

# MV-CH120-60UM/UC V5

12 MP 1.1" CMOS USB 3.0 Area Scan Camera



**GEN<i>i</i>CAM**

**US3™**  
VISION

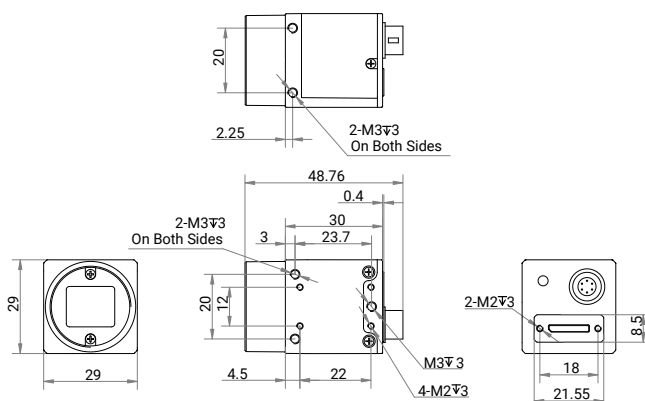
## Introduction

MV-CH120-60UM/UC V5 camera adopts CMOS sensor to provide high-quality images. It uses USB 3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 31.3 fps in full resolution.

## Key Feature

- 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.
- Supports CCM, Sequencer, 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 these protocol and standard.

## Dimension



Unit: mm

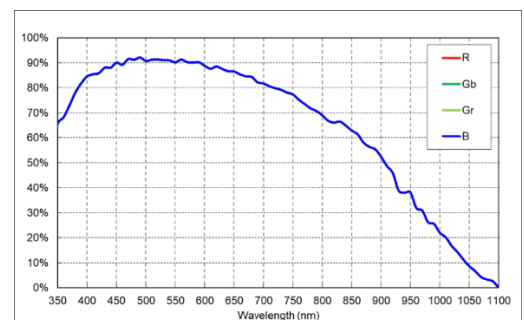
## Applicable Industry

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

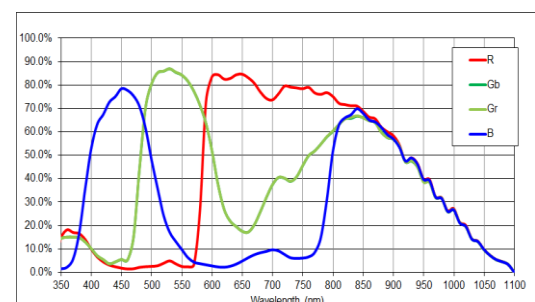
## Available Model

- Mono camera:  
MV-CH120-60UM V5
- Color camera:  
MV-CH120-60UC V5

## Sensor Quantum Efficiency



MV-CH120-60UM V5



MV-CH120-60UC V5

Model	MV-CH120-60UM V5	MV-CH120-60UC V5
<b>Performance</b>		
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
Dynamic range	67.2 dB	
SNR	44.1 dB	
Gain	0 dB to 24 dB	
Exposure time	UltraShort exposure mode: 10 μs to 19 μs	
	Standard exposure mode: 20 μs to 10 sec	
Exposure mode	Global Shutter, Off/Once/Continuous exposure mode, supports TriggerWidth	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	
	Mono 8/10/12 Bayer GB 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	
<b>Electrical feature</b>		
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), and 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. 2 W @ 5 VDC (USB 3.0 provides power supply)	
<b>Mechanical</b>		
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)	
<b>General</b>		
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	