

# **Ardu***Cam*



**Datasheet**

12.3MP USB3.0 Camera Module

**B0459**

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Version	Compile	Auditing	Authorize	DATE
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## 1. Overview

The Arducam USB 3.0 includes a diverse range of camera modules, each tailored to specific use cases and requirements. This datasheet will detail the specifications and features of each individual product for user reference, allowing you to make informed decisions about which camera module best suits your project.

## 2. Disclaimer

While we have made every effort to ensure the accuracy and completeness of the information presented in this datasheet, Arducam reserves the right to make changes to product specifications, features, and documentation without notice. All information provided in this datasheet is subject to change and should be considered for reference purposes only.

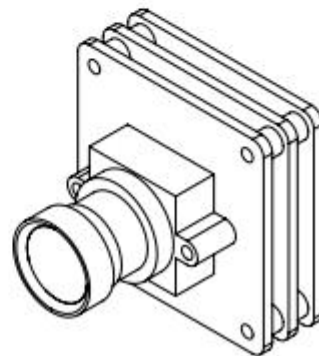
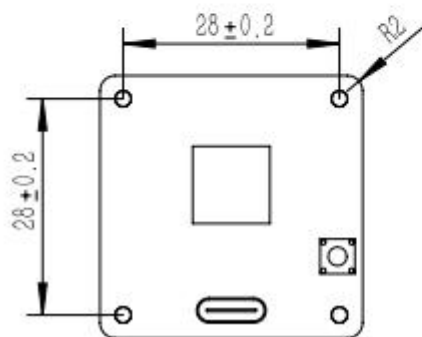
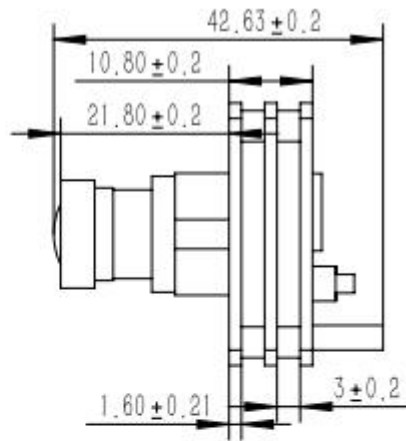
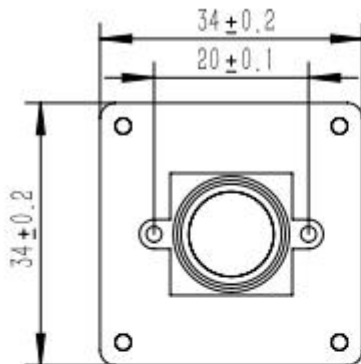
## 3. Technical Parameters

Image Sensor	
Resolution	12.3MP
Chroma	Color
Shutter Type	Rolling shutter
Optical Format	1/2.3"
Output Format	YUY2
Pixel Size	1.55um x 1.55um
Sensor Active Area	4056(H)x3040(V)
Frame rate (USB 3.0)	YUY2: 4056*3040@10fps, 3840*2160@20fps, 2016*1520@50fps, 1920*1080@60fps, 1280*720@120fps
Frame rate (USB 2.0)	YUY2: 1280*720@10fps
Lens	
Focus Type	Manual Focus
FOV	88°(D)×75°(H)×60°(V)
Lens Mount	M12.0*P0.5
F.NO	F2.8
Focal Length	3.9mm
Default Focus Range	2.3m~∞
USB Interface	
Interface	USB 3.2 Gen 1 device, backward compatible with USB 2.0 hosts
Connector	Type-C reversible interface connector
UVC Compliant	No additional drivers required
Electrical and Mechanical	

Operating Voltage	DC 5V +/- 5%
Operating Temp.	32°F-158°F (0°C to 70°C)
Power Requirements	Max: 1.31W, Min: 0.74W
Camera Board Size	34×34 mm
<b>Functionality and Compatibility</b>	
Supported OS	Windows, Linux
Recommend Sample Application	PotPlayer for Windows, qv4l2 for Linux
UVC Controls	Brightness, Contrast, Saturation, Gain, White Balance (Manual/Auto), Exposure(Manual/Auto)

