# 8 Inch TFT LCD Screen with 1200nits Brightness FHD 1920x1200 Resolution and LVDS Interface for Industrial Applications

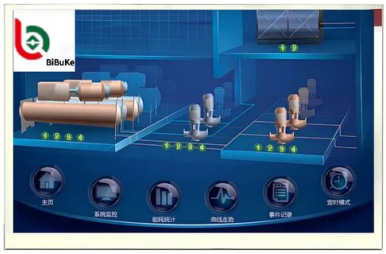
Our Product Introduction

## 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

- Light Source: LED
- Display Color: 262k
- Displaysize: 8 Inches
- Pin Number: 45 Pins
- Outline Size: 181.7(H) ×119.8(V) ×5.5(T)
- Touch Screen: Yes
- Interface: 2-port LVDS( 8bit)
- Display Type: TFT LCD
- Highlight: **1200nits Brightness TFT LCD Screen**, **FHD 1920x1200 Resolution LCD Display Module**, **LVDS Interface Industrial Display**



## Product Description

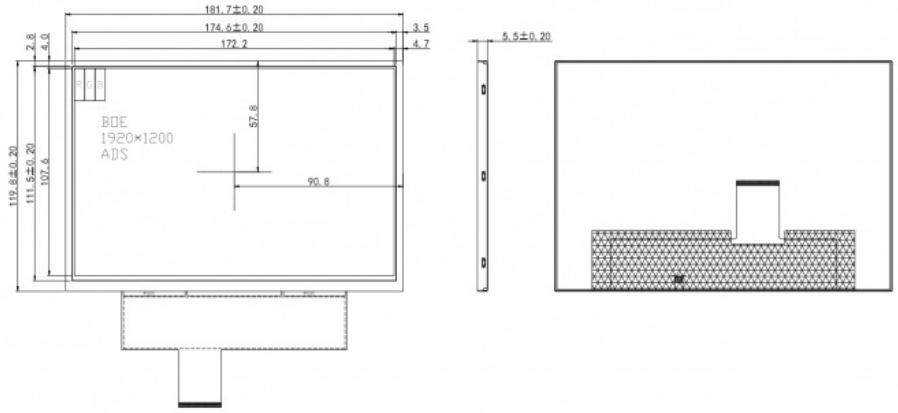
### 8 Inch TFT LCD Display - 1200nits, FHD 1920x1200 LVDS For Industrial Applications

This industrial-grade 8-inch TFT LCD display features high brightness up to 1200 nits and Full HD resolution, specifically engineered for demanding industrial environments.

### Product Specifications

| Parameter | Specification | Unit | Remark |
|---|---|---|---|
| Outline Size | 181.7(H) × 119.8(V) × 5.5(T) | mm | FOG |
| Active Area | 172.224(H) × 107.640(V) | mm | Note 1.1 |
| Brightness | 1000-1200 | cd/m² | - |
| Number of Pixels | 1920(H) x RGB × 1200(V) | pixels | - |
| Pixel Pitch | 29.9(H) × 3 × 89.7(V) | μm | - |
| Pixel Arrangement | RGB Vertical Stripe | - | - |
| Display Colors | 16.7M | - | - |
| Color Gamut | 70%(Min.), 75% (Typ.) | | CF @C Light |
| Display Mode | Normally Black | - | - |
| Viewing Direction | 85/85/85/85 (Typ.) 80/80/80/80 (Min.) | Deg. | CR>=10 |
| Weight | TBD | gram | - |
| Interface | 2-port LVDS(8bit) | - | - |
| IC | FL5893DA | | Note 1.2 |

