MV-CH050-10UM/UC
5 MP 2/3" CMOS USB3.0 Area Scan Camera

Introduction

MV-CH050-10UM/UC camera adopts Sony IMX250 sensor to provide high-quality image. It uses USB3.0 interface to transmit non-compressed images in real time with max. frame rate reaching 74 fps.

GEN<i>CAM

US3 VISION

Key Feature

- Supports auto and manual adjustment for gain, exposure control, white balance, LUT, Gamma correction, etc.
- Supports hardware triggering, software triggering and free run mode
- Adopts image interpolation algorithm for color camera to have better color correction
- Adopts M2 screw holes for securing cable that connects USB3.0 interface
- Compatible with USB3 Vision Protocol, GenlCam Standard, and the third-party software based on these protocol and standard
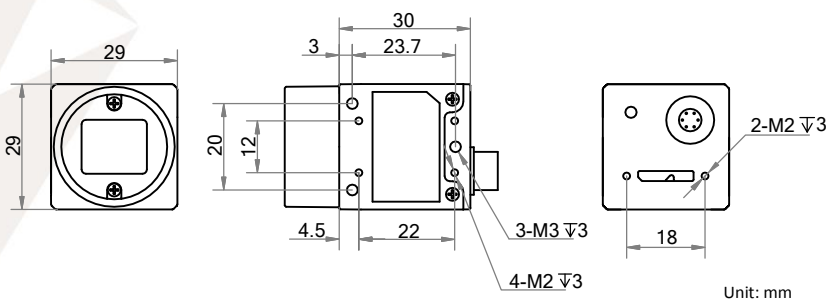
Applicable Industry

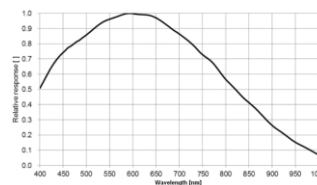SMT/ PCB AOI, FPD, railway related applications, etc.

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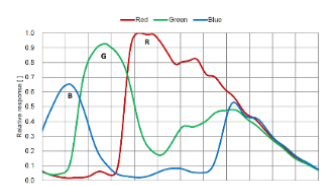
Mono camera: MV-CH050-10UM
Color camera: MV-CH050-10UC

Sensor Quantum Efficiency

MV-CH050-10UM   MV-CH050-10UC

Dimension

Unit: mm

Specification

Model / Parameters	MV-CH050-10UM	MV-CH050-10UC
Parameters	5 MP 2/3" CMOS USB3.0 Area Scan Camera	
Camera		
Sensor type	Global shutter, CMOS	
Sensor model	Sony IMX250	
Pixel size	3.45 µm × 3.45 µm	
Sensor size	2/3"	
Resolution	2448 × 2048	
Frame rate	74 fps	
Dynamic range	75.4 dB	
SNR	40 dB	
Gain	0 dB to 17 dB	0 dB to 20 dB
Exposure time	15 µs to 10 s	
Shutter mode	Off/Once/Continuous exposure mode	
Reverse image	Supports horizontal and vertical reverse image output	
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	Not support	
Decimation	Supports 1 x 1, 2 x 2	
Image buffer	128 MB	
Electrical features		
Data interface	USB3.0, compatible with USB2.0	
Digital I/O	6-pin Hirose connector provides power and I/O, including Opto-isolated input x 1 (Line 0), Opto-isolated output x 1 (Line 1), bi-directional non-isolated I/O x 1 (Line 2)	
Power supply	9 VDC to 26 VDC, USB3.0 power supply	
Power consumption	3.2 W@12 VDC	
Structure		
Lens mount	C-Mount	
Dimension	29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2")	
Weight	Approx. 56 g (0.1 lb.)	
Ingress protection	IP30 (under proper 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, without condensation	
General		
Client software	MVS or third-party software meeting with USB3 Vision Protocol	
Operating system	32/64-bit Windows XP/7/10, and 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, FCC, RoHS, KC	