

MV-CH050-10UM/UC V4

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



GEN*<i>i>*CAM

US3TM
VISION

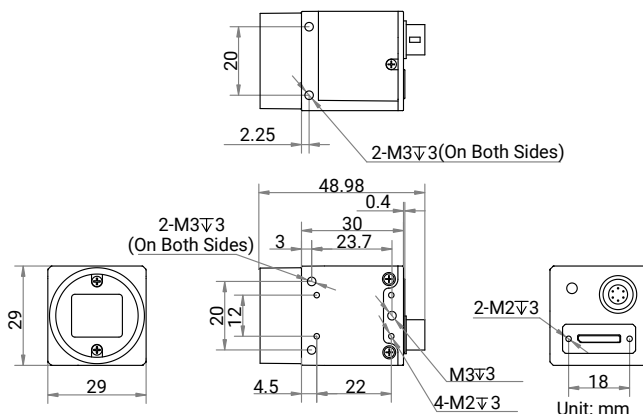
Introduction

MV-CH050-10UM/UC V4 camera adopts Sony® IMX250 sensor to provide high-quality images. It uses USB3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 74.1 fps in full resolution.

Key Features

- Compact design with mounting holes on panels for flexible mounting from 4 sides.
- Supports Sequencer, Super Palette, etc.
- Supports customized ROI, horizontal and vertical reverse image output.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on these protocol and standard.

Dimension



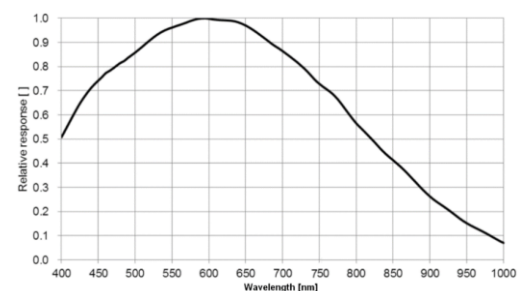
Available Model

- Mono camera: MV-CH050-10UM V4
- Color camera: MV-CH050-10UC V4

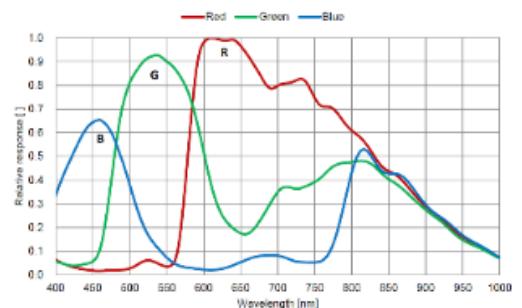
Applicable Industry

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

Sensor Quantum Efficiency



MV-CH050-10UM V4



MV-CH050-10UC V4

Specification

Model	MV-CH050-10UM V4	MV-CH050-10UC V4
Performance		
Sensor type	CMOS, global shutter	
Sensor model	Sony® IMX250	
Pixel size	3.45 μm × 3.45 μm	
Sensor size	2/3"	
Resolution	2448 × 2048	
Max. frame rate	74.1 fps @ 2448 × 2048 Mono 8	74.1 fps @ 2448 × 2048 Bayer RG 8
Dynamic range	71 dB	
SNR	40 dB	
Gain	0 dB to 24 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 8/10/10Packed/12/12Packed	Mono 8/10/12, Bayer RG 8/10//10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 × 1, 2 × 2, 4 × 4	
Decimation	Supports 1 × 1, 2 × 2, 4 × 4	
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), bi-directional non-isolated I/O × 1 (Line 2).	
Power supply	9 VDC to 24 VDC, supports USB3.0 power supply	
Power consumption	Typ. 3.3 W @ 5 VDC (USB3.0 provides power supply)	Typ. 2.8 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 (0.2 lb.)	
Ingress protection	IP40 (under proper lens installation and wiring)	
Temperature	Working temperature: −10 °C to 50 °C (14 °F to 122 °F) Storage temperature: −30 °C to 80 °C (−22 °F to 176 °F)	
Humidity	20% RH to 95% RH (no condensation)	
General		
Client software	MVS or third-party software meeting with USB3 Vision Protocol	
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11, 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, RoHS, KC	