

# MV-CH310-10GM/GC

31 MP CMOS GigE Area Scan Camera



GEN< i >CAM

GIG E  
VISION

## Introduction

MV-CH310-10GM/GC camera adopts Sony® IMX342 sensor to provide high-quality image. It uses GigE interface to transmit non-compressed images in real time with max. frame rate reaching 3.9fps in full resolution.

## Key Feature

- Resolution of 6464 × 4852, pixel size of 3.45 μm × 3.45 μm.
- Supports auto and manual adjustment for gain, exposure control, LUT, Gamma correction, etc. Adopts GigE interface providing max. transmission distance of 100 meters without relay. Compact design with mounting holes on panels for flexible mounting.

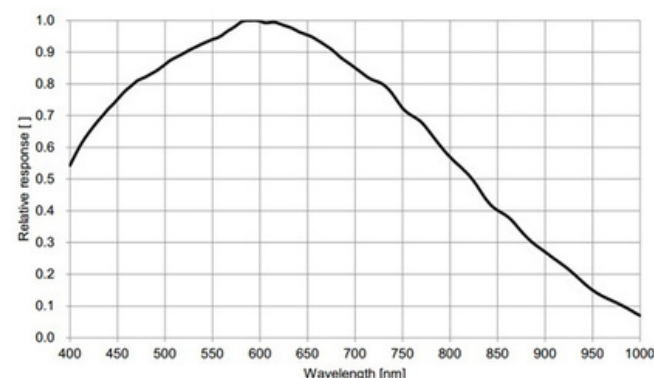
## Available Model

- M58-mount with fan, mono: MV-CH310-10GM-M58S-NF
- F-mount with fan, mono: MV-CH310-10GM-F-NF
- M58-mount with fan, color: MV-CH310-10GC-M58S-NF
- F-mount with fan, color: MV-CH310-10GC-F-NF

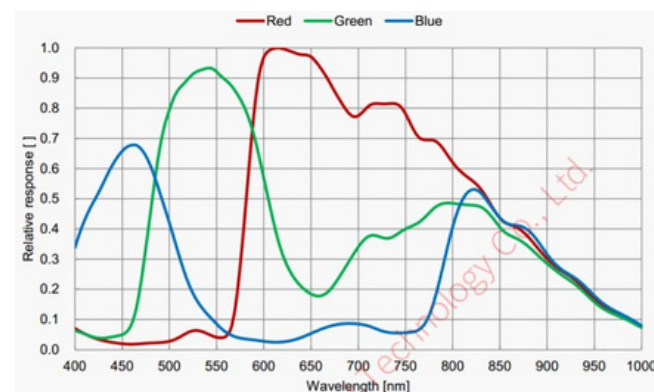
## Applicable Industry

FPD, PCBA OI, aerial photography, railway applications, document scanning, etc.

