



2.8 Inch IPS TFT LCD Display Module 240x320 QSPI 300 Nits for Industrial HMI

Basic Information

- Place of Origin: China
- Brand Name: chenghao optoelectronic
- Certification: RoHS & CE & FCC
- Model Number: CH280QV41A
- Minimum Order Quantity: 100 pcs
- Price: Contact us for quotation
- Packaging Details: Standard Export Package
- Delivery Time: 7-15 work days
- Payment Terms: T/T
- Supply Ability: 300,000 pieces/month



Product Specification

- Module No: CH280QV41A
- Display Mode: IPS / Transmissive / Normally Black
- Screen Size: 2.8 Inch
- Resolution: 240 X (RGB) X 320 Dots
- Viewing Direction: 80/80/80/80 (All View)
- Screen Brightness: 300 Cd/m²
- Module Interface: QSPI
- FPC Pin Numbers: 40 Pins
- Operating Temperature: -20 ~ +70°C
- Storage Temperature: -30 ~ +80°C
- Module Size: 50.00 X 69.20 Mm (LCM Outline)
- Active Area Size: 43.20 X 57.60 Mm



More Images



Product Description

The CH280QV41A is a 2.8 inch IPS TFT LCD display module with 240 x (RGB) x 320 resolution and a 40-pin QSPI interface. It provides a typical brightness of 300 cd/m², 262K colors, and an 80/80/80/80 viewing direction for consistent readability from multiple positions. The panel uses an IPS transmissive normally black mode with a 50.00 x 69.20 mm outline and a 43.20 x 57.60 mm active area. Operating temperature ranges from -20 to +70 degrees Celsius, while storage temperature ranges from -30 to +80 degrees Celsius. This no-touch module is suitable for compact industrial HMI panels, handheld instruments, control terminals, and embedded display systems that require a stable QSPI connection.

Product Features

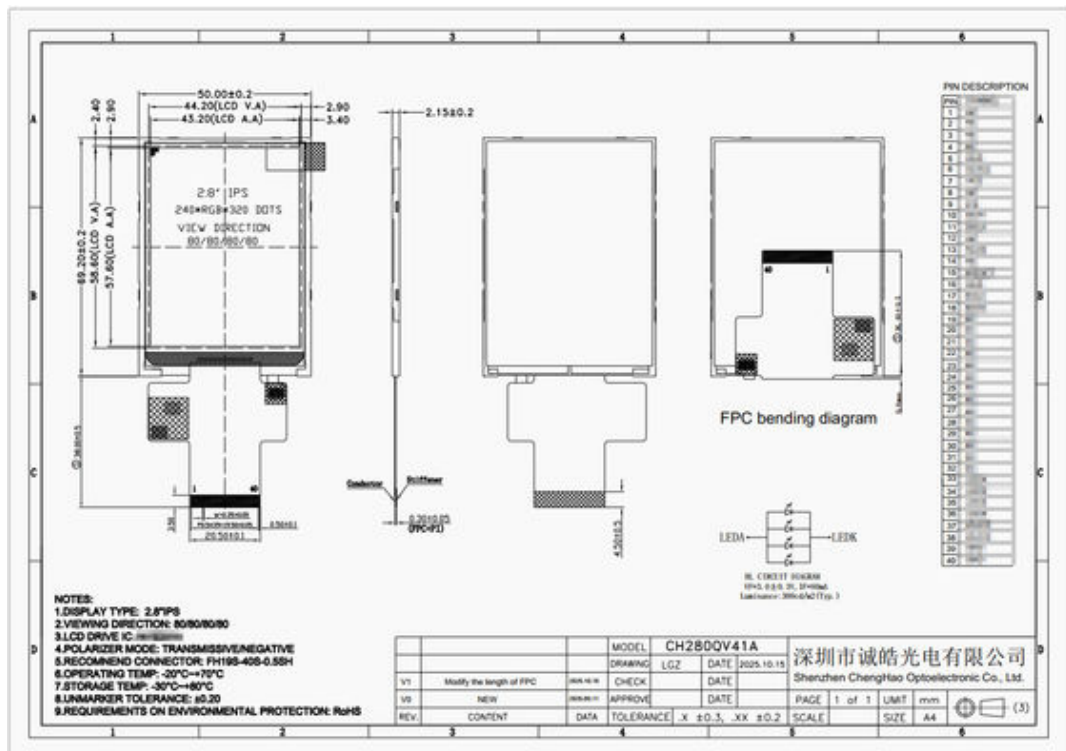
A 240 x (RGB) x 320 resolution supports clear portrait-format menus, values, and status screens.

A 40-pin QSPI interface simplifies connection to compact embedded controllers and display platforms.

An 80/80/80/80 viewing direction maintains image consistency from multiple operator positions.

The compact 2.8 inch no-touch design fits space-constrained industrial and handheld equipment.

Product Drawing



Detailed Specifications

Item	Value
Module Name	2.8 Inch IPS TFT LCD Module
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Active Area Size	43.20 x 57.60 mm
Touch Type	No Touch

Customized Introduction

Chenghao provides customized display module services for TFT LCD modules, mono LCD displays, color OLED modules, and mono OLED modules. Customization covers FPC layout and pin configuration, interface selection, brightness tuning, touch integration, anti-glare surface treatment, and cover glass design.

- FPC customization includes outline, length, pin count, and connector layout.
- Interface options include QSPI, SPI, MCU, RGB, LVDS, MIPI, EDP, and HDMI.
- Brightness can be tuned for standard indoor use or higher ambient-light environments.
- Capacitive touch, resistive touch, and no-touch configurations are available.
- AG surface treatment can reduce reflections in bright installation areas.
- Cover glass can be customized by thickness, shape, color, and silk printing.

Application Cases

- Compact Industrial HMI Panels:** The 240 x 320 portrait layout and QSPI interface support clear controls, values, and status indicators in small equipment.
- Handheld Instruments:** A compact 2.8 inch outline and 40-pin FPC help fit measurement tools and portable control devices with limited internal space.
- Process Control Terminals:** The 80/80/80/80 viewing direction keeps readings visible from different operator positions on compact control units.
- Embedded Monitoring Devices:** Wide temperature operation and a no-touch construction support dependable display use in monitored indoor equipment.

PRODUCT FAQ

FAQ

Q1: What interface does this display module use?

It uses a QSPI interface through a 40-pin FPC connection.

Q2: What is the display resolution?

The module provides a 240 x (RGB) x 320 resolution for portrait-format user interfaces.

Q3: Does this module include touch functionality?

This version is no touch, while capacitive and resistive touch options can be provided for other configurations.

Q4: What is the operating temperature range?

The module operates from -20 to +70 degrees Celsius and can be stored from -30 to +80 degrees Celsius.



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