

# MV-CS023-10UM/UC

2.3 MP 1/2" CMOS USB 3.0 Area Scan Camera



GEN*i*CAM

USB<sup>TM</sup>  
VISION

## Introduction

MV-CS023-10UM/UC camera adopts Sony® IMX249 sensor to provide high-quality images. It uses USB 3.0 interface to transmit images in real time, and its max. frame rate can reach 41 fps in full resolution.

## Key Features

- Adopts brand new design to reduce power consumption.
- Supports sequencer, passive transmission, etc.
- Color camera supports white balance, CCM, Super Palette, Super Bayer, etc.
- Supports hardware trigger, software trigger, anyway mode, etc.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

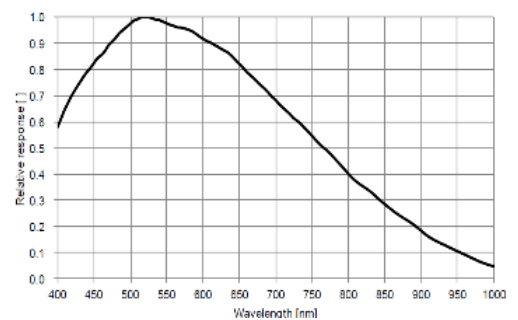
## Available Models

- Mono camera: MV-CS023-10UM
- Color camera: MV-CS023-10UC

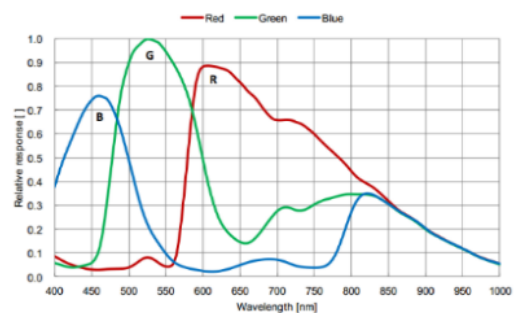
## Applicable Industry

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

## Sensor Quantum Efficiency

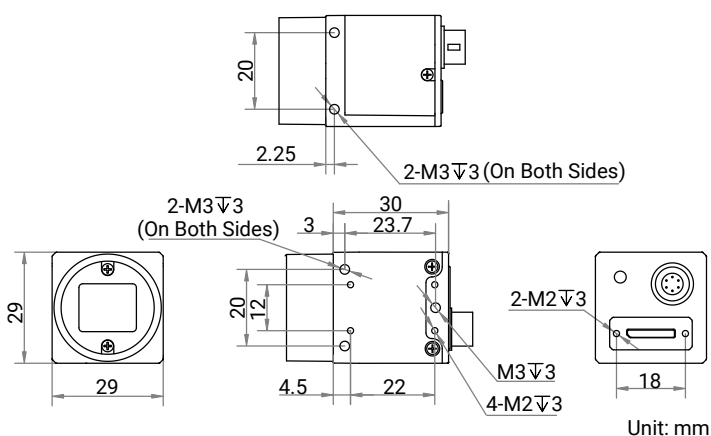


MV-CS023-10UM



MV-CS023-10UC

## Dimension



## Specification

Model	MV-CS023-10UM	MV-CS023-10UC
<b>Performance</b>		
Sensor type	CMOS, global shutter	
Sensor model	Sony® IMX249	
Pixel size	5.86 μm × 5.86 μm	
Sensor size	1/1.2"	
Resolution	1920 × 1200	
Max. frame rate	41 fps @ 1920 × 1200 Mono 8	41 fps @ 1920 × 1200 Bayer RG 8
Dynamic range	70 dB	
SNR	40 dB	
Gain	0 dB to 24 dB	
Exposure time	15 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 RG 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 features</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), bi-directional non-isolated I/O × 1 (Line 2).	
Power supply	9 VDC to 24 VDC, supports USB power supply	
Power consumption	Typ. 1.5 W @ 5 VDC (USB 3.0 provides power supply)	Typ. 1.6 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. 78 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 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 Window 11, and 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, RoHS, KC	