

# MV-CE050-30UM/UC

5.0 MP 1/2.5" CMOS USB3.0 Area Scan Camera



GEN*<i>CAM*

USB™  
VISION

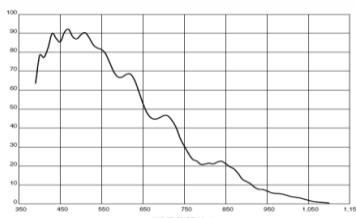
## Introduction

MV-CE050-30UM/UC camera adopts Aptina AR0521 sensor to provide high-quality image. It uses USB3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 44.7 fps in full resolution.

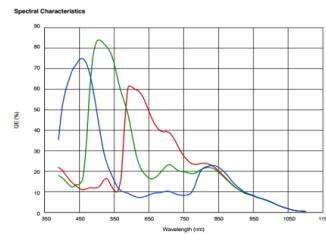
## Key Feature

- Supports auto and manual adjustment for gain, exposure control, LUT, Gamma correction, etc.
- Supports hardware triggering, software triggering and free run mode.
- Adopts M2 screw holes for securing cable that connects USB3.0 interface.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on these protocol and standard.

## Sensor Quantum Efficiency



MV-CE050-30UM/UC



## Available Model

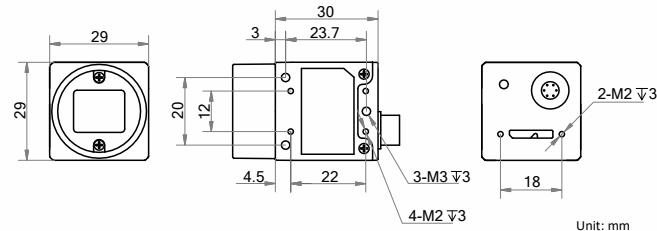
- Mono camera: MV-CE050-30UM
- Color camera: MV-CE050-30UC

## Applicable Industry

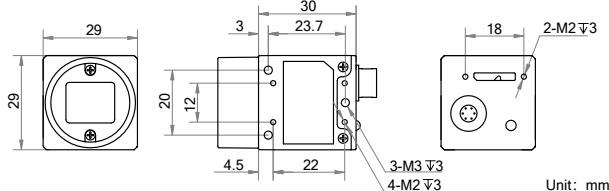
Electronic semiconductor, factory automation, liquor and beverage, medicine packing, etc.

## Dimension

Mono camera:



Color camera:



[en.hikrobotics.com](http://en.hikrobotics.com)

## Specification

| Model                     | MV-CE050-30UM   | MV-CE050-30UC   |
|---------------------------|---|---|
| <b>Camera</b>             |   |   |
| <b>Sensor type</b>        | CMOS, rolling shutter   |   |
| <b>Sensor model</b>       | Aptina AR0521   |   |
| <b>Pixel size</b>         | 2.2 $\mu$ m $\times$ 2.2 $\mu$ m  |   |
| <b>Sensor size</b>        | 1/2.5"  |   |
| <b>Resolution</b>         | 2592 $\times$ 1944  |   |
| <b>Max. frame rate</b>    | 44.7 fps @2592 $\times$ 1944  |   |
| <b>Dynamic range</b>      | 60 dB   |   |
| <b>SNR</b>                | 40 dB   |   |
| <b>Gain</b>               | 0 dB to 15 dB   |   |
| <b>Exposure time</b>      | 28 $\mu$ s to 0.6 sec   |   |
| <b>Exposure mode</b>      | Off/Once/Continuous exposure mode   |   |
| <b>Mono/color</b>         | Mono  | Color   |
| <b>Pixel format</b>       | Mono 8/10/10p/12/12p  | Mono 8/10/12,<br>Bayer GR 8/10/10p/12/12p,<br>YUV422_YUYV_Packed, YUV 422 Packed,<br>RGB 8, BGR 8 |
| <b>Binning</b>            | Supports 1 $\times$ 1, 2 $\times$ 2, 4 $\times$ 4   |   |
| <b>Decimation</b>         | Supports 1 $\times$ 1, 2 $\times$ 2, 4 $\times$ 4   |   |
| <b>Reverse image</b>      | Supports horizontal and vertical reverse image output   |   |
| <b>Image buffer</b>       | 128 MB  |   |
| <b>Electrical feature</b> |   |   |
| <b>Data interface</b>     | USB3.0, compatible with USB2.0  |   |
| <b>Digital I/O</b>        | 6-pin Hirose connector provides power and I/O, including opto-isolated input $\times$ 1 (Line 0), opto-isolated output $\times$ 1 (Line 1), bi-directional non-isolated I/O $\times$ 1 (Line 2) |   |
| <b>Power supply</b>       | 9 VDC to 24 VDC,<br>supports USB3.0 power supply  | 12 VDC,<br>supports USB3.0 power supply   |
| <b>Power consumption</b>  | Typ. 2.5 W @5 VDC (USB3.0 provides power supply)  |   |
| <b>Mechanical</b>         |   |   |
| <b>Lens mount</b>         | C-Mount   |   |
| <b>Dimension</b>          | 29 mm $\times$ 29 mm $\times$ 30 mm (1.1" $\times$ 1.1" $\times$ 1.2")  |   |
| <b>Weight</b>             | Approx. 80 g (0.2 lb.)  | Approx. 56 g (0.12 lb.)   |
| <b>Ingress protection</b> | IP30 (under correct lens installation and wiring)   |   |
| <b>Temperature</b>        | Working temperature: 0 $^{\circ}$ C to 50 $^{\circ}$ C (32 $^{\circ}$ F to 122 $^{\circ}$ F)<br>Storage temperature: -30 $^{\circ}$ C to 70 $^{\circ}$ C (-22 $^{\circ}$ F to 158 $^{\circ}$ F) |   |
| <b>Humidity</b>           | 20% to 80% RH, non-condensing   |   |
| <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 XP/7/10, 32/64-bit Linux and 64-bit MacOS   |   |
| <b>Compatibility</b>      | USB3 Vision, GenICam  |   |
| <b>Certifications</b>     | CE, FCC, RoHS, KC   |   |



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