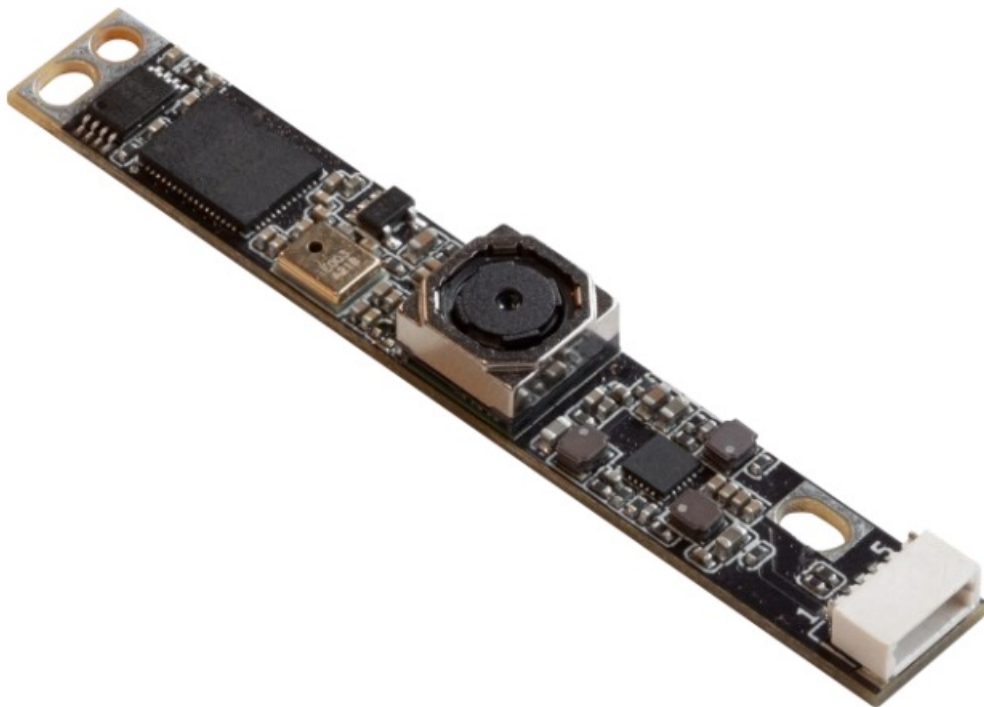


ArduCam B0431 IMX219 Autofocus USB Camera Module User Guide

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IMX219 Autofocus USB
Camera Module



8MP IMX219
(SKU: B0431)
QUICK START GUIDE

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SPECS

Image Sensor	
Sensor	IMX219
Resolution	8MP
Chroma	Color
Shutter Type	Rolling shutter
Optical Format	1/4"
Output Format	YUYV/MJPEG
Pixel Size	1.12μm*1.12μm
Sensor Active Area	3280(H)×2464(V)
Frame rate	MJPEG: 30fps@800*600/3264*2448/2592*1944/ 1600*1200/1280*960/1280*720/2048*1 536/1920*1080/640*480/1024*768 YUY2: 640*480@30fps 800*600@20fps 1280*720/1280*960/@10fps 1600*1200@5fps 2592*1944@2fps 3264*2448@1fps
Lens	
Focus Type	Auto Focus
FOV	62°(H)
Lens Mount	M6.5*P0.25mm
F.NO	2.0±5%
Focal Length	2.46mm±5%
TV Distortion	<1%
USB Interface	
Interface	USB 2.0 device
Connector	SM05B-SRSS-TB
UVC Complaint	No additional drivers required

INTRODUCTION

- **About Arducam**

Arducam has been a professional designer and manufacturer of SPI, MIPI, DVP and USB cameras since 2012. We also offer customized turnkey design and manufacturing solution services for customers who want their products to be unique.

