

ELP ELP-USB8MP05AF-V62

ELP 8MP USB Camera Module User Manual

Model: ELP-USB8MP05AF-V62

Brand: ELP

INTRODUCTION AND OVERVIEW

This manual provides comprehensive instructions for the ELP 8MP USB Camera Module with Microphone Autofocus PC Camera. Designed for versatility, this 4K camera module is suitable for various applications including computer vision, laser engraving (Lightburn), surveillance, and integration with development boards like Raspberry Pi.

The module features an 8-megapixel sensor, autofocus capabilities, and a built-in microphone, offering high-resolution imaging and audio capture in a compact form factor.

PRODUCT FEATURES

- **Ultra HD Resolution:** Still picture resolution up to 3264x2448 pixels (8MP Max).
- **Autofocus Functionality:** Automatically adjusts focus for objects at varying distances, eliminating the need for manual lens adjustment.
- **Built-in Microphone:** Enables simultaneous video and audio capture.
- **Compact Design:** Super small and mini strip size, ideal for integration into various systems like Lightburn laser engravers and other machine vision applications.
- **Non-Distortion Lens:** Features a lens with approximately 62-degree Horizontal Field of View (HFOV) and minimal distortion.
- **High-Performance Sensor:** Embedded with a 1/3.2" IMX179 image sensor for superior picture quality.
- **Versatile Picture Formats:** Supports MJPEG or YUY2 formats.
- **Broad Compatibility:** Compatible with Raspberry Pi, Ubuntu, OpenCV, Amcap, and various other USB webcam software and hardware.
- **Plug & Play (UVC Compliant):** Requires no extra drivers; simply connect to PC, laptop, or Android devices using the included USB cable.

WHAT'S IN THE BOX

- 1 x 8MP Autofocus USB Camera Module
- 1 x 1-meter USB Cable

- 1 x User Manual (this document)

SETUP GUIDE

The ELP 8MP USB Camera Module is designed for simple plug-and-play operation thanks to its UVC compliance. No additional drivers are typically required for most operating systems.

Connecting the Camera Module

1. Locate an available USB 2.0 port on your computer, laptop, Raspberry Pi, or Android device.
2. Connect the included 1-meter USB cable to the camera module's 4P 1.0 plug connector. Ensure the connection is secure.
3. Insert the USB-A end of the cable into the USB port of your host device.
4. Your operating system should automatically detect and install the necessary generic drivers. A notification may appear indicating that the device is ready for use.



Image: The ELP 8MP USB Camera Module connected to its USB cable, ready for integration.

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4P 1.0 Plug

Image: Detail of the 4P 1.0 plug connector on the camera module, showing where the USB cable attaches.

