

MV-CH050-60UM/UC

5 MP CMOS USB3.0 Area Scan Camera



GEN*i*CAM

US3TM
VISION

Introduction

MV-CH050-60UM/UC camera adopts CMOS global sensor to provide high-quality images. It uses USB3.0 interface to transmit images in real time, and its max. frame rate can reach 79 fps in full resolution.

Key Feature

- Adopts brand new structure design and supports installation from four sides.
- Supports Sequencer, Super Palette and Super Bayer to provide high-quality images.
- Supports auto or manual adjustment of gain, exposure time, white balance, LUT, Gamma correction, etc.
- Supports hard trigger, software trigger, free run, etc.
- Supports customized ROI, horizontal and vertical reverse image output.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

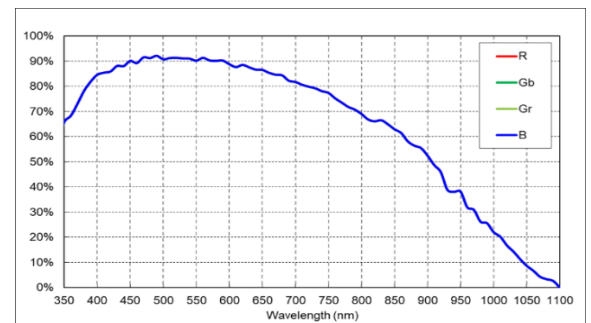
Available Model

- Mono camera: MV-CH050-60UM
- Color camera: MV-CH050-60UC

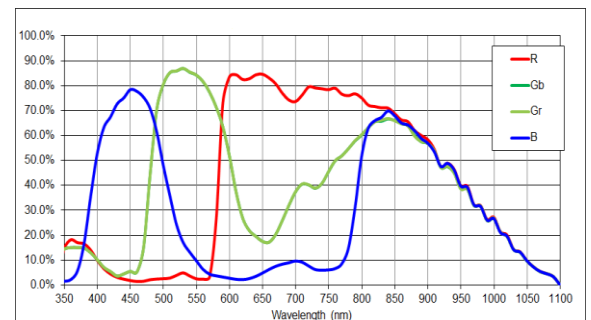
Applicable Industry

Electronics and semiconductor, factory automation, medicine package, etc.

Sensor Quantum Efficiency

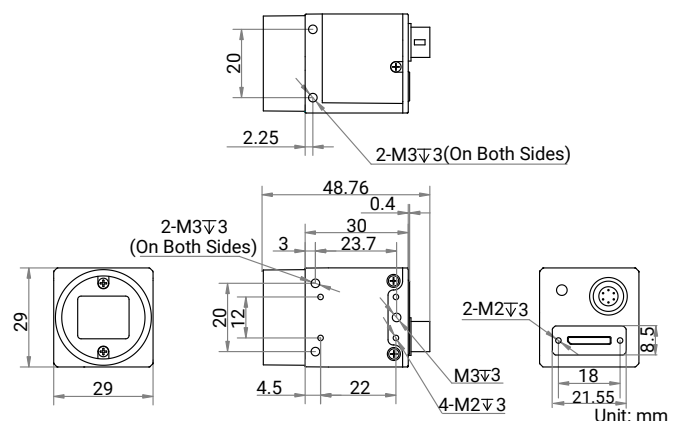


MV-CH050-60UM



MV-CH050-60UC

Dimension



Specification

Model	MV-CH050-60UM	MV-CH050-60UC
Performance		
Sensor type	CMOS, global shutter	
Sensor model	Stacked BSI	
Pixel size	3.45 μm × 3.45 μm	
Sensor size	2/3"	
Resolution	2448 × 2048	
Max. frame rate	79 fps @ 2448 × 2048 Mono 8	79 fps @ 2448 × 2048 Bayer GR 8
Dynamic range	73.9 dB	
SNR	42.4 dB	
Gain	High full well capacity: 0 dB to 13 dB High sensitivity: 0 dB to 24 dB	
Exposure time	High full well capacity: 30 μs to 10 sec High sensitivity: 5 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 GR 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 features		
Data interface	USB 3.0, compatible with USB 2.0	
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 USB 3.0 power supply	
Power consumption	Typ. 1.9 W @ 5 VDC (USB 3.0 provides power supply)	Typ. 2.2 W @ 5 VDC (USB 3.0 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, and 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, RoHS, KC	