



4 Inch Industrial Lcd Displays 800*480 Touch Lcd Display Solutions

Our Product Introduction

Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: RoHS CE、FCC
- Model Number: CH400WV22C-CTB
- 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: TT
- Supply Ability: 300K Pcs/month



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Product Specification

- Lcd Interface: MIPI
- Active Area Size: 51.84*86.4 Mm
- Viewing Area Size: 52.44*87 Mm
- Screen Size: 3.97 Inch
- Module Type: 3.97" TFT
- Touch Type: Capacitive Touch
- Resolution: 480*800 Dots
- Contrast: 800



More Images



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Product Description

Product Description:

The CH400WV22C-CTB is a high-performance 3.97-inch IPS TFT LCD module developed by Chenghao Optoelectronic, engineered for clarity, reliability, and adaptability in demanding visual environments. Featuring a native resolution of 480×800 pixels and capable of displaying up to 16 million colors, the module delivers vivid imagery with excellent color fidelity. Its transmissive, normally black display mode combined with an impressive 800:1 contrast ratio ensures sharp readability under varied lighting conditions. The screen achieves a brightness level of 600 cd/m², making it suitable for applications requiring strong ambient light visibility. Utilizing a MIPI interface with a 25-pin FPC, the module supports efficient data transmission while maintaining a compact form factor (61×102×3.65 mm).



Integrated capacitive touch functionality—based on the GT911 controller—offers responsive user interaction, though the design allows flexible conversion to resistive or non-touch variants. With an all-around viewing angle of 85° in all directions and a wide operating temperature range of -20°C to +70°C, the CH400WV22C-CTB is built for stability across diverse operational settings. Additionally, Chenghao Optoelectronic provides extensive customization options, including backlight brightness adjustment, interface reconfiguration, cover glass modification, and anti-glare or EMI shielding enhancements, enabling seamless integration into specialized industrial or embedded systems.

Features:

Compact and Precise Mechanical Dimensions

The CH400WV22C-CTB module measures 61 mm (width) × 102 mm (height) × 3.65 mm (thickness), offering a slim profile that facilitates integration into space-constrained enclosures. Its active display area spans 51.84 × 86.4 mm, ensuring maximum screen utilization within a minimal footprint—ideal for applications where structural precision and spatial efficiency are critical.

MIPI Interface for High-Speed, Low-Pin-Count Connectivity

Equipped with a MIPI (Mobile Industry Processor Interface) connection via a 25-pin flexible printed circuit (FPC), this module enables high-bandwidth data transfer with reduced electromagnetic interference and simplified routing. The MIPI interface supports efficient communication between the display and host controller, making it well-suited for systems requiring reliable real-time visual feedback without excessive wiring complexity.

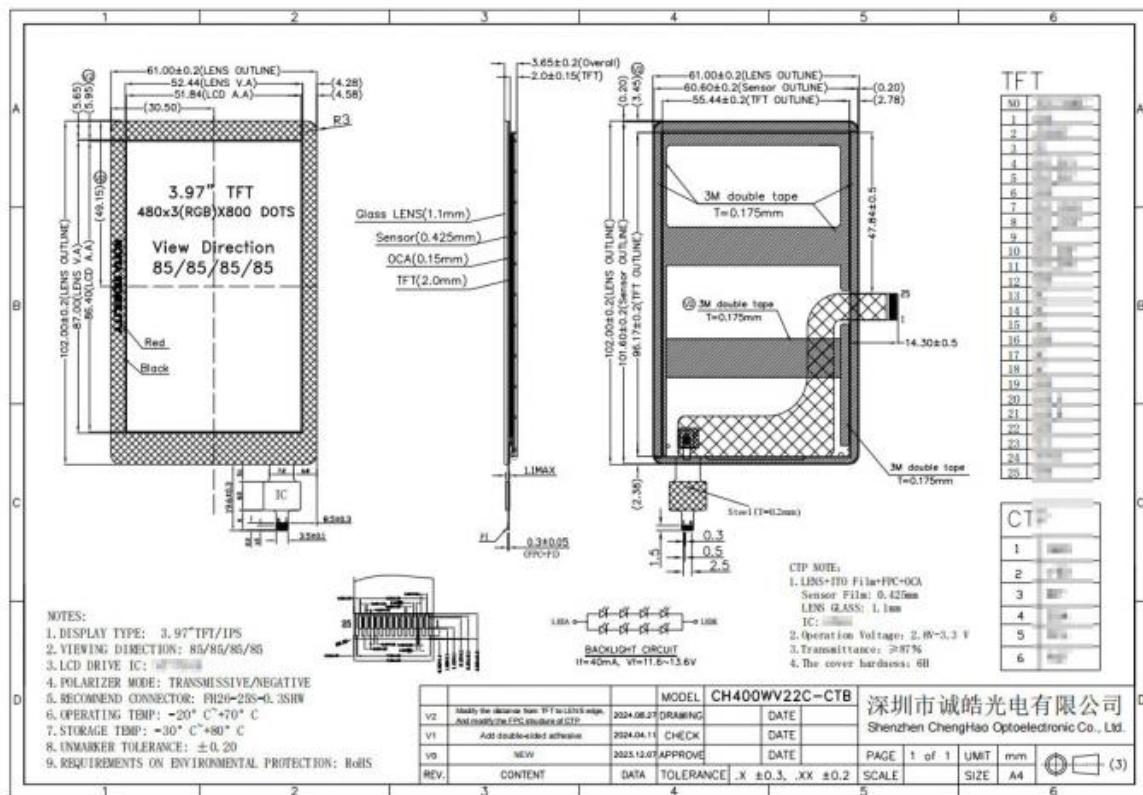
Wide Operating Temperature Range for Harsh Environments

