3.2'' Small Lcd Display IPS Full Viewing Direction 240 320 QVGA Color Screen Tft

Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: CE、RoHS
- Model Number: CH320QV19A-L
- 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: 7-15 Working Days
- Supply Ability: 300Kpcs/month

Product Specification

- Viewing Area Size: 49.2x65.4 Mm
- Viewing Direction: 80/80/80/80
- Contrast: 800
- Touch Interface: IIC
- Module Type: 3.2" TFT +Black Cover
- Operating Temperature: -20 ~ +70
- Touch Type: No Touch
- Storage Temperature: -30 ~ +80
- Highlight: **3.2 inch IPS LCD touch display**, **QVGA color TFT screen**, **full viewing direction LCD**
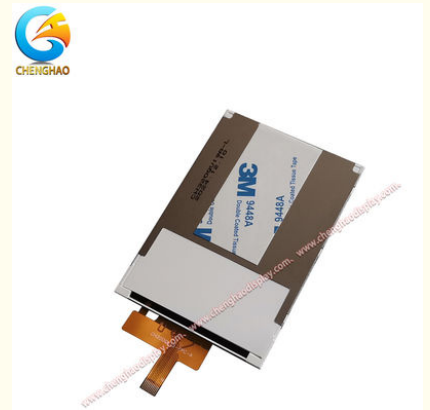
More Images

Product Description

Product Description:

The CH320QV19A-L is a state-of-the-art 3.2-inch TFT LCD display module designed to meet the diverse needs of various applications across multiple industries. With its compact size and robust features, this module is ideal for integration into handheld devices, medical equipment, and industrial control systems. The display boasts a resolution of 240x320 pixels, providing clear and sharp visuals that enhance user experience and interaction.


One of the standout features of the CH320QV19A-L is its use of IPS (In-Plane Switching) technology, which ensures superior color reproduction and wide viewing angles. This technology allows the display to maintain consistent color accuracy and brightness, regardless of the angle from which it is viewed. Such characteristics are particularly beneficial in applications where multiple users may need to view the screen simultaneously, such as in medical settings or collaborative work environments.

The brightness level of the CH320QV19A-L is rated at 300 cd/m², making it suitable for indoor use where lighting conditions can be controlled. This brightness level ensures that the display remains legible in various indoor environments, such as offices and laboratories. However, it is important to note that this brightness may not be sufficient for outdoor applications, especially in direct sunlight, where higher luminance levels are typically required.

Operating within a temperature range of -20 to +70 degrees Celsius, the CH320QV19A-L is designed to perform reliably in a variety of environments. This wide operating temperature range makes it suitable for industrial applications, where devices may be exposed to fluctuating temperatures. The durability of this module ensures that it can withstand the rigors of demanding environments, providing consistent performance over time.

In terms of connectivity, the CH320QV19A-L utilizes an SPI (Serial Peripheral Interface) for its LCD interface, facilitating easy integration with microcontrollers and other digital devices. This interface is widely used in the industry for its simplicity and efficiency, allowing for rapid data transfer between the display and the controlling unit. The compact dimensions of the module (55.04 x 77.7 x 3.2 mm) further enhance its adaptability, making it easy to incorporate into various designs.

The CH320QV19A-L is particularly well-suited for applications in industrial control systems, where it can be used to display real-time data such as machine status and operational metrics. In medical devices, it can provide critical information to healthcare professionals, ensuring that they have access to vital data at a glance. Additionally, in smart home applications, this display can serve as an intuitive interface for controlling various home automation systems, enhancing user interaction and experience.
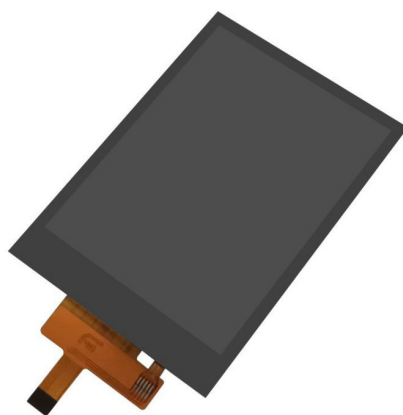
In conclusion, the CH320QV19A-L display module is a versatile and reliable choice for a wide range of applications. Its combination of high resolution, excellent color reproduction, and robust operating temperature range makes it an ideal solution for industries that demand quality and performance. Whether in industrial, medical, or smart home applications, the CH320QV19A-L is designed to deliver exceptional visual quality and functionality.

