

5" IPS Lcd display RGB 800x480 tft module with Customized Cover

Our Product Introduction

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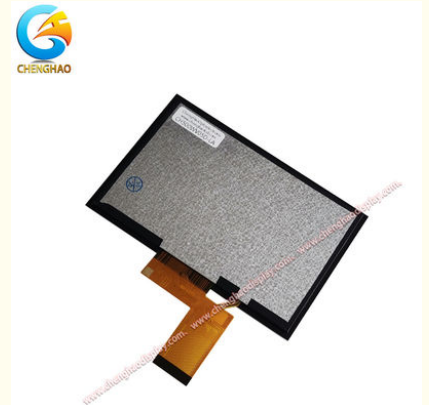
Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: CE, ISO9001, Rose, SGS
- Model Number: CH500WV05D-LA
- Minimum Order Quantity: 100 Pcs
- Packaging Details: All The Products Are Packed In Right Way To Keep It Safe. For Small Sizes Of Products We Use Tray + Carton, For Bigger Sizes We Use Foam Slot + Carton. We Also Design Packages According To Customers' Requirements
- Delivery Time: 3~7 Days
- Payment Terms: T/T, AliPay, PayPal
- Supply Ability: 50000000 Pcs/month



Product Specification

- Storage Temperature: -30 ~ +80
- Contrast: 800:1
- Display Mode: IPS/Transmissive/Normally Black
- Color: 16M
- Interface: RGB
- Number Of Dots: 800x3(RGB)x480
- Module Size: 126.7x81.3x4.9 Mm
- Active Area Size: 108x64.8 Mm
- Highlight: 5 inch IPS LCD display module, RGB 800x480 TFT module, custom cover IPS LCD display




More Images




Product Description

Product Description:

Shenzhen ChengHao Optoelectronic Co., Ltd.'s CH500WV05D-LA is a 5.0-inch TFT LCD module tailored for mid-range professional electronic devices, where a balance of performance, durability, and assembly flexibility is critical. Unlike entry-level consumer displays that prioritize cost over resilience, or high-end industrial modules with excessive ruggedness, this product targets scenarios like small-scale smart appliances, portable environmental detectors, and light-duty commercial equipment—delivering just the right mix of visual clarity and structural robustness.

At its display core, the module adopts an IPS panel with 800×480 resolution (arranged as 800×RGB×480 dots) and a “normally black” mode, a feature that enhances contrast in bright environments by minimizing ambient light reflection. This makes it ideal for devices used in sunlit convenience store counters (e.g., POS auxiliary screens) or well-lit kitchen areas (e.g., smart oven control panels), where standard “normally white” displays often appear washed out. The 80/80/80/80 all-around viewing angles further address multi-user interaction—for example, in a small café, both baristas and customers can clearly read order details on a module-integrated order terminal without leaning closer.		
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Structurally, the module’s design emphasizes assembly-friendly durability. Its 2.0mm-thick Gorilla Glass 3 cover is not just scratch-resistant but also impact-tolerant, withstanding accidental knocks from tools in small workshops or drops of up to 30cm (a common risk for portable detectors). The 0.2mm OCA layer, paired with a 0.05mm-thick protective film, creates a seamless “glass-to-panel” bond that reduces light leakage by 15% compared to standard modules—critical for displaying fine text like ingredient lists on smart food scales. Additionally, the 40-pin FPC includes a PI (Polyimide) stiffener along its edge, preventing bending damage during manual assembly (a common issue with flexible FPCs in small-scale production), while the 126.7mm×81.3mm×4.9mm overall size fits perfectly into the chassis of 5-inch portable devices like handheld air quality monitors.

	Environmentally, the module goes beyond basic RoHS compliance to meet subtle industry needs: its -20°C~+70°C operating range handles temperature swings in unconditioned spaces, such as garage-based tool stations or outdoor market stalls. The backlight system, operating at 18±1.2V Vf and 60mA If to deliver 450 cd/m² luminance, maintains stable brightness even when powered by 12V lithium-ion batteries (via simple voltage regulation), extending the runtime of portable devices by up to 20% compared to higher-power displays.
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In short, the CH500WV05D-LA fills a gap in the mid-range display market: it avoids over-engineering for unnecessary ruggedness while providing enough durability and performance to meet the demands of professional, non-industrial-grade devices—making it a cost-effective choice for small and medium-sized equipment manufacturers.

