

Auto Focus Industrial Camera



Eert Electronics BV

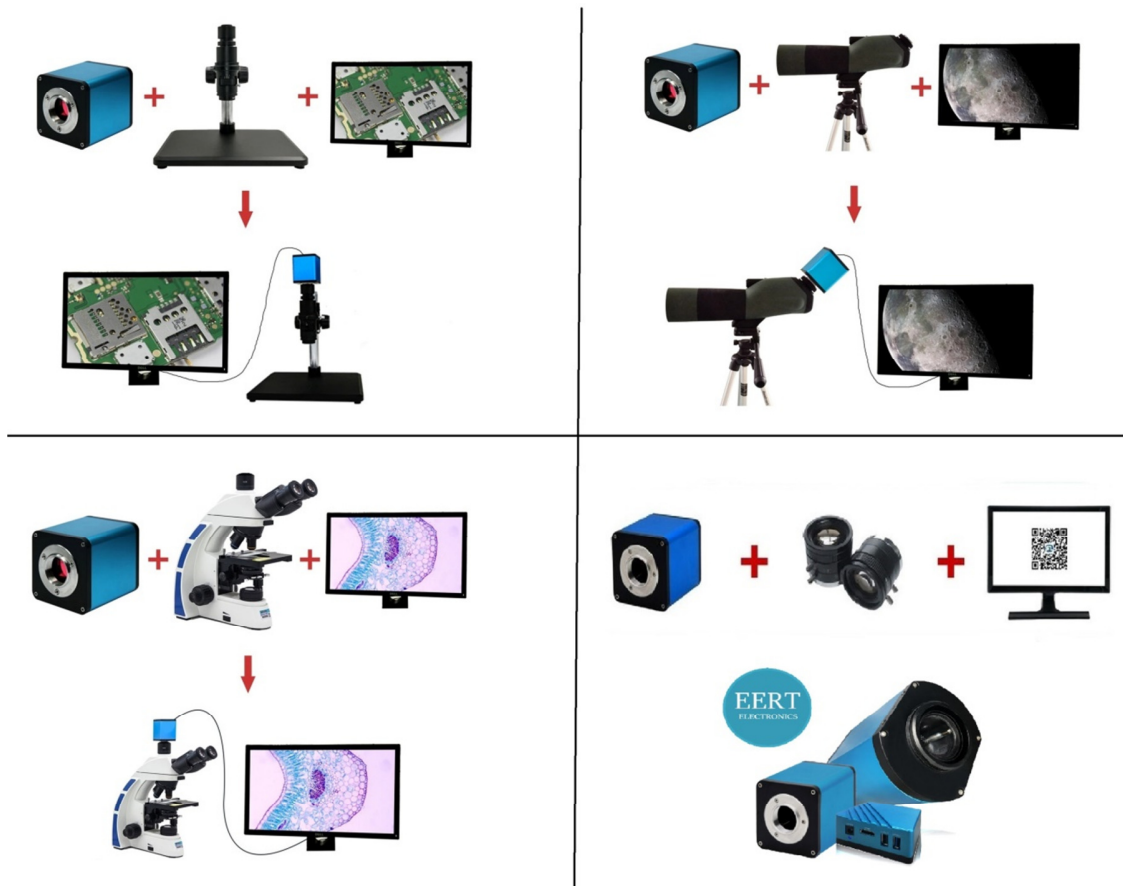
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1. C Mount Auto Focus Industrial Camera

This type of camera can be mounted to any external devices such as Microscope, Spotting Scope (bird watching), Industrial Lens, and Telescope.

Simply replace the eyepiece of you scope by the camera and you will get full HD video out at high speed 60 frames per second or 4K resolution at a speed of 30 frames per second. The video can be recorded. Below picture shows some user scenarios.



