

# MV-CH120-10CM/CC

12 MP 1.1" CMOS Camera Link Area Scan Camera



GEN*i*CAM



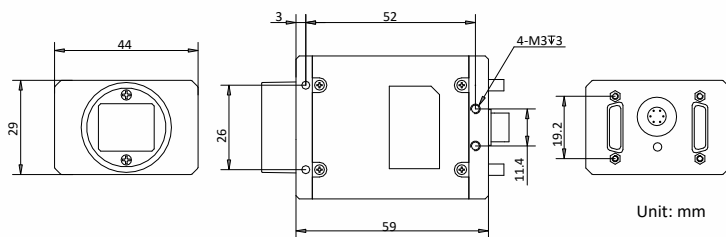
## Introduction

MV-CH120-10CM/CC camera adopts Sony® IMX253 sensor to provide high-quality image. It uses Camera Link interface to transmit non-compressed images in real time with max. frame rate reaching 69.8 fps in full resolution.

## Key Feature

- Adopts global shutter CMOS sensor providing wide dynamic range and high-quality image.
- Supports configuration modes of Base, Medium, Full and 80-bit via the Camera Link interface.
- Adopts compact design with mounting holes for flexible mounting.
- Compatible with Camera Link V2.0 Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

## Dimension



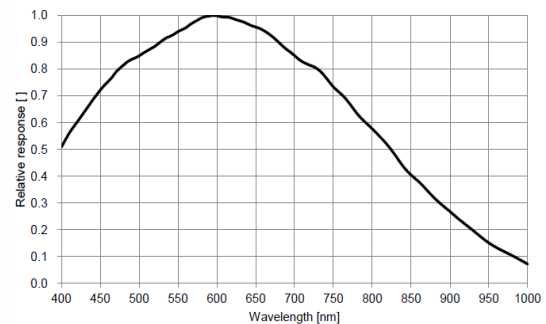
## Available Model

- Mono camera: MV-CH120-10CM
- Color camera: MV-CH120-10CC

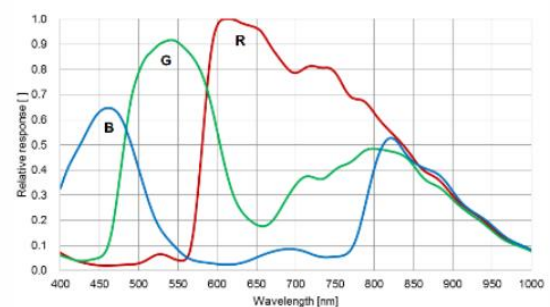
## Applicable Industry

SMT/ PCB AOI, FPD, high-accuracy measurement, etc.

## Sensor Quantum Efficiency



MV-CH120-10CM



MV-CH120-10CC



## Specification

| Model              | MV-CH120-10CM   | MV-CH120-10CC                                    |
|--------------------|---|--|
| Camera             |   |  |
| Sensor type        | CMOS, global shutter  |  |
| Sensor model       | Sony® IMX253  |  |
| Pixel size         | 3.45 μm × 3.45 μm   |  |
| Sensor size        | 1.1"  |  |
| Resolution         | 4096 × 3000 (Base/Medium/Full), 3840 × 3000 (80-bit)  |  |
| Max. frame rate    | 50.9 fps (Base/Medium/Full)<br>69.8 fps (80-bit)  | 51.4 fps (Base/Medium/Full)<br>68.1 fps (80-bit) |
| Configuration mode | Base, Medium, Full, 80-bit  |  |
| Tap geometry       | 1X2_1Y, 1X4_1Y, 1X8_1Y, 1X10_1Y   |  |
| Tap number         | 2 Taps, 4 Taps, 8 Taps, 10 Taps   | 1 Tap, 2 Taps, 4 Taps, 8 Taps, 10 Taps           |
| Pixel clock        | 60 MHz, 70 MHz, 85 MHz  | 40 MHz, 60 MHz, 70 MHz, 85 MHz                   |
| Dynamic range      | 71.6 dB   |  |
| SNR                | 39.7 dB   |  |
| Gain               | 0 dB to 24 dB   |  |
| Exposure time      | 1 μs to 10 sec  |  |
| Exposure mode      | Off/Once/Continuous exposure mode   |  |
| Mono/color         | Mono  | Color  |
| Pixel format       | Mono 8/10/12  | Bayer RG 8/10/12, RGB 8                          |
| Binning            | Not support   |  |
| Decimation         | Not support   |  |
| Reverse image      | Supports horizontal and vertical reverse image output   |  |
| Electrical feature |   |  |
| Data interface     | Camera Link with SDR interface  |  |
| Digital I/O        | 6-pin Hirose connector provides power and I/O, including opto-isolated input × 1 (Line 0), opto-isolated output × 1 (Line 1), bi-directional non-isolated I/O × 1 (Line 2). |  |
| Power supply       | 9 VDC to 24 VDC   |  |
| Power consumption  | Typ. 4.7 W@12 VDC   | Typ. 4.68 W@12 VDC                               |
| Mechanical         |   |  |
| Lens mount         | C-mount   |  |
| Dimension          | 44 mm × 29 mm × 59 mm (1.7" × 1.1" × 2.3")  |  |
| Weight             | Approx. 100 g (0.2 lb.)   |  |
| Ingress protection | IP30 (under proper lens installation and wiring)  |  |
| Temperature        | Working temperature: 0 °C to 50 °C (32 °F to 122 °F)<br>Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)   |  |
| Humidity           | 20% to 80% RH, non-condensing   |  |
| General            |   |  |
| Client software    | MVS or frame grabber software meeting with GenICam Protocol   |  |
| Operating system   | 32/64-bit Windows XP/7/10   |  |
| Compatibility      | Camera Link V2.0, GenICam   |  |
| Certification      | CE, FCC, RoHS, KC   |  |

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