

## Black Screen Color LCD Display VA Type Full View Segment LCD Display

Our Product Introduction

### Basic Information

- Place of Origin: China
- Brand Name: BBI
- Certification: ISO9001 RoHS
- Model Number: BBI-001
- 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

- Name: Color LCD Display
- Type: VA
- Production Capacity: 1000000pieces/Year
- Viewing Direction: Full Viewing Angle , Full View
- Driving Method: Negative
- Storage Temp: -30+80
- Number Of Pins: 21 Pin
- Customized: Customized
- Backlight Type: LED
- Highlight: **Black Screen Color LCD Display, Color LCD Display VA Type, Full View Segment LCD Display**



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**Black Screen Color LCD Display VA Type Full View**

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**Segment LCD Display**

j'an, Dongguan, Guangdong, China 523881

**Product Description**

<b>Outline size</b>	95(W)* 58.8(H)* 2.8(T) mm	<b>LCD type</b>	VA
<b>Viewing area</b>	92(W)* 51.8(H) mm	<b>Display mode</b>	Negative
<b>PIN pitch</b>	2.54 mm	<b>LED Backlight</b>	White
<b>Polarizer type</b>	Transmissive	<b>Working voltage</b>	5.0V
<b>Viewing angle</b>	6 O'clock	<b>Drive method</b>	1/4 Duty, 1/3 Bias
<b>Operate temperature</b>	-20 ~+70	<b>Storage temperature</b>	-30~+80

Black screen color LCD display with VA type full-view segmented LCD display. The core is a segmented display module using VA (Vertical Alignment) liquid crystal technology. Based on black screen negative display, it has high contrast, full viewing angle and color display capabilities, and is suitable for precise data and status presentation in various scenarios. The following provides a detailed introduction from three aspects: product core, features, and applications:

**Product Core and Technical Principles**

This product is a color upgrade version of VA segment LCD. The core is that when the liquid crystal molecules are without an electric field, they are vertically aligned to the substrate, effectively blocking the backlight and presenting a deep black screen; after being powered on, the molecules tilt with the voltage, controlling the amount of light passing through to achieve gray scale and color display. Combined with segmented driving and color screen printing/backlight solutions, it realizes color segment code display on the black screen. It usually adopts the negative display mode, with black as the background color. Through high-contrast color segment codes, numbers, icons or simple graphics are presented, and LED backlight is combined to improve readability in different environments. It

also supports multi-segment custom arrangement, adapting to the display requirements of various devices.

#### **Core features**

**Ultra-high contrast and pure black background:** Thanks to the vertical arrangement of VA liquid crystal molecules, the backlight has strong shading effect in the black screen state, and the native contrast ratio can reach over 150:1. Some high-end models have even higher contrast ratios. The character edges are sharp, and the contrast between the color segments and the black background is large. It is clear and easy to read even in strong light.

**Full-view display:** Through optical compensation or multi-domain technology, the horizontal and vertical viewing angles can reach 160° - 170° or even close to 178°. When viewed from different angles, the color, brightness and contrast change little, solving the problem of narrow viewing angles of traditional TN segment display screens.

**Flexible color presentation:** Supports RGB three-color or custom color screen printing, enabling multi-color segment display. It can meet single-color digital display requirements and can also distinguish different data types or status prompts through color, improving information recognition efficiency.

**Low power consumption and high reliability:** The segmented driving method does not require scanning all pixels like TFT, and the power consumption is much lower than TFT LCD of the same size. At the same time, it is compatible with ultra-wide temperature (-40°C - 85°C), anti-interference and other industrial / vehicle-grade requirements, has a long service life, and low maintenance costs.

**Strong customization compatibility:** Can be customized for segment number, size, interface (such as COG + FPC), backlight brightness according to equipment requirements. It can integrate touch function and be adapted to different installation and usage scenarios.

