Compact 2.8 Inch Capacitive Touchscreen Normally Black TFT LCD Display for Versatile Applications
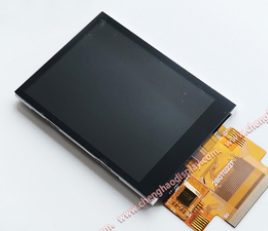
Our Product Introduction

Basic Information

- Place of Origin: China Shenzhen
- Brand Name: Chenghao Optoelectronic
- Certification: RoHS CE FCC
- Model Number: CH280QV22F-CT
- 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

- Product Name: TFT LCD Display
- LCD Interface: SPI+RGB+MCU
- Resolution: 240*320 Dots
- Operating Temperature: -20 ~ +70 ℃
- Viewing Direction: 80/80/80/80
- Touch Panel Interface: I2C
- Storage Temperature: -30 ~ +80 ℃
- Display Mode: IPS /transmissive/ Normally Black
- Brightness: 300 Cd/m2
- Highlight: **Compact 2.8 Inch LCD Display**, **Black TFT LCD Display**, **2.8 Inch Capacitive Touchscreen**

More Images

Product Description

Product Description:

CH280QV22F-CT Display Module Overview

CH280QV22F-CT is a high-performance 2.8-inch IPS TFT LCD touch display module designed for a variety of application scenarios. The module has a resolution of 240x320 and can provide clear and delicate image display. Its display mode is IPS/transmissive/normally black, and supports 80/80/80/80 free viewing angles, ensuring excellent color performance and viewing angle stability at different angles. The module has a brightness of 300 cd/m² and is suitable for use under various lighting conditions.

Physical Specifications and Connectivity

The display module has an external size of 50*69.2*4 mm and an active area of 43.2*57.6 mm, which is suitable for integration in compact devices. CH280QV22F-CT supports SPI, RGB, and MCU interfaces for easy connection with other devices. At the same time, the module is equipped with a capacitive touch panel and the touch interface is I2C, which enhances the user interaction experience.

Environmental Adaptability

In terms of environmental adaptability, the operating temperature range of CH280QV22F-CT is -20℃ to +70℃, and the storage temperature range is -30℃ to +80℃, ensuring its stable operation in various industrial and outdoor environments.

Features:

Key Features of CH280QV22F-CT

Display Size: The module features a 2.8-inch display, making it suitable for various compact devices.

Resolution: It has a resolution of 240x320 pixels, providing clear image display.

Display Mode: The module utilizes an IPS/transmissive/normally black display mode, ensuring excellent color performance from different viewing angles.

Brightness: With a brightness level of 300 cd/m², it is effective in various lighting conditions.

Interface Types: The module supports SPI, RGB, and MCU interfaces, facilitating easy connections with other devices.

Touch Panel: It is equipped with a capacitive touch panel, and the touch interface is I2C, enhancing user interaction.