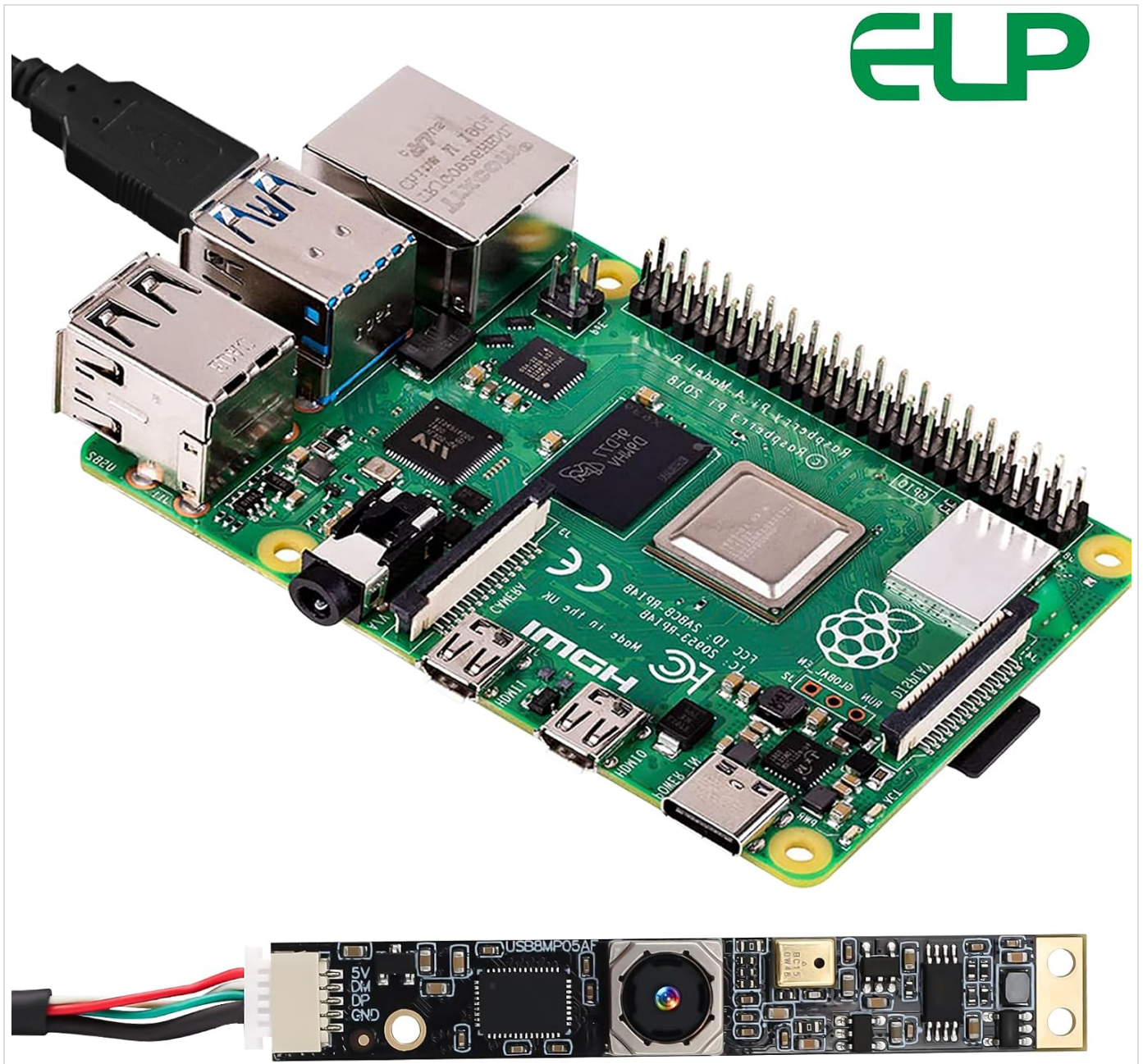


Image: The ELP 8MP USB Camera Module connected to a Raspberry Pi, demonstrating its compatibility with development boards.

OPERATING INSTRUCTIONS

Using the Camera

Once connected, the camera module can be accessed through various applications that support USB webcams. This includes standard camera applications on Windows, macOS, and Linux, as well as specialized software like Lightburn for laser engravers, OpenCV for computer vision projects, or Amcap.

- **Autofocus:** The camera features automatic autofocus. It will adjust to bring objects into clear focus whether they are close or far. This is particularly useful for dynamic environments or when the camera's distance to the subject changes.
- **Resolution Settings:** The camera supports various resolutions up to 3264x2448 for still images and 4K for video capture. You can typically select your preferred resolution and picture format (MJPEG or YUY2) within the settings of the application you are using.
- **Built-in Microphone:** The integrated microphone will be detected as an audio input device by your system. Ensure it is selected as the audio input in your application settings for audio recording.

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Autofocus



Image: Demonstration of the autofocus feature, showing clear focus on lotus flowers in the foreground and background.



Image: A laptop displaying a video call, with the ELP camera module connected and its built-in microphone active.

8MP Ultra Clear Autofocus USB Camera

SONY IMX179 Image Sensor for crystal clear images.



3264(H)*2448(V)

ELP



2592(H)*1944(V)

Image: Visual comparison of the camera's high resolution capabilities, showing images at 3264x2448 and 2592x1944 pixels.

WIDE ANGLE NO DISTORTION LENS



Distortion



No Distortion

[•] **AFLENS**

HFOV: about 62Degree

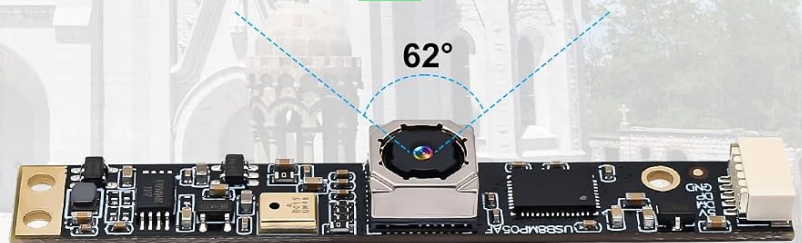


Image: Illustration of the wide-angle, low-distortion lens, highlighting its 62-degree HFOV and minimal image warping.



Image: Various application scenarios for the camera module, including barcode/QR code scanning, video door phone systems, and altimeter integration.

Official Product Video

Your browser does not support the video tag.

