

# MV-CH120-11UM/UC

12 MP 1.1" CMOS USB 3.0 Area Scan Camera



**GEN*i*CAM**

**USB<sup>TM</sup>**  
VISION

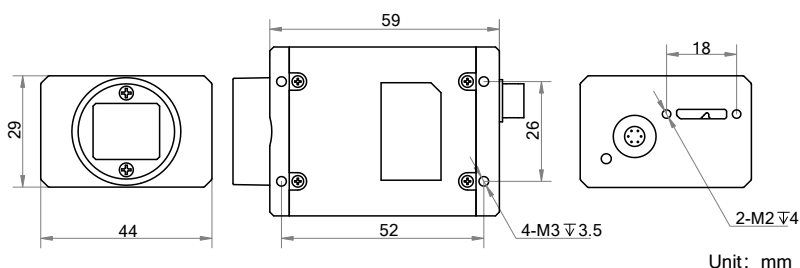
## Introduction

MV-CH120-11UM/UC camera adopts Sony® IMX304 sensor to provide high-quality image. It uses USB 3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 30.3 fps in full resolution.

## Key Feature

- Supports auto or manual adjustment of gain, exposure time, and manual adjustment of Gamma correction, LUT, etc.
- Supports hardware triggering, software triggering and free run mode.
- Supports customized ROI, and horizontal and vertical reverse image output.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on these protocol and standard.

## Dimension



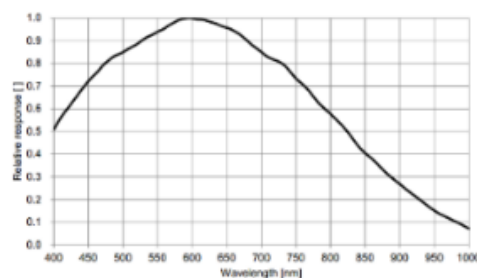
## Available Model

- Mono camera: MV-CH120-11UM
- Color camera: MV-CH120-11UC

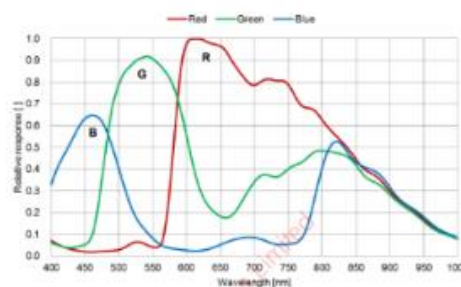
## Applicable Industry

PCBA AOI, electronic semiconductor, factory automation, liquor and beverage, medicine packing, etc.

## Sensor Quantum Efficiency



MV-CH120-11UM



MV-CH120-11UC

## Specification

Model	MV-CH120-11UM	MV-CH120-11UC
<b>Camera</b>		
<b>Sensor type</b>	CMOS, global shutter	
<b>Sensor model</b>	Sony® IMX304	
<b>Pixel size</b>	3.45 μm × 3.45 μm	
<b>Sensor size</b>	1.1"	
<b>Resolution</b>	4096 × 3000	
<b>Max. frame rate</b>	30.3 fps @ 4096 × 3000 Mono 8	30.3 fps @ 4096 × 3000 Bayer RG 8
<b>Dynamic range</b>	72.2 dB	
<b>SNR</b>	40.2 dB	
<b>Gain</b>	0 dB to 24 dB	
<b>Exposure time</b>	UltraShort exposure mode: 1 μs to 14 μs Standard exposure mode: 15 μs to 10 sec	
<b>Exposure mode</b>	Off/Once/Continuous exposure mode	
<b>Mono/color</b>	Mono	Color
<b>Pixel format</b>	Mono 8/10/10Packed/12/12Packed	Mono 8/10/12, Bayer RG 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
<b>Binning</b>	Supports 1 × 1, 2 × 2, 4 × 4	
<b>Decimation</b>	Supports 1 × 1, 2 × 2, 4 × 4	
<b>Reverse image</b>	Supports horizontal and vertical reverse image output	
<b>Electrical feature</b>		
<b>Data interface</b>	USB 3.0, compatible with USB 2.0	
<b>Digital I/O</b>	6-pin P7 connector provides power and I/O, including opto-isolated input × 1 (Line 0), opto-isolated output × 1 (Line 1), and bi-directional non-isolated I/O × 1 (Line 2)	
<b>Power supply</b>	9 VDC to 24 VDC, supports USB power supply	
<b>Power consumption</b>	Typ. 4.67 W @ 5 VDC (USB 3.0 provides power supply)	Typ. 4.7 W @ 5 VDC (USB 3.0 provides power supply)
<b>Mechanical</b>		
<b>Lens mount</b>	C-mount	
<b>Dimension</b>	44 mm × 29 mm × 59 mm (1.7" × 1.1" × 2.3")	
<b>Weight</b>	Approx. 100 g (0.2 lb.)	
<b>Ingress protection</b>	IP30 (under proper lens installation and wiring)	
<b>Temperature</b>	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)	
<b>Humidity</b>	20% RH to 80% RH (no condensation)	
<b>General</b>		
<b>Client software</b>	MVS or third-party software meeting with USB3 Vision Protocol	
<b>Operating system</b>	32/64-bit Windows 7/10, 64-bit Windows 11, and 32/64-bit Linux	
<b>Compatibility</b>	USB3 Vision, GenICam	
<b>Certification</b>	CE, RoHS, KC	