

# MV-CH120-10UM/UC

12 MP 1.1" CMOS USB3.0 Area Scan Camera



GEN*i*CAM

USB<sup>TM</sup>  
VISION

## Introduction

MV-CH120-10UM/UC camera adopts Sony IMX304 sensor to provide high-quality image. It uses USB3.0 interface to transmit non-compressed images in real time with max. frame rate reaching 23 fps.

## Key Feature

- Supports auto and manual adjustment for gain, exposure control, white balance, LUT, Gamma correction, etc.
- Supports hardware triggering, software triggering and free run mode
- Adopts M2 screw holes for securing cable that connects USB3.0 interface
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on these protocol and standard

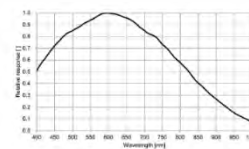
## Available Model

Mono: MV-CH120-10UM  
Color: MV-CH120-10UC

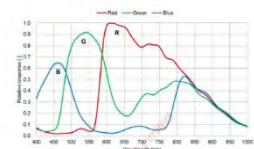
## Applicable Industry

Electronic semiconductor, factory automation, bottle inspection, medical packaging, etc.

## Sensor Quantum Efficiency

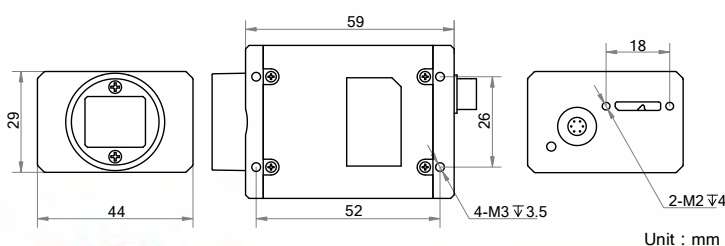


MV-CH120-10UM



MV-CH120-10UC

## Dimension



## Specification

Model	MV-CH120-10UM	MV-CH120-10UC
<b>Camera</b>		
Sensor type	CMOS, global shutter	
Sensor model	Sony IMX304	
Pixel size	3.45 $\mu\text{m}$ $\times$ 3.45 $\mu\text{m}$	
Sensor size	1.1"	
Resolution	4096 $\times$ 3000	
Max. frame rate	23 fps @4096 $\times$ 3000	
Dynamic range	72.2 dB	
SNR	40.2 dB	
Gain	0 dB to 20 dB	
Exposure time	50 $\mu\text{s}$ to 10 s	
Shutter mode	Off/Once/Continuous exposure mode	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10p/12/12p	Mono 8/10/12, Bayer GB 8/10/10p/12/12p, YUV422Packed, YUV422_YUYV_Packed, RGB8
Acquisition mode	Continuous mode and SingleFrame mode	
Binning	Supports 1 $\times$ 2, 1 $\times$ 4, 2 $\times$ 1, 2 $\times$ 2, 2 $\times$ 4, 4 $\times$ 1, 4 $\times$ 2, 4 $\times$ 4	
Decimation	Supports 1 $\times$ 2, 1 $\times$ 4, 2 $\times$ 1, 2 $\times$ 2, 2 $\times$ 4, 4 $\times$ 1, 4 $\times$ 2, 4 $\times$ 4	
Reverse image	Supports horizontal and vertical reverse image output	
Image buffer	128 MB	
<b>Electrical features</b>		
Data interface	USB 3.0	
Digital I/O	6-pin Hirose connector provides power and I/O, including opto-isolated input x 1 (Line0), opto-isolated output x 1 (Line1), bi-directional non-isolated I/O x 1 (Line2)	
Power supply	5 VDC to 15 VDC, supports USB3.0 power supply	
Power consumption	< 3.5 W@5 VDC	
<b>Structure</b>		
Lens mount	C-Mount	
Dimension	44 mm $\times$ 29 mm $\times$ 59 mm (1.7" $\times$ 1.1" $\times$ 2.3")	
Weight	Approx. 100 g (0.2 lb.)	
Ingress protection	IP30 (under proper lens installation and wiring)	
Temperature	Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$ ) Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$ )	
Humidity	20% to 80% RH, without condensation	
<b>General</b>		
Client software	MVS or third-party software meeting with USB 3.0 Vision Protocol	
Operating system	32/64-bit Windows XP/7/10, 32/64-bit Linux	
Compatibility	USB 3.0 Vision, GenICam	
Certification	CE, FCC, RoHS, KC	

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