Designed to function reliably from -20°C to +70°C, the CH400WV22C-CTB is capable of stable performance in environments subject to significant thermal variation. This wide temperature tolerance makes it appropriate for deployment in industrial settings, outdoor kiosks, or transportation-related installations where consistent operation under non-climate-controlled conditions is essential.

Technical Parameters:

Color	16M
Viewing Area Size	52.44*87 mm

Module Type	3.97" TFT
Display Mode	IPS / Transmissive / Normally Black
Viewing Direction	85/85/85/85
Resolution	480*800 Dots
Active Area Size	51.84*86.4 mm
Screen Size	3.97 Inch
Operating Temperature	-20 ~ +70
LCD Interface	MPI



Customization:

The CH400WV22C-CTB LCD module from Chenghao Optoelectronic is engineered not only for off-the-shelf performance but also as a versatile platform for tailored display solutions. Recognizing that diverse applications demand unique visual and mechanical specifications, the manufacturer offers a comprehensive customization pathway that begins with technical consultation and extends through design validation to mass production.

One key aspect of customization lies in interface flexibility. While the standard model features a MIPI interface, clients can request alternative signaling protocols—such as RGB, SPI, MCU, LVDS, or eDP—depending on their system architecture and data throughput requirements. This adaptability ensures seamless compatibility with legacy or specialized control boards without necessitating extensive hardware redesign.

Another critical customization option involves environmental resilience. Beyond the default operating range of -20°C to +70°C, the module can be enhanced for extreme conditions, supporting operation from -45°C to +90°C through the selection of wide-temperature-grade liquid crystal materials, reinforced backlight components, and thermally stable adhesives. Such modifications are particularly valuable in outdoor or industrial deployments where thermal stability directly impacts reliability.

Additionally, mechanical and optical tailoring is available. The FPC layout—including pin count, bend geometry, and connector placement—can be re-engineered to match specific mounting constraints. The front glass may be modified in thickness, contour, or surface treatment (e.g., anti-glare, anti-reflective, or silk-screened markings), while backlight intensity can be fine-tuned between 300 cd/m² and 1000 cd/m²—or even higher for high-sunlight visibility needs. Touch integration is also configurable, allowing customers to select capacitive, resistive, or no-touch variants based on operational requirements.

Through this structured yet flexible customization process, the CH400WV22C-CTB serves as a robust foundation for mission-specific display implementations across a broad spectrum of professional and industrial domains.

FAQ:

Q1: What is the model number of the Small LCD Touch Screen?

A1: The model number is CH400WV22C-CTB.

Q2: Which certifications does this product have?

A2: The Small LCD Touch Screen is certified with RoHS, CE, and FCC.

Q3: What is the minimum order quantity for this product?

A3: The minimum order quantity is 100 pieces.

Q4: How is the product packaged for shipping?

A4: All products are packed securely to ensure safety. Small sizes are packed using tray + carton, while bigger sizes use foam slot + carton. We can also design packaging according to customer requirements.

Q5: What is the typical delivery time and payment terms?

A5: Delivery time is usually between 3 to 7 days, and payment terms are via TT (Telegraphic Transfer).

Q6: What is the supply capacity for this product?

A6: The supply ability is 300,000 pieces per month.



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