#### **Main applications**

**Industrial measurement and control field:** Widely used in multimeters, oscilloscopes, pressure transmitters, PLC controllers, automation production line

instruments, etc. Its high contrast and full-view characteristics allow workers to clearly read data from different positions, and the low power consumption and wide temperature design are suitable for complex factory environments. The color segment display can also quickly distinguish normal / abnormal states.

Medical and health equipment: Suitable for blood pressure monitors, blood glucose meters, thermometers, electrocardiogram monitors, etc. Black screen color display can avoid strong light reflection interference. The full-view feature is convenient for medical staff to view data from different angles. The color segment display can directly mark key indicators (such as high pressure / low pressure, blood glucose threshold), improving diagnosis efficiency.

Consumer electronics and household appliances: Commonly found in rice cookers, microwave ovens, coffee machines, smart locks, electronic scales, etc. Black screen color segment display combines aesthetics with practicality. It can display temperature, time, power consumption, etc., and is suitable for different viewing angles in home environments. And the low power consumption meets the energy-saving requirements of household appliances.

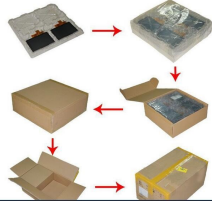
Vehicle electronics: Used in vehicle dashboards, air conditioning control panels, tire pressure monitors, etc. The vehicle-grade VA solution can withstand high and low temperatures and vibrations. The full-view feature allows drivers and passengers to clearly see the display content. The color segment display can distinguish key information such as vehicle speed, fuel level, and fault alerts, improving driving safety.

Indicators and portable devices: such as smart electricity meters, water meters, gas meters, handheld detectors, etc. Its low power consumption is suitable for battery-powered scenarios. Black screen color display makes data reading more intuitive. It is also suitable for outdoor strong light and indoor weak light environments, meeting the requirements for long-term stable operation.



## Packaging & Shipping:

**Packaging:** Carton boxes, Cupboard , EPE, Blister Tray, About the package way, it is up to the size of products, according to customer request and demand. Different countries have not same requirement..



**Shipping:** Express way as DHL, Fedex, EMS, UPS, air shipping, sea shipping, Any shipping method you prefer.



## Payment Method:



## FAQ:

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

Answer: 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.

**2. 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.**

Answer: 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.

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

Answer: That's all right . we can change for you as per you request.

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

Answer: 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.

**5. What is leading time for tooling?**

Answer: 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.

**6. Can you send us samples for checking?**

Answer: Yes,. Samples order is available.

**7. What is the Leading Time?**

Answer: 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.

#### **Our Services:**

1. Free repair within one year after the shipment of products from us.
2. Replacement within 30 days after the shipment of products from us due to products' problems.
3. We can print your logo and stick your model No. on the cameras.
4. We have long cooperation with many shipping companies and our export volume is large. The shipping companies can offer us good discounts.

5. Professional technician supports. We have a good after-sales service team. They can solve your problems in time.

6. All goods will be inspected and tested by our engineers and QC/QA before packing and shipment.

7. Customers satisfactory is most important to us. If you have any problem or questions regarding our transaction. Please contact us by Email or online. It will be responded within 24 hours.

8. Products pictures only for your reference. please kindly refer to the specification. we can provide the products basic on the specification. or you can offer your own specification or drawing, we can customize all kinds of LCD displays for you. thanks for your kind support always.

