

MV-CS016-10UM V5.0

1.6 MP 1/2.9" CMOS USB3.0 Area Scan Camera



GEN*i*CAM

US3TM
VISION

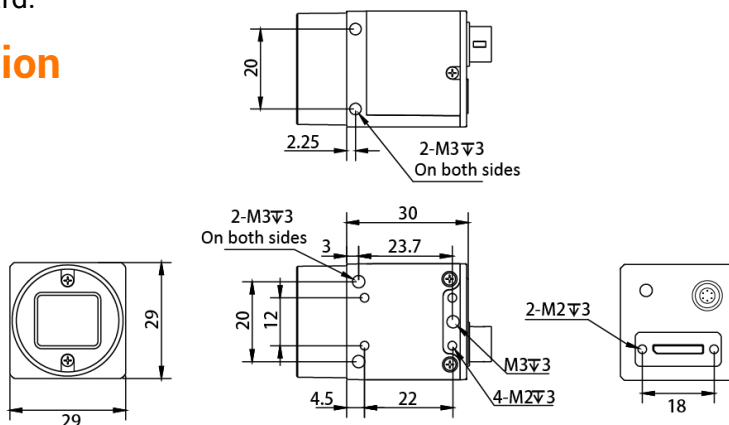
Introduction

MV-CS016-10UM V5.0 camera adopts Sony® IMX273 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 249.1 fps in full resolution.

Key Feature

- Adopts brand new design to reduce power consumption.
- Supports sequencer, contrast ratio, white balance, Gamma correction, etc.
- Supports hardware trigger, software trigger, and 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



Unit: mm

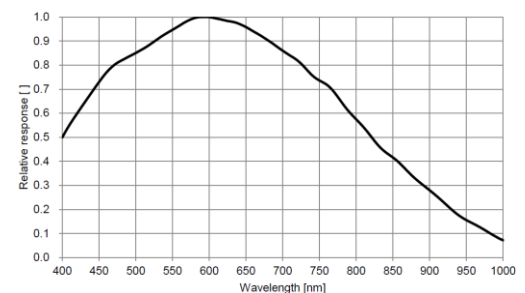
Available Model

Mono camera: MV-CS016-10UM

Applicable Industry

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

Sensor Quantum Efficiency



MV-CS016-10UM

Model	MV-CS016-10UM V5.0
Performance	
Sensor type	CMOS, global shutter
Sensor model	Sony® IMX273
Pixel size	3.45 μm × 3.45 μm
Sensor size	1/2.9"
Resolution	1440 × 1080
Max. frame rate	249.1 fps @ 1440 × 1080 Mono 8
Dynamic range	71.1 dB
SNR	40 dB
Gain	0 dB to 17 dB
Exposure time	UltraShort exposure mode: 1 μs to 14 μs
	Standard exposure mode: 15 μs to 10 sec
Exposure mode	Off/Once/Continuous exposure mode
Mono/color	Mono
Pixel format	Mono 8/10/10Packed/12/12Packed
Binning	Supports 1 × 1, 2 × 2
Decimation	Supports 1 × 1, 2 × 2
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), bi-directional non-isolated I/O × 1 (Line 2).
Power supply	9 VDC to 24 VDC, supports USB3.0 power supply
Power consumption	Typ. 1.7 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 (0.18 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