

## Arducam B0292

# Arducam 4K 8MP IMX219 Autofocus USB Camera Module

Model: B0292 | Brand: Arducam

## 1. INTRODUCTION

This manual provides detailed instructions for the Arducam 4K 8MP IMX219 Autofocus USB Camera Module. It covers setup, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your device.

### Key Features:

- **High Resolution:** 8MP IMX219 sensor for sharp images and accurate color reproduction, with a maximum still resolution of 3264H x 2448V.
- **Autofocus:** Automatically adjusts focus for objects from millimeter level to distant subjects without manual lens adjustment.
- **Integrated Microphone:** Captures video with synchronized audio.
- **Flexible Frame Rates:** Supports MJPG 15fps@3264 x 2448, 30fps@1080P; YUY2 15fps@720P, 20fps@640 x 480.
- **Plug & Play (UVC-compliant):** Connects to PC, laptop, Android devices, or Raspberry Pi via USB without requiring additional drivers.
- **Compact Design:** Small 38mmx38mm board suitable for various applications including home surveillance, 3D printer monitoring, object recognition, and machine vision.

## 2. WHAT'S IN THE BOX

Verify that all components are present in the package:

- Arducam 4K 8MP IMX219 Autofocus USB Camera Module (Model B0292)
- USB Cable

**ArduCam**

SKU: B0292



**8MP**

**72°(D)**

UVC

Autofocus

30fps

Image: Arducam 4K 8MP IMX219 Autofocus USB Camera Module with its accompanying USB cable.

## 3. SETUP GUIDE

### 3.1. Connecting to a PC/Laptop

1. Connect one end of the provided USB cable to the camera module.
2. Plug the other end of the USB cable into an available USB 2.0 port on your PC or laptop.
3. The camera is UVC-compliant and should be automatically recognized by your operating system without needing to install additional drivers.

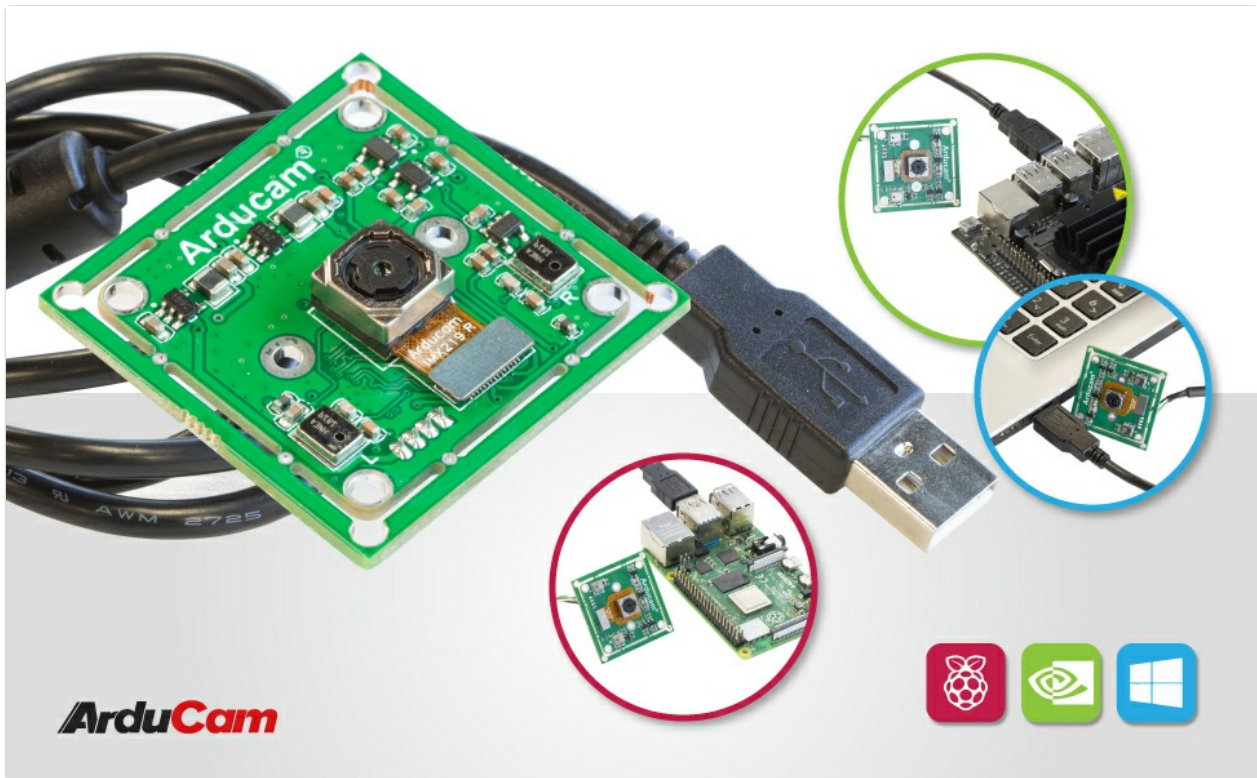


Image: The Arducam camera module connected to various host devices, including a PC, Mac, and Raspberry Pi, illustrating its versatile USB connectivity.