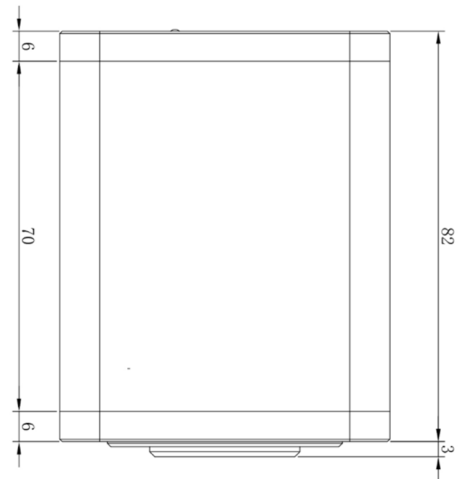
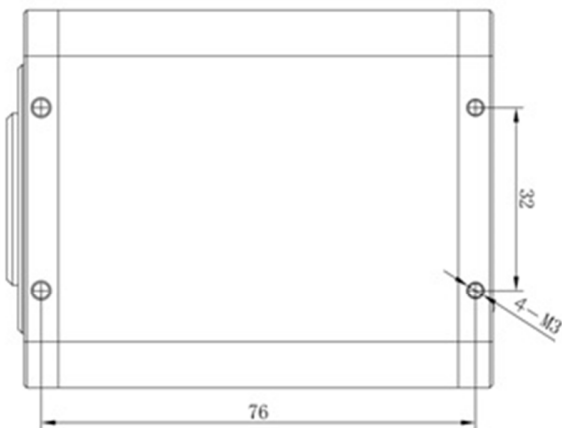
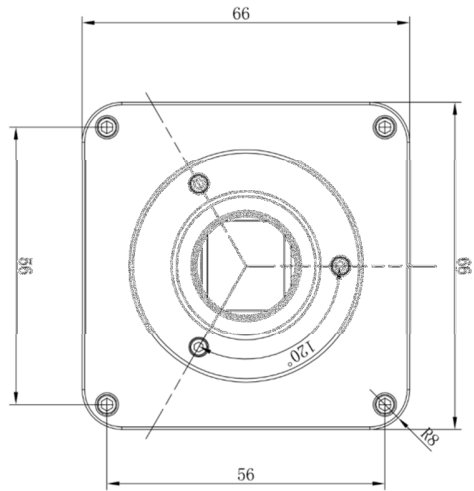
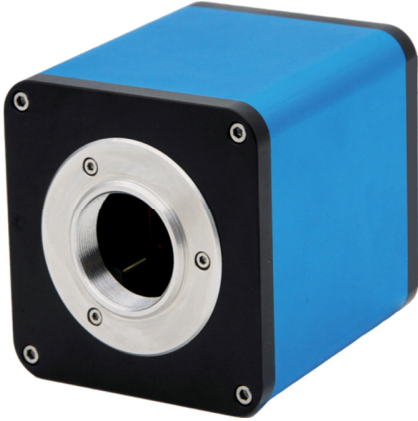
Picture 1: user scenarios

Inside the camera, a motor is driving camera sensor to the right location to capture the focus point. This is our patented technology. Thus, you do not need to fine tune your scope lens to get a sharp image. It always captures the focus automatically even when the object is moving.

Besides photo and video record function, the embedded software inside the camera offer other features like length measurement, area measurement, angle measurement, photo stitching, focus stacking. More details of the embedded software can be found in the [C Mount Auto Focus Industrial Camera User Manual](#).

1.1 C Mount Auto Focus Industrial Camera EA202

I、Physical Dimension



II、Camera interface introduction

	1. HDMI adaptor
	2. USB interface
	3. USB interface
	4. 5V power interface
	5. LED light



III、 Camera Parts and Accessories

1. Front-end component: C-Mount Microscope or C-Mount Lens.
2. Back-end component: With HDMI support 1080P @ 60Hz or 1080P @ 50Hz display.

IV、 Camera Installation Information

- 1.Connect EA202 camera with C-mount lens.
- 2.Use HDMI cable to connect the monitor with camera.
- 3.Connect mouse.
- 4.Use appropriate power supply.

V、 Technical Specifications

Product Model	EA202
Image Sensor	Color CMOS
Pixel	2M pixels
Pixel size	1/2.8"
Menu	Fully digital UI design
Method of Operation	Mouse
Lens interface	C-type
Power DC	DC5V
Output method	HDMI
White Balance	Auto / Manual
Exposure	Auto / Manual
Display Frame rate	1080P@60fps/1080P@50fps
Scanning method	Line by line scanning
Shutter Speed	1/50s(1/60s) ~ 1/10000s
Operating Temperature	0℃ ~ 50℃
Magnification / Zoom	Support
Saving function	Support U disk Storage