## Sensor Quantum Efficiency



MV-CH310-10GM



MV-CH310-10GC

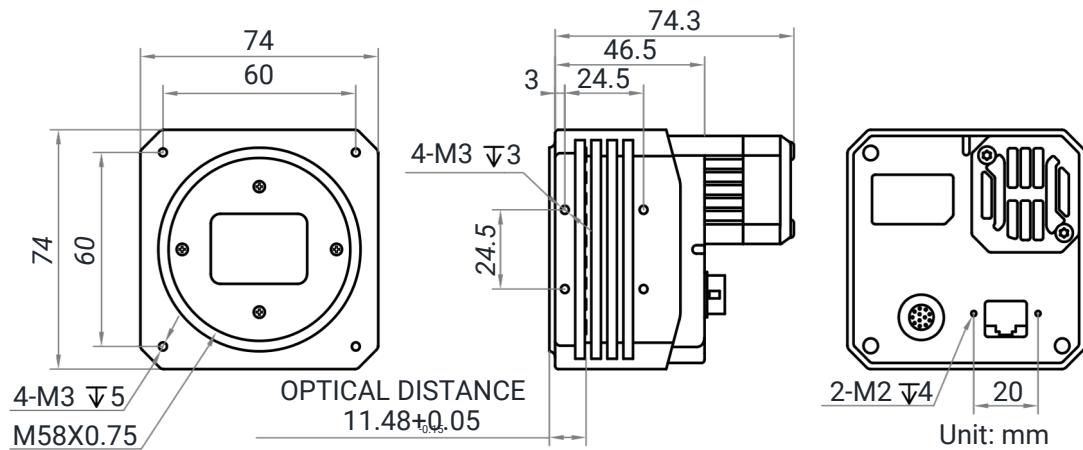


## Specification

| Model              | MV-CH310-10GM                                                                                                                                                                             | MV-CH310-10GC                                                                                            |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Performance        |                                                                                                                                                                                           |                                                                                                          |
| Sensor type        | CMOS, global shutter Sony® IMX342                                                                                                                                                         |                                                                                                          |
| Sensor model       | 3.45 μm × 3.45 μm 22.3 mm × 16.7 mm                                                                                                                                                       |                                                                                                          |
| Pixel size         | 6464 × 4852 3.9 fps @ 6464 × 4852                                                                                                                                                         |                                                                                                          |
| Sensor size        | Mono 8 73 dB 40 dB 0 dB to 24 dB                                                                                                                                                          |                                                                                                          |
| Resolution Max.    | UltraShort exposure mode: 3 μs to 33 μs                                                                                                                                                   |                                                                                                          |
| frame rate         | Standard exposure mode: 36 μs to 2 sec                                                                                                                                                    | 3.9 fps @ 6464 × 4852 Bayer RG 8                                                                         |
| Dynamic range      | Off/Once/Continuous exposure mode                                                                                                                                                         |                                                                                                          |
| SNR Gain           | Mono                                                                                                                                                                                      |                                                                                                          |
| Exposure time      |                                                                                                                                                                                           |                                                                                                          |
|                    |                                                                                                                                                                                           | Standard exposure mode: 36 μs to 10 sec                                                                  |
| Exposure mode      |                                                                                                                                                                                           |                                                                                                          |
| Mono/color         |                                                                                                                                                                                           | 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                                                                                                                                                                     | Supports 1 × 1, 2 × 2, 4 × 4                                                                             |
| Decimation         | Supports 1 × 1, 2 × 2                                                                                                                                                                     | Supports 1 × 1, 2 × 2, 4 × 4                                                                             |
| Reverse image      | Supports horizontal and vertical reverse image output                                                                                                                                     |                                                                                                          |
| Electrical feature |                                                                                                                                                                                           |                                                                                                          |
| Data interface     | Gigabit Ethernet (1000 Mbit/s), compatible with Fast Ethernet (100 Mbit/s)                                                                                                                |                                                                                                          |
| Digital I/O        | 12-pin P10 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), and RS-232 × 1. |                                                                                                          |
| Power supply       | 9 VDC to 24 VDC                                                                                                                                                                           |                                                                                                          |
| Power consumption  | Typ. 9 W @ 12 VDC                                                                                                                                                                         |                                                                                                          |
| Mechanical         |                                                                                                                                                                                           |                                                                                                          |
| Lens mount         | M58*0.75, flange back length 11.48 mm<br>F-mount, flange back length 46.5 mm                                                                                                              |                                                                                                          |
| Dimension          | M58-mount with fan: 74 mm × 74 mm × 74.3 mm (2.9" × 2.9" × 2.9")<br>F-mount with fan: 74 mm × 74 mm × 80.1 mm (2.9" × 2.9" × 3.2")                                                        |                                                                                                          |
| Weight             | M58-mount with fan: Approx. 550 g (1.2 lb.)<br>F-mount with fan: Approx. 600 g (1.3 lb.)                                                                                                  |                                                                                                          |
| Ingress protection | IP40 (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% RH to 95% RH (no condensation)                                                                                                                                                        |                                                                                                          |
| General            |                                                                                                                                                                                           |                                                                                                          |
| Client software    | MVS or third-party software meeting with GigE Vision Protocol                                                                                                                             |                                                                                                          |
| Operating system   | 32/64-bit Windows 7/10, 64-bit Windows 11, 32/64-bit Linux                                                                                                                                |                                                                                                          |
| Compatibility      | GigE Vision V2.0, GenICam                                                                                                                                                                 |                                                                                                          |
| Certification      | CE, RoHS, KC                                                                                                                                                                              |                                                                                                          |

## Dimension

M58-mountwithfan:



F-mount with fan:

