

MV-CS040-A0UM/UC

4 MP 1" CMOS USB 3.0 Area Scan Camera



GEN*i*CAM

US3TM
VISION

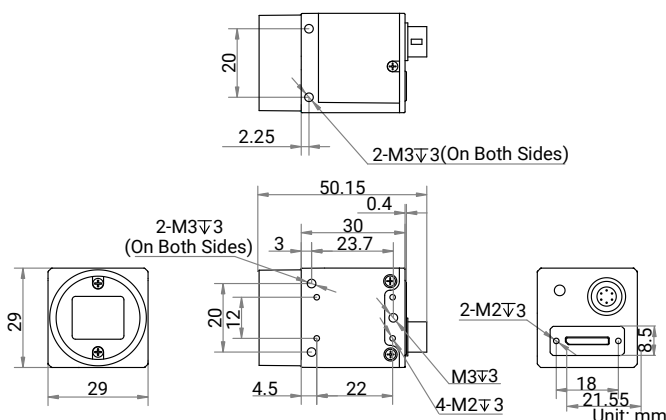
Introduction

MV-CS040-A0UM/UC 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 90.1 fps in full resolution.

Key Feature

- Adopts global shutter CMOS sensor providing high signal-to-noise ratio, wide dynamic range and high quality images.
- Resolution of 2048×2048 , pixel size of $5.5 \mu\text{m} \times 5.5 \mu\text{m}$.
- Supports hardware trigger, software trigger, free run.
- Compact design with mounting holes on panels for flexible mounting from 4 sides.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

Dimension



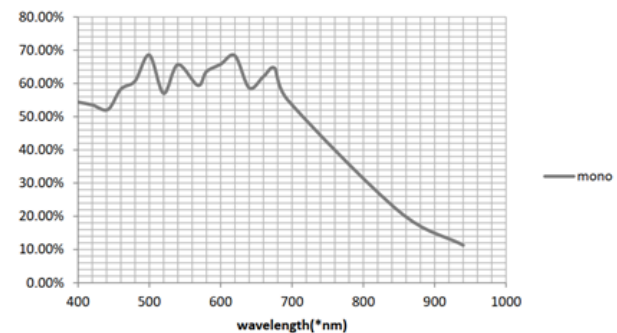
Available Model

- Mono camera: MV-CS040-A0UM
- Color camera: MV-CS040-A0UC

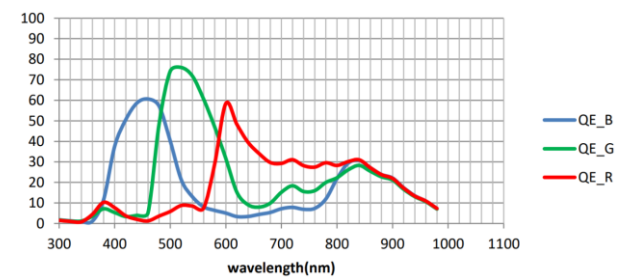
Applicable Industry

Electronics and semiconductor, factory automation, medicine package, etc.

Sensor Quantum Efficiency



MV-CS040-A0UM



MV-CS040-A0UC

Specification

Model	MV-CS040-A0UM	MV-CS040-A0UC
Performance		
Sensor type	CMOS, global shutter	
Pixel size	5.5 μm × 5.5 μm	
Sensor size	1"	
Resolution	2048 × 2048	
Max. frame rate	90.1 fps @ 2048 × 2048 Mono 8	90.1 fps @ 2048 × 2048 Bayer GB 8
Dynamic range	59.7 dB	
SNR	39.6 dB	
Gain	0 dB to 12 dB	
Exposure time	30 μs to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	Mono 8/10/12, Bayer GB 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 × 1, 2 × 2	Supports 1 × 1, 2 × 2, 4 × 4
Decimation	Supports 1 × 1, 2 × 2	Supports 1 × 1, 2 × 2, 4 × 4
Reverse image	Supports horizontal and vertical reverse image output	
Electrical features		
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), 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. 2.4 W @ 5 VDC (USB 3.0 provides power supply)	
Mechanical		
Lens mount	C-mount	
Dimension	29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2")	
Weight	Approx. 88 g (0.2 lb.)	
Ingress protection	IP40 (under proper lens installation and wiring)	
Temperature	Working temperature: −30 °C to 60 °C (−22 °F to 140 °F) Storage temperature: −30 °C to 70 °C (−22 °F to 158 °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 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, RoHS, KC	