Features:

Resolution: The CH320QV19A-L features a resolution of 240x320 pixels, which provides a clear and detailed visual output. This resolution is particularly advantageous for applications requiring precise image rendering, such as handheld devices and user interfaces in industrial settings. The clarity offered by this resolution ensures that users can easily read text and view graphics, making it suitable for various applications where visual detail is crucial.

Operating Temperature Range: This display module operates effectively within a temperature range of -20 to +70 degrees Celsius. This

wide operating temperature range allows the CH320QV19A-L to be utilized in diverse environments, including industrial applications where temperature fluctuations are common. The ability to function reliably in both cold and hot conditions ensures that the module can maintain performance and longevity, making it a robust choice for demanding applications.

LCD Interface Type: The CH320QV19A-L utilizes an SPI (Serial Peripheral Interface) for its LCD interface, which facilitates easy integration with microcontrollers and other digital devices. The SPI interface is known for its simplicity and efficiency in communication, allowing for rapid data transfer between the display and the controlling unit. This feature makes the CH320QV19A-L a versatile option for developers looking to implement this display in various projects, whether for prototyping or mass production.

Technical Parameters:

FPC Pin numbers	10
Touch Type	No touch
Screen Size	3.2 Inch
Operating Temperature	-20 ~ +70
Screen Brightness	300 Cd/m2
Resolution	240x320 Dots
Lcd Interface	SPI
Display Mode	IPS/Transmissive/Normally Black
Module Size	55.04x77.7x3.2 Mm
Contrast	800
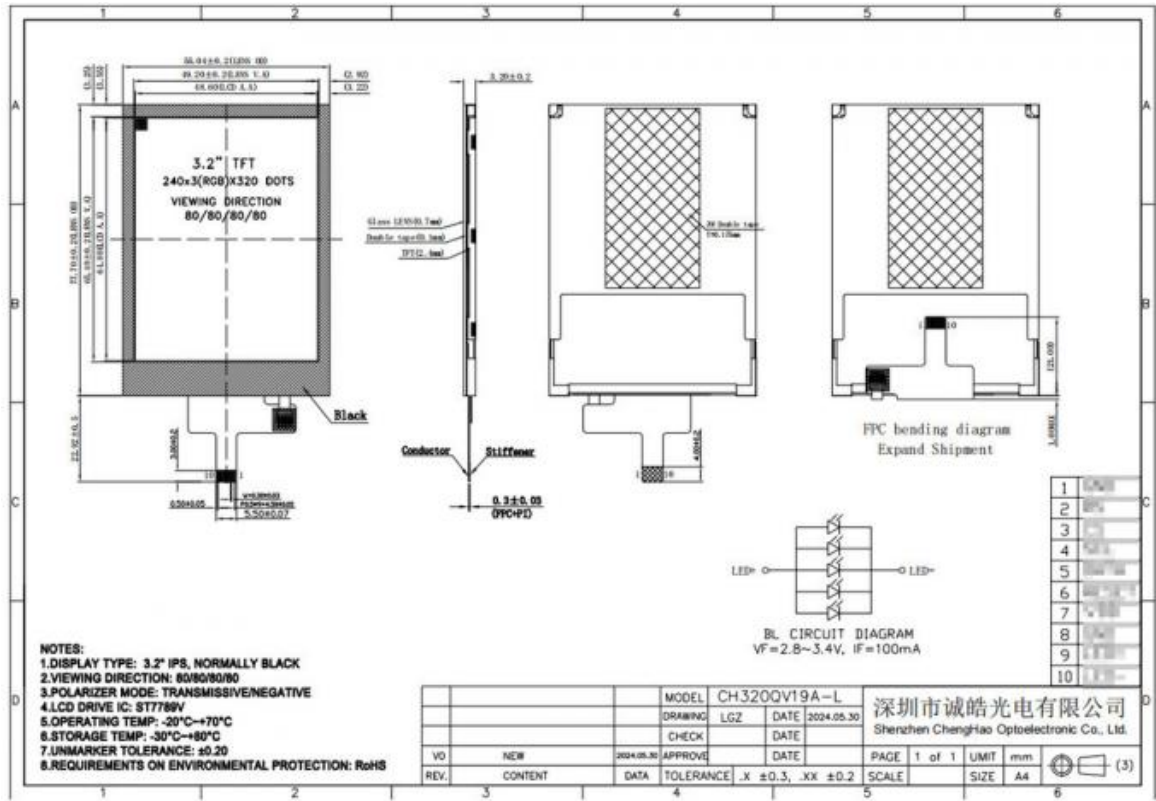
Customization:

