Vertical 2.8'' TFT LCD Display Module - 240*320 Resolution, 500 nits, Resistive Touch

Our Product Introduction

Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: CE 、 RoHS、 FCC
- Model Number: CH280QV22F-T
- Minimum Order Quantity: No Moq
- 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 Or Others
- Supply Ability: 20000000 Pcs/month

Product Specification

- Color: 65K
- Operating Temperature: -20 ~ +70
- Storage Temperature: -30 ~ +80
- Viewing Direction: 80/80/80/80
- Viewing Area Size: 44.8*63.1 Mm
- Screen Size: 2.8 Inch
- Module Type: 2.8" TFT+RTP
- Touch Interface: USB
- Highlight: **2.8 inch TFT LCD display module**，**240x320 resistive touch screen**，**500 nits brightness LCD module**

More Images

Product Description

Product Description:

The CH280QV22F-T is a high-performance 2.8-inch vertical touchscreen TFT LCD display module meticulously developed by Chenghao Optoelectronic. Boasting a resolution of 240*320 dots, this module delivers clear and delicate image display with 65K color and an 800:1 contrast ratio, ensuring vivid color reproduction for diverse application scenarios. Adopting IPS transmissive normally black display mode, it features 80/80/80/80 full viewing angles, guaranteeing consistent and high-quality visual effects from any perspective.

Equipped with a resistive touch panel and USB touch interface, the module enables smooth and responsive user interaction, while supporting optional capacitive touch or no-touch configurations to meet different needs. In terms of dimensions, it has a compact module size of 50*69.2*3.4 mm, with a viewing area of 44.8*63.1 mm and an active area of 43.2*57.6 mm, making it ideal for integration into space-constrained devices.

The module offers strong compatibility with multiple interfaces including SPI, MCU, and RGB, paired with 50 FPC pins for flexible and convenient connection. With a screen brightness of 500 cd/m² (customizable from 300 to 1000 cd/m²), it performs excellently in various lighting environments. It maintains stable operation within an operating temperature range of -20 ~ +70 and can be stored at -30 ~ +80, adapting to harsh industrial and outdoor conditions.
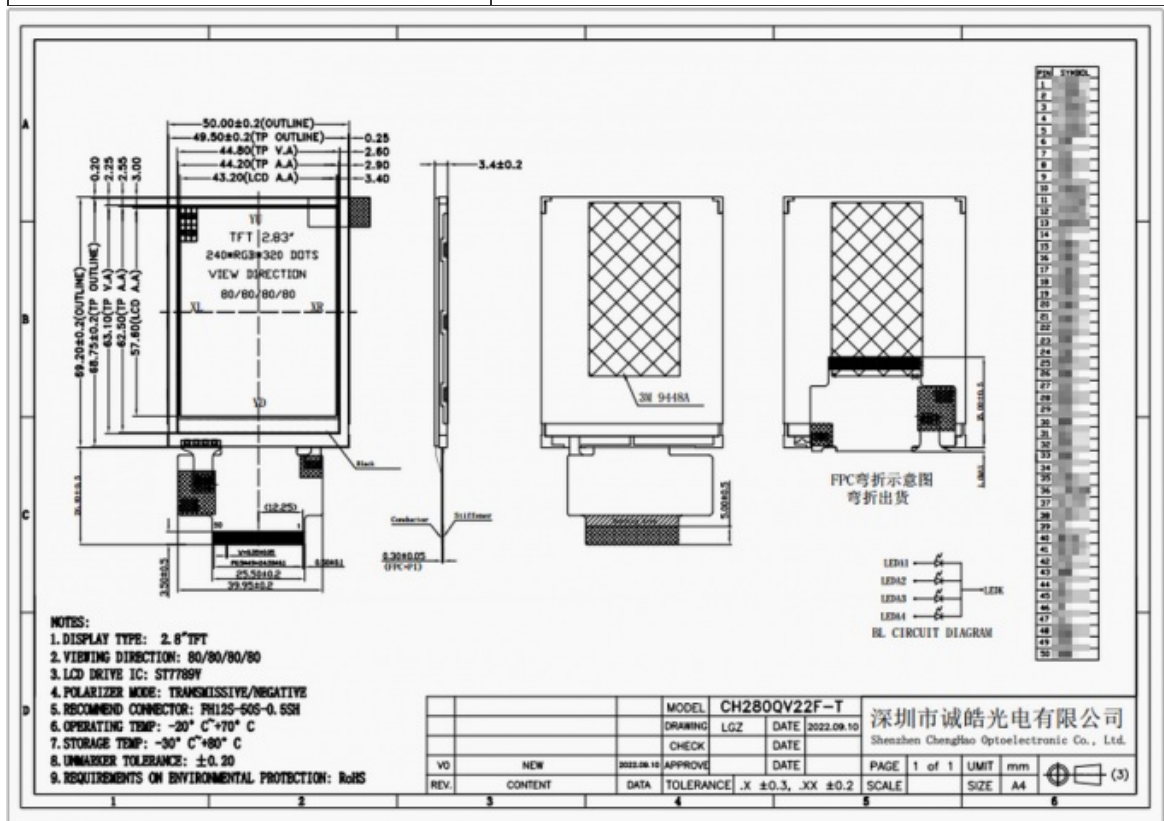

Features:

- Superior Visual Performance: 240*320 resolution combined with IPS full-view technology ensures sharp image details and consistent color display from all 80° viewing angles, eliminating color distortion and blind spots common in non-IPS modules. The 500 cd/m² high brightness and 800:1 contrast ratio further enhance visibility in both indoor and outdoor lighting conditions.