Operating Temperature Range: The module operates reliably within a temperature range of -20℃ to +70℃, suitable for various industrial and outdoor environments.
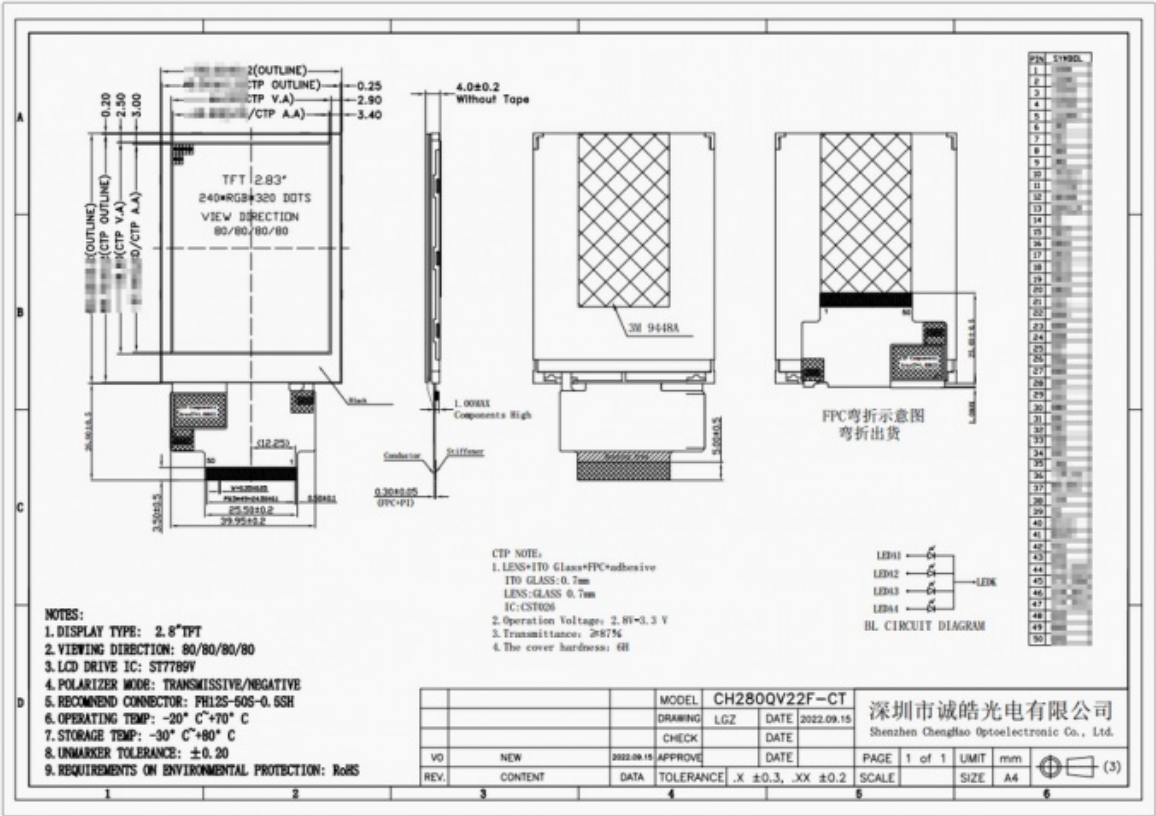
Storage Temperature Range: It has a storage temperature range of -30℃ to +80℃, ensuring reliability under extreme conditions.

Customization Services: Customization options are available based on customer requirements, including adjustments to the shape of the FPC and interface types.

Wide Applications: The module can be widely used in industrial control, smart home applications, medical devices, and Internet of

Things equipment, meeting diverse customer needs.

These features make the CH280QV22F-CT a powerful and versatile display module, suitable for a range of application scenarios.

Technical Parameters:

Storage Temperature	-30 ~ +80 ℃
Brightness	300 Cd/m2
Touch Panel Type	Capacitive
Touch Panel Interface	I2C
Viewing Direction	80/80/80/80
Operating Temperature	-20 ~ +70 ℃
Display Mode	IPS /transmissive/ Normally Black
Resolution	240*320 Dots
LCD Interface	SPI+RGB+MCU

Applications:

The CH280QV22F-CT display module, known for its exceptional performance and versatile design, is widely utilized across diverse fields to meet the needs of different customers. Below are the primary application areas for this product:

Industrial Control: This module can be integrated into the display interfaces of various industrial equipment, including monitoring systems, control panels, and data acquisition devices, enabling operators to monitor and control production processes in real-time.

Smart Home: Within smart home devices, the CH280QV22F-CT functions as a control panel, displaying home status, adjusting temperature, controlling lighting, and enhancing the user experience in residential settings.

Medical Equipment: The display module is suitable for medical instruments like heart rate monitors and blood glucose meters, offering clear visibility of critical health data to assist doctors and patients in effective health management.

Instrumentation: In various measurement and testing devices, the CH280QV22F-CT can provide real-time data and graphical displays, ensuring users can accurately read and analyze information.

