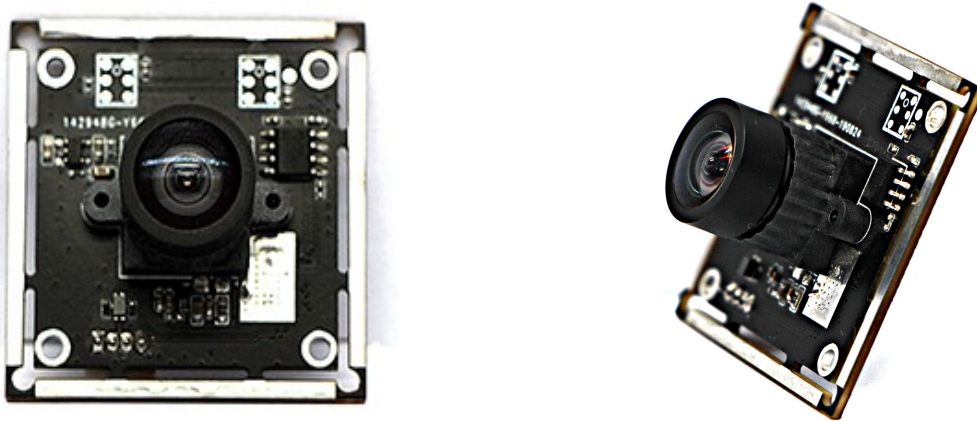




## **HAMPO-USB-0883-V1.0**

### **8MP Sony IMX317 M12 Fixed Focus USB 2.0 Camera Module**



003-0883 is a 8MP Real 4K Ultra HD USB2.0 Camera for video conferencing, education and document scanning.

This camera module adopt a high quality sensor 1/2.5" Sony IMX317, show you an excellent video image. The max frame rate could reach 30fps at 4k 3864\*2218 resolution.

Compatible with most OS and popular Apps: Win XP/ Vista /Win7/Win8 Linux with UVC.

#### **Key Features**

- **4K Ultra HD Resolution:** This 4K camera adopts 8MP IMX317 sensor, 3864(H) x 2218(V) @ 30fps for sharp image and accurate color reproduction. High frame rates, MJPG 30fps@3864 x 2218, 30fps@1080P; YUY2 30fps@640x 480;
- **117degree wide angle of view:** The 4K ultra HD camera module has a wide view of angle at 117°, more views are shown in the image.
- **Plug&Play:** UVC-compliant, support Windows XP/7/8/10, Linux, and Mac OS, just connect the camera to PC, laptop or Raspberry Pi with the USB cable without extra drivers to be installed.
- **Applications:** Widely used in document scanner, beauty instrument, teaching system, car and ship control, face matching, OCR components, all-in-one machine, advertising machines, environmental monitoring, automatic vending machine, etc.

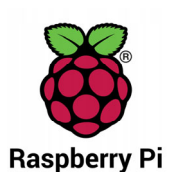


## HAMPO-USB-0883-V1.0

### 8MP Sony IMX317 M12 Fixed Focus USB 2.0 Camera Module

Camera Module No.	HAMPO-USB-0883-V1.0
Resolution	8MP
Image Sensor	IMX317
Sensor Type	1/2.5"
Pixel Size	1.62um x 1.62um
EFL	3.24 mm
F.NO	2.40
Pixel	3864*2218
View Angle	117°(DFOV) 106°(HFOV) 68°(VFOV)
Lens TTL	15.22mm
Module Type	Fixed Focus
Lens Model	HAMPO-LENS-6199_3A1
Interface	USB 2.0
Output Format	MJPEG / YUV2
Auto Control	Saturation, Contrast, Acutance White Balance, Exposure
Audio	Digital Mic
Input Voltage	DC 5V
Working Current	Max 300mA
PCB Size	38mm x 38mm ( 32mm x 32mm )
System Compatibility	Windows XP (SP2, SP3), Vista, 7, 8, 10, 11 Android, Mac OS, Linux or OS with UVC Driver Raspberry Pi by USB Port
Software for USB Camera	AMCAP, Webcam Viewer, V4L2 Controls Contacam, VLC Player, MotionEye OS iSpy, ZoneMider, Yawcam
Lens Type	
Operating Temperature	-20°C to +70°C
USB Cable	USB-Cable-U015