### 3.2. Connecting to Raspberry Pi

1. Connect one end of the provided USB cable to the camera module.
2. Plug the other end of the USB cable into an available USB port on your Raspberry Pi.
3. Ensure your Raspberry Pi OS is up-to-date for best compatibility.

### 3.3. Connecting to Android Device

1. Connect one end of the provided USB cable to the camera module.
2. Use a USB-C to USB-A adapter (not included) if your Android device has a USB-C port.
3. Plug the USB cable (with adapter if needed) into your Android device.
4. Download a compatible USB Camera app from your device's app store to view the camera feed.

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## 4. OPERATING INSTRUCTIONS

### 4.1. Viewing the Camera Feed

Once connected, open a compatible camera application on your device (e.g., AMCap for Windows, Photo Booth for Mac, VLC Media Player for Linux, or a USB Camera app for Android). Select the Arducam camera from the device list to view the live feed.

### 4.2. Adjusting Parameters

Most camera applications allow you to adjust various parameters such as brightness, contrast, saturation, hue, and exposure. Access these settings through the application's preferences or properties menu.

### 4.3. Autofocus Functionality

The Arducam IMX219 module features autofocus. The camera will automatically adjust its focus to provide a clear image of the subject. For specific applications or manual control, refer to the software documentation for your chosen platform.