- **About this USB Camera**

This camera is based on 8MP IMX219 USB Camera Module. The sensor has excellent 3280(H)×2464(V)

@30fps with Auto Focus lens. Arducam has developed and designed this camera based on this sensor. Arducam team is committed to creating more convenient and more efficient camera solutions. We have expanded the using scope of the sensor, enabling the camera to realize your various projects. The camera is featured 62°(H) lens, allowing you to use it for more applications.

- **About UVC**

The B0431 is a UVC-compliant camera. The native UVC drivers of Windows, Linux, Android and Mac shall be compatible with this camera so that it does not require extra drivers to be installed.

- **About Customer Service**

If you need our help or want to customize other models of USB cameras, feel free to contact us at support@arducam.com

Electrical and Mechanical	
Operating Voltage	DC 5V +/- 5%
Working Current	Max 300mA
Operating Temp.	-4°F-158°F(-20°C to 70°C)
Camera Board Size	62mm x 9mm x 6mm
Functionality and Compatibility	
Audio	Single Microphone
Supported OS	Windows, Linux, Android and MAC
Sample Application	AMCap-Windows Camera application for Video and Still Capture
UVC Controls	Brightness, Contrast, Hue, Saturation, Sharpness, Gamma, White Balance, Gain , Exposure, Focus

QUICK START

- **How to download the program**

Download the APP AMCap from the following link <https://www.arducam.com/downloads/app/AMCap.exe>

NOTE: 1. If used with the Android device, USB Camera APP and connect adapter are needed. 2. For Mac OS, please open the native software facetime and select the video camera “USB Camera”.

- **How to connect the camera**

Connect the one end of the USB 2.0 cable to the USB 2.0 connector provided on the back of B0431, and connect the other end to the USB 2.0 host controller on the computer.

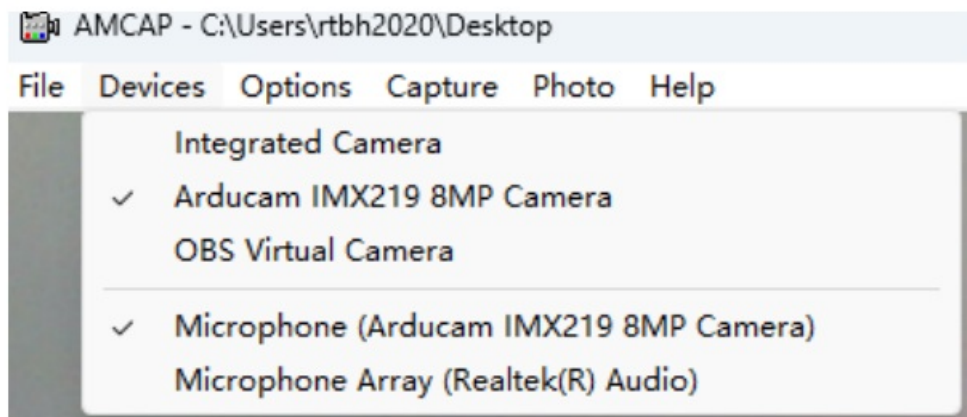
How to use the program

(Windows demo only)

The Menu bar at the top of the shown image contains few menu items and the current preview resolution and the frame rate are displayed on the bottom bar when the application is running. The following sections describe each of the menu items