Wide Compatibility with Windows, Android, Mac OS, Linux, or Raspberry Pi

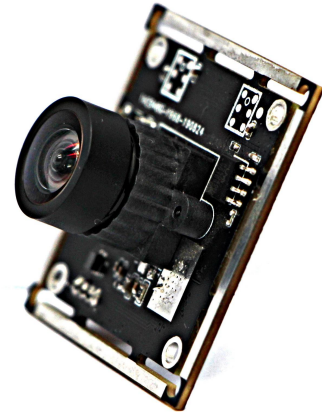




**HAMPO-USB-0883-V1.0**  
**8MP Sony IMX317 M12 Fixed Focus USB 2.0 Camera Module**



Top View



Side View



Bottom View



Mating Connector



## HAMPO-USB-0883-V1.0

### 8MP Sony IMX317 M12 Fixed Focus USB 2.0 Camera Module

FORMAT	RESOLUTION	FRAME RATE
		USB 2.0
MJPEG	640 x 480 (VGA)	3 0 FPS
	1280 x 720 (720P)	3 0 FPS
	1920x 1080 (1080P)	3 0 FPS
	3864*2218(8MP)	3 0 FPS
YUV2	640 x 480 (VGA)	2 5 FPS
	1280 x 720 (Super VGA)	10 FPS
	1920x 1080 (1080P)	5 FPS
	3864 x 2218 (8MP)	1 FPS

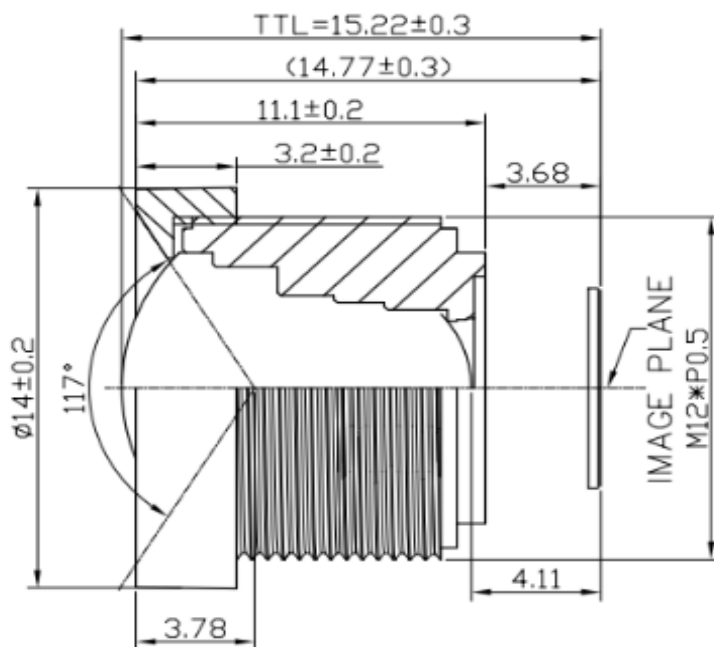
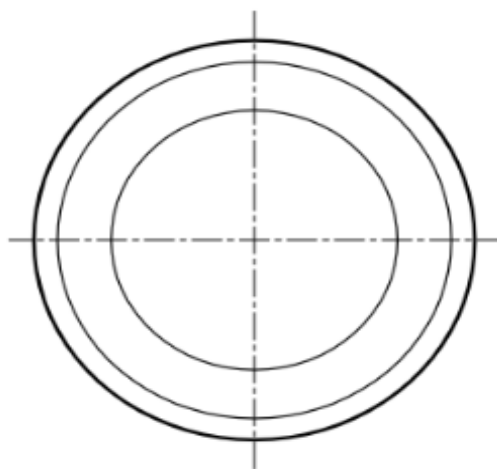
PRODUCT NAME : 6199\_3A1

