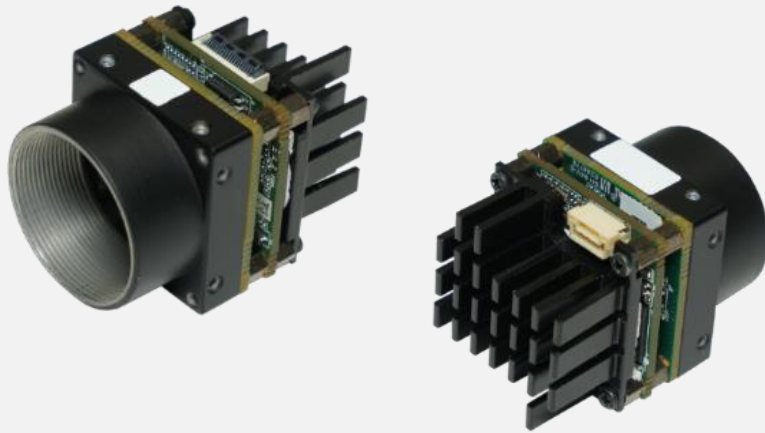


MV-CB020-61UM

2 MP CMOS USB3.0 Board Level Camera



GEN*i*CAM

USBTM
VISION

Introduction

MV-CB020-61UM camera adopts stacked BSI CMOS sensor to provide high-quality image. It uses USB 3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 99 fps in full resolution. With compact design and USB 3.0 transmission via high-speed FPC connector, the camera can meet different spatial requirements.

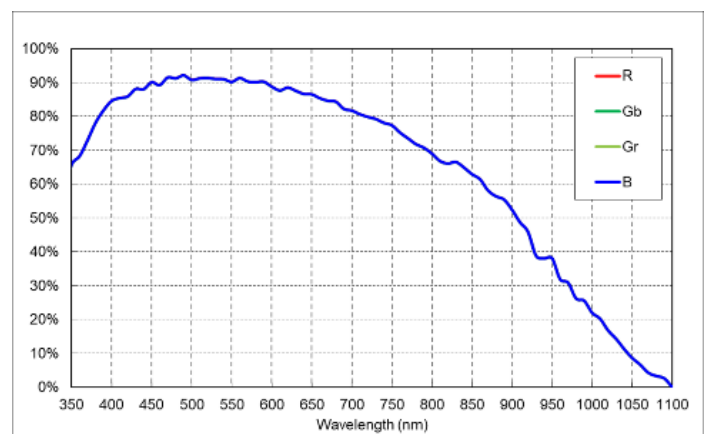
Key Features

- USB 3.0 supports FPC connection to meet limited spatial requirements.
- Supports auto or manual adjustment of gain, exposure time, white balance, LUT correction, Gamma correction, etc.
- Compatible with USB3 Vision Protocol, GenICam standard, and the third-party software based on these protocol and standard.

Available Models

- Single board mono camera: MV-CB020-61UM-B-F
- C-mount mono camera: MV-CB020-61UM-C-F
- M12-mount mono camera: MV-CB020-61UM-S-F

Sensor Quantum Efficiency



MV-CB020-61UM

Applicable Industry

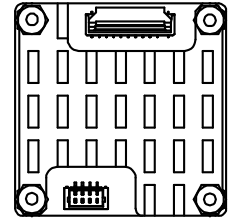
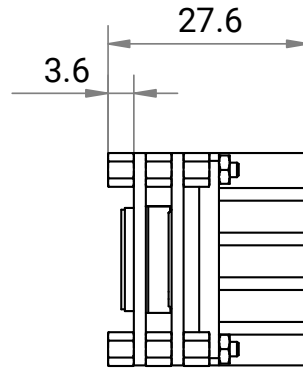
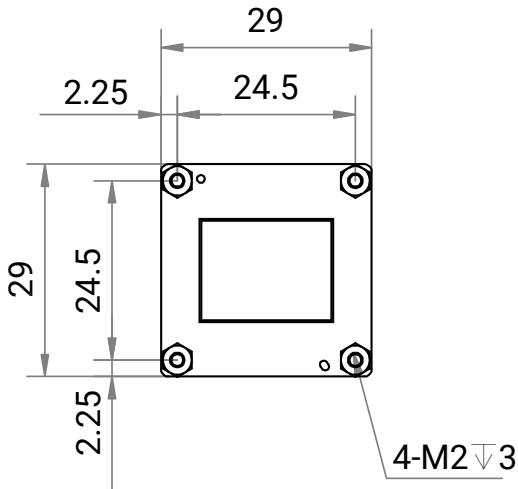
3D application, semiconductor, etc.

