

4K USB3.0 USB2.0 HDMI Camera Module Specifications

1. Highlight

- Support USB3.0 and HDMI interface.
- Support MJPG, H.264, H.265 video encoding.
- Support YUY2, format
- Support remote control (photo, video, image flipping, black and white color switching, brightness, contrast, saturation, clarity, exposure, white balance, digital amplification, reduction control).
- Support TK card to storage photos and videos.
- Support button operation.
- Support USB 5V power supply.
- ISP support AE, AWB, AF,
- 3D noise reduction

2. Application: 4K electron microscope, industrial camera, video conferencing, live camera.



3. Main Parameters

Product Name	4K USB3.0 Camera Module
Product Code	WN-L2409K403MB-V1.1(QN) 08A10
Module Size	90*32*170.5mm
Image Sensor	1/2.0-inch CMOS Sensor
Max. Resolution	3840H*2160V 4K
Pixel Size	2.0*2.0μm
Output Format	MJPG, YUY2, H.264, H.265
Field of View	93°
Lens	EFL:4.2mm, F/No:2.6, 3G2P+IR650nm
Scanning Speed	0.1s
Focus Mode	Fixed Focus/ Manual Focus
Shutter Mode	Electronic Rolling Shutter
Output & Power Supply	High Speed USB3.0
Interface	USB3.0 Type-C
Controllable Parameters	Brightness, Contrast, Saturation, Hue, Sharpness, Gain, Gamma, White Balance, Backlight Contrast, Exposure
Supported OS	UVC-compliant, Plug and Play for Windows, Android, Linux, Mac OS, etc.
Connection Cable	Default 1.5 Meter USB Cable

4. Resolutions and Frame Rates

Formats	Resolutions	Frame Rates
MJPG	3840*2160	30FPS
	2560*1440	30FPS
	1920*1080	30FPS

	1280*720	30FPS
	640*480	30FPS
	320*240	30FPS
YUY2	3840*2160	20FPS
	2560*1440	30FPS
	1920*1080	30FPS
	1280*720	30FPS
	640*480	30FPS
H.264	3840*2160	30FPS
	2560*1440	30FPS
	1920*1080	30FPS
	1280*720	30FPS
	640*480	30FPS
H.265	3840*2160	30FPS
	2560*1440	30FPS
	1920*1080	30FPS
	1280*720	30FPS
	640*480	30FPS
HDMI	3840*2160 (4K)	30FPS

5. PIN Definitions

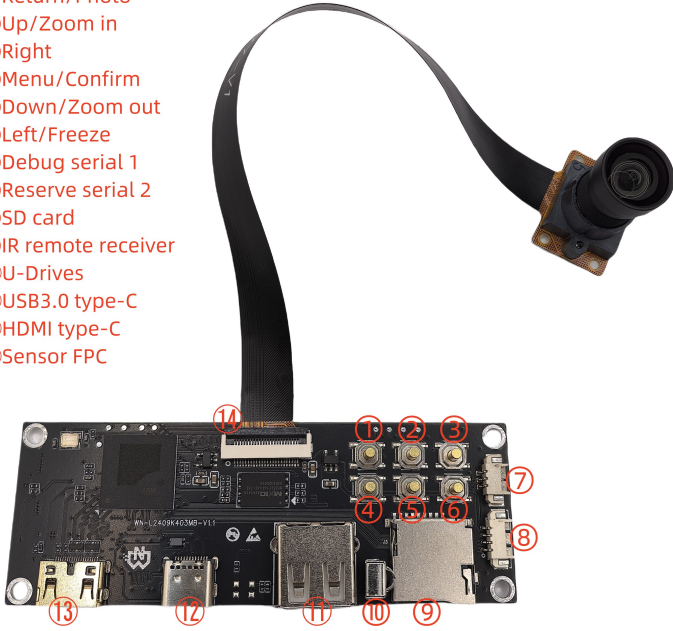
Pin No.	Signal Names	Descriptions
1	VCC	5V Power
2	DP	Data-
3	DM	Data+
4	GND	GND
5	SSPXNI	USB3.0 SSPXNI
6	SSPXPI	USB3.0 SSPXPI
7	GND	GND
8	SSTXN1	USB3.0 SSTXN1
9	SSTXP1	USB3.0 SSTXP1

