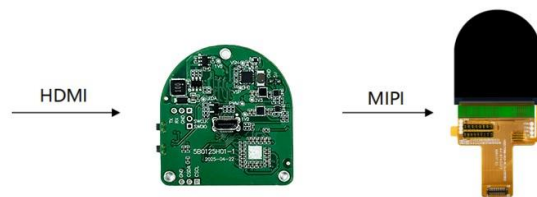**Fast LCD 1.25" HDMI Monocular Driver Solution: The Preferred Choice for Electron-sight Applications**

In outdoor operations and complex environment monitoring scenarios, the increasing demands for target tracking, environmental interference factors, and variable lighting conditions often pose challenges for traditional optical observation devices—such as image blurring, response delays, and information loss. At this critical juncture, upgrades in display technology become a key breakthrough—transforming from mere "image carriers" to "decision-making hubs" and serving as the core support for device intelligence.

Fast LCDs, with their high-speed response times, high-definition displays, low power consumption, and excellent environmental adaptability, have become an ideal display solution for precision devices like electron-sight and thermal imaging equipment. They significantly enhance device performance and user experience.
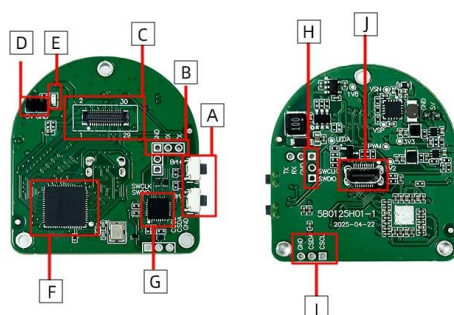
Top Display Optoelectronics has launched the Fast LCD 1.25" HDMI monocular driving solution—compact and lightweight, featuring an HDMI interface for easy evaluation. This solution can be customized in terms of interface and physical dimensions and is ideal for applications such as optical scopes, thermal imaging, and electronic viewfinders.

Solution

This solution employs a vertical Micro HDMI connector for video signal input, with output signals via the MIPI interface. It supports screen brightness adjustments via buttons and is suitable for demo presentations, product feature evaluations, and secondary development based on this driver board.
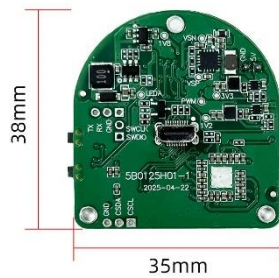
Interface Description

A: Button control for adjusting screen brightness
B: UART debug interface
C: Display connector for connecting the 1.25-inch screen
D: 2mm pitch power interface
E: Power indicator light
F: HDMI driver chip
G: Microcontroller (MCU)
H: SWD interface for firmware updates and debugging
I: I2C debug interface
J: Micro HDMI connector

Advantages

✅ 1.25" Fast LCD display compatible with over 90% of optical scopes and eyepieces

✅ Compact, lightweight design for seamless integration into portable devices

✅ Supports button-controlled brightness adjustment for convenience

✅ HDMI input interface ensures compatibility with mainstream video sources (such as cameras and computers), simplifying evaluation and testing

✅ Debugging and configuration via serial port/I2C

Applications

| EVF | Electron-sight | Thermal imaging |