Low Voltage Custom Programmable COG LCD Display with 128 x 64 Pixels Resolution

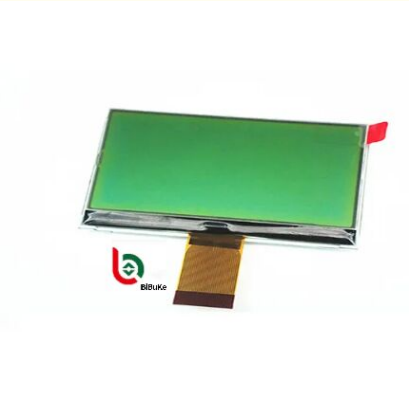
Our Product Introduction

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

- Display Type: COG (Chip On Glass) LCD
- Resolution: 128 X 64 Pixels
- Controller: S6B0724
- Driving Method: 1/64 Duty,1/9 Bias
- Power Supply: 3.0V
- Screen Type: Graphic
- Lcd Viewing ANGEL: 6 O'clock
- Interface: Parallel + BL
- Highlight: **Low Voltage COG LCD Display**, **Custom Programmable LCD Module**, **128 x 64 pixels Chip On Glass LCD**



Product Description

Low Voltage Custom Programmable COG LCD Display

Low-voltage customizable programmable COG liquid crystal display is a liquid crystal display module using the Chip-on-Glass (Chip on Glass) process. Its core advantage lies in the direct bonding of the driving IC to the glass substrate, combined with low-voltage power supply and programmable control. It features ultra-lightweight, low power consumption, and high integration, and is suitable for small-sized intelligent devices with limited space.

Detailed Specifications

Item	Content	Description
1	Display Model	Positive
2	Display Type	STN
3	Polarizer Type	Transflective
4	Viewing Angle	6 o'clock
5	Driving Method	1/64 duty, 1/9 bias
6	Interface	Parallel + BL
7	Backlight	LED backlight
8	Driver IC	S6B0724
9	Voltage	3.0V

Product Core Features

Core Technology and Structure

The COG technology eliminates the independent PCB and redundant connections of traditional LCD. The driving IC is directly bonded to the glass substrate, and the module thickness can be as low as 1.2-1.8mm, which is about 50% thinner than the traditional TAB module, significantly saving installation space. It is suitable for devices with sensitive volume requirements.

Low Voltage Characteristics

The standard working voltage is mostly 3.0-3.3V, and some support a wide voltage range of 2.4-5.5V. It can be adapted to mainstream MCUs without level conversion, reducing the complexity of power supply design. Combined with sleep/power-saving modes, the static power consumption can be as low as microampere level, extending battery life.

Programmable Capability

Equipped with controllers such as ST7565R, UC1617S, and IST7920, supporting 6800/8080 parallel and SPI/I2C serial interfaces. It can be customized for characters, graphics, animations, and display parameters through instructions, and is compatible with mainstream development platforms such as Arduino and STM32. It has abundant open-source driver resources.

Customization Dimensions

Can be customized for display size (such as 0.96-2.8 inches), resolution (common 128x64, 128x128, etc.), dot matrix layout, backlight color (white/yellow-green/blue, etc.), FPC pins and length, viewing angle (6:00/12:00), working temperature (industrial grade -20°C to +70°C), and communication interfaces to meet differentiated scenarios.

Display and Reliability

Mainly uses FSTN/STN single-tone (black/white/blue background white text, etc.), semi-transparent/fully transparent/reflective options. It has high contrast and strong readability. Industrial-grade models can withstand -30°C to +80°C storage temperatures, have strong anti-interference ability, and comply with RoHS environmental standards.

Core Application Scenarios

Smart Wearable Devices: Used in smart watches, bracelets, health monitoring devices, etc., 3.3V low power consumption adapted to button batteries, ultra-lightweight fitting the watch band/body, programmable display heart rate, steps, messages, etc., supports custom UI and icons.

Portable Medical Instruments: Adapted to blood glucose/blood pressure meters, blood oxygen meters, portable ultrasound, etc. High contrast display of physiological data, wide temperature range and anti-interference ensure stability in clinical environments, and customized UI meets the visualization needs of medical data.

Industrial Control and Instruments: Used in PLC panels, frequency converters, power meters, sensor terminals, etc. Low voltage adapted to industrial power supply, programmable display of real-time parameters, alarm information. The COG structure can withstand vibration and dust, and the interface is flexible to adapt to industrial control hosts.

Smart Home and Security: Used in smart locks, thermostats, gas/water meters, etc. Small volume embedded in the panel, low power consumption adapted to battery power supply, customizable display menus, usage data, and alarm prompts, SPI/I2C interface simplifies and connects with the main control.

Automotive Electronics: Applied in tire pressure monitoring, head-up display (HUD), seat adjustment panels, etc. Wide temperature range and anti-electromagnetic interference, low voltage compatible with 12V to 3.3V power supply from the vehicle, programmable display of vehicle status parameters, improving the efficiency of reading driving information.

DIY and Embedded Development: Compatible with development boards such as Arduino/STM32, used for mini oscilloscopes, logic analyzers, retro game consoles, etc. Supports custom graphics and animations. In SPI mode, only 4-5 wires are needed to drive, enabling quick prototyping verification.

Frequently Asked Questions

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

No problem. Firstly, please kindly send us your specification/drawing paper. If you have not the specification, you can also provide your samples; we will recommend the suitable one if it is standard products. Or we can customize for you based on your own requirement.

This LCD is just what we want, but it is big size, do you have any smaller size? And the display content need to be changed

a little.

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

This LCD display is HTN type, but I want STN type, can you make?

That's all right. We can change for you as per you request.

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

Yes, we can. Please send your drawing paper. If you have not, please advise me the outline size of the LCD display, display information (Glass thickness, Polarizer, Display Type, Connector mode, Storage Temp. Operating Temp. Supply Voltage, Viewing direction, drive condition), we can customize for you.

What is leading time for tooling?

General speaking, it will cost 15 to 25 days after drawing paper confirmation and tooling charge payment, we can report you the exact time when you confirm the drawing paper.

Can you send us samples for checking?

Yes. Samples order is available.

What is the Leading Time?

If we have stock for the standard ones, the leading time is one day after payment. If it is the mass production for special ones, the leading time is about 15-30 days. Suppose we can finish earlier, we will report the information in advanced.

Dongguan Bibuke Electronic Technology Co., Ltd.

+8613711912723 Jack@smartwinlcd.cn lcdtftscreen.com

Shangyu Commercial Centre Chang'an, Dongguan, Guangdong, China 523881