VI、 Precautions

- 1、 Use only DC5V power supply
- 2、 Support pedal and controller operation

1.2 C Mount Auto Focus Industrial Camera EA304

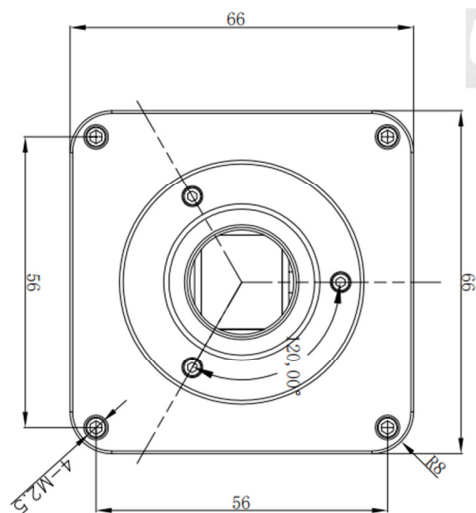
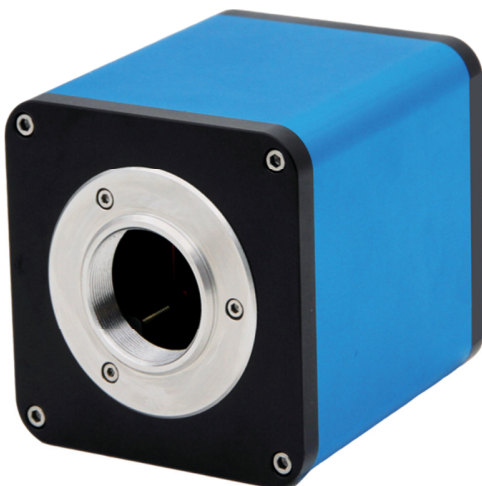
EA304 has all the features from EA202.

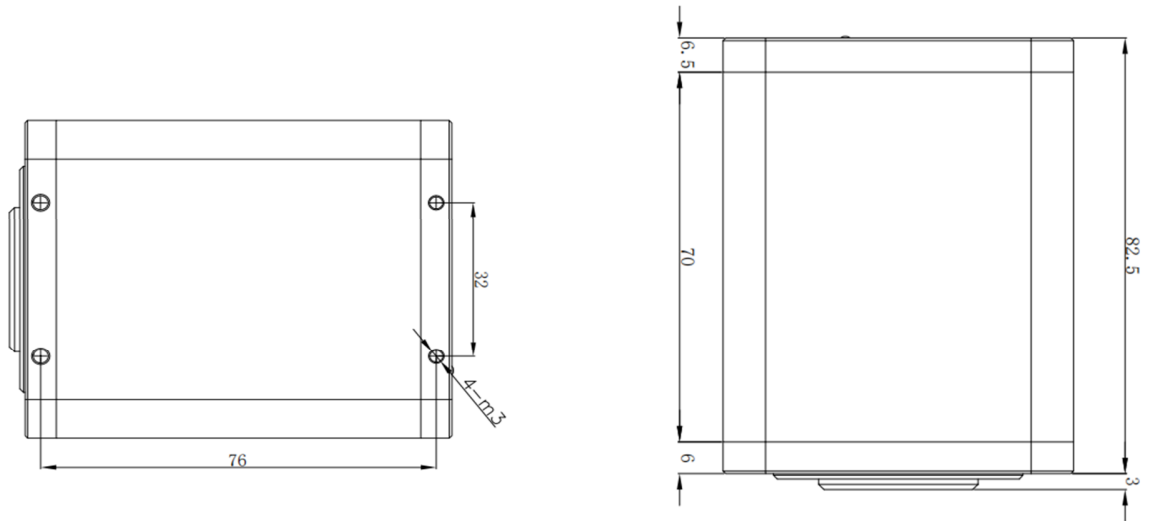
Besides that, EA304 has the option to be connected and controlled by PC. Special PC software is developed for EA304. This software offers focus stacking and photo stitching algorithm.



