

# MV-CL083-92GC

8192 P CMOS GigE Line Scan Camera



GEN*i*CAM

GigE VISION

## Introduction

MV-CL083-92GC camera adopts 8192 × 3 line RGB true color CMOS sensor with pixel size of 7 μm × 7 μm, supports RGB true color imaging, and integrates multiple latest ISP image algorithms and functions, and supports external trigger modes like line trigger, frame trigger, and trigger-width exposure. It uses GigE interface to transmit images in real time, and supports high bandwidth function to increase max. line rate.

## Key Feature

- Supports high bandwidth image compression mode, trigger-width exposure, RGB true color imaging, etc.
- Rich ISP image algorithms and supports manual adjustment for Gamma correction, flat field correction, LUT, black level, etc.
- Adopts bi-directional I/O hardware design.
- Compact design and flexible installation.
- Compatible with GigE Vision V2.0, GenICam standard.

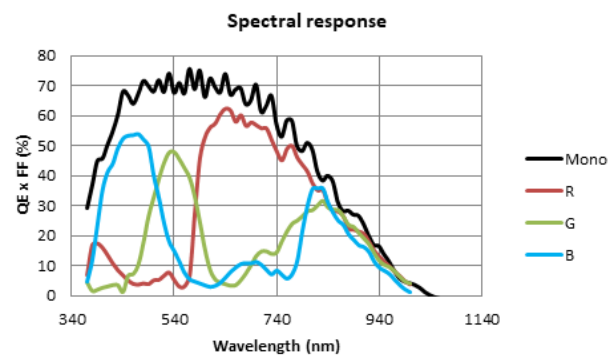
## Available Model

MV-CL083-92GC

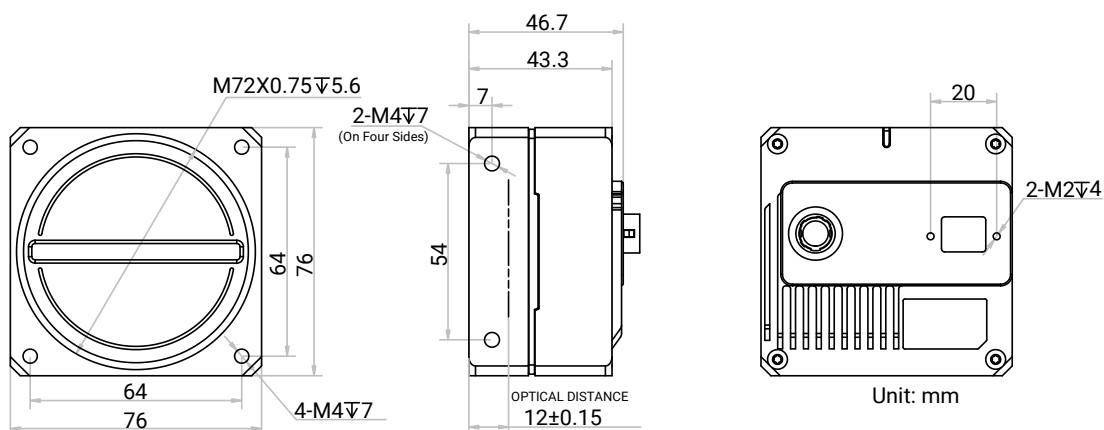
## Applicable Industry

New energy, screen detection, consumer electronics, PCB, food & pharmaceuticals, material sorting, etc.