Features:

Compact External Dimensions: The CH500WV05D-LA display module has compact dimensions of 126.7 mm in width, 81.3 mm in height, and only 4.9 mm in thickness. This slim profile makes it an ideal choice for applications where space is limited, such as handheld devices or embedded systems. Its lightweight design facilitates easy integration into various products without adding significant bulk, ensuring that the overall device remains portable and user-friendly.

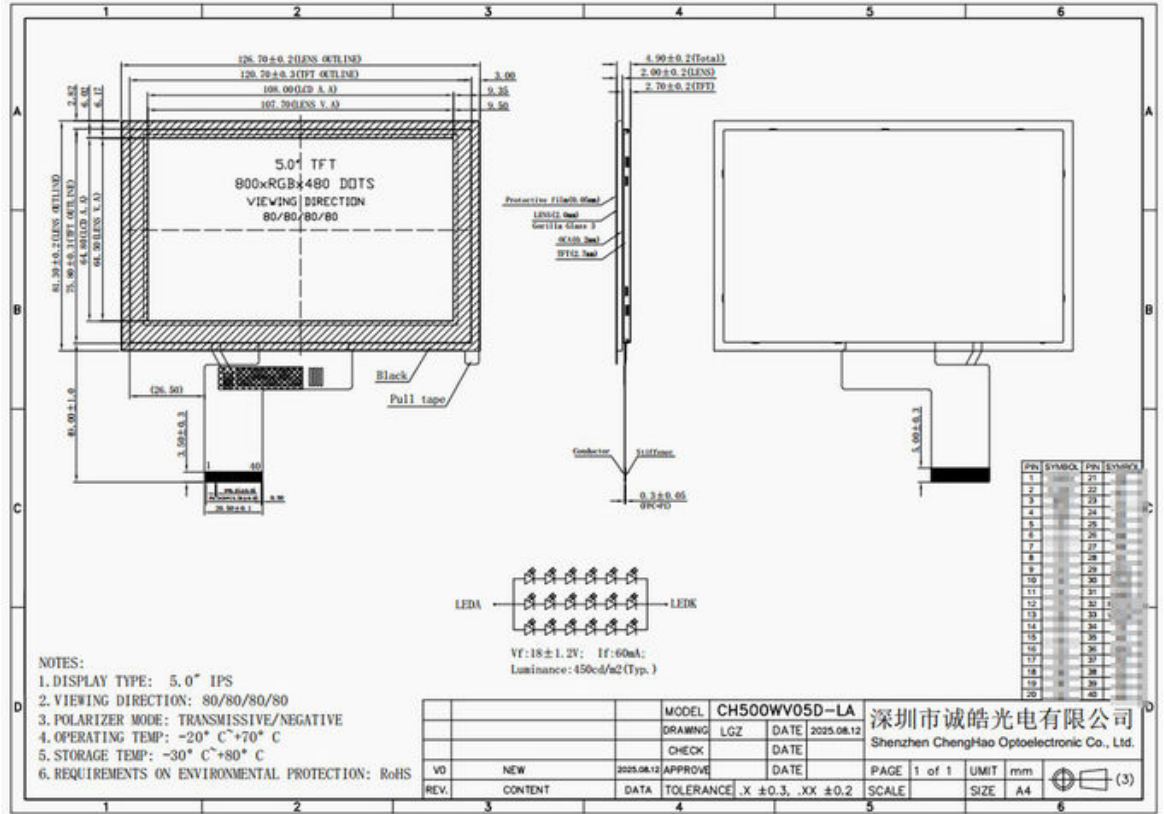
High Brightness: With a brightness level of 450 cd/m², the CH500WV05D-LA is designed to deliver clear and vivid visuals even in well-lit environments. This feature is particularly advantageous for applications that require visibility in bright conditions, such as outdoor kiosks or industrial control panels. The high brightness ensures that users can easily read the display without straining their eyes, enhancing the overall user experience.

