HIKROBOT®

MV-CH050-10UM/UC

5 MP 2/3" CMOS USB3.0 Area Scan Camera
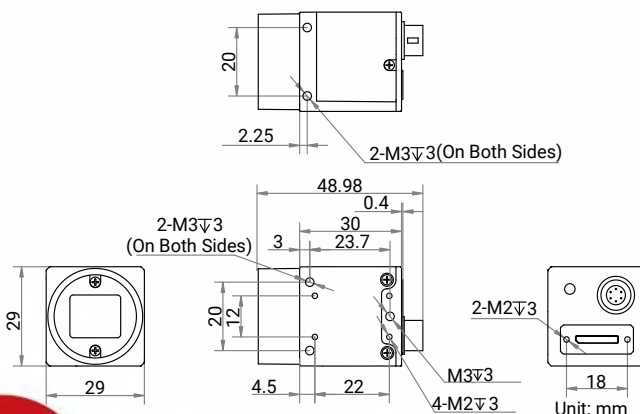
GEN<i>CAM

US3 VISION

Introduction

MV-CH050-10UM/UC 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 Feature

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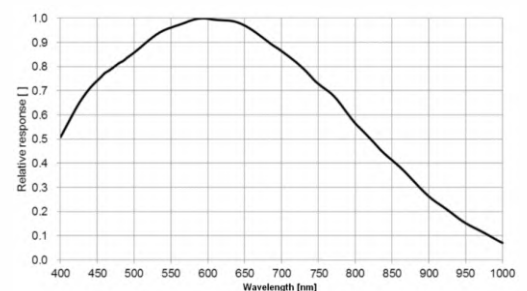
Available Model

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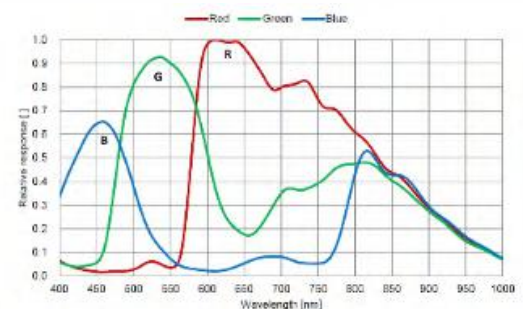- Color camera: MV-CH050-10UC

Applicable Industry

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

Sensor Quantum Efficiency

MV-CH050-10UM

MV-CH050-10UC

Dimension

Unit: mm

Specification

Model	MV-CH050-10UM	MV-CH050-10UC
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	
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 70 °C (-22 °F to 158 °F)	
Humidity	20% to 95% 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	
Certification	CE, RoHS, KC	