

# MV-CH120-10UM/UC

12 MP 1.1" CMOS USB3.0 Area Scan Camera



GEN<i>i</i>CAM

USB<sup>TM</sup>  
VISION

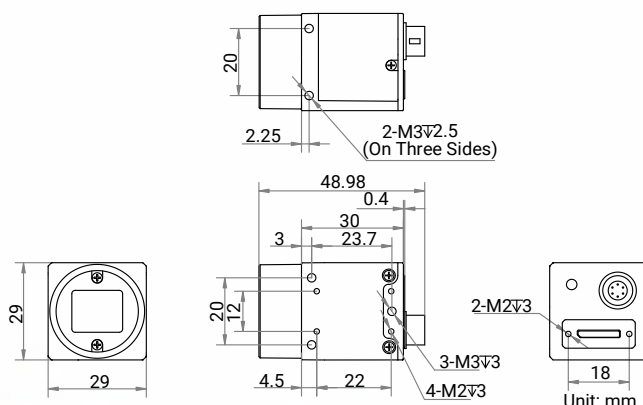
## Introduction

MV-CH120-10UM/UC camera adopts Sony® IMX304 sensor to provide high-quality images. It uses USB3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 30.5 fps in full resolution.

## Key Feature

- Supports LSC, Sequencer, passive transmission, Super Bayer, Super Palette, etc.
- Compact design with mounting holes on panels for flexible mounting from 4 sides.
- Supports hardware trigger, software trigger, free run, etc.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on these protocol and standard.

## Dimension



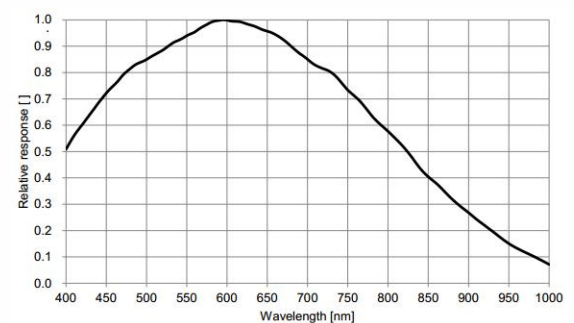
## Available Model

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

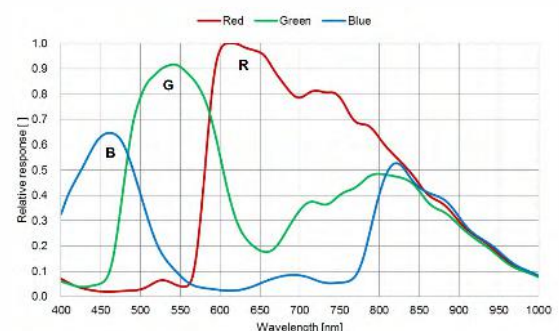
## Applicable Industry

Electronic semiconductor, factory automation, liquor and beverage, medicine packing, etc.

## Sensor Quantum Efficiency



MV-CH120-10UM



MV-CH120-10UC



# Specification

| Model                     | MV-CH120-10UM   | MV-CH120-10UC  |
|---------------------------|---|--|
| <b>Performance</b>        |   |  |
| Sensor type               | CMOS, global shutter  |  |
| Sensor model              | Sony® IMX304  |  |
| Pixel size                | 3.45 μm × 3.45 μm   |  |
| Sensor size               | 1.1"  |  |
| Resolution                | 4096 × 3000   |  |
| Max. frame rate           | 30.5 fps @4096 × 3000 Mono 8  | 30.5 fps @4096 × 3000 Bayer RG 8   |
| Dynamic range             | 72.2 dB   |  |
| SNR                       | 40.2 dB   |  |
| Gain                      | 0 dB to 24 dB   |  |
| Exposure time             | UltraShort exposure mode: 1 μs to 14 μs   |  |
|                           | Standard exposure mode: 15 μs to 10 sec   |  |
| Exposure mode             | Off/Once/Continuous exposure mode   |  |
| Mono/color                | Mono  | Color  |
| Pixel format              | Mono 8/10/10Packed/12/12Packed  | Mono 8/10/12,<br>Bayer RG 8/10/10Packed /12/12Packed,<br>YUV422Packed, YUV422_YUYV_Packed,<br>RGB 8, BGR 8 |
| Binning                   | Supports 1 × 1, 2 × 2, 4 × 4  |  |
| Decimation                | Supports 1 × 1, 2 × 2, 4 × 4  |  |
| Reverse image             | Supports horizontal and vertical reverse image output   |  |
| <b>Electrical feature</b> |   |  |
| Data interface            | USB3.0, compatible with USB2.0  |  |
| Digital I/O               | 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). |  |
| Power supply              | 9 VDC to 24 VDC, supports USB3.0 power supply   |  |
| Power consumption         | Typ. 2.9 W@5 VDC<br>(USB3.0 provides power supply)  | Typ. 3.2 W@5 VDC<br>(USB3.0 provides power supply)   |
| <b>Mechanical</b>         |   |  |
| Lens mount                | C-Mount   |  |
| Dimension                 | 29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2")  |  |
| Weight                    | Approx. 80 g (0.2 lb.)  |  |
| Ingress protection        | IP40 (under proper lens installation and wiring)  |  |
| Temperature               | Working temperature: -10 °C to 50 °C (14 °F to 122 °F)<br>Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)   |  |
| Humidity                  | 20% to 95% RH, non-condensing   |  |
| <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 and 64-bit MacOS   |  |
| Compatibility             | USB 3.0 Vision, GenICam   |  |
| Certification             | CE, RoHS, KC  |  |

## HIKROBOT

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