

MV-CA050-12UM/UC

5.0 MP 2/3" CMOS USB3.0 Area Scan Camera



GEN*i*CAM

US3TM
VISION

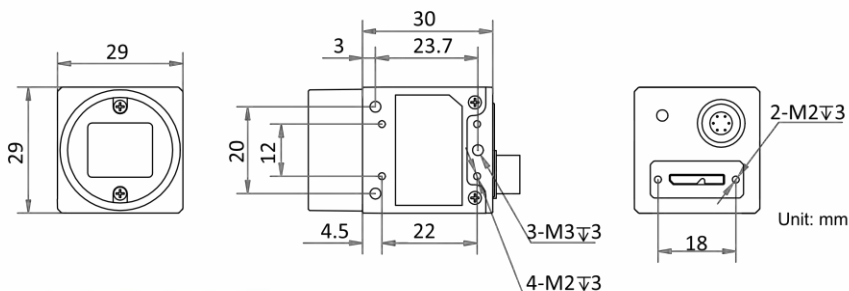
Introduction

MV-CA050-12UM/UC camera adopts Sony® IMX264 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 47 fps (mono camera) or 60 fps (color camera) in full resolution.

Key Feature

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

Dimension



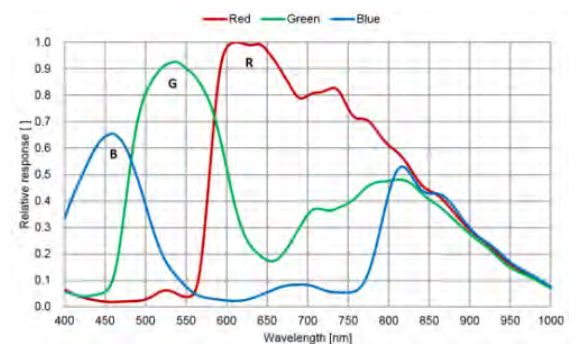
Available Model

- Mono camera: MV-CA050-12UM
- Color camera: MV-CA050-12UC

Applicable Industry

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

Sensor Quantum Efficiency



Specification

| Model | MV-CA050-12UM | MV-CA050-12UC |
|---------------------------|--|--|
| Camera | | |
| Sensor type | CMOS, global shutter | |
| Sensor model | Sony® IMX264 | |
| Pixel size | 3.45 μm × 3.45 μm | |
| Sensor size | 2/3" | |
| Resolution | 2448 × 2048 | |
| Max. frame rate | 47 fps @2448 × 2048 | 60 fps @2448 × 2048 |
| Dynamic range | 72 dB | |
| SNR | 40.2 dB | |
| Gain | 0 dB to 24 dB | 0 dB to 20 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 8/10/10p/12/12p | Mono 8/10/12, Bayer RG 8/10/10p/12/12p, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8 |
| Binning | Supports 1 × 1, 2 × 2, 4 × 4 | |
| Decimation | Supports 1 × 1, 2 × 2 | |
| Reverse image | Supports horizontal and vertical reverse image output | |
| Electrical feature | | |
| 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 (USB3.0 provides power supply) | Typ. 3.3 W @5 VDC (USB3.0 provides power supply) |
| Mechanical | | |
| Lens mount | C-Mount | |
| Dimension | 29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2") | |
| Weight | Approx. 80 g (0.18 lb.) | |
| Ingress protection | IP30 (under correct lens installation and wiring) | |
| Temperature | Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F) | |
| Humidity | 20% to 80% RH, non-condensing | |
| General | | |
| Client software | MVS or third-party software meeting with USB3 Vision Protocol | |
| Operating system | 32/64-bit Windows XP/7/10, 32/64-bit Linux and 64-bit MacOS | |
| Compatibility | USB3 Vision, GenICam | |
| Certifications | CE, FCC, RoHS, KC | |

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