## Sensor Quantum Efficiency



## Dimension



Unit: mm

## Specification

|                              |                                                                                                                                                                                                                                                     |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model</b>                 | <b>MV-CL083-92GC</b>                                                                                                                                                                                                                                |
| <b>Performance</b>           |                                                                                                                                                                                                                                                     |
| <b>Sensor type</b>           | CMOS                                                                                                                                                                                                                                                |
| <b>Pixel size</b>            | 7 $\mu\text{m}$ $\times$ 7 $\mu\text{m}$                                                                                                                                                                                                            |
| <b>Resolution</b>            | 8192 $\times$ 3                                                                                                                                                                                                                                     |
| <b>Image mode</b>            | Supports 1-line                                                                                                                                                                                                                                     |
| <b>Max. line rate</b>        | Standard mode: 14.1 kHz @Bayer-RG-8/Mono-8, 7.7 kHz @Bayer-RG-10, 4.7 kHz @RGB-8/BGR-8<br>High-bandwidth mode: 33 kHz @Bayer-RG-/Mono 8, 23.2 kHz @Bayer-RG-10, 12.5 kHz @RGB-8/BGR-8                                                               |
| <b>Dynamic range</b>         | 63.4 dB                                                                                                                                                                                                                                             |
| <b>SNR</b>                   | 40.8 dB                                                                                                                                                                                                                                             |
| <b>Gain</b>                  | 1.0 $\times$                                                                                                                                                                                                                                        |
| <b>Exposure time</b>         | 3 $\mu\text{s}$ to 10 ms                                                                                                                                                                                                                            |
| <b>Exposure mode</b>         | Off/ Once/ Continuous exposure mode, and supports trigger-width exposure                                                                                                                                                                            |
| <b>Mono/color</b>            | Color                                                                                                                                                                                                                                               |
| <b>Pixel format</b>          | Bayer RG 8/10, RGB 8, BGR 8, Mono 8                                                                                                                                                                                                                 |
| <b>Binning</b>               | Supports 1 $\times$ 1, 1 $\times$ 2, 1 $\times$ 4, 2 $\times$ 1, 2 $\times$ 2, 2 $\times$ 4, 4 $\times$ 1, 4 $\times$ 2, 4 $\times$ 4                                                                                                               |
| <b>Reverse image</b>         | Supports horizontal reverse image output                                                                                                                                                                                                            |
| <b>Trigger mode</b>          | External trigger, internal trigger                                                                                                                                                                                                                  |
| <b>External trigger mode</b> | Line trigger, frame trigger, line + frame trigger                                                                                                                                                                                                   |
| <b>Electrical feature</b>    |                                                                                                                                                                                                                                                     |
| <b>Data interface</b>        | Gigabit Ethernet, compatible with Fast Ethernet                                                                                                                                                                                                     |
| <b>Digital I/O</b>           | 12-pin P10 connector provides power and I/O: configurable input or output $\times$ 4 (Line 0/1/3/4) and supports single-ended/differential                                                                                                          |
| <b>Power supply</b>          | 12 VDC to 24 VDC                                                                                                                                                                                                                                    |
| <b>Power consumption</b>     | Typ. 7.7 W@12 VDC                                                                                                                                                                                                                                   |
| <b>Mechanical</b>            |                                                                                                                                                                                                                                                     |
| <b>Lens mount</b>            | M72*0.75, flange focal length 12 mm, applicable to F-mount, C-mount and others via adapter                                                                                                                                                          |
| <b>Dimension</b>             | 76 mm $\times$ 76 mm $\times$ 46.7 mm (3.0" $\times$ 3.0" $\times$ 1.8")                                                                                                                                                                            |
| <b>Weight</b>                | Approx. 400 g (0.9 lb.)                                                                                                                                                                                                                             |
| <b>Ingress protection</b>    | IP40 (under proper lens installation and wiring)                                                                                                                                                                                                    |
| <b>Temperature</b>           | Working temperature: -20 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$ )<br>Storage temperature: -30 $^{\circ}\text{C}$ to 80 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 176 $^{\circ}\text{F}$ ) |
| <b>Humidity</b>              | 5% to 90% RH, non-condensing                                                                                                                                                                                                                        |
| <b>General</b>               |                                                                                                                                                                                                                                                     |
| <b>Client software</b>       | MVS or the third-party software meeting with GigE Vision protocol                                                                                                                                                                                   |
| <b>Operating system</b>      | 32/64-bit Windows XP/7/10, 32/64-bit Linux, and 64-bit MacOS                                                                                                                                                                                        |
| <b>Compatibility</b>         | GigE Vision V2.0, GenICam                                                                                                                                                                                                                           |
| <b>Certification</b>         | CE, RoHS, KC                                                                                                                                                                                                                                        |