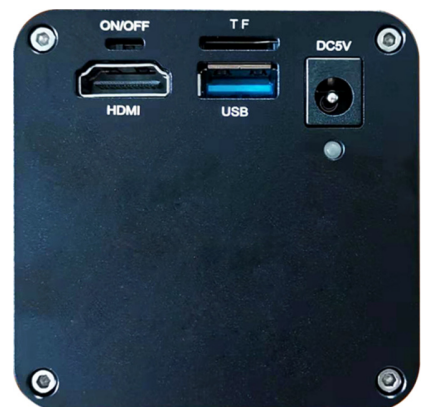
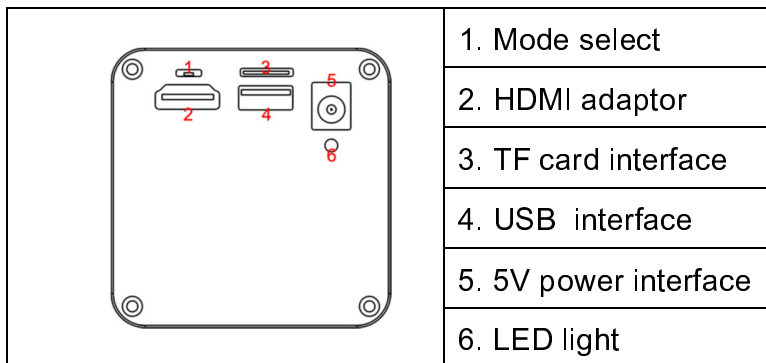
Picture 3: EA304 HDMI+USB Dual Output

I 、 Physical Dimension





II、 Camera interface introduction



III、 Camera Parts and Accessories

1. Front-end component: C-Mount Microscope or C-Mount Lens.
2. Back-end component: With HDMI support 1080P @ 60Hz or 1080P @ 50Hz display.

IV、 Camera Installation Information

1. Connect EA304 camera with C-mount lens.
2. Use HDMI cable to connect the monitor with camera.
3. Connect mouse.
4. Use appropriate power supply.

V、 Technical Specifications

Product Model	EA304
Image Sensor	Color CMOS
Pixel	12M pixels
Pixel size	1/1.7"
Menu	Fully digital UI design
Method of Operation	PC/Mouse
Lens interface	C-type
Power DC	DC5V
Output method	HDMI
White Balance	Auto / Manual
Exposure	Auto / Manual
Display Frame rate	1920*1080@60fps or 4000*3000@30fps
Scanning method	Line by line scanning
Shutter Speed	1/50s(1/60s) ~ 1/10000s
Operating Temperature	0°C ~ 50°C
Saving function	Support TF card Storage

VI、 Precautions

- 1、 Use only DC5V power supply
- 2、 Support pedal and controller operation

2. Integrated Industrial Camera/Digital Microscope

This industrial camera is indeed a digital microscope. It can be used in scenarios that do not request high magnification such as industrial inspection, PCBA assembly line.

With a different frame, it can also be used for video conference or security camera due to the factor that it can focus from 10cm till infinite.

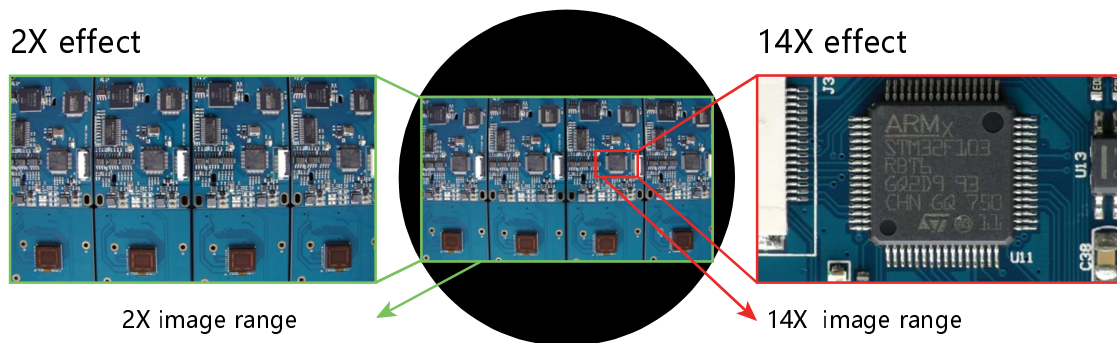
This could be a cost effective solution since no external scope is required.

Model	Size	pixel size	Res.	FPS	Output	Storage	W.D	Zoom ratio	Digital Mag.
EA102	1/2.8"	2.9um	1920*1080	60fps	HDMI/USB	PC	10cm ~ ∞	1~14	1~6

Table 3: EA102 overview



Picture 4: EA102 mechanical outlook



Picture 5: EA102 magnification example