

MV-CB020-60UM/UC

2 MP USB3.0 Board Level Camera



GEN*i*CAM

USBTM
VISION

Introduction

MV-CB020-60UM/UC camera adopts stacked BSI sensor to provide high-quality image. With single board design, it is small in size, which can meet different spatial requirements.

Key Features

- Supports auto and manual adjustment for gain, exposure control, white balance, LUT, etc.
- Adopts image interpolation algorithm for color camera to have better color correction.
- Power supply and data transmission via USB3.0 interface.
- Compatible with USB3 Vision Protocol, GenICam standard, and the third-party software based on these protocol and standard.

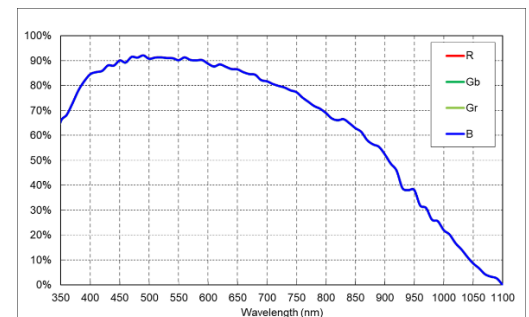
Available Model

- Single board mono camera: MV-CB020-60UM-B
- Single board color camera: MV-CB020-60UC-B
- C-mount mono camera: MV-CB020-60UM-C
- C-mount color camera: MV-CB020-60UC-C
- M12-mount mono camera: MV-CB020-60UM-S
- M12-mount color camera: MV-CB020-60UC-S

