



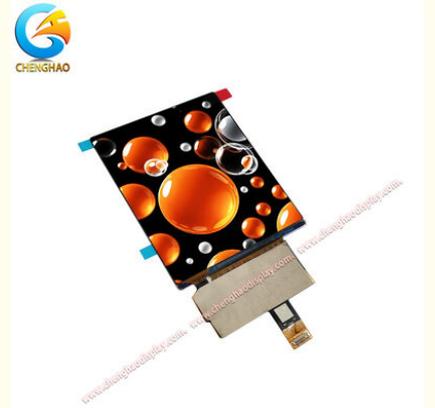
4 Inch AMOLED Screen 1080x1240 Resolution For Advanced HMI Control Panels

Our Product Introduction

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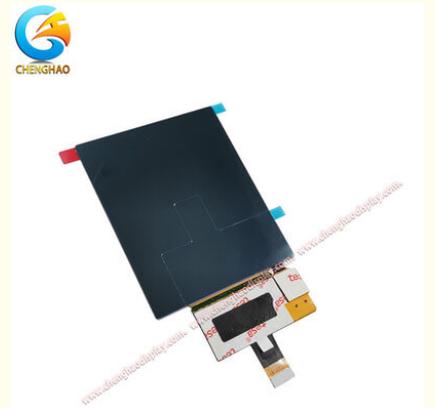
Basic Information

- Brand Name: Chenghao Optoelectronic
- Certification: CE、RoHS、FCC
- Model Number: CH400OL001A
- 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: 3~5 Working Days
- Payment Terms: TT Or Others
- Supply Ability: 300K Pcs/month



Product Specification

- Resolution: 1080*1240 Dots
- Active Area Size: 65.448*75.144 Mm
- Screen Brightness: 600 Cd/m2
- Operating Temperature: -10 ~ +60
- Module Size: 67*80*0.7 Mm
- Display Type: 3.92" AMOLED
- Screen Size: 3.92 Inch
- Storage Temperature: -20 ~ +70
- Highlight: 4 inch AMOLED display module, 1080x1240 resolution OLED screen, HMI control panel AMOLED display



More Images





Product Description

Product Description:



The CH400OL001A is a high-performance 4 inch AMOLED display module (specifically 3.92") designed to serve as a space-saving display solution for advanced Human-Machine Interface (HMI) control panels. With a native 1080x1240 resolution, this module offers an incredible pixel density, ensuring that complex industrial icons, detailed status charts, and high-definition UI elements are rendered with absolute precision.

As an Active Matrix OLED panel, it provides self-emissive technology that guarantees deep blacks and a high contrast ratio, crucial for legibility in various lighting conditions found in smart home and industrial environments. The module is integrated with the CH*** driver IC and FT*** touch IC, facilitating responsive and intuitive touch interactions. For hardware engineers, the MIPI 4-lane interface allows for high-speed data throughput, supporting fluid animations and real-time data updates without the bulk of traditional parallel interfaces.

Measuring a maximum thickness of only 1.2mm, the CH400OL001A is engineered for sleek, modern device profiles where internal space is at a premium. Its free viewing angle ensures that operators can monitor the display from any perspective without color inversion or brightness loss. Designed for longevity and performance, this RoHS compliant module operates reliably within a temperature range of -10°C to +60°C, making it a robust choice for sophisticated control systems.

Features:

Superior 1080x1240 HD Clarity: Provides high-definition visualization for intricate control interfaces and detailed data monitoring.

Responsive FT* Capacitive Touch:** Features a high-sensitivity touch panel for reliable and smooth multi-touch HMI operation.

Ultra-Slim 1.2mm Profile: One of the thinnest **4 inch AMOLED display modules** in its class, ideal for compact and portable hardware design.

Wide "Free" Viewing Angle: AMOLED technology ensures consistent visual performance from all angles, critical for wall-mounted or desktop control panels.