### Mechanical Drawing




### Pin Description

| No. | Symbol | Function | No. | Symbol | Function |
|---|---|---|---|---|---|
| 1 | VLED- | Power for LED backlight (Cathode) | 24 | GND | ground |
| 2 | VLED- | Power for LED backlight (Cathode) | 25 | OLV2P | LVDS differential data input Positive |
| 3 | VLED+ | Power for LED backlight (Anode) | 26 | OLV2N | LVDS differential data input Negative |
| 4 | VLED+ | Power for LED backlight (Anode) | 27 | GND | ground |
| 5 | NC | No connection | 28 | OLVCLKP | LVDS differential data input Positive |
| 6 | GND | ground | 29 | OLVCLKN | LVDS differential data input Negative |
| 7 | ELV3P | LVDS differential data input Positive | 30 | GND | ground |
| 8 | ELV3N | LVDS differential data input Negative | 31 | OLV1P | LVDS differential data input Positive |

| | | | | | |
|---|---|---|---|---|---|
| 9 | GND | ground | 32 | OLV1N | LVDS differential data input Negative |
| 10 | ELV2P | LVDS differential data input Positive | 33 | GND | ground |
| 11 | ELV2N | LVDS differential data input Negative | 34 | OLV0P | LVDS differential data input Positive |
| 12 | GND | ground | 35 | OLV0N | LVDS differential data input Negative |
| 13 | ELVCLKP | LVDS differential data input Positive | 36 | GND | ground |
| 14 | ELVCLK N | LVDS differential data input Negative | 37 | I2C _SDA | data input/output for I2C(please let these pins open.) |
| 15 | GND | ground | 38 | I2C _SCL | Clock signal for I2C(please let these pins open.) |
| 16 | ELV1P | LVDS differential data input Positive | 39 | VDD_OTP | Power supply for OTP circuit(please let these pins open.) |
| 17 | ELV1N | LVDS differential data input Negative | 40 | EEPEN | Only test Pin( please let these pins open.) |
| 18 | GND | ground | 41 | VDDIN | Power supply |
| 19 | ELV0P | LVDS differential data input Positive | 42 | VDDIN | Power supply |
| 20 | ELV0N | LVDS differential data input Negative | 43 | VDDIN | Power supply |
| 21 | GND | ground | 44 | VDDIN | Power supply |
| 22 | OLV3P | LVDS differential data input Positive | 45 | VDDIN | Power supply |
| 23 | OLV3N | LVDS differential data input Negative | | | |

## Product Core Features

This medium-sized high-definition display module is specifically designed for industrial environments. It features a diagonal size of 8 inches with a resolution of 1920×1200 (16:10 aspect ratio, 283 PPI pixel density) using a TFT IPS panel combined with an LVDS differential signal interface. The typical brightness reaches up to 1200 cd/m² (1200 nits), ensuring clear visibility even in strong outdoor light or workshop conditions.

### Interfaces and Signals

LVDS (Low Voltage Differential Signaling) provides strong anti-electromagnetic interference and stable transmission, suitable for most industrial motherboards. The common 45-pin FPC flexible connection offers installation flexibility and reduced wiring volume.

### Environmental Tolerance

Industrial-grade wide-temperature design with normal operating temperature range of -20°C to +70°C (reinforced models available for -30°C to +85°C). LED backlight life typically exceeds 50,000 hours, supports IP protection options, and provides resistance to vibration and shock for harsh working conditions.

### Display Performance

16.7M true colors with full viewing angle (IPS, 85°/85°/85°/85°), no significant color bias. Contrast ratio typically exceeds 1000:1 with response time ≤ 25ms, balancing static data and dynamic monitoring screen requirements.

### Power Consumption and Compatibility

Working voltage options of 3.3V/5V with low power consumption LVDS interface. Customizable capacitor/resistor touch layer facilitates integration into human-computer interaction terminals.

## Main Applications

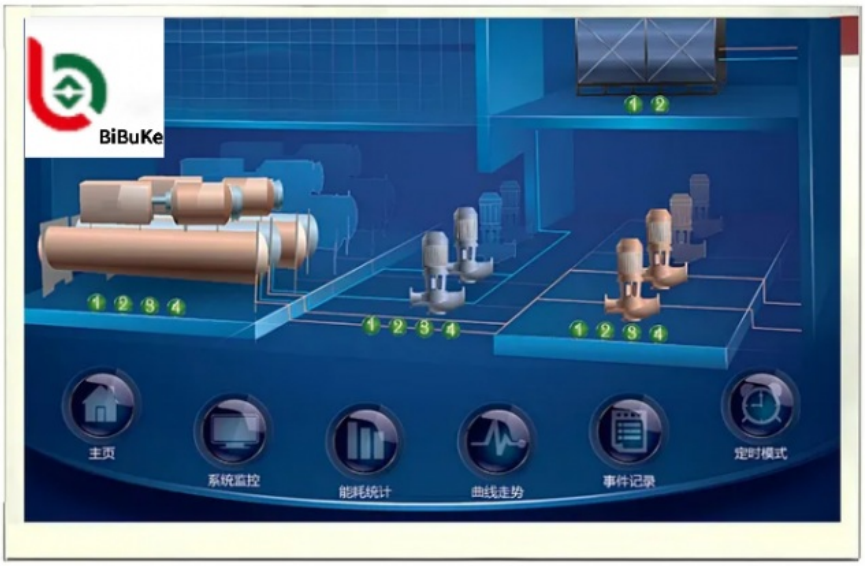
**Industrial Automation and Control:** PLC touch screens, machine tool operation panels, production line monitoring screens, robot teaching devices. 1200 nits brightness ensures clarity in strong workshop lighting, while LVDS provides electromagnetic noise immunity for complex factory environments.

