Arducam **64MP OwlSight**

Autofocus Camera Module

For Raspberry Pi
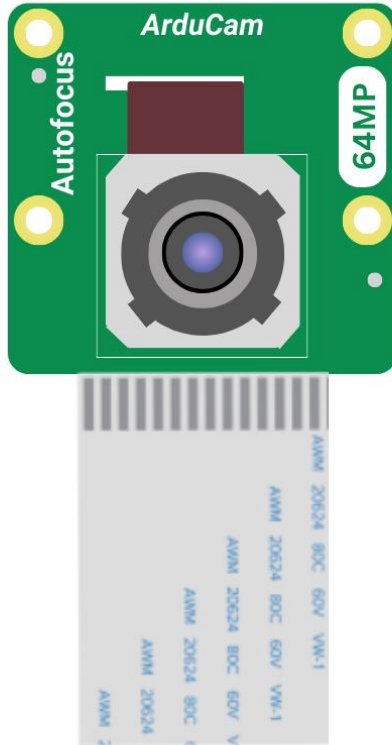
Overview

Arducam 64MP OV64A40 OwlSgiht Camera is a 64MP, Ultra high-resolution autofocus camera module exclusively built for the latest and future RaspberryPi platforms and fully compatible with libcamera stack.

With a remarkable 64MP OV64A40 sensor boasting the leading optical format and the largest pixel size in their class, these cameras excel in challenging lighting conditions while delivering exceptional performance in well-lit environments.

Say goodbye to complex installations, as these cameras are directly supported by libcamera, making setup a breeze.

Even if you are using Raspberry Pi for the first time, you can also follow the hands-on manual guide without hassle or complex operation.

The package comes with a camera module, a 15cm 15pin-15pin FFC cable, and 15cm 15pin-22pin FPC cable by default, there is also an optional camera tripod. (If you need the camera tripod, you can contact sales@arducam.com for help.

Highlight Features:

- **Native Supported by libcamera: Raspberry Pi mainstream software libcamera directly drives the camera, eliminating the need to install the camera driver and simplifying user access.**

Thanks to the 'libcamera Revolution', no more headaches over driver installations or compatibility concerns. The libcamera ecosystem has streamlined the process, making it a breeze to connect and use our camera module on your Linux-based systems.

- **Excellent photosensitive performance: larger optic format (1/1.32). The largest pixel size among sensors of the same level.**

It thrives in all lighting conditions, setting a new standard for performance. The secret lies in its sensor, boasting the largest pixel size (1.008μm) and leading optical format (1/1.32″) in its class.

- **Ultra-high resolution: ultra-clear picture quality, maximum resolution 9248x 6944 (64MP).**
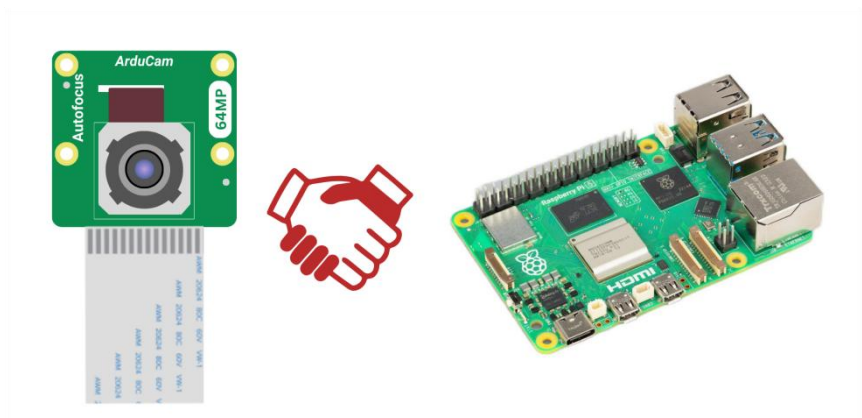
Based on OmniVision 64MP OV64A40 ultra-high resolution image sensor. Able to obtain clearer images, high-quality video data, and extremely fine picture details.

- **Rich peripheral accessories: one-stop supporting parts and the overall industry ecosystem. From modules -> products -> solutions.**

Rich accessories and product ecosystem, ultra-wide compatibility, compatible with multiple embedded vision/depth vision solutions including multiple cameras, Ethernet cable extension, HDMI extension, Pan-Tilt kit, V3link camera extension, etc.

