

MV-CA050-12UM/UC

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



GEN*<i>i</i>*CAM



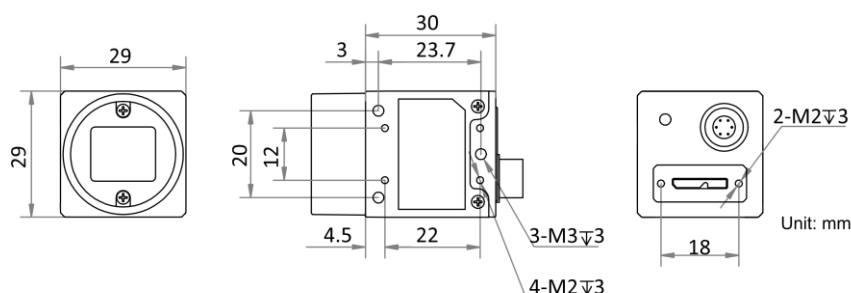
Introduction

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, GenICam Standard, and the third-party software based on these protocol and standard.

Dimension



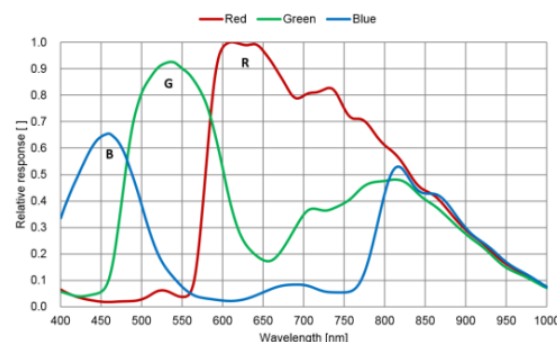
Available Model

- 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% RH to 80% RH (no condensation)	
General		
Client software	MVS or third-party software meeting with USB3 Vision Protocol	
Operating system	32/64-bit Windows 7/10, 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certifications	CE, RoHS, KC	