MV-CH120-60UM/UC/UN V5

HIKROBOT

12 MP USB3.0 Area Scan Camera



GEN<i>CAM

USB3 VISION

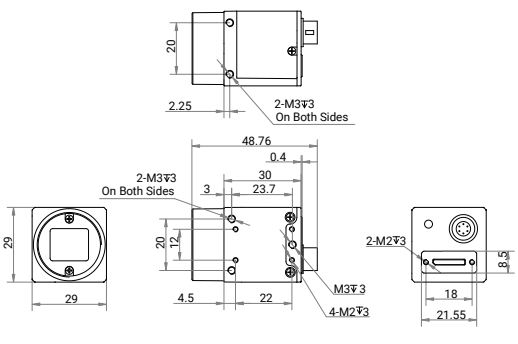
Introduction

MV-CH120-60UM/UC/UN V5 camera adopts stacked BSI 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 31.3 fps in full resolution.

Key Features

- Adopts new hardware platform to optimize logical resource and reduce power consumption.
- Supports auto or manual adjustment of gain, exposure time, white balance, LUT, Gamma correction, etc., and supports Sequencer function.
- Supports image compression mode, noise reduction, CCM, Super Bayer, Super Palette, etc.
- Adopts brand new structure design and supports installation from four sides.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

Dimension



Unit: mm

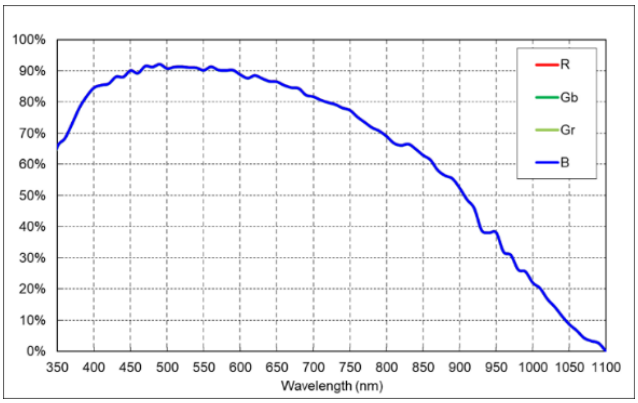
Applicable Industry

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

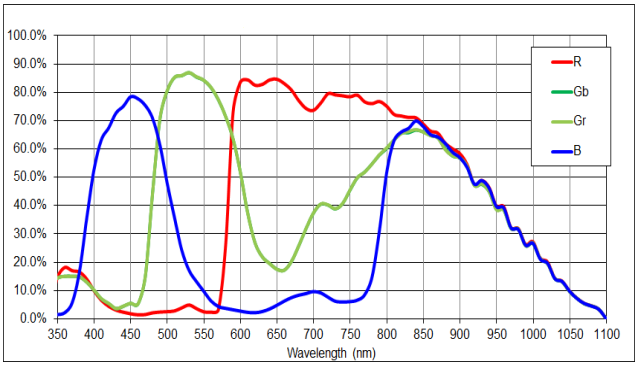
Available Model

- Mono camera: MV-CH120-60UM V5
- Color camera: MV-CH120-60UC V5
- Near-infrared camera: MV-CH120-60UN V5

Sensor Quantum Efficiency



MV-CH120-60UM/UN V5



MV-CH120-60UC V5

Specification

Model	MV-CH120-60UM V5	MV-CH120-60UC V5	MV-CH120-60UN V5
Performance			
Sensor type	CMOS, global shutter		
Sensor model	Stacked BSI		
Pixel size	3.45 μm × 3.45 μm		
Sensor size	1.1"		
Resolution	4096 × 3000		
Max. frame rate	31.3 fps @ 4096 × 3000 Mono 8	31.3 fps @ 4096 × 3000 Bayer GB 8	31.3 fps @ 4096 × 3000 Mono 8
Dynamic range	67.2 dB		73.9 dB
SNR	44.1 dB		42.4 dB
Gain	0 dB to 24 dB		0 dB to 12.7 dB
Exposure time	20 μs to 10 sec		41 μs to 10 sec
Exposure mode	Off/Once/Continuous exposure mode, supports TriggerWidth		
Mono/color	Mono	Color	Near-infrared
Pixel format	Mono 8/10/10Packed/12 /12Packed	Mono 8 Bayer GB 8/10/10Packed/12 /12Packed YUV422Packed, YUV422_YUYV_Packed RGB 8, BGR 8	Mono 8/10/10Packed/12 /12Packed
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), and bi-directional non-isolated I/O × 1 (Line 2).		
Power supply	9 VDC to 24 VDC, supports USB power supply		
Power consumption	Typ. 2 W @ 5 VDC (USB3.0 provides power supply)		Typ. 2.1 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, and Linux		
Compatibility	USB3 Vision, GenICam		
Certification	CE, RoHS, KC		

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