### Zerone Zerone5ec94ovkam

# Zerone OV3660 Chip Mini USB Camera Module Instruction Manual

Model: Zerone5ec94ovkam



## 1. Introduction

This manual provides detailed instructions for the Zerone OV3660 Chip Mini USB Camera Module. It covers product features, package contents, technical specifications, setup procedures, operational guidelines, maintenance tips, and troubleshooting information. Please read this manual thoroughly before using the product to ensure proper and safe operation.

## 2. What's in the Box

The package includes the following items:

- Zerone OV3660 Chip Mini USB Camera Module
- USB Cable

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**Video 2.1:** Unboxing and overview of the Mini Camera Board OV3660 Chip USB Camera Module, showing the camera module and its included USB cable.

## 3. Product Overview

The Zerone OV3660 Chip Mini USB Camera Module is a compact, high-pixel camera designed for various applications requiring clear images and accurate color reproduction. It features a wide-angle lens and supports multiple operating systems.


**Figure 3.1:** Front view of the camera module, highlighting its compact design.


**Figure 3.2:** Angled perspective of the camera module, showing the lens and board layout.


**Figure 3.3:** Side view illustrating the 110° field of view capability of the USB camera module.


**Figure 3.4:** Examples of common applications for the camera module, such as robotics, security, video conferencing, and ATM integration.

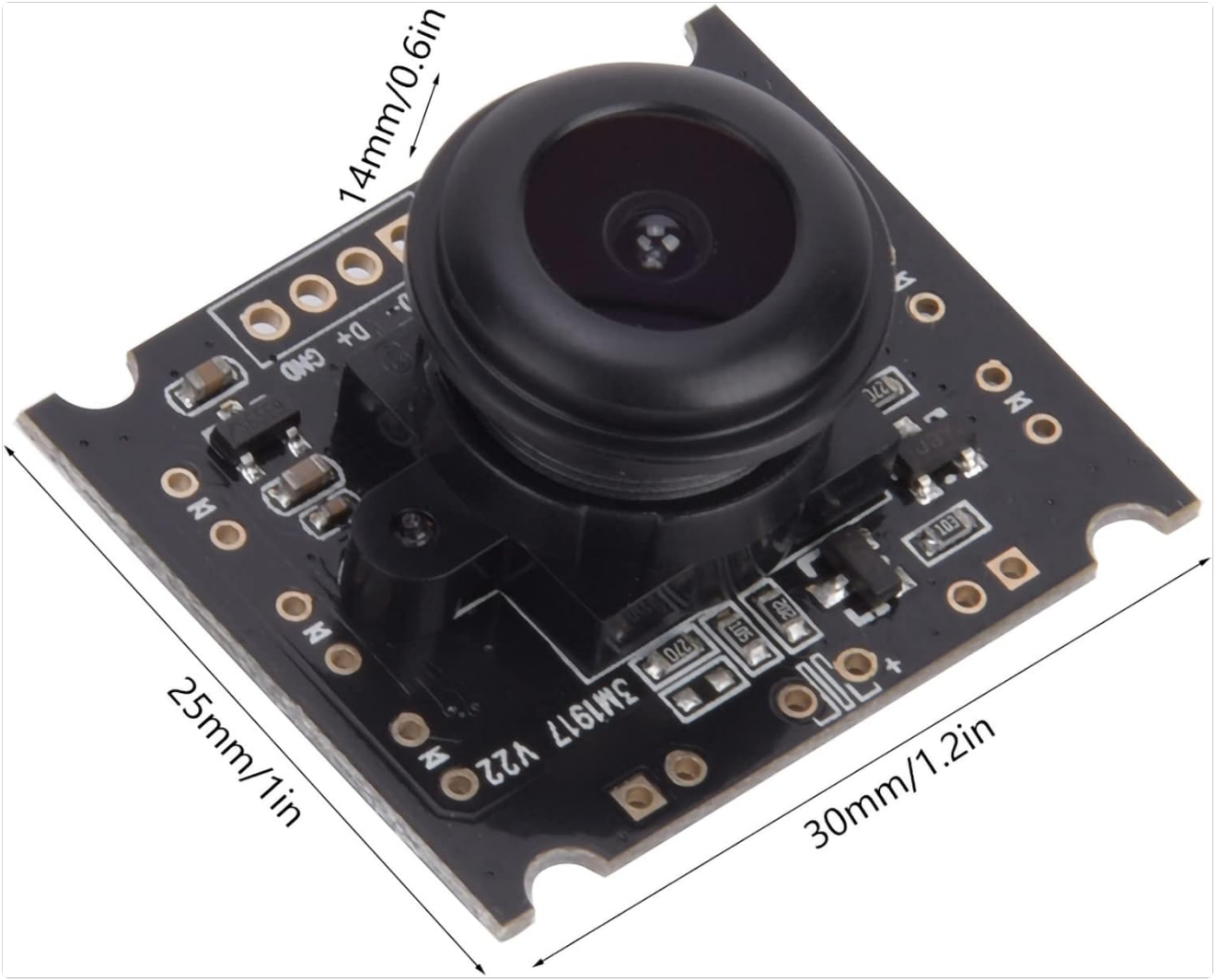


**Figure 3.5:** Detailed dimensions of the camera module for integration purposes.


**Figure 3.6:** Visual comparison between new and old versions of the camera module, showing potential variations in board layout.