The CH320QV19A-L display module offers extensive customization options designed to meet the needs of specific applications across various industries. The customization process is flexible and responsive, allowing customers to tailor the display module to their unique needs. The following are key aspects of the CH320QV19A-L customization process:

(1)Display Specification Adjustment: One of the primary customization options is modifying display specifications such as resolution and brightness. While the standard CH320QV19A-L features a resolution of 240x320 pixels and a brightness of 300 cd/m², customers can request enhancements to these parameters. For example, if a project requires higher resolution for improved detail or increased brightness for visibility in a specific environment, these adjustments can be made to ensure optimal performance.

(2)Interface Customization: The CH320QV19A-L typically communicates with a microcontroller using SPI (Serial Peripheral Interface). However, customization can extend to the interface type, depending on the customer's existing system or preferences. Alternatives such as RGB, MCU, and MIPI can be implemented to ensure compatibility with a variety of hardware setups. This flexibility in interface options allows for seamless integration into a wide range of electronic devices.

(3)Physical Dimensions and Form Factor: Customization can also include adjustments to the physical dimensions and form factor of the

CH320QV19A-L. Customers may require a specific size or shape to fit their product design, especially in space-constrained applications. The module's dimensions can be adjusted to meet unique design requirements, ensuring smooth integration of the display module into the intended device.

(4)Touch Panel Integration: While the standard CH320QV19A-L does not include a touch panel, customization can include the addition of a capacitive touch interface. This feature enhances user interaction, making the display more intuitive and user-friendly. The touch panel can be tailored to specific application needs, whether for industrial control, medical equipment, or consumer electronics, improving the overall user experience.

(5)Backlight and Color Customization: Customers can also specify their preferences for backlighting options and color settings. Customization can include adjustments to backlight brightness, color temperature, and even the color of the display itself. This is particularly beneficial for applications that require a specific color profile for branding or operation, allowing the display to align with the customer's design aesthetic.

(6)Testing and Quality Assurance: Throughout the customization process, rigorous testing and quality assurance protocols are implemented to ensure the final product meets specified requirements. This includes environmental testing to verify performance under various conditions, including temperature fluctuations and humidity levels. Customers will receive a detailed report of test results, providing confidence in the reliability of their customized display modules.

In summary, the CH320QV19A-L display module offers comprehensive customization options designed to meet the diverse needs of various industries. By offering flexibility in specifications, interfaces, physical dimensions, touch integration, and color settings, Chenghao Optoelectronic ensures customers receive a product perfectly suited to their application needs.

FAQ:

Q: What is the brand name of this IPS LCD Display?
A: The brand name is Chenghao Optoelectronic.
Q: What is the model number of this IPS LCD Display?
A: The model number is CH320QV19A-L.
Q: What certifications does this IPS LCD Display have?
A: This IPS LCD Display is certified with CE and RoHS.
Q: What is the minimum order quantity for this IPS LCD Display?
A: The minimum order quantity is 100 Pcs.
Q: What are the packaging details for this IPS LCD Display?
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.