- **Raspberry Pi 5 is NATIVELY SUPPORTED**

"..Native support for Raspberry Pi's latest high-performance platform Raspberry Pi 5.."

Specifications

Specification	
Image Sensor	OV64A40
Still Resolution	64 Megapixels
Color Filter Type	Color
Shutter Type	Rolling
Optical Size	1/1.32″
Pixel Size	1.008 µm x 1.008 µm
Sensor Active Area	9248(H)×6944(V)
Output Format	JPEG/YUV/RGB/RAW10
Video Modes (on Raspberry Pi)	1080p30,720p60 and 640×480p60/90
Video Modes (Camera Module)	9152×6944@2fps, 4624×3472@7.6fps, 3840×2160@14.8fps, 2312×1736@26.7fps, 1920×1080@45fps
IR Sensitivity	Integral IR-cut Filter, visible light only
Lens	
Focus Type	Manual/Auto
Focal Length	6.65mm
F.NO	F1.9
Field of View (FOV)	84°(D)×68°(H)×56°(V)
Lens Mount	Stock Lens
Default Focus Range	12cm~∞

| Electrical and Mechanical	
Power Requirements	3.3V/300mA
Camera Board Size	25×24 mm
Functionality and Compatibility	
Supported OS	Raspberry Pi OS
Supported Platforms*	Raspberry Pi 5/4B/3B+/3/2/CM3/CM4/Zero W /Zero 2 W

▲ Raspberry Pi 2/3/zero W may not be able to enable maximum resolution due to RAM, please make sure your platform has RAM greater than or equal to 1G.

▲ Capturing maximum resolution on the Pi 4 and CM4 may be impacted by CMA, which can be fixed by switching the GUI mode to terminal mode.

Resolution & Frame Rates

Sensor	Transfer Speed	Resolution	Frame Rate
OV64A40	High Speed	9152×6944	2.6fps
		4624×3472	10fps
		3840×2160	20fps
		2312×1736	30fps
		1920×1080	60fps
	Low Speed	9152×6944	2fps
		4624×3472	7.6fps
		3840×2160	14.8fps
		2312×1736	26.7fps
		1920×1080	45fps

Physical Size
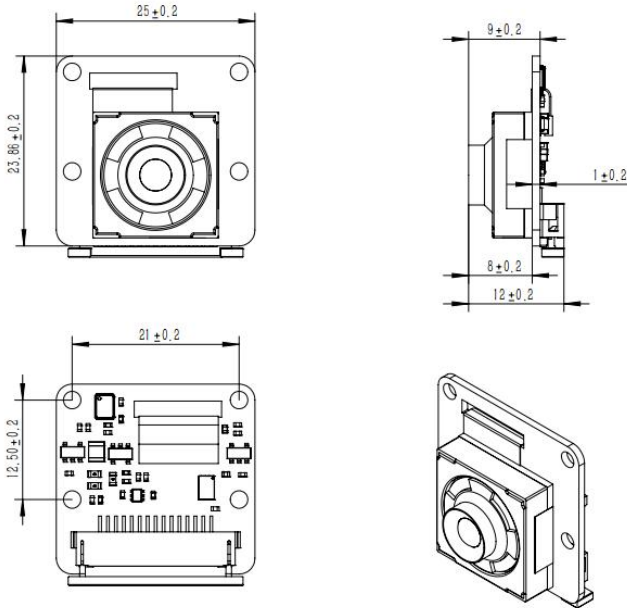
Safety Instructions

First time using a Raspberry Pi camera? Please note:

- Before connecting, you should always power the Raspberry Pi off and remove the power supply first.

- Avoid high temperatures.

- Avoid water, moisture, or conductive surfaces while in operation.

- Avoid cross-threading with tripods. Avoid folding or straining the flex cable.

- Gently push/pull the connector to avoid damaging the printed circuit board.

- Avoid moving or handling the printed circuit board excessively while it's in operation.

- Handle by the edges to avoid damage from electrostatic discharge.

- where the camera board is stored should be cool and as dry as possible.

- sudden temperature/humidity changes can cause dampness in the lens and affect the image/video quality.

Quick Start Guide

Please refer to the below doc link for online General Quick Start Guide and detailed information:

https://docs.arducam.com/Raspberry-Pi-Camera/Native-camera/64MP-OV64A40/

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