## 4. Specifications

| Feature | Detail |
|---|---|
| Brand | Zerone |
| Model Number | Zerone5ec94ovkam |
| Product Chip | OV3660 |
| Pixels | 3 Million |
| Maximum Resolution | 2048 x 1536 @ 15fps |
| Field of View (FOV) | 110° |
| Dimensions | Approx. 30 x 25 x 14 mm (1.2 x 1 x 0.6 inches) |
| Weight | Approx. 0.704 ounces |

| Feature | Detail |
| --- | --- |
| Connectivity | USB |
| Supported Systems | Windows XP/Vista/7/8/10, Linux with UVC, Mac-OS X 10.4.8 or later, Android (OTG protocol) |
| Special Features | Low Light capability |

## 5. Setup

### 5.1 Connecting to a PC

To connect the camera module to a PC, simply plug the USB cable into an available USB port on your computer. The camera is UVC (USB Video Class) compliant, meaning it should be recognized automatically by most operating systems without requiring additional drivers.

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**Video 5.1:** Demonstrates connecting a USB camera module to a PC and accessing its feed using AMCAP software. This video also shows basic parameter adjustments and resolution changes.

### 5.2 Connecting to a Raspberry Pi

For Raspberry Pi, connect the camera module via its USB cable to an available USB port. You can then use applications like VLC Media Player to view the camera feed and adjust settings. Ensure your Raspberry Pi OS is updated and supports UVC devices.

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**Video 5.2:** Shows the process of connecting a USB camera module to a Raspberry Pi and configuring it using VLC Media Player to view the live feed and adjust video settings.

### 5.3 Connecting to an Android Smartphone

To use the camera module with an Android smartphone, you will need an OTG (On-The-Go) adapter (not included) to connect the USB cable to your phone. Download a compatible USB camera application from the Google Play Store. Ensure your smartphone supports OTG functionality.

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**Video 5.3:** Illustrates connecting the Mini Camera OV3660 Chip USB Camera Module to an Android smartphone using an OTG adapter and adjusting settings within a mobile USB camera application.

## 6. Operating the Camera Module

### 6.1 Adjusting Parameters

Once connected, you can adjust various camera parameters such as brightness, contrast, saturation, sharpness, and white balance through the software application you are using (e.g., AMCAP on PC, VLC on Raspberry Pi, or a dedicated USB camera app on Android). These settings allow you to optimize image quality for your specific environment and application.

### 6.2 Switching Formats and Resolutions

The camera module supports various video formats and resolutions, up to 2048x1536 at 15 frames per second. You can switch between these options within your viewing software's settings to match your requirements for image quality and file size.

### 6.3 Capturing Video and Photos

Most compatible software applications will provide options to capture still images or record video directly from the camera module. Refer to your software's specific instructions for capturing and saving media.

## 7. Maintenance

- **Cleaning:** Use a soft, dry cloth to gently clean the lens and the camera module. Avoid using liquid cleaners or abrasive materials.
- **Storage:** Store the camera module in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Handle the module with care to prevent damage to the delicate electronic components and the lens. Avoid touching the lens surface directly.

## 8. Troubleshooting

- **Camera not detected:**
  - Ensure the USB cable is securely connected to both the camera module and the host device.
  - Try a different USB port or a different USB cable.
  - Restart your computer or host device.
  - Verify that your operating system or application recognizes UVC devices.
  - For Android, ensure OTG is enabled and you are using a compatible USB camera app.
- **Poor image quality:**
  - Check the camera settings (brightness, contrast, sharpness, white balance) in your software and adjust as needed.
  - Ensure the lens is clean and free from dust or smudges.
  - Verify that the lighting conditions are adequate for optimal performance.
  - Confirm that the selected resolution and format are appropriate for your viewing device.
- **Intermittent connection:**
  - Ensure the USB cable is not damaged and is fully inserted.
  - Avoid using excessively long USB extension cables, which can lead to signal degradation.
  - Test with another USB device to rule out issues with the host device's USB port.

## 9. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact the manufacturer directly. Keep your proof of purchase for any warranty claims.