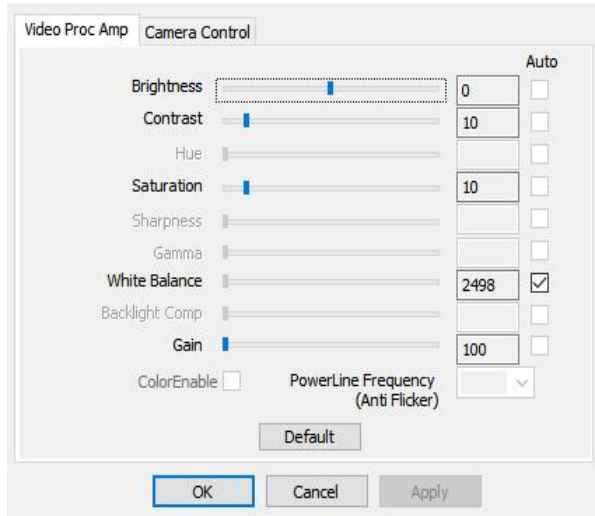
### 4. Camera Dimension Diagrams

Unit: mm

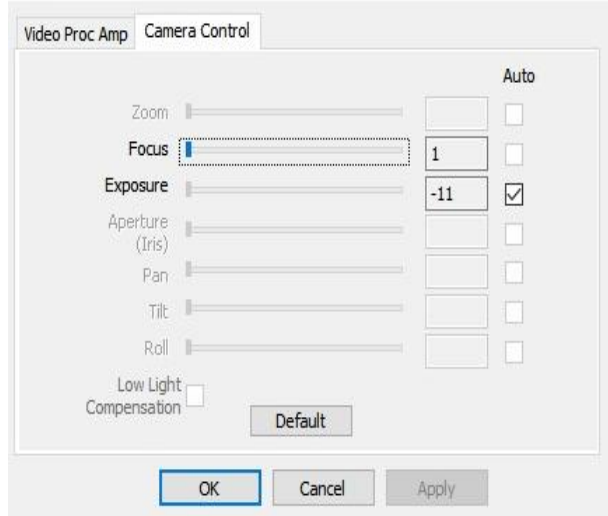


### 5. Camera Parameters Interface

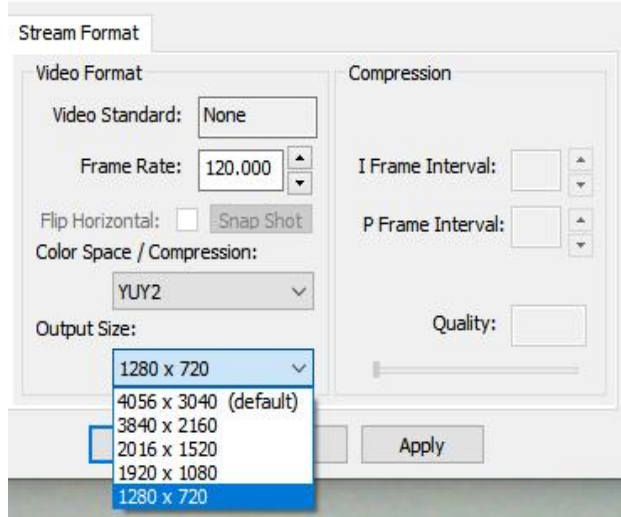
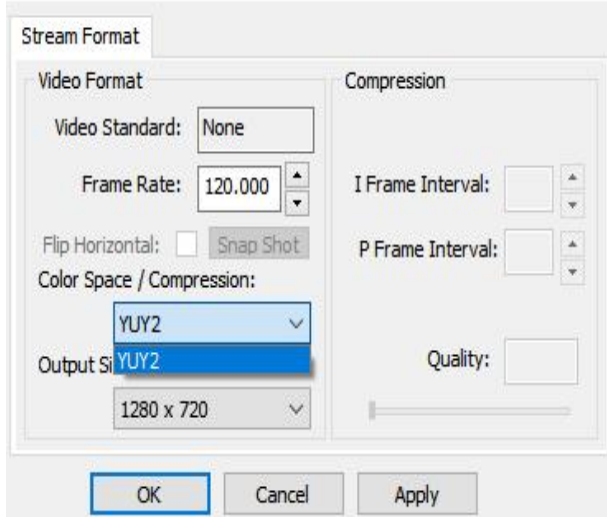
#### - Video Proc Amp



#### - Camera Control



#### - Video Capture Pin



## 6. Operating Condition

### 6.1 YUY2 with USB 3.0

The following table lists the power consumption of the B0459 YUY2 format with USB 3.0 devices.

Resolution	Max Frame Rate (fps)	Supply Voltage (V)	Typical Current (mA)	Power Consumption (W)
4056*3040	10fps	5	238	1.19
3840*2160	20fps	5	262	1.31
2016*1520	50fps	5	252	1.26
1920*1080	60fps	5	240	1.2
1280*720	120fps	5	236	1.18
Power at Idle Condition	/	5	82	0.41

### 6.2 YUY2 with USB 2.0

The following table lists the power consumption of the B0459 YUY2 format with USB 2.0 devices.

Resolution	Max Frame Rate (fps)	Supply Voltage (V)	Typical Current (mA)	Power Consumption (W)
1280*720	10fps	5	140	0.7
Power at Idle Condition	/	5	82	0.41

## 7. Contact Us

For any product-related questions, please feel free to contact us:

- Official website: [www.arducam.com](http://www.arducam.com)
- Contact form: <https://www.arducam.com/contact-arducam/>
- Tel: +1(319)471-7640