2.8inch Small LCD Touch Screen With -20 70 Wide-Temp 320x240 Resolution

Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: RoHS CE FCC
- Model Number: CH280QV22H-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

Product Specification

- Brightness: 300 Cd/m2 Luminance
- Storage Temperature: -30 ~ +80 ℃
- Lcd Interface: SPI
- Lcd Type: 2.8" TFT+ CTP
- Contrast: 800:1
- Touch Interface: IIC
- Viewing Area Size: 42.8 * 57.2 Mm
- Number Of Dots: 240x320
- Highlight: **2.8inch Small LCD Touch Screen**, **320x240 Resolution Small LCD Touch Screen**

More Images

Product Description

Product Description:

CH280QV22H-CTB is a high-performance 2.8-inch TFT LCD touch screen module manufactured by Shenzhen Chenghao Optoelectronics Technology Co., Ltd. This module is designed for small and medium-sized display applications and is widely used in industrial control, smart home, medical equipment, instrumentation, and the Internet of Things.

Touch function
The module is equipped with a capacitive touch panel, supports I2C interface, and has an operating voltage range of 2.8V-3.3V. The touch glass is 0.7mm thick and has a transmittance of ≥87%, ensuring a smooth and accurate user experience. In addition, the hardness of the touch panel is 6H, providing good wear resistance and suitable for use in various environments.

Appearance and size
The module has a sophisticated appearance design and measures 56 x 74 x 3.74 mm, with elegant visual effects. The size of its visible area is 42.8 x 57.2 mm and the active area is 43.2 x 57.6 mm, ensuring that users experience clear and delicate image display when using it.
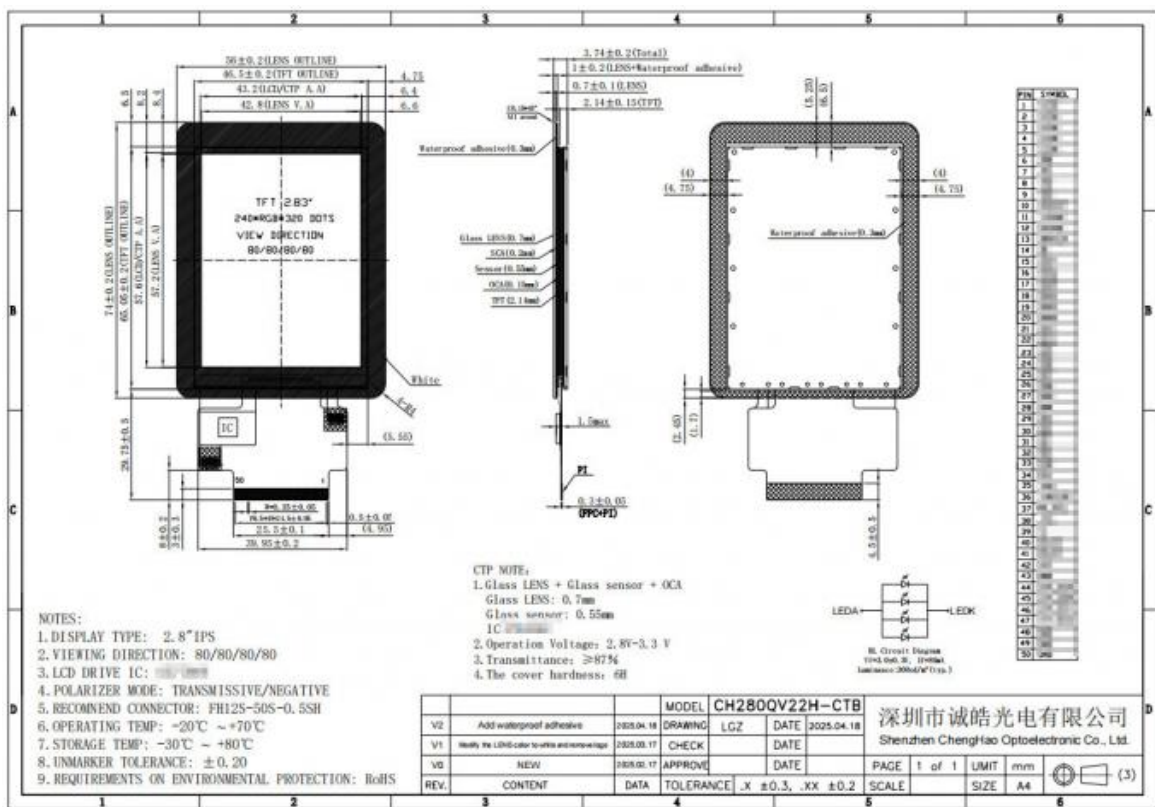
Display technology
CH280QV22H-CTB adopts IPS (In-Plane Switching) technology, providing a wide viewing angle and high-quality color performance. With a resolution of 320x240 pixels and support for 262K color display, it can present vivid images and smooth animation effects. The display brightness is up to 300 cd/m², which enables good visibility under different lighting conditions.

Temperature adaptability
The operating temperature range of the CH280QV22H-CTB is -20℃ to +70℃, while the storage temperature can reach -30℃ to +80℃, enabling it to operate normally in harsh environments. This temperature adaptability allows the module to perform well in outdoor applications and industrial environments.