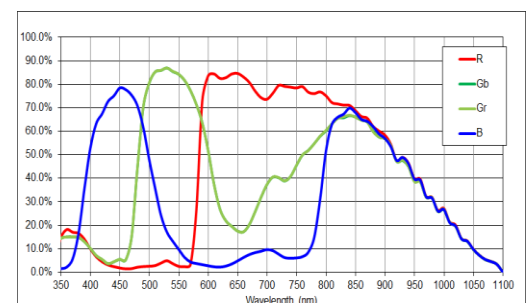
Applicable Industry

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

Sensor Quantum Efficiency



MV-CB020-60UM



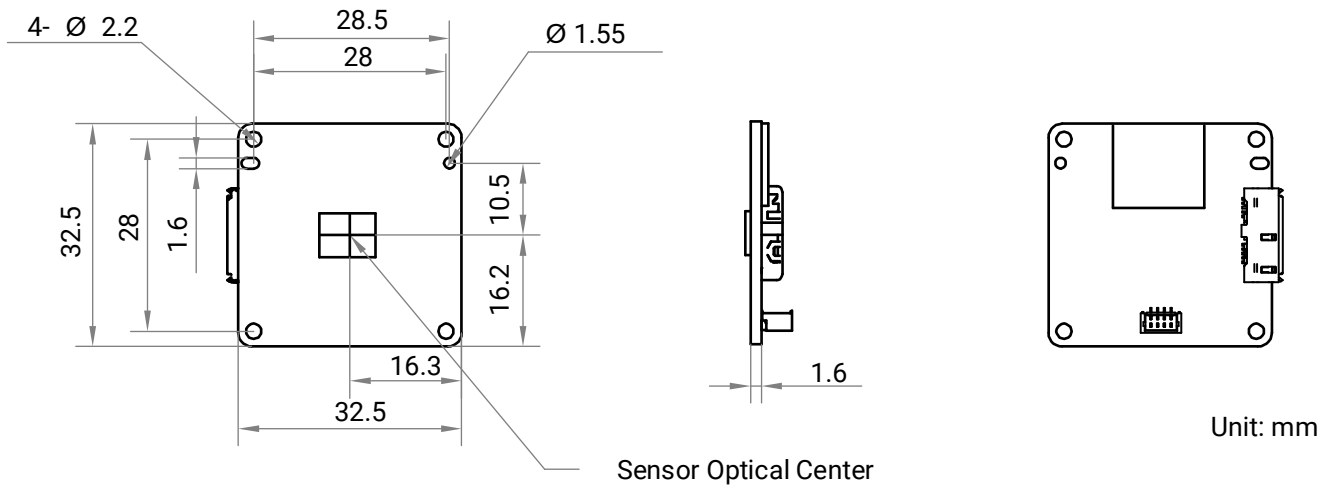
MV-CB020-60UC

Specification

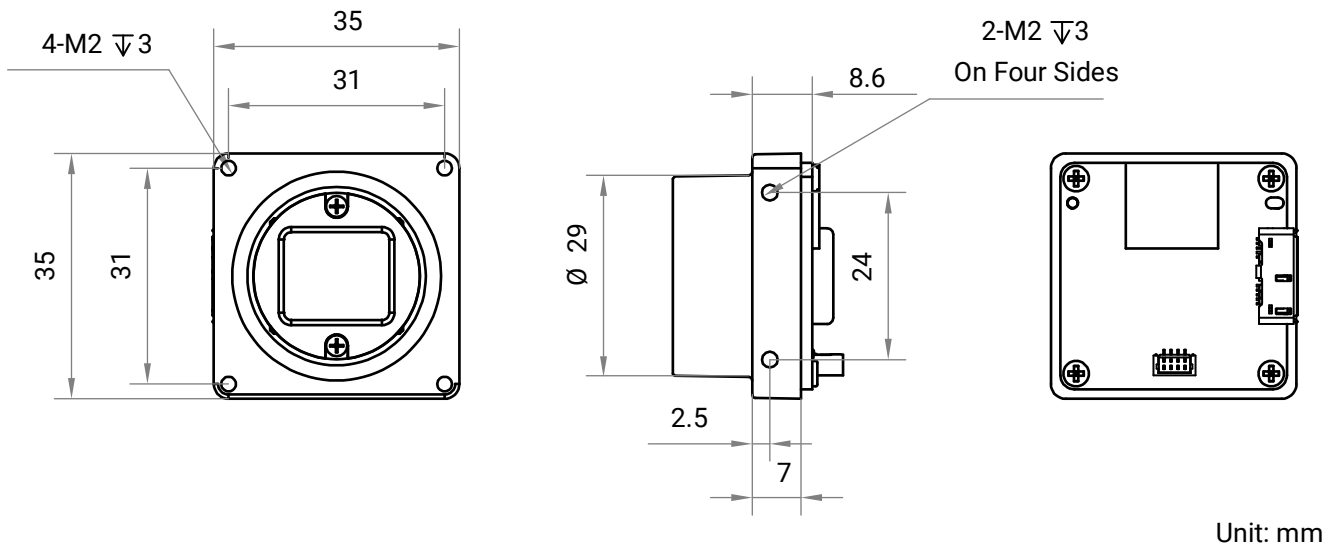
Model	MV-CB020-60UM	MV-CB020-60UC
Performance		
Sensor type	CMOS, global shutter	
Sensor model	Stacked BSI	
Pixel size	3.45 μm \times 3.45 μm	
Sensor size	1/2.53"	
Resolution	1624 \times 1240	
Max. frame rate	179.9 fps @ 1624 \times 1240 Mono 8	179.9 fps @ 1624 \times 1240 Bayer GB 8
Dynamic range	68.6 dB	
SNR	44.1 dB	
Gain	0 dB to 24 dB	
Exposure time	23 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 Bayer GB 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 \times 1, 2 \times 2, 4 \times 4	
Decimation	Supports 1 \times 1, 2 \times 2, 4 \times 4	
Reverse image	Supports horizontal and vertical reverse image output	
Electrical feature		
Data interface	USB 3.0, compatible with USB 2.0	
Digital I/O	Bi-directional non-isolated I/O \times 2 (Line 2, Line 5)	
Power supply	USB 3.0 power supply	
Power consumption	Typ. 1.5 W @ 5 VDC	Typ. 1.6 W @ 5 VDC
Mechanical		
Lens mount	Single board camera: None C-mount camera: C-mount M12-mount camera: M12-mount	
Dimension (without lens)	Single board camera: 32.5 mm \times 32.5 mm \times 1.6 mm (1.3" \times 1.3" \times 0.1") C-mount camera: 35 mm \times 35 mm \times 8.6 mm (1.4" \times 1.4" \times 0.3") M12-mount camera: 35 mm \times 35 mm \times 8.6 mm (1.4" \times 1.4" \times 0.3")	
Weight	Single board camera: Approx. 10 g (0.02 lb.) C-mount camera: Approx. 30 g (0.07 lb.) M12-mount camera: Approx. 30 g (0.07 lb.)	
Temperature	Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$) Storage temperature: -30 $^{\circ}\text{C}$ to 80 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 176 $^{\circ}\text{F}$)	
Humidity	20% RH to 80% RH (no condensation)	
General		
Client software	MVS or third-party software 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	

Dimension

Single board camera:



C-mount camera:



M12-mount camera:

