld ultrasound probes displaying patient data with medical-level reliability and anti-interference

Vehicle Electronics: Tire pressure monitoring, driving recorders with small screens, motorcycle/electric vehicle gauges capable of withstanding temperature fluctuations and providing bright daytime visibility

Smart Wearables and Handheld Terminals: Small handheld POS machines, children's smart watches, portable scanning devices balancing compact size with clear display quality

Consumer Electronics and Embedded Development: Portable game consoles, DIY electronic projects, maker development board display expansion modules



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

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

This LCD is just what we want, but it is too big. Do you have smaller sizes? And we need to change the display content a little.

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

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

Yes, we can change the display type to STN as per your request.

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

Yes, we can customize LCD modules. Please send your drawing paper. If you don't have one, please provide the outline size, display information (glass thickness, polarizer, display type, connector mode, storage temp, operating temp, supply voltage, viewing direction, drive condition), and we can customize for you.

What is the lead time for tooling?

Typically, tooling takes 15 to 25 days after drawing paper confirmation and tooling charge payment. We will provide the exact timeline once you confirm the drawing paper.

Can you send us samples for checking?

Yes, sample orders are available.

What is the lead time for production?

For standard products in stock, lead time is one day after payment. For mass production of special orders, lead time is approximately 15-30 days. If we can finish earlier, we will notify you in advance.



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