

## 1424x280 Long Strip Tft Display Module 7 Inch Color IPS Lcd Screen With 500 Nits Brightness

### Our Product Introduction

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#### Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: CE、RoHS、FCC
- Model Number: CH700WX08A
- 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 Or Others
- Supply Ability: 50000000 Pcs/month

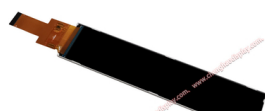


#### Product Specification

- Active Area Size: 33.6x170.88 Mm
- Contrast: 800:1
- Operating Temperature: -20 ~ +70
- Interface: MIPI
- Lcd Type: 7" TFT
- Viewing Direction: 80/80/80/80
- Resolution: 280x1424 Dots
- Screen Brightness: 500 Cd/m
- Highlight: 7 inch IPS LCD screen ,  
long strip TFT display module,  
500 nits brightness LCD module



#### More Images



## Product Description


### Product Description:

The CH700WX08A, a flagship 7-inch long strip TFT LCD module developed by Chenghao Optoelectronic, stands out as a versatile and reliable display solution tailored for diverse industrial, automotive, and smart device applications. Unlike conventional rectangular displays, its elongated form factor is meticulously engineered to address the growing demand for space-efficient yet high-performance visual interfaces in scenarios where horizontal or vertical narrow display areas are required. As a factory wholesale product, it balances cost-effectiveness with premium quality, while the availability of samples and customization services further enhances its adaptability to specific customer needs, with a minimum order quantity (MOQ) of 100 pieces ensuring flexibility for both small-scale testing and large-volume production.

At the core of the CH700WX08A's design is its advanced structural composition, which integrates multiple high-quality components to deliver consistent performance. The module features a color active matrix TFT LCD panel built with amorphous silicon TFT switching devices—this technology is chosen for its excellent electron mobility, ensuring fast response times and sharp image rendering even for dynamic content. Additionally, the module incorporates a high-efficiency driver IC that optimizes power consumption while maintaining stable signal transmission, and a durable FPC (Flexible Printed Circuit) with excellent bending resistance, ensuring reliable connectivity even in applications with frequent vibration or mechanical movement. The backlight unit, a critical component for visibility, uses high-brightness LED chips that not only achieve the 500 cd/m<sup>2</sup> brightness rating but also feature uniform light distribution, avoiding hotspots and ensuring consistent illumination across the entire active area.



In terms of display performance, the CH700WX08A sets a high standard for long strip modules. Its IPS (In-Plane Switching) display mode, combined with a transmissive normally black design, delivers exceptional color accuracy and contrast—16 million color support ensures that even subtle color gradients, such as those in graphical user interfaces or data visualization, are reproduced with vivid detail. The 280x1424 dot resolution, optimized for the 7-inch long strip format, provides a high pixel density that ensures text, icons, and images remain sharp and legible, even when viewed up close. One of the most notable performance advantages is its 80/80/80/80 viewing angles—this means that from any direction (top, bottom, left, right), the display maintains consistent color and brightness, a key requirement for applications where multiple users may view the screen simultaneously, such as industrial control panels or automotive passenger displays.

	Environmental adaptability is another key strength of the CH700WX08A, making it suitable for harsh operating conditions. Its operating temperature range of -20 ~ +70 allows it to function reliably in extreme environments, from cold outdoor industrial sites to high-temperature automotive engine compartments. The storage temperature range of -30 ~ +80 ensures that the module retains its performance and structural integrity even during long-term storage in unconditioned warehouses or during transportation across climate zones. The module's exterior casing is also designed with durability in mind, using scratch-resistant materials for the touch panel surface to withstand daily wear and tear, while the internal components are protected against dust and minor moisture ingress, further extending the module's service life.
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Beyond its hardware specifications, the CH700WX08A is designed with user convenience and application flexibility in mind. The module's compact dimensions (38.2x181.47x3.45 mm) and lightweight design make it easy to integrate into space-constrained devices, such as narrow automotive instrument clusters or wall-mounted smart home controllers. The clear differentiation between the visible area (34.2x171.48 mm) and active area (33.6x170.88 mm) provides clear guidelines for mechanical design, helping customers accurately plan the display's placement within their products. Whether used in industrial settings to display real-time production data, in automotive applications to show driving information, or in smart homes as a control interface, the CH700WX08A combines performance, durability, and flexibility to meet the evolving needs of modern display applications.

**Features:**

Utilizes a backlight unit with high-brightness LED chips that achieve 500 cd/m<sup>2</sup> brightness and uniform light distribution; this design eliminates light hotspots across the entire active area, ensuring consistent visibility whether displaying static data or dynamic graphics.

Boasts an IPS transmissive normally black display configuration that delivers exceptional color accuracy and contrast ratio, making it capable of reproducing subtle color gradients in graphical interfaces or data visualizations with remarkable clarity, suitable for applications requiring precise color representation.

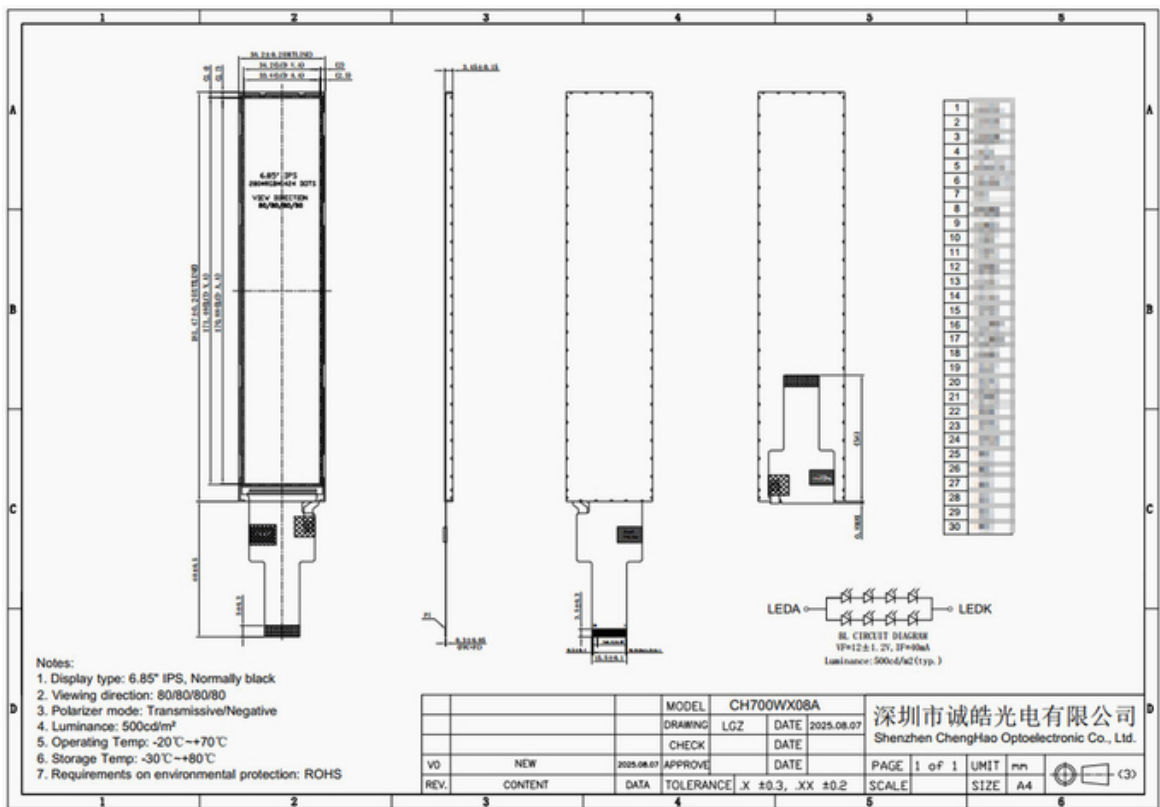
Features a 280x1424 dot resolution specifically optimized for its 7-inch long strip form factor, resulting in a high pixel density that keeps text, icons, and images sharp and legible even when viewed at close range, addressing the challenge of readability in narrow display spaces.

Employs a compact and lightweight structure with dimensions of 38.2x181.47x3.45 mm, and clearly differentiates between visible area (34.2x171.48 mm) and active area (33.6x170.88 mm); this provides clear mechanical design guidelines for easy integration into space-constrained devices like narrow instrument clusters or wall-mounted controllers.

Combines factory wholesale availability with flexible purchasing options—including sample provision for pre-production testing and customization services for tailored needs—alongside a 100-piece MOQ, balancing cost-effectiveness for large-scale production with adaptability for small-scale project testing.

**Technical Parameters:**

Attribute	Value
Viewing Area Size	34.2x171.48 mm
Active Area Size	33.6x170.88 mm
Screen Brightness	500 cd/m
Module Size	38.2x181.47x3.45 mm
Resolution	280x1424 dots
Display Mode	IPS/Transmissive/Normally Black
Storage Temperature	-30 ~ +80
Operating Temperature	-20 ~ +70
LCD Type	7" TFT
Contrast	800:1



## Applications:

### 1. Smart Transportation Infrastructure

In smart transportation infrastructure, the CH700WX08A module serves as a critical display component for roadside traffic control terminals and public transit information stations. Its 7-inch long strip design fits perfectly into the narrow installation slots of traffic signal control boxes and bus stop information panels, where space is limited but clear information display is essential. The 500 cd/m<sup>2</sup> high brightness ensures that real-time traffic data (such as vehicle flow counts, road condition alerts) and public transit updates (like bus arrival times, route changes) remain visible even under direct sunlight, a common scenario for outdoor transportation facilities. The wide operating temperature range of -20 ~ +70 allows it to withstand extreme weather conditions, from freezing winter mornings to hot summer afternoons, without compromising display performance. Additionally, the scratch-resistant touch panel enables maintenance personnel to easily update information on-site, reducing the need for specialized tools and simplifying routine operations.