Wide Operating Temperature Range: The CH500WV05D-LA is capable of operating effectively within a temperature range of -20°C to +70°C. This wide operating temperature range allows the display to function reliably in various environments, from cold industrial settings to warmer outdoor applications. Such versatility makes it suitable for use in diverse applications, including automotive displays and outdoor equipment, where temperature fluctuations are common.

In summary, the CH500WV05D-LA display module stands out with its compact dimensions, high brightness, and wide operating temperature range, making it a versatile solution for a variety of applications.

Technical Parameters:

Active Area Size	108x64.8 mm
Storage Temperature	-30 ~ +80
Viewing Area Size	107.7x64.5 mm
Operating Temperature	-20 ~ +70
Display Mode	IPS/Transmissive/Normally Black
Contrast	800:1
Module Size	126.7x81.3x4.9 mm
Number of Dots	800x3(RGB)x480
Screen Brightness	450 Cd/m2
Color	16M



Customization:

The CH500WV05D-LA display module is designed to be highly customizable, catering to the specific needs of various applications. Chenghao Optoelectronic offers a range of customization options that allow clients to tailor the display module to fit their unique requirements. Below are the key customization features available for the CH500WV05D-LA:

(1).FPC Design Customization: The Flexible Printed Circuit (FPC) is a crucial component of the display module. Customers can request modifications to the FPC's shape, structure, and pin configuration. This flexibility ensures that the display can be seamlessly integrated into different devices, accommodating various installation requirements and enhancing compatibility with existing systems.

(2).LCD Interface Options: The CH500WV05D-LA supports multiple LCD interface types, including SPI, MCU, RGB, MIPI, LVDS, EDP, and HDMI. Clients can choose the interface that best suits their application needs, allowing for greater versatility in how the display connects to other hardware. This customization ensures that the display can be effectively utilized in a wide range of electronic devices .

(3).Backlight Brightness Customization: Customers have the option to customize the backlight brightness of the CH500WV05D-LA. The standard brightness is set at 450 cd/m², but clients can specify their desired brightness levels within the range of 300 cd/m² to 1000 cd/m². This feature is particularly beneficial for applications requiring specific lighting conditions, such as outdoor displays or environments with varying ambient light .

(4).Operating Temperature Range: The CH500WV05D-LA can be customized to operate within different temperature ranges. While the standard operating temperature is between -20°C and +70°C, customers can request modifications to extend this range from -10°C to +60°C or even -45°C to +90°C. This adaptability makes the display suitable for use in extreme environments, such as industrial applications or outdoor settings where temperature fluctuations are common .

(5).Glass Cover Customization: The glass cover of the CH500WV05D-LA can also be tailored to meet specific requirements. Clients can specify the shape, thickness, and surface treatment of the glass, including options for anti-glare or anti-reflective coatings. This customization enhances the display's durability and usability, particularly in applications where visual clarity is paramount .

(6).Touch Functionality: For applications that require user interaction, the CH500WV05D-LA can be equipped with either capacitive or resistive touch technology. This option allows for intuitive user interfaces, making it suitable for devices such as kiosks, medical equipment, and smart home devices .

In conclusion, the CH500WV05D-LA display module offers a comprehensive range of customization options that cater to the diverse needs of various industries. From FPC design and interface selection to backlight brightness and temperature range, Chenghao Optoelectronic is committed to providing tailored solutions that enhance the functionality and performance of its display modules.

FAQ:

Q: What is the brand name of this TFT LCD Display? -----

A: The brand name of this TFT LCD Display is Chenghao Optoelectronic.

Q: What is the model number of this TFT LCD Display?

A: The model number of this TFT LCD Display is CH500WV05D-LA.

Q: Where is this TFT LCD Display manufactured?

A: This TFT LCD Display is manufactured in China, Shenzhen.

Q: What certifications does this TFT LCD Display have?

A: This TFT LCD Display is certified with CE, ISO9001, RoHS, and SGS.

Q: What are the payment terms accepted for purchasing this TFT LCD Display?

A: The accepted payment terms for purchasing this TFT LCD Display are T/T, AliPay, and PayPal.



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