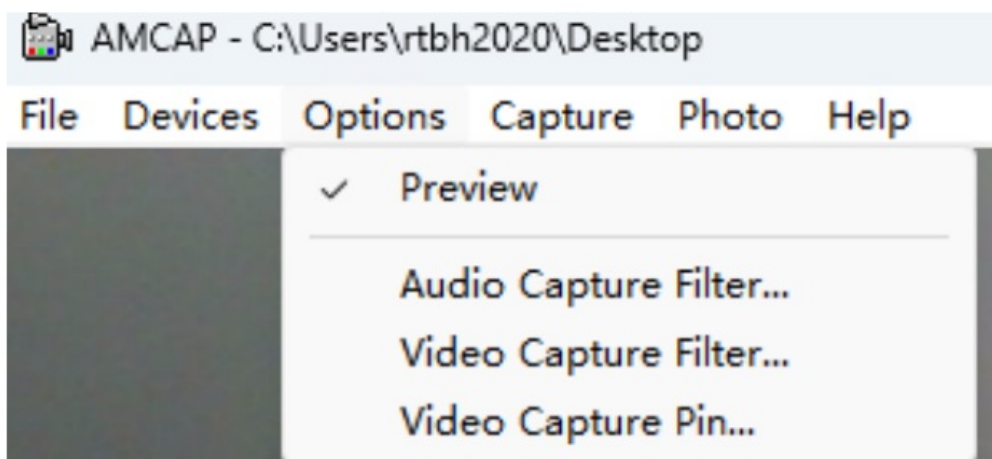
- **Menu>Devices**

This menu will show the available video devices to host PC. The B0431 named “Arducam IMX219 8MP Camera”.



- **Menu>Options**

The options menu can be used to select the preview and image parameters supported by this camera.



– Video Capture Pin

Properties ✕

Video Proc Amp | Camera Control

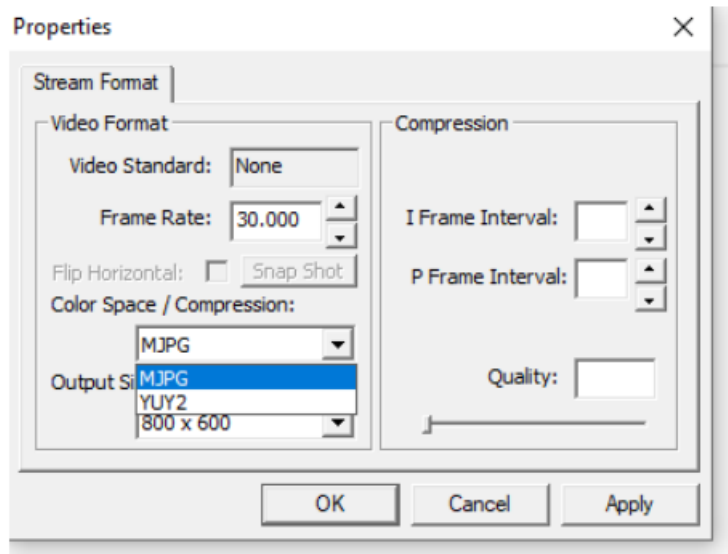
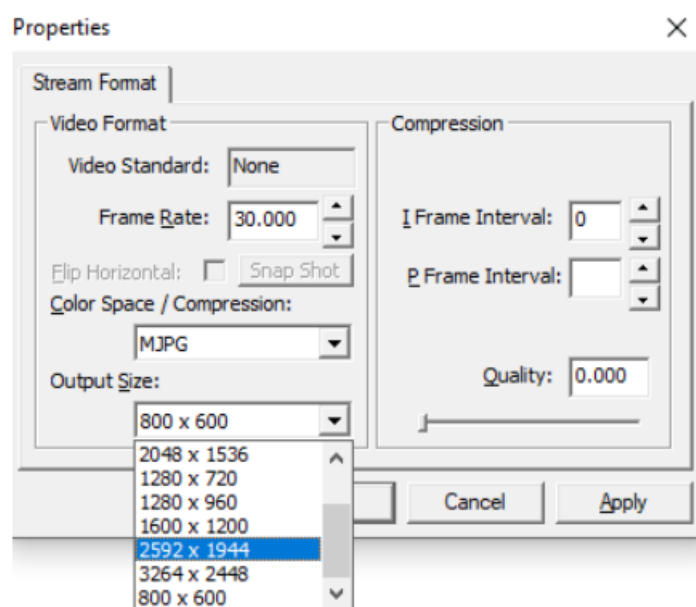
Brightness	<input type="range"/>	128	<input type="checkbox"/>
Contrast	<input type="range"/>	32	<input type="checkbox"/>
Hue	<input type="range"/>	128	<input type="checkbox"/>
Saturation	<input type="range"/>	50	<input type="checkbox"/>
Sharpness	<input type="range"/>	16	<input type="checkbox"/>
Gamma	<input type="range"/>	100	<input type="checkbox"/>
White Balance	<input type="range"/>	4600	<input checked="" type="checkbox"/>
Backlight Comp	<input type="range"/>	12	<input type="checkbox"/>
Gain	<input type="range"/>		<input type="checkbox"/>
ColorEnable	<input type="checkbox"/>	PowerLine Frequency (Anti Flicker)	50 Hz <input type="button" value="v"/>

Properties ✕

Video Proc Amp | Camera Control

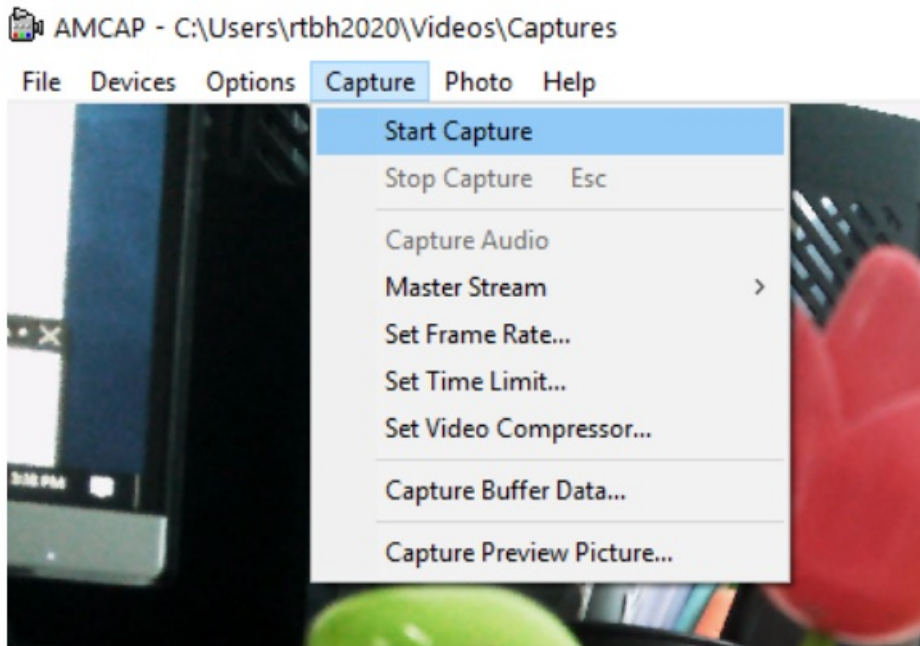
Zoom	<input type="range"/>		<input type="checkbox"/>
Focus	<input type="range"/>	0	<input checked="" type="checkbox"/>
Exposure	<input type="range"/>	-6	<input checked="" type="checkbox"/>
Aperture (Iris)	<input type="range"/>		<input type="checkbox"/>
Pan	<input type="range"/>		<input type="checkbox"/>
Tilt	<input type="range"/>		<input type="checkbox"/>
Roll	<input type="range"/>	0	<input type="checkbox"/>
Low Light Compensation	<input type="checkbox"/>		

– Video Capture Filter -> Video Proc Amp/Camera Control



- **Menu> Capture**

The capture menu is used to capture the still image and video by using this application. You can also select the related parameters.



Documents / Resources

	<p>ArduCam B0431 IMX219 Autofocus USB Camera Module [pdf] User Guide B0431 IMX219 Autofocus USB Camera Module, B0431, IMX219 Autofocus USB Camera Module, Autofocus USB Camera Module, USB Camera Module</p>
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References

- arducam.com/downloads/app/