- Multi-Interface Compatibility: Supporting SPI, MCU, and RGB interfaces, the module offers broad compatibility with different control systems and processors. This versatility eliminates the need for additional interface conversion components, reducing development costs and shortening integration cycles compared to single-interface modules.

- Flexible Touch Options: Standard resistive touch with USB interface provides reliable touch response, while optional capacitive touch or no-touch configurations allow customization based on application scenarios (e.g., capacitive touch for consumer electronics, no-touch for industrial control panels).

- Wide Temperature Adaptability: Operating temperature range of -20 ~ +70 and storage temperature of -30 ~ +80 ensures stable performance in extreme environments such as cold outdoor areas and high-temperature industrial workshops, outperforming modules with narrow temperature ranges.

Technical Parameters:

Module Type	2.8" TFT+RTP
Resolution	240*320 Dots
Touch Interface	USB
Display Mode	IPS/Transmissive/Normally Black
FPC Pin Numbers	50 Pins
Storage Temperature	-30 ~ +80
Module Size	50*69.2*3.4 Mm
LCD Interface	SPI, MCU, RGB
Operating Temperature	-20 ~ +70

Contrast	800

Customization:

As a professional TFT LCD module manufacturer, Chenghao Optoelectronic provides comprehensive customization services for the CH280QV22F-T to meet the unique requirements of diverse industries and applications. Our customization process follows a strict and efficient workflow: initial demand communication → technical scheme evaluation → prototype development → sample testing → mass production, ensuring that each customized product meets the highest quality standards.

The customization scope covers multiple key aspects:

1) FPC Customization: We support personalized customization of FPC shape, structure, and pin number to match the specific installation and connection requirements of the customer's device.

2) LCD Interface Customization: Beyond the standard SPI, MCU, and RGB interfaces, we can customize single or multiple interfaces such as MIPI, LVDS, EDP, and HDMI to adapt to different processor and system architectures.

3) Backlight Brightness Customization: Based on the application's lighting environment, customers can choose brightness levels from 300 cd/m² to 1000 cd/m², with some models supporting up to 2800 cd/m² for extreme outdoor visibility needs.

4) Operating Temperature Customization: We offer temperature range customization between -10~+60 and -45~+90 to suit harsh environments such as high-altitude cold areas or high-temperature industrial sites.

5) Glass Cover Customization: This includes customization of glass cover shape, thickness, opening positions, and silk screen printing, enabling the module to fit perfectly with the device's overall design and functional requirements.

6) Touch Configuration Customization: Customers can opt for capacitive touch (for more sensitive and multi-touch needs) or no-touch configuration based on their application scenarios.

7) Special Function Customization: Additional functions such as screen anti-glare treatment (reducing reflection in bright environments) and anti-electromagnetic interference (ensuring stable operation in complex electromagnetic environments) are also available.

Support and Services:

Chenghao Optoelectronic is committed to providing comprehensive and professional support and services for the CH280QV22F-T display module to ensure a smooth customer experience from product selection to post-sales use. We offer detailed technical documentation, including product data sheets, wiring diagrams, and driver code samples, to assist customers in rapid integration and development.

Our professional technical support team is available to answer technical questions, provide solution suggestions, and assist in troubleshooting during the integration process. For customized projects, we assign dedicated technical personnel to follow up the entire process, from demand analysis to prototype testing, ensuring effective communication and timely problem resolution.

In terms of logistics and delivery, we guarantee on-time delivery with flexible supply capacity to meet both small-batch sample orders and large-batch mass production needs. We also provide reliable after-sales service, including product quality assurance, repair and replacement services for non-human-damaged products within the warranty period, and long-term supply of spare parts to ensure the stable operation of customer equipment. Additionally, we offer regular technical updates and product optimization suggestions based on

industry trends and customer feedback.

FAQ:

Q1: What is the model number of this TFT LCD Capacitive Touchscreen?
A1: The model number is CH280QV22F-T, manufactured by Chenghao Optoelectronic.
Q2: Does this product have any certifications?
A2: Yes, it is certified with CE, RoHS, and FCC.
Q3: Is there a minimum order quantity required for purchase?
A3: No, there is no minimum order quantity (No MOQ) for this product.
Q4: How is the product packaged for delivery?
A4: All products are carefully packed to ensure safety. Small sizes use tray + carton packaging, larger sizes use foam slot + carton packaging, and we can also design packaging according to customers' specific requirements.
Q5: What is the typical delivery time after placing an order?
A5: The delivery time usually ranges from 3 to 7 days.
Q6: What payment terms are accepted?
A6: We accept TT (Telegraphic Transfer) and other payment methods.
Q7: What is the supply capability of Chenghao Optoelectronic for this product?
A7: Chenghao Optoelectronic can supply up to 20,000,000 pieces per month.

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