**CHARACTER / GRAPHIC TYPE LCD MODULES LIST:**

Model	Module	Resolution	Color	Interface	Control	Material	Temperature	Other
8D2004A	970.2	8.659	0.055	1/16	S6A0069	COPY	Y	
8D2004B	760.3	7.042	0.043	1/16	S6A0070	COPY	Y	
8D2004C	1142.4	11.394	0.052	1/16	S6A0069	COPY	Y	
8D2402A	1190.3	13.622	0.055	1/16	S6A0069	COPY	Y	

8 D - C 24 02 B	2 0 4 X X 2 0 0	1 7 8 X X 2 0 0	1 1 6 X X 1 1 3	6. 0 X 1/ 16 9	S6A 006 9	C O B	Y Y
8 D - C 40 01 A	1 8 0 X X 1 3 5	1 5 4 X X 1 7 6	0. 3. 6 X X 3 5	1/ 16 9	S6A 006 9	C O B	Y Y
8 D - C 40 02 B	1 8 0 X X 2 3 5	1 5 4 X X 1 6 5	0. 3. 6 X X 5 5	1/ 16 9	S6A 006 9	C O B	Y Y
8 D C 40 04 A	1 9 0 X X 4 4 0	1 4 0 X X 5 5 9	0. 7. 8 X X 8 9	2. 1/ 16 9	S6A 006 9	C O B	Y Y
8 D - G 12 23 2A	1 2 X 3 2 0	1 0 X 4 8 5	0. 4 0. 0. 4 4	1/ 32 20	SE D15 20	C O B	Y Y
8 D - G 12 23 2B	1 2 X 3 2 0	1 0 X 3 6 0	0. 4 X 4 8 5	1/ 32 20	SE D15 20	C O B	Y Y
8 D - G 12 23 2C	1 2 X 3 2 0	1 0 X 3 6 0	0. 4 X 4 8 5	1/ 32 20	SE D15 20	C O B	Y Y
8 D - G 12 23 2D	1 2 X 3 2 4	1 0 X 4 2 2	0. 4 X 4 8 5	1/ 32 20	SE D15 20	C O B	Y Y
8 D - G 12 86 4A	1 2 X 6 4	1 0 X 7 4 0	0. 4 X 4 8 5	1/ 64 8A	S6B 010 8A	C O B	Y Y
8 D - G 12 86 4B	1 2 X 6 4	1 0 X 7 4 0	0. 4 X 4 8 5	1/ 64 8A	S6B 010 8A	C O B	Y Y





8	D	8	6	0.																
-	1	0.	4.	5																
C	6	0	5	5	2.95	1/	S6	C												
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6	X	3	1	X	35	6	69	B												
0	2	6.	3.	5																
2	0	0	8																	
A																				
8	D	1	9	0.																
-	2	9.	9	9																
C	6	0	2	0	4.84	1/	S6	C												
1	X	X	X	X	X9.	1	A00	O	Y	Y										
6	X	2	4	2	66	6	69	B												
0	2	4.	4.	1																
2	4.	0																		
B																				
8	D	8	6	0.																
-	0.	4.	5																	
C	6	0	5	5	2.96	1/	S6	C												
1	X	X	X	X	X5.	1	A00	O	Y	Y										
6	X	3	1	0.	56	6	69	B												
0	2	6.	5.	6																
2	0	5	6																	
C																				
8	D	8	6	0.																
-	4.	4.	5																	
C	6	0	5	5	2.96	1/	S6	C												
1	X	X	X	X	X5.	1	A00	O	Y	Y										
6	X	4	1	0.	56	6	69	B												
0	2	4.	5.	6																
2	0	5	6																	
D																				
8	D	8	6	0.																
-	5.	4.	5																	
C	6	0	5	6	2.96	1/	S6	C												
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6	X	3	1	0.	56	6	69	B												
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C	6	0	5	6	2.96	1/	S6	C												
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C	6	0	5	5	2.95	1/	S6	C												
1	X	X	X	X	X4.	1	A00	O	Y	Y										
6	X	6	2	0.	75	6	69	B												
0	4	0.	5.	5																
4	0	6	5																	
A																				
8	D	1	8	0.																
-	2	6.	3.	6																
C	6	0	0	X	3.2	1/	S6	C												
2	X	X	0.	X	X5.	1	A00	O	Y	Y										
0	X	X	1	0.	55	6	69	B												
0	1	3	6	6																
1	3	7.	6																	
A																				