Video: An official product video demonstrating the features and applications of the ELP 8MP USB Camera Module, including its compact size, built-in microphone, plug-and-play functionality, high resolution, fast autofocus, and various industrial and personal applications.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to gently wipe the lens and board. 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 by its edges to avoid touching the lens or electronic components.
- **Cable Care:** Do not bend or crimp the USB cable excessively to prevent internal damage.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Camera not detected / No image	◦ Loose USB connection. ◦ Faulty USB port. ◦ Operating system driver issue. ◦ Camera already in use by another application.	◦ Ensure USB cable is firmly connected to both the camera and the host device. ◦ Try a different USB port. ◦ Restart your computer/device. ◦ Close any other applications that might be using the camera (e.g., Zoom, Skype, Windows Camera app). ◦ Verify that the camera is enabled in your device's privacy settings.
Autofocus issues (blurry image, slow focus)	◦ Insufficient lighting. ◦ Subject too close or too far (outside focus range). ◦ Rapid movement of subject or camera. ◦ Protective film still on lens.	◦ Ensure adequate lighting in the environment. ◦ Maintain a suitable distance from the subject. ◦ Minimize camera or subject movement during focusing. ◦ Check if there's a thin protective film on the lens and remove it carefully. ◦ Some applications allow disabling autofocus for manual control if needed.
No audio from microphone	◦ Microphone not selected as default input. ◦ Microphone muted in software.	◦ Go to your device's sound settings and ensure the ELP camera's microphone is selected as the input device. ◦ Check the microphone settings within your application (e.g., video conferencing software) to ensure it's not muted.

SPECIFICATIONS

Feature	Detail
Brand	ELP
Model Number	ELP-USB8MP05AF-V62 8mp usb camera
Image Sensor	1/3.2" IMX179 CMOS
Still Picture Resolution	3264x2448 Max
Video Capture Resolution	4K
Autofocus	Yes
Built-in Microphone	Yes
Lens Type	Non-distortion lens
Horizontal Field of View (HFOV)	Approx. 62 degrees
Connectivity	USB 2.0
UVC Compliant	Yes (Plug & Play)

Feature	Detail
Dimensions	2.45 x 0.35 x 0.24 inches (approx. 62.3 x 9 x 6.1 mm)
Item Weight	0.705 ounces
Color	Brown (board color)



SUPER MINI SIZE

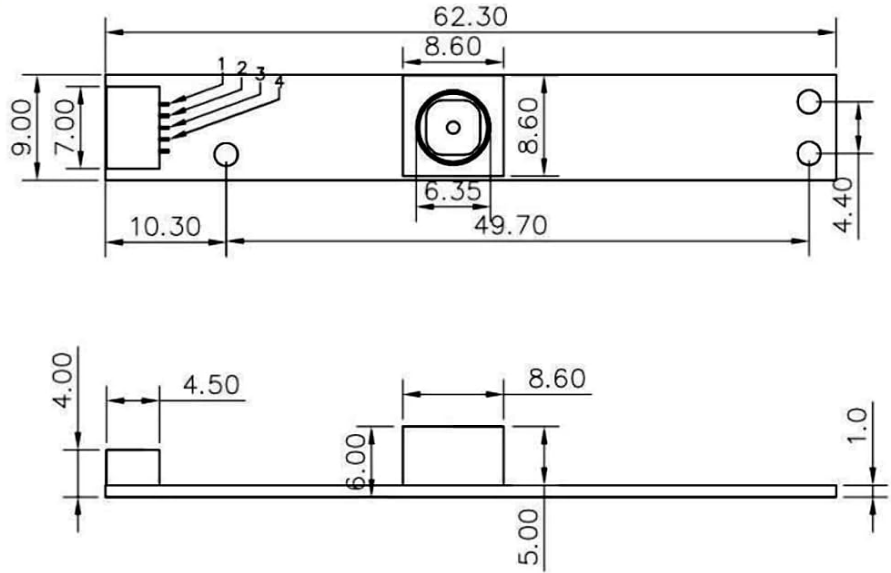


Image: The compact size of the ELP 8MP USB Camera Module, with detailed dimensions provided for integration purposes.

SAFETY INFORMATION

Please use the ELP 8MP USB Camera Module strictly according to the guidelines provided in this user manual. Improper use or handling may result in damage to the device or connected equipment. Avoid exposing the module to moisture, extreme temperatures, or direct impact. Do not attempt to disassemble or modify the camera module, as this will void any potential warranty and could cause damage.

LEGAL DISCLAIMER

The ELP 8MP USB Camera Module is intended for use as described in this manual. The manufacturer and seller are not responsible for any damages or issues arising from misuse, unauthorized modifications, or failure to adhere to the instructions provided herein. Users are responsible for ensuring compliance with all local laws and regulations when using this product, especially in applications involving surveillance or data collection.

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the contact details provided by your point of purchase or visit the official ELP website. Keep your purchase receipt as proof of purchase for any warranty claims.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question