Technical Parameters:

Operating Temperature	-10 ~ +60
Viewing Direction	Free
FPC Pin Numbers	38
Screen Brightness	600 Cd/m ²
OLED Interface	MIPI
Resolution	1080*1240 Dots
Storage Temperature	-20 ~ +70
Screen Size	3.92 Inch
Module Size	67*80*0.7 Mm

Customization:

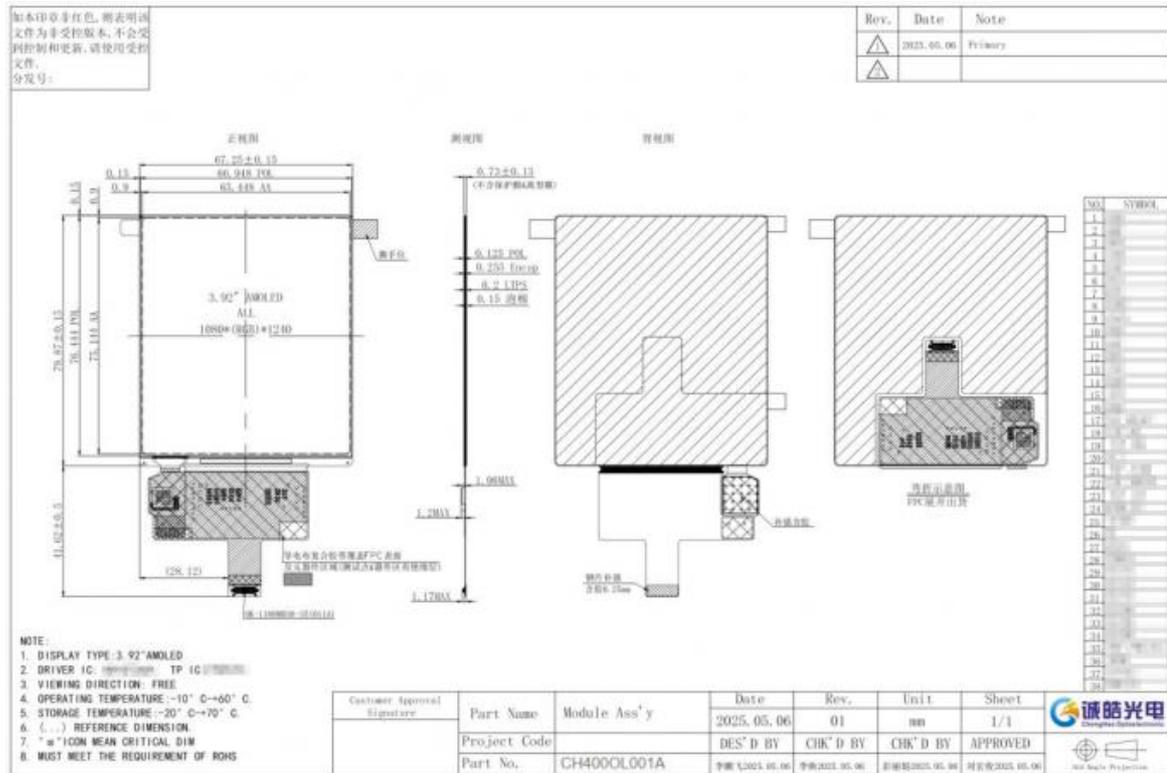
Chenghao Optoelectronic operates state-of-the-art production bases in Shenzhen, Yongzhou, and Pingxiang, totaling 101,500 m², allowing us to offer flexible customization for the CH400OL001A:

FPC Design: Tailored Flex Printed Circuit (FPC) shapes and pin definitions to match specific HMI controller boards.

Touch Panel Enhancements: Custom cover lens thickness, specialized coatings (AG/AR/AF), and logo printing for brand consistency.

Optical Bonding: Full-bonding (OCR/OCA) services to improve outdoor readability and structural durability of the HMI assembly.

Backlight & Driver Adjustments: Optimization of driving parameters for specific power efficiency or brightness requirements.



Support and Services:

With a production capacity of 10KK-13KK pieces per month and a team of 125 engineers, we provide end-to-end support for your HMI projects:

Engineering Consultation: Direct technical assistance for MIPI signal debugging and hardware integration from our 8-person R&D team.

Quality Commitment: Production takes place in Class 100/1000 clean rooms, ensuring the highest optical purity and product reliability.

Supply Chain Stability: We offer long-term availability for industrial-grade products, minimizing the risk of redesigns for our clients.

Global Compliance: All modules are certified under ISO standards and meet RoHS environmental requirements.

FAQ:

Q: Why is the CH400OL001A referred to as a "space-saving" solution?

A: Because it utilizes AMOLED technology which requires no backlight, allowing for a **1.2mm max thickness**, and features a high-density 1080x1240 resolution on a small 3.92" footprint.

Q: Can I integrate this module into a smart home hub?

A: Absolutely. Its high resolution and integrated **FT3519 capacitive touch** make it perfect for high-end smart home interfaces.

Q: Is technical documentation available for the MIPI interface?

A: Yes, we provide full datasheets and initialization codes to support your engineering team during the development phase.





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