

MV-CU020-90UM/UC

2 MP 1/1.7" CMOS USB3.0 Area Scan Camera



GEN< i >CAM

US3[™]
VISION

Introduction

MV-CU020-90UM/UC camera adopts GMAX4002 CMOS 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 150.2 fps.

Key Feature

- Adopts optimized hardware design and low-power design with stable performance.
- Supports auto or manual adjustment of gain, exposure time, manual adjustment of LUT, and Gamma correction, etc.
- Supports customized ROI, horizontal and vertical reverse image output.
- Adopts compact design for flexible installation.
- Compatible with USB3 Vision Protocol, GenICam Standard, and third-party software based on the protocol and standard.

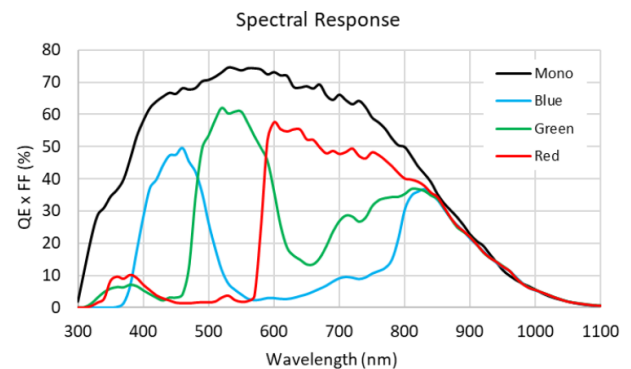
Available Model

- Mono camera: MV-CU020-90UM
- Color camera: MV-CU020-90UC

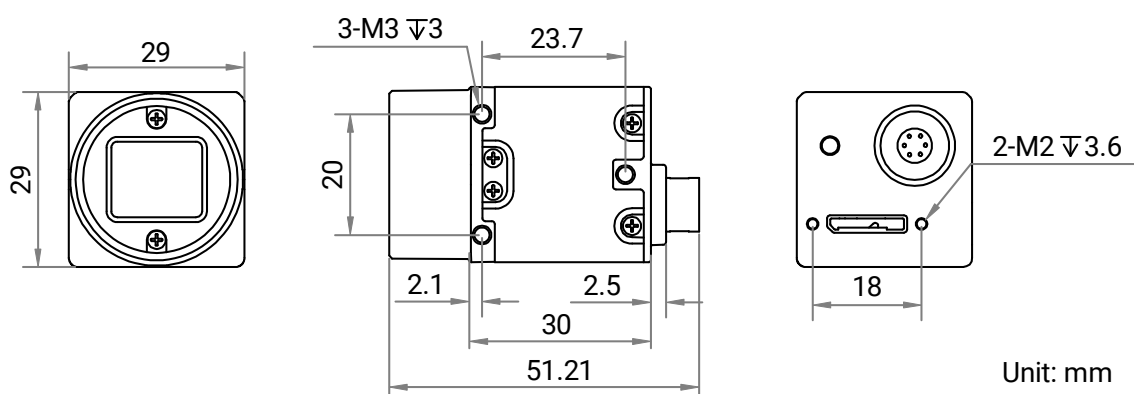
Applicable Industry

Electronic semiconductor, factory automation, logistics code reading, liquor and beverage, pharmaceutical packaging, etc.

Sensor Quantum Efficiency



Dimension



Specification

Model	MV-CU020-90UM	MV-CU020-90UC
Performance		
Sensor type	CMOS, global shutter	
Sensor model	GMAX4002	
Pixel size	4 μm x 4 μm	
Sensor size	1/1.7"	
Resolution	2048 × 1200	
Max. frame rate	150.2 fps @ 2048 × 1200 Mono 8	150.2 fps @ 2048 × 1200 Bayer GB 8
Dynamic range	66.9 dB	
SNR	40.8 dB	
Gain	0 dB to 11.1 dB	
Exposure time	4 μs to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	Bayer GB 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 features		
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. 1.9 W @ 5 VDC (USB3.0 provides power supply)	Typ. 2.2 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	IP30 (under proper lens installation and wiring)	
Temperature	Working temperature: 0 °C to 50 °C (32 °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, 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, RoHS, KC	