

ArduCam



Datasheet

20MP IMX283 USB3.0 Camera Module

B0477

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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.

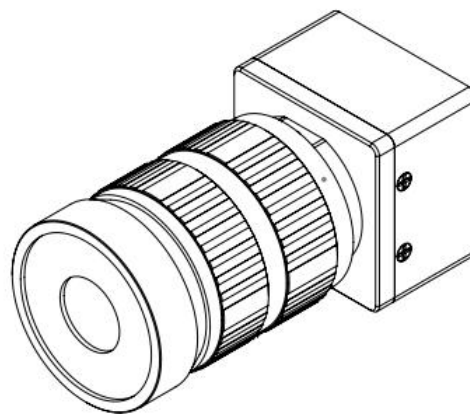
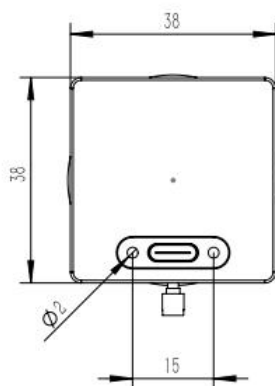
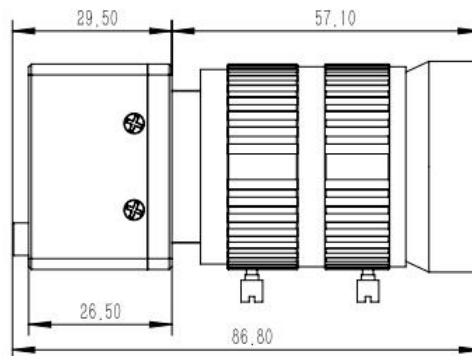
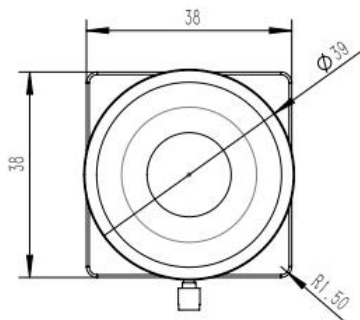
3. Technical Parameters

Image Sensor	
Sensor	IMX283
Resolution	20MP
Chroma	Color
Shutter Type	Rolling shutter
Optical Format	1"
Output Format	YUY2
Pixel Size	2.4 μ m x2.4 μ m
Sensor Active Area	5496(H) \times 3672(V)
Frame rate (USB 3.0)	1280 \times 720@120fps, 1920 \times 1080@60fps, 2720 \times 1536@40fps, 3840 \times 2160@20fps, 5472 \times 3648@9fps
Frame rate (USB 2.0)	1280 \times 720@10fps
Lens	
Focus Type	Manual Focus
FOV	60 $^{\circ}$ (D) \times 49 $^{\circ}$ (H) \times 38 $^{\circ}$ (V)
Lens Mount	C-Mount
F.NO	F1.4-F16
Focal Length	16 mm
Default Focus Range	5m \sim ∞
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: 1.38W, Min: 0.75W
Camera Board Size	34×34 mm
Functionality and Compatibility	
Supported OS	Windows, Linux
Recommend Sample Application	PotPlayer for Windows, qv4l2 for Linux
UVC Controls	Brightness, Contrast, Saturation, White Balance (Auto/Manual), Gain, Exposure (Manual/Auto)