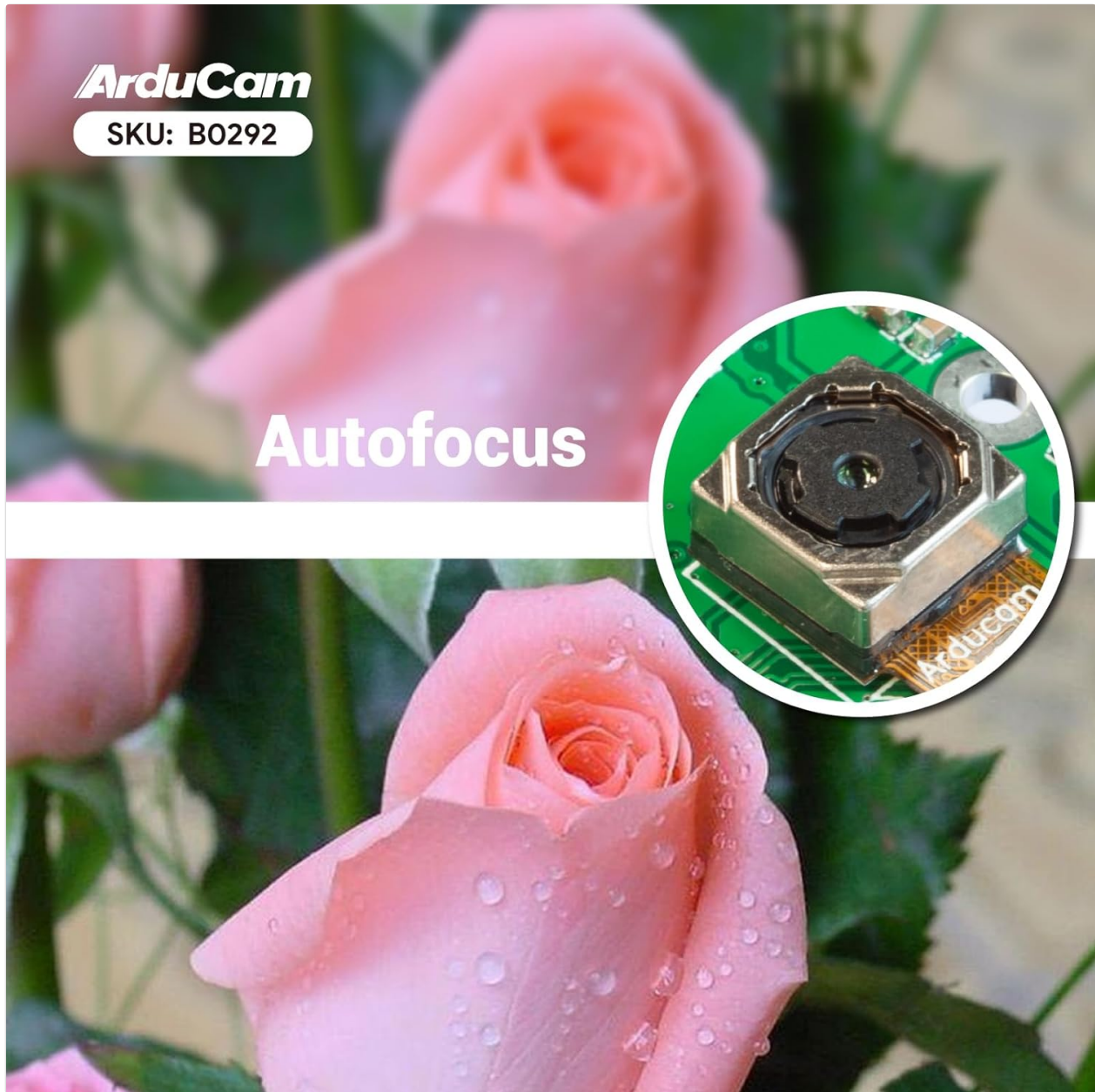


Image: A close-up shot of a rose, demonstrating the autofocus capability of the Arducam camera module, highlighting its ability to capture fine details.

### 4.4. Capturing Video and Photos

Within your chosen camera application, you will typically find options to capture still images or record video. Follow the on-screen prompts to save your captures to your device.

### 4.5. Official Product Videos

#### Arducam 4K 8MP IMX219 Autofocus USB Camera Module Overview

Video: This video provides an overview of the Arducam 4K 8MP IMX219 Autofocus USB Camera Module, demonstrating its features and basic operation across different platforms.



## Arducam 8MP IMX219 Autofocus USB Camera Demonstration

Video: A demonstration of the Arducam 8MP IMX219 Autofocus USB Camera, showcasing its capabilities and ease of use in various scenarios.

## 5. SPECIFICATIONS

| Feature                  | Detail                    |
|--------------------------|---------------------------|
| Max Screen Resolution    | 8 MP                      |
| Brand                    | Arducam                   |
| Series                   | IMX219                    |
| Item Model Number        | B0292                     |
| Hardware Platform        | Mac, PC, laptop           |
| Operating System         | Windows, Linux, Mac       |
| Item Weight              | 2.08 ounces               |
| Package Dimensions       | 3.58 x 3.11 x 1.34 inches |
| Color                    | Auto Focus                |
| Rear Webcam Resolution   | 8 MP                      |
| Manufacturer             | Arducam                   |
| ASIN                     | B08RHTG845                |
| Date First Available     | December 29, 2020         |
| Photo Sensor Technology  | CMOS                      |
| Video Capture Resolution | 1080p                     |
| Maximum Focal Length     | 40 Millimeters            |
| Maximum Aperture         | 4 f                       |
| Flash Memory Type        | SD                        |
| Video Capture Format     | MP4                       |
| Supported Audio Format   | MP3, WAV                  |
| Connectivity Technology  | USB                       |

## 6. MAINTENANCE

## 6.1. Cleaning

To clean the camera lens, use a soft, lint-free cloth specifically designed for optics. Avoid abrasive materials or harsh chemicals that could scratch the lens or damage the sensor. For the camera module body, a dry, soft cloth is sufficient.

## 6.2. Storage

Store the camera module in a cool, dry place away from direct sunlight, extreme temperatures, and high humidity. Keep it in its original packaging or a protective case to prevent dust accumulation and physical damage.

## 6.3. Handling

Handle the camera module with care. Avoid dropping it or subjecting it to strong impacts. Do not touch the lens surface directly with your fingers to prevent smudges and scratches.

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# 7. TROUBLESHOOTING

## 7.1. Camera Not Detected

- **Check USB Connection:** Ensure the USB cable is securely connected to both the camera module and the host device. Try a different USB port.
- **Test with Another Device:** Connect the camera to a different PC, Raspberry Pi, or Android device to determine if the issue is with the camera or the host device.
- **Restart Device:** Sometimes a simple restart of your computer or Raspberry Pi can resolve detection issues.
- **Update Drivers/OS:** Ensure your operating system and any relevant drivers are up-to-date.

## 7.2. Poor Image Quality/Focus Issues

- **Clean Lens:** Gently clean the camera lens as described in the Maintenance section.
- **Check Lighting:** Ensure adequate lighting in your environment. Poor lighting can affect image quality and autofocus performance.
- **Software Settings:** Adjust brightness, contrast, and other image settings within your camera application.
- **Autofocus Check:** For autofocus models, ensure the camera is given sufficient time to focus. If manual focus is available in your software, try adjusting it.

## 7.3. No Audio Capture

- **Check Software Settings:** Verify that the correct audio input device (the camera's microphone) is selected in your recording software.
- **Volume Levels:** Ensure microphone volume levels are not muted or set too low in your operating system's sound settings.

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# 8. WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance, please visit the official Arducam website or contact their customer service directly. Keep your purchase receipt for warranty claims.