Artificial Intelligence Devices: This module can be incorporated into smart robots and other AI devices, supporting human-machine interaction and enhancing the intelligence of the equipment.

Internet of Things (IoT) Devices: The CH280QV22F-CT excels in IoT applications, linking with sensors and controllers to display real-time data and status, thereby enhancing the smart features of devices.

Vehicle-Mounted Applications: Suitable for use in vehicle display systems such as navigation devices and in-car infotainment systems, providing clear visual information that enhances driving safety and convenience.

Consumer Electronics: In consumer electronic products, the CH280QV22F-CT can be utilized in digital photo frames and portable devices, offering excellent display quality and user experience.

Security Identification Devices: This module can be applied in smart access control systems and attendance machines, aiding users in identity verification and record-keeping.

Across these diverse application areas, the CH280QV22F-CT display module showcases its importance and versatility in modern technology, capable of meeting the needs and demands of various industries.

Customization:

The CH280QV22F-CT display module offers a variety of customization options to meet the needs and project requirements of different customers. The following are the main customization contents of this product:

FPC shape and structure customization: We can redesign the shape and structure of the FPC (flexible printed circuit) according to the customer's project requirements to ensure that it can perfectly fit the installation equipment. This flexibility enables the CH280QV22F-CT to be used in a variety of application scenarios, providing better compatibility and adaptability.

Backlight brightness design: Customers can choose different backlight brightness to adapt to specific usage environments. We are able to provide backlight components with a maximum brightness of up to 2800 cd/m², and customers can choose the appropriate brightness according to actual needs to ensure readability under different lighting conditions.

Module interface customization: CH280QV22F-CT supports customization of multiple interface types, including SPI, MCU, RGB, MIPI, etc. Customers can define the required interface type according to the specific requirements of their projects, thereby achieving more flexible system integration.
Touch panel solution: For customers who require touch interaction, we provide two touch solutions: capacitive touch and resistive touch. Customers can choose the appropriate touch solution according to the needs of the application equipment to achieve the best user experience.

Appearance design customization: In addition to functional customization, the appearance design of CH280QV22F-CT can also be adjusted according to customer requirements. This includes the size, shape and color of the module to ensure that it matches the customer's product design.
Sample support: In order to help customers evaluate the suitability of the product before placing an order, we provide sample support. Customers can apply for samples for testing to ensure that CH280QV22F-CT meets their specific needs.

With these customization options, the CH280QV22F-CT display module can flexibly adapt to various application scenarios and meet the diverse needs of customers. Our goal is to provide customers with high-quality customization services to help them achieve their project goals.

FAQ:

What is the resolution and display technology of the CH280QV22F-CT?
The CH280QV22F-CT features a resolution of 240x320 pixels and utilizes IPS display technology, which provides excellent color reproduction and wide viewing angles. This makes it ideal for applications where visual clarity is crucial.
What is included in the warranty for the CH280QV22F-CT?
The CH280QV22F-CT comes with a one-year warranty that covers manufacturing defects. This warranty ensures that customers can have confidence in the product's quality and performance during this period.
How can I receive assistance if I encounter issues with the CH280QV22F-CT?
If you experience any issues with the CH280QV22F-CT, you can reach out to our dedicated after-sales service team. They are available to assist you with troubleshooting, installation guidance, and any other concerns you may have.
Is it possible to customize the CH280QV22F-CT for specific applications?
Yes, the CH280QV22F-CT can be customized to meet specific project requirements. Customization options include modifications to the FPC design, adjustments to backlight brightness, and the selection of various interface types to ensure compatibility with your application.
What industries can benefit from using the CH280QV22F-CT?
The CH280QV22F-CT is versatile and can be utilized across various industries, including industrial control systems, smart home devices, medical equipment, and Internet of Things (IoT) applications. Its adaptability makes it suitable for a wide range of uses.
These FAQs address common inquiries regarding the CH280QV22F-CT display module, providing essential information about its features, support, and customization options.