### 2. Medical Equipment Sector

Within the medical equipment sector, this module is widely used in portable diagnostic devices and patient monitoring accessories. For example, in handheld ultrasound scanners or blood glucose monitors with narrow display interfaces, the CH700WX08A's elongated form factor provides sufficient space to show vital data (such as waveform graphs, numerical readings) without making the device overly bulky. The IPS display technology with 80/80/80/80 viewing angles allows medical staff to view the screen from different positions during examinations—doctors standing beside the patient and nurses recording data from a distance can both access clear, undistorted information. The 16 million color display capability is crucial for displaying medical images with subtle color differences, such as tissue scans or test result indicators, ensuring accurate diagnosis. Moreover, the module's dust and moisture protection design meets the hygiene requirements of medical environments, as it can be easily wiped clean with disinfectant without damaging internal components.

### 3. Industrial Automation Monitoring Systems

In industrial automation monitoring systems, the CH700WX08A is an ideal choice for equipment status dashboards in automated warehouses and conveyor belt control systems. The long strip display can be mounted along the edge of conveyor belts or warehouse rack columns, showing real-time data such as product transfer speeds, inventory levels, and equipment fault alerts. The high-efficiency driver IC and bend-resistant FPC ensure stable performance even in environments with constant mechanical vibrations from running machinery, preventing display glitches that could lead to operational errors. The clear differentiation between the visible area (34.2x171.48 mm) and active area (33.6x170.88

mm) helps industrial designers precisely align the display with sensor data input points, ensuring that critical information is presented in a logical, easy-to-follow layout. Additionally, the module's compatibility with customization services allows manufacturers to adjust the interface to display industry-specific metrics, such as barcode scanning results or production batch numbers, tailored to the needs of different automation workflows.

#### 4. Retail Self-Service Kiosks

Retail self-service kiosks, such as self-checkout terminals and product recommendation displays, benefit greatly from the CH700WX08A module. In self-checkout kiosks, the long strip display can be integrated into the narrow space above the scanning area, showing step-by-step checkout instructions (like item scanning prompts, payment confirmation) without blocking the customer's view of the scanning window. The high-sensitivity touch panel enables customers to quickly tap and confirm selections, reducing checkout time and improving user experience. For product recommendation displays placed on retail shelf edges, the module's compact size (38.2x181.47x3.45 mm) allows it to fit seamlessly between product rows, displaying detailed information such as product ingredients, pricing, and customer reviews. The uniform light distribution of the backlight unit ensures that text and images are clear from any angle, attracting customers' attention as they browse the shelves. The wide storage temperature range of -30 ~ +80 also makes it suitable for retail environments with seasonal temperature fluctuations, such as unheated warehouses used for temporary storage of kiosk components.

#### FAQ:

**Q: For customers who need to use the CH700WX08A module in high-humidity environments (such as coastal industrial areas), does the module have additional humidity protection measures, and what is the maximum relative humidity it can withstand?**

A: The CH700WX08A module has basic humidity resistance, and its internal components are treated with anti-moisture coating. It can work normally in environments with a relative humidity of 30% - 80% (non-condensing). For high-humidity environments like coastal industrial areas where relative humidity may exceed 80%, we recommend customers choose our optional enhanced humidity protection package. This package adds a layer of waterproof membrane on the FPC interface and strengthens the sealing of the backlight unit, allowing the module to withstand a maximum relative humidity of 90% (non-condensing) without affecting performance.

**Q: For customers who need to integrate the CH700WX08A module into products with strict electromagnetic compatibility (EMC) requirements (such as medical equipment, automotive electronics), does the module meet relevant EMC standards, and can technical support be provided for EMC testing?**

A: The CH700WX08A module has passed the EMC testing of international standards such as CE and FCC, and meets the EMC requirements of most medical equipment (IEC 60601-1) and automotive electronics (ISO 11452-2) fields. For customers with strict EMC requirements, we can provide a detailed EMC test report, which includes test items such as radiated emission, conducted emission, and electrostatic discharge. During the customer's EMC testing process, our technical team can also provide remote guidance, such as suggesting reasonable grounding methods for the module or optimizing the layout of the surrounding circuits, to help customers pass the EMC test smoothly.

**Q: When customers purchase the CH700WX08A module in large quantities, can they negotiate the warranty period, and what conditions need to be met for extending the warranty?**

A: Yes, the warranty period of the CH700WX08A module can be negotiated for large-quantity purchases. To extend the warranty, customers need to meet the following conditions: First, the single purchase quantity must be more than 1000 pieces; second, the modules must be used within the specified operating conditions (including temperature, humidity, voltage range, etc.) as stated in the product manual; third, customers need to sign an extended warranty agreement with Chenghao Optoelectronic, which clarifies the rights and obligations of both parties. Under normal circumstances, the warranty period can be extended from the standard 12 months to a maximum of 24 months, and the specific extension period is determined by both parties through negotiation based on the purchase quantity and application scenario.



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