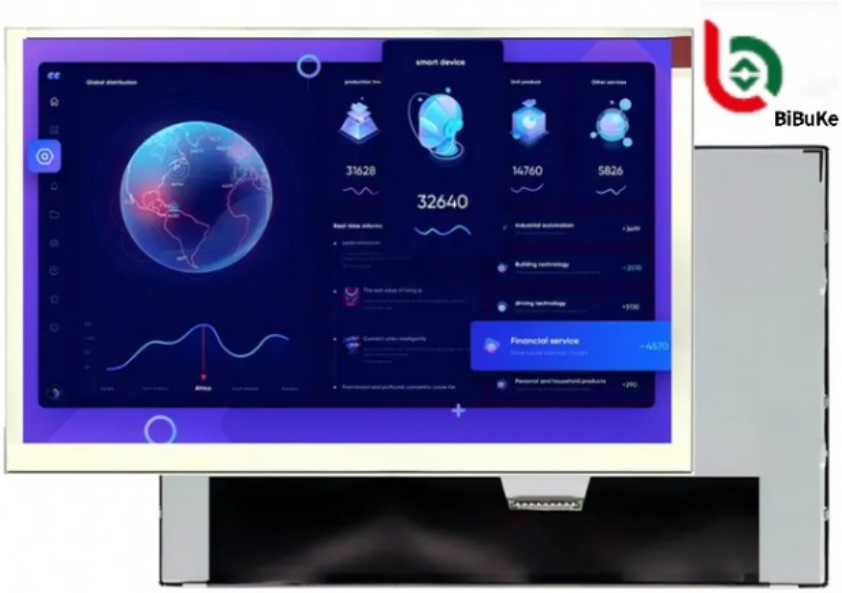
**Medical Electronic Equipment:** Portable ultrasound machines, monitors, blood analyzers' display units. High resolution presents precise medical images and data tables, while wide temperature range and long lifespan suit outdoor/vehicle-mounted mobile medical equipment.

**Vehicle and Transportation:** Navigation and status display screens for logistics/engineering vehicles, bus dispatch terminals, equipment control screens for ports/airports. Resistant to high/low temperatures and vibrations with strong outdoor visibility.

**Outdoor and Security Monitoring:** Outdoor kiosk terminals, solar-powered outdoor monitoring stations, road monitoring screens. 1200 nits brightness enables direct sunlight use without additional shading covers.

**Testing and Measuring Instruments:** Portable oscilloscopes, spectrum analyzers, environmental detectors. Compact size, high resolution, and low power consumption facilitate handheld use while ensuring data display accuracy.




## Frequently Asked Questions

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

Yes, we can accommodate custom requirements. Please send us your specifications or drawing. 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 what we want, but it's too large. Do you have smaller sizes? Can the display content be modified?**

For segment type LCD modules requiring outline size or display content modifications, a new LCD glass module is necessary. We can create new tooling for your specific requirements.

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

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

**Can you customize a new LCD module for us?**

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

**What is the lead time for tooling?**

Typically 15 to 25 days after drawing confirmation and tooling charge payment. We'll provide exact timelines upon drawing approval.

**Can you send samples for evaluation?**

Yes, sample orders are available for standard products.

**What is the lead time for production?**

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'll notify you if we can complete orders earlier.

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