Specification

Model	MV-CB020-61UM
Performance	
Sensor type	CMOS, global shutter
Sensor model	Stacked BSI
Pixel size	4.5 μm \times 4.5 μm
Sensor size	1/1.7"
Resolution	1624 \times 1240
Max. frame rate	99 fps @ 1624 \times 1240 Mono 8
Dynamic range	73.9 dB
SNR	42.4 dB
Gain	High full well capacity: 0 dB to 12.8 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, supports Trigger Width
Mono/color	Mono
Pixel format	Mono 8/10/10Packed/12/12Packed
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	5 V, USB 3.0 power supply
Power consumption	Typ. 1.5 W @ 5 VDC (USB power supply)
Mechanical	
Lens mount	Single board camera: none C-mount camera: C-mount M12-mount camera: M12-mount
Dimension	Single board camera: 29 mm \times 29 mm \times 27.6 mm (1.1" \times 1.1" \times 1.1") C-mount camera: 29 mm \times 29 mm \times 31.3 mm (1.1" \times 1.1" \times 1.2") M12-mount camera: 29 mm \times 29 mm \times 31.3 mm (1.1" \times 1.1" \times 1.2")
Weight	Approx. 37 g (0.08 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, GenICams
Certification	KC, CE, RoHS

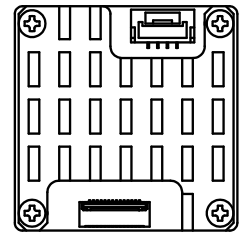
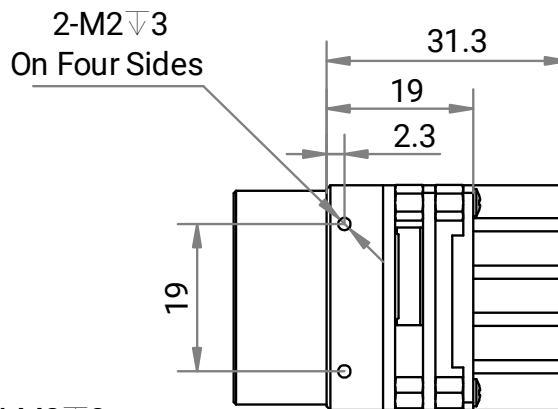
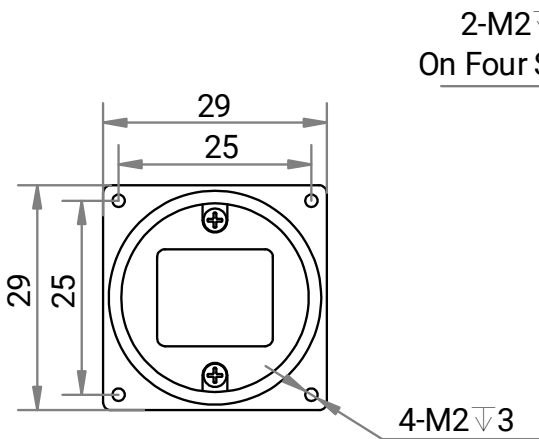
Dimension

Single board camera:



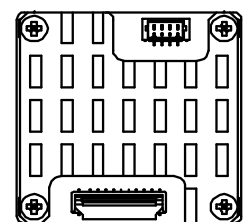
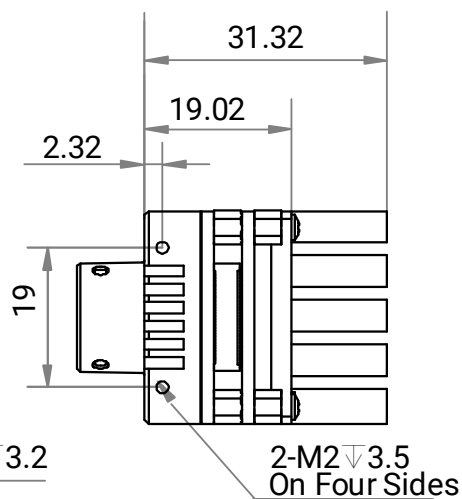
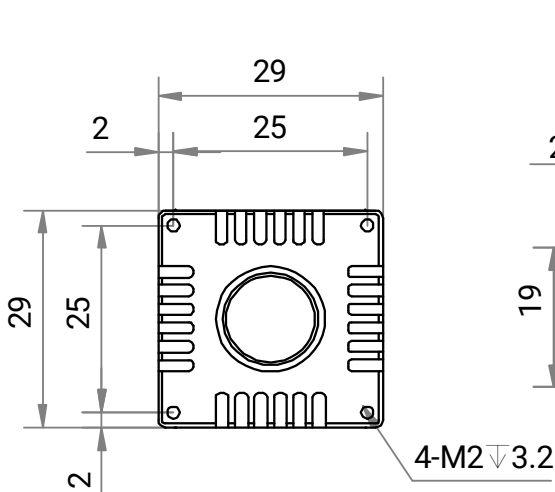
Unit: mm

C-mount camera:



Unit: mm

M12-mount camera:



Unit: mm