Technical Parameters:

Active Area Size	43.2 * 57.6 mm
Number of dots	240x320
Lcd Type	2.8" TFT+ CTP
Operating Temperature	-20 ~ +70 ℃
Viewing Area Size	42.8 * 57.2 mm
Module Size	56 * 74 * 3.74 mm
Brightness	300 Cd/m2 Luminance
Touch Interface	IIC
Viewing Direction	80/80/80/80
Contrast	800:1

NOTES:
1. DISPLAY TYPE: 2.8"IPS
2. VIEWING DIRECTION: 80/80/80/80
3. LCD DRIVE IC:
4. POLARIZER MODE: TRANSMISSIVE/NEGATIVE
5. RECOMMEND CONNECTOR: FH12S-50S-0.5SH
6. OPERATING TEMP: -20℃ ~+70℃
7. STORAGE TEMP: -30℃ ~ +80℃
8. UNMARKER TOLERANCE: ±0.20
9. REQUIREMENTS ON ENVIRONMENTAL PROTECTION: RoHS

Applications:

CH280QV22H-CTB is a flexible and versatile 2.8-inch TFT LCD touch screen module. Its wide range of applications makes it an indispensable part of modern electronic devices. The following are the main application areas of this product:

1. Industrial control

In the field of industrial automation, CH280QV22H-CTB can be used in various control panels and human-machine interfaces (HMI). Its high resolution and excellent viewing angle enable operators to clearly view real-time data, monitor equipment status, and conduct effective control and management. The temperature resistance of this module enables it to work stably in high and low temperature environments, suitable for complex industrial environments.

2. Smart home

With the popularity of smart home devices, CH280QV22H-CTB has become an ideal choice for smart control panels. Users can easily control the lighting, temperature, and security systems in their homes through the touch screen. The module's customization function allows it to be seamlessly integrated with various smart home devices, providing an intuitive user experience.

3. Medical equipment

In the medical field, CH280QV22H-CTB can be used for portable medical devices and monitoring instruments. Its high brightness and clear display ensure that doctors and caregivers can quickly obtain important vital sign data. The module's durability and anti-interference ability also make it outstanding in medical environments.

4. Instrumentation

In the field of instrumentation, this module is widely used in data acquisition and analysis equipment. Whether it is environmental monitoring instruments or laboratory equipment, CH280QV22H-CTB can provide accurate and clear data display to help users make efficient analysis and decisions.

5. Artificial Intelligence

CH280QV22H-CTB plays an important role in artificial intelligence applications, especially in machine vision and intelligent robots. Its high resolution and fast-response touch function enable the device to quickly process input information and provide real-time feedback to enhance the user experience.

6. Internet of Things Devices

In Internet of Things (IoT) devices, CH280QV22H-CTB is a core component for information display and user interaction. It can communicate with other devices through the I2C interface, making data transmission more efficient. It is suitable for a variety of IoT applications such as smart sensors, monitoring equipment and intelligent control systems.

7. In-vehicle applications

This module is also suitable for in-vehicle display systems such as navigation and infotainment systems. Its high brightness and good visibility enable clear display of information even in direct sunlight, improving driving safety and convenience.

Customization:

CH280QV22H-CTB is a highly customizable 2.8-inch TFT LCD touch screen module designed to meet the specific needs of different customers. Chenghao Optoelectronics offers a variety of customization options to ensure that every project can get the best solution. The following are the main customization contents of this product:

1. FPC shape and structure

CH280QV22H-CTB supports the adjustment of the shape and structure of the flexible printed circuit (FPC) according to the specific application needs of the customer. This flexibility allows the module to better adapt to the customer's device design, ensuring easy and stable installation.

2. Backlight brightness adjustment

Customers can customize the backlight brightness of the module according to the use environment and needs. Whether in a dark environment or under strong light, customers can get ideal visual effects. Chenghao Optoelectronics can provide different brightness levels to meet the requirements of specific application scenarios.

3. LCD interface definition

The LCD interface of CH280QV22H-CTB can be adjusted according to the customer's system requirements. Whether it is SPI or other

interface types, Chenghao Optoelectronics' engineering team can provide support to ensure the compatibility of the module with the customer's existing equipment and simplify the integration process.

4. Customized touch panel design

The touch panel design of the module can also be customized according to customer needs. Customers can choose different touch technologies, glass thickness and surface treatment methods to achieve the best touch experience and visual effects. This customization option is suitable for products that require special functions or appearance.

5. Color and logo

CH280QV22H-CTB allows customers to customize the appearance of the module, including color selection and printing of brand logos. This personalized design can help customers enhance the brand image of the product and make it more prominent in the market.

6. Packaging and accessories

Chenghao Optoelectronics also provides customized packaging services to meet customers' marketing needs. Whether it is product packaging design or accessory configuration, customers can adjust it according to their sales strategy to ensure the competitiveness of the product in the market.

7. Functional expansion and technical support

According to customer needs, CH280QV22H-CTB can also be functionally expanded, such as adding additional interfaces or improving certain performance parameters. Chenghao Optoelectronics' technical team will provide customers with full support to ensure that the customization process goes smoothly and help customers achieve their design goals.

FAQ:

Q: What is the brand name of this Small LCD Touch Screen?
A: The brand name is Chenghao Optoelectronic.

Q: What is the model number of this Small LCD Touch Screen?
A: The model number is CH280QV22H-CTB.

Q: What certifications does this Small LCD Touch Screen have?
A: This product is certified with RoHS, CE, and FCC.

Q: What is the minimum order quantity for this Small LCD Touch Screen?
A: The minimum order quantity is 100 Pcs.

Q: What are the packaging details for this Small LCD Touch Screen?
A: All the products are packed in the 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.

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