6. Working Conditions

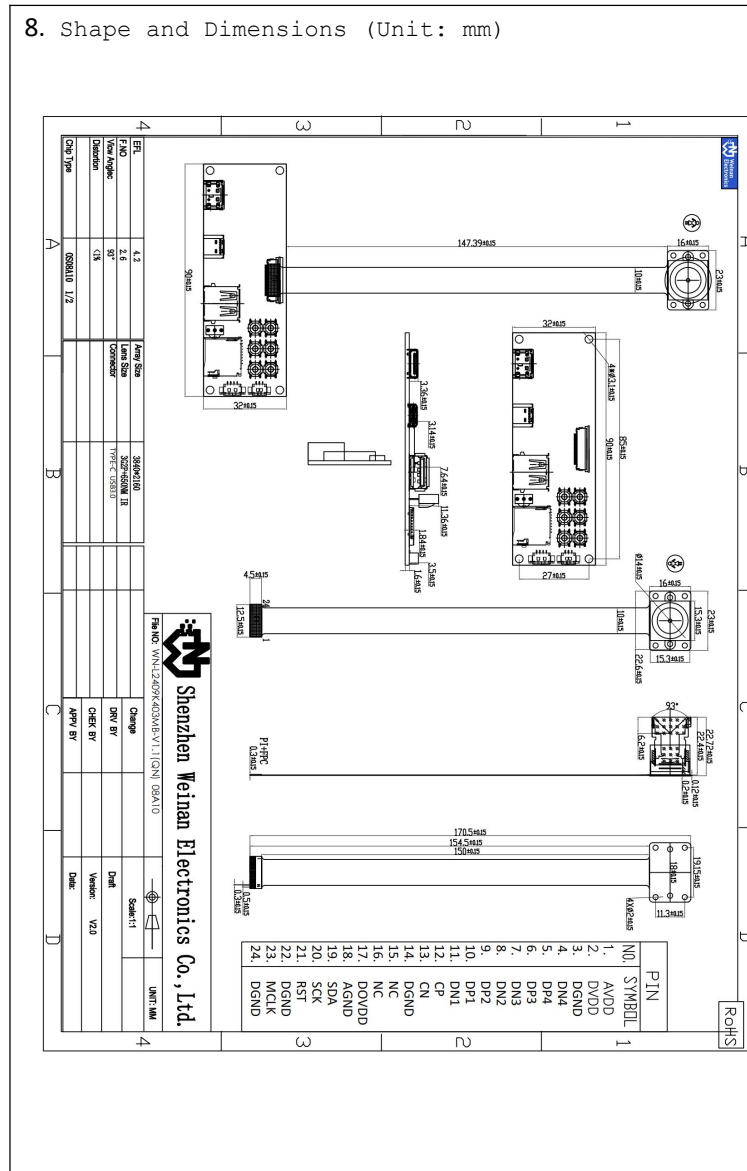
Working Voltage	DC 5V
Working Current	460mA
Working Temperature	-10°C ~ 60°C
Storage Temperature	-20°C ~ 85°C
Humidity	80 ~85%

7. Interface definitions

- ①Return/Photo
- ②Up/Zoom in
- ③Right
- ④Menu/Confirm
- ⑤Down/Zoom out
- ⑥Left/Freeze
- ⑦Debug serial 1
- ⑧Reserve serial 2
- ⑨SD card
- ⑩IR remote receiver
- ⑪U-Drives
- ⑫USB3.0 type-C
- ⑬HDMI type-C
- ⑭Sensor FPC



8. Shape and Dimensions (Unit: mm)



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