

CZCM214 MIPI/DVP camera module test unit



The CZCM214 Camera Module Tester is a high-speed, multifunctional intelligent testing device designed for rigorous development and quality control of camera modules. This advanced tester eliminates the need for a PC, providing direct image and test result outputs to a VGA monitor. With comprehensive built-in software test functions, the CZCM214 is ideal for various production test stations of camera modules.

This device supports both MIPI and DVP interfaces, ensuring compatibility with a wide range of camera module chips used in mobile devices, tablets, automotive systems, and security applications. The CZCM214 is equipped with a high-end ARM processor, integrated sensor database, and offers features such as high stability, high cost-performance ratio, and simple operation, making it a reliable choice for long-term stable testing.

Camemake (www.camemake.com) provides the CZCM214 as a device for development and quality control, enhancing its accessibility and utility for businesses and developers in the field.

Shenzhen CZTEK Co., Ltd. (CZTEK), founded in May 2013, is a national high-tech enterprise focusing on semiconductor testing technology innovation. The main products include Semiconductor Testers, Automatic Optical Inspection (AOI) and Precision Detection Equipment, Camera Module Test Devices, and High-Speed Smart Network Cards, which have been commercially applied widely.

Features

- High stability with a dedicated operating system running a single test program for long-term stable testing.
- Built-in high-end ARM processor, data flow closely simulates the module's actual usage environment, making test results more reliable.
- Integrated sensor database for faster image output.
- High cost-performance ratio, lower price than traditional tester + PC solutions.
- Simple operation, runs test software upon power-on without any driver installation.
- Supports 1/2/4 Lanes MIPI modules, maximum speed 1Gbps/Lane.
- 5 high-reliability DPS power supplies.
- 4 high-precision operating current and standby current tests.
- 32-channel high-speed, high-precision open-short circuit detection.

Hardware Interfaces

- DVP Interface: Connects to DVP module test board.
- MIPI Interface: Connects to MIPI module test board.
- Power Indicator: Lights up on power-on, flashes based on frame rate during image capture.
- VGA Display Interface: Connects to VGA monitor.
- Start/Pause Button: To play or stop image capture.
- Power Switch: To turn the device on or off.
- Power Interface: 12V/1A power adapter input.
- USB: 3 USB2.0 Host interfaces for connecting USB cameras, mouse, keyboard, and USB flash drives.
- Light Source Board Interface: Outputs 2-3V voltage for external light source board.

Technical Specifications

- Power Supply: DC 12V 1A input.
- Four-channel sensor power supply with various voltage and current specifications.
- LED light power supply for backlight brightness adjustment.
- Overcurrent protection: Device shuts down and alarms if any power channel short circuits or exceeds maximum current.
- Current Test: Operating current test from 0.2 mA to 200mA; Standby current test from 0.2 uA to 2mA.
- Open-short circuit test: Supports DVP and MIPI interfaces, up to 32 pins.
- Image Test: Supports MIPI and DVP camera module tests with various data formats (RAW, YUV, RGB).
- USB Interface: 3 USB Host ports.
- Software Support: Embedded Linux application package with extensive sensor driver codes, focus tests, ISP functions, shading tests, MTF sharpness judgment algorithm, and more.

Software Functions

- ISP functions
- MTF test
- Shading test
- Automatic dirt detection
- Light center detection
- Custom sensor parameters

Dimensions