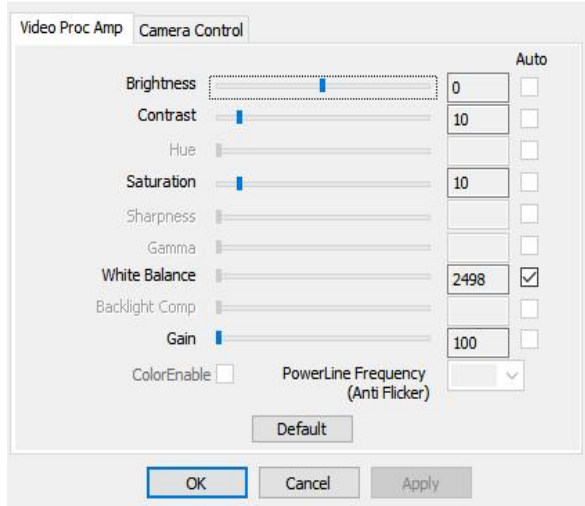
4. Camera Dimension Diagrams

Unit: mm

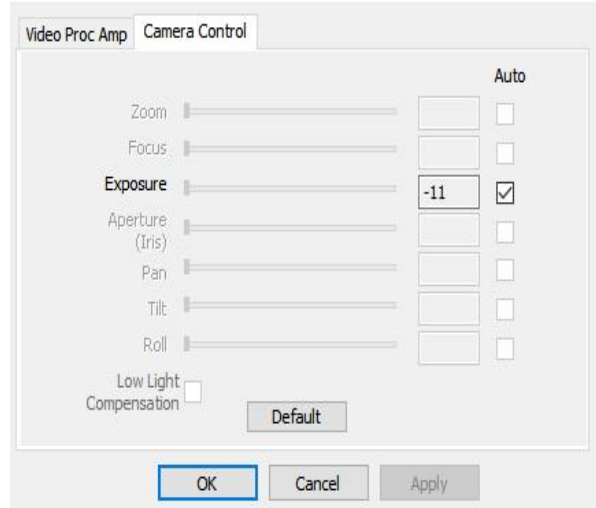


5. Camera Parameters Interface

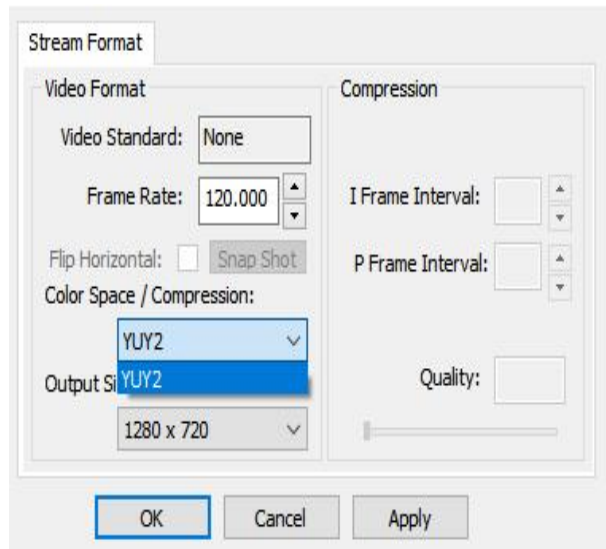
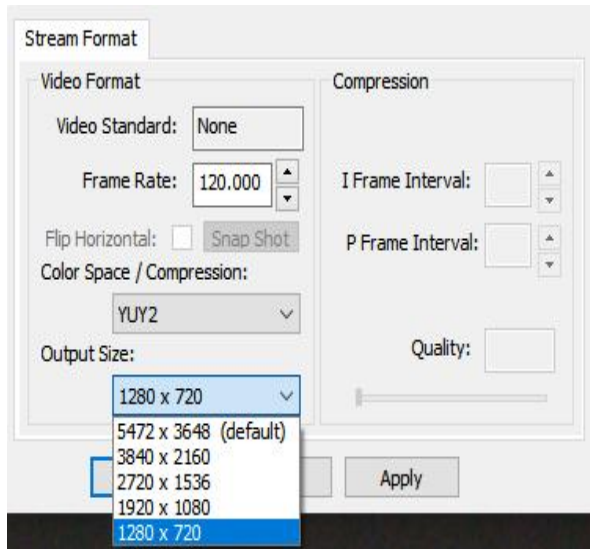
- Video Proc Amp



- Camera Control



- Video Capture Pin



6. Operating Condition

6.1 YUY2 with USB 3.0

The following table lists the power consumption of the B0477 YUY2 format with USB 3.0 devices.

Resolution	Max Frame Rate (fps)	Supply Voltage (V)	Typical Current (mA)	Power Consumption (W)
5472x3648	9	5	264	1.32
3840x2160	20	5	276	1.38
2720x1536	40	5	244	1.22
1920x1080	60	5	232	1.16
1280x720	120	5	228	1.14
Power at Idle Condition	/	5	84	0.42

6.2 YUY2 with USB 2.0

The following table lists the power consumption of the B0477 YUY2 format with USB 2.0 devices.

Resolution	Max Frame Rate (fps)	Supply Voltage (V)	Typical Current (mA)	Power Consumption (W)
1280x720	10fps	5	150	0.75
Power at Idle Condition	/	5	84	0.42

7. Contact Us

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

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