# 1. SPECIFICATION :

	SPECIFICATION	
1	SENSOR SIZE	1/2.9" for OV4689/OV2718
2	MAX IMAGE CIRCLE	$\varnothing 7.13\text{mm}$
3	WAVELENGTH	400-700nm(COLOR)
4	FOCAL LENGTH (EFL)	$f=2.35\text{mm}\pm 5\%$
5	F/NO (INFINITE)	F/NO=2.4
6	BACK FOCAL LENGTH	BFL=4.11 $\pm 5\%$
7	FLANGE BACK LENGTH	FB=3.68 $\pm 5\%$
8	FIELD OF VIEW (DIAGONAL-DISTORTION)	$\varnothing 6.17\text{mm}-117^{\circ}\pm 5\%(-19.5\%)$
9	(Horizontal-DISTORTION)	$\varnothing 5.37\text{mm}-106^{\circ}\pm 5\%(-14.0\%)$
10	(Vertical-DISTORTION)	$\varnothing 3.04\text{mm}-68^{\circ}\pm 5\%(-5.0\%)$
11	CHIEF RAY ANGLE	16°
12	THREAD SIZE	M12XP0.5
13	ELEMENT	2P4G+IR
14	TEMPERATURE RANGE :STORAGE	-20°C~85°C
15	TEMPERATURE RANGE :STABLE IMAGE	0°C~70°C
		FILTER:Tavg>=88% at430-620nm
		T=50% at650 $\pm 15\text{nm}$
		Tavg<5% at700-1100nm

# 2. OPTICAL LAYOUT :

scale 4 : 1



UNIT	mm	BORDER	A4	NAME	DATE
SCALE	4:1	DRAWING BY			
SURFACE		CHECKED BY			
VIEW		APPROVED BY			

REV	DESCRIPTION	DATE	NAME
①			
②			
③			
④			
⑤			

PRODUCT NAME :

6199\_3A1



## Camera Reliability Test

Reliability Inspection Item			Testing Method	Acceptance Criteria
Category		Item		
Environmental	Storage Temperature	High 60°C 96 Hours	Temperature Chamber	No Abnormal Situation
		Low -20°C 96 Hours	Temperature Chamber	No Abnormal Situation
	Operation Temperature	High 60°C 24 Hours	Temperature Chamber	No Abnormal Situation
		Low -20°C 24 Hours	Temperature Chamber	No Abnormal Situation
	Humidity	60°C 80% 24 Hours	Temperature Chamber	No Abnormal Situation
	Thermal Shock	High 60°C 0.5 Hours Low -20°C 0.5 Hours Cycling in 24 Hours	Temperature Chamber	No Abnormal Situation
Physical	Drop Test (Free Falling)	Without Package 60cm	10 Times on Wood Floor	Electrically Functional
		With Package 60cm	10 Times on Wood Floor	Electrically Functional
	Vibration Test	50Hz X-Axis 2mm 30min	Vibration Table	Electrically Functional
		50Hz Y-Axis 2mm 30min	Vibration Table	Electrically Functional
		50Hz Z-Axis 2mm 30min	Vibration Table	Electrically Functional
	Cable Tensile Strength Test	Loading Weight 4 kg 60 Seconds Cycling in 24 Hours	Tensile Testing Machine	Electrically Functional
Electrical	ESD Test	Contact Discharge 2 KV	ESD Testing Machine	Electrically Functional
		Air Discharge 4 KV	ESD Testing Machine	Electrically Functional
	Aging Test	On/Off 30 Seconds Cycling in 24 Hours	Power Switch	Electrically Functional
	USB Connector	On/Off 250 Times	Plug and Unplug	Electrically Functional





