

U20CAM-1080P-S1 UserManual



1. General Description:

High cost performance camera, You no longer need pay high costs for your lightweight camera application. The video output support up to 1080P x 30fps video output, could fulfill many video applications.

U20CAM-1080P-S1 is a native driver camera devices on most system, Windows11/10/7, Linux, Mac Os and other derived systems. Based on the UVC standard, so it could be supported by many ready-made camera application.

Support hot plug into the USB port of your computer, notebook, Raspberry Pi ,Jetson nano and all single board computer. Plug and play device, no additional power supply and driver installation requirement.

Features with 32*32mm compact sizes and on-Board 4 screw holes, it's very easy to be installed in various occasions and be hidden.

2. Features

1. [High Compatibility] Native driver on Windows 11/10/7, Mac OS, Linux, Ubuntu and Android system. Raspberry Pi, Jetson Nano, Notebook, Desktop and Tablet PC
2. [Superior Performer] Up to 1080P*30 fps. Support YUY2 and MJPEG format.
3. [Plug and Play USB Device] USB 2.0 High-speed and UVC standard device.
4. [Wide Angle] Fov(D) = 130 degrees and Fov(H) = 103 degree.
5. [Stable and Flexible] 32*32 mm compact size, Easy to be installed in various occasions. You also could buy the matching metal stamping shell on our Amazon shop separately.

3. Technical Specification

Sensor	Size	1/3 Inch
	Resolution	1920*1080
	Image Color	Colours
	Shutter type	Rolling shutter
Lens	F(N) /Aperture	2.3
	Focal Length	2.8
	TV DISTORTION	<-17%
	CRA	14 Degree
	Lens Diameter	M12
	Lens Seat Spacing	18mm
	FOV-D	130 Degree
	FOV-H	106 Degree
PCBA	Size	32*32 mm
	Layers	2 layers
	Mounting Holes	4 counts, Diameter 2.2mm
	Trigger	None
	Strobe Flash	None
	Night vision	Reserved
Interfaces	Communication Interface	USB High-Speed
	Cable Length	1 M
	Communication Standard	UVC 1.0.0
	Supported format	YUY2, MJPEG
	Supported Frame rate	30 fps

Software	Supported Resolution	MJPEG Output resolutions: 1920*1080 @30fps 1280x960 @30fps 1280x720 @30fps 1024x576 @30fps 800x600 @30fps 640x480 @30fps 640x320 @30fps YUY2 Output resolutions: 1920*1080 @ 5fps 1280x720 @10fps 640x480 @30fps 640x360 @30fps
	Auto Parameters	White Balance (Auto or Manual Adjustmen) Exposure (Auto or Manual Adjustmen)
	Controllable Parameters	Brightness, Contrast, Hue, Saturation, Sharpness, Gamma, White Balance, Backlight Comp, Gain, Exposure, PowerLine Frequency, Low Light Compensation
	Support System	Windows , Linux , Mac Os, Android

4. Reserved



The PCB does indeed have a reserved design for the night vision version. However, in addition to soldering the infrared LEDs, users would also need to replace the lens with one that has an IR-CUT filter. Currently, we have released other series of night vision cameras with IR-CUT filters that can be purchased on Amazon directly. Therefore, we do not recommend that customers solder the infrared LEDs or replace the lens with an IR-CUT filter themselves. Since this camera module has already passed CE, FCC, and UKCA certifications, we will not be changing its PCB shape, and will continue to retain the pads for the infrared LEDs and IR-CUT filter, which will not affect normal usage.

Link: <https://github.com/INNO-MAKER/U20CAM-1080PD-N-S1>

5. Case

We designed a aluminum alloy case for the camera module. You could find it on our Amazon shop. If you can't catch it, feel free to let me know.

<https://github.com/INNO-MAKER/U20CAM-CASE>



6. User Manual Version Descriptions

Version	Description	Date	E-mail
V1.0		2023.12.30	support@inno-maker.com sales@inno-maker.com
V1.1	Change the description of the night vision version.	2025.09.24	support@inno-maker.com sales@inno-maker.com

If you have any suggestions, ideas, codes and tools please feel free to email to me. I will update the user manual and record your name and E-mail in list. Look forward to your letter and kindly share.