## Camera Inspection Standard

Inspection Item		Inspection Method	Standard of Inspection
Category	Item		
Appearance	FPC/ PCB	Color	Major Difference is Not Allowed.
		Be Torn/Chopped	Copper Crack Exposure is Not Allowed.
		Marking	Clear, Recognizable (Within 30cm Distance)
	Holder	Scratches	The Inside Crack Exposure is Not Allowed
		Gap	Meet the Height Standard
		Screw	Make Sure Screws Are Presented (If Any)
		Damage	The Inside Crack Exposure is Not Allowed
	Lens	Scratch	No Effect On Resolution Standard
		Contamination	No Effect On Resolution Standard
		Oil Film	No Effect On Resolution Standard
		Cover Tape	No Issue On Appearance.
Function	Image	No Communication	Test Board Not Allowed
		Bright Pixel	Black Board Not Allowed In the Image Center
		Dark Pixel	White board Not Allowed In the Image Center
		Blurry	The Naked Eye Not Allowed
		No Image	The Naked Eye Not Allowed
		Vertical Line	The Naked Eye Not Allowed
		Horizontal Line	The Naked Eye Not Allowed
		Light Leakage	The Naked Eye Not Allowed
		Blinking Image	The Naked Eye Not Allowed
		Bruise	Inspection Jig Not Allowed
		Resolution	Chart Follows Outgoing Inspection Chart Standard
		Color	The Naked Eye No Issue
		Noise	The Naked Eye Not Allowed
		Corner Dark	The Naked Eye Less Than 100px By 100px
		Color Resolution	The Naked Eye No Issue
Dimension		Height	The Naked Eye Follows Approval Data Sheet
		Width	The Naked Eye Follows Approval Data Sheet
		Length	The Naked Eye Follows Approval Data Sheet
		Overall	The Naked Eye Follows Approval Data Sheet

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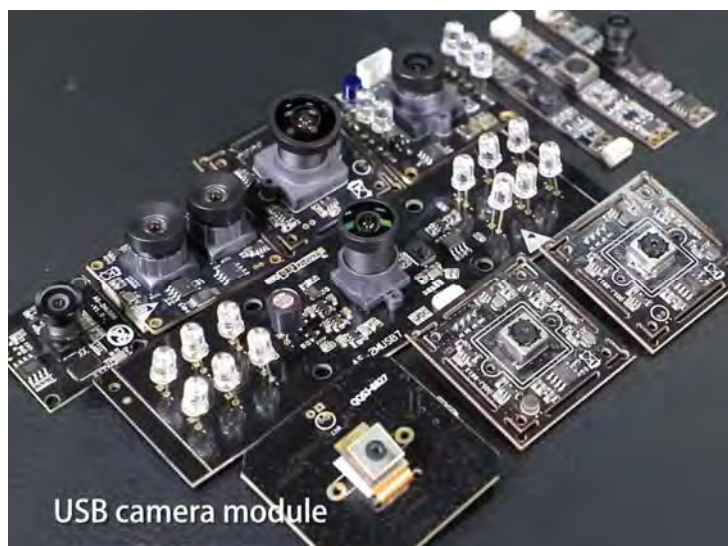


## Company HAMPO

Dongguan Hampo Electronic Technology Co., Ltd. was established in 2015, a next-generation technology driven manufacturer specialized in research, design, and produce of audio and video products. Hampo is occupying 150,000 square feet automated plants with 500 employees of annual throughput 180,000,000 units cameras.

Hampo provides OEM, ODM design, contract manufacturing, and builds the camera products. You may provide the requirements to us, even with a hand draft, our sales and engineering work together to meet your needs. We consider ourselves your last-term partner in developing practical and innovative solutions.

Our team covers everything from initial concept development to mass produced product. Hampo specializes in customized camera design, raw material, electronic engineering, firmware/software development, product testing, and packing design. Our experienced strategic supply systems offer a robust and dependable manufacturing capacity for orders of various sizes.



## Limited Warranty

Hampo provides the following limited warranty if you purchased the Product(s) directly from Hampo company or from Hampo's website, [www.hampotech.com](http://www.hampotech.com). Product(s) purchased from other sellers or sources are not covered by this Limited Warranty. Hampo guarantees that the Product(s) will be free from defects in materials and workmanship under normal use for a period of one (1) year from the date you receive the product ("Warranty Period").

For all Product(s) that contain or develop material defects in materials or workmanship during the Warranty Period, Hampo will, at its sole option, either: (i) repair the Product(s); (ii) replace the Product(s) with a new or refurbished Product(s) (replacement Product(s) being of identical model or functional equivalent); or (iii) provide you a refund of the price you paid for the Product(s).

This Limited Warranty of Hampo is solely limited to repair and/or replacement on the terms set forth above. Hampo is not reliable or responsible for any subsequent events.

