MV-CA004-10UM/UC
0.4 MP 1/2.9" CMOS USB3.0 Camera

Introduction

MV-CA004-10UM/UC camera adopts Sony IMX 287 sensor and provides high quality image. The USB3.0 interface provides high-speed and real-time transmission of uncompressed data with the maximum frame rate reaching 523.5 fps at full resolution.

Key Feature

- Supports auto and manual adjustment for gain, exposure control, white balance, LUT, Gamma correction, and etc.
- Supports hardware triggering, software triggering, and free run.
- Adopts M2 screw holes for securing cable that connects USB3.0 interface
- Up to 128 MB local memory for burst transmission and retransmission
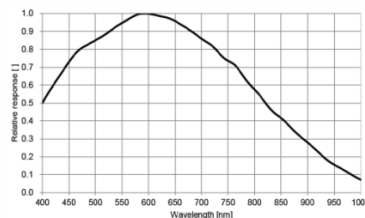- Compatible with USB3 Vision Protocol, and the third-party software based on the protocol

Applicable Industry

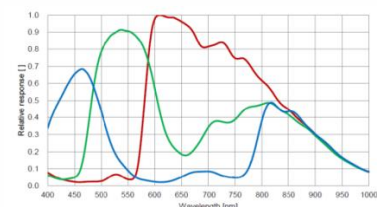Electronic semiconductor, factory automation, medicine package, and etc.

Available Model

- Mono Camera: MV-CA004-10UM
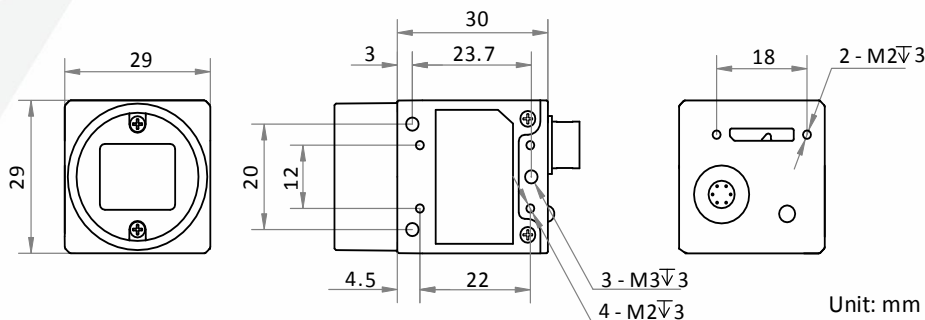- Color Camera: MV-CA004-10UC

Sensor Quantum Efficiency

MV-CA004-10UM   MV-CA004-10UC

Dimension

Unit: mm

Specification

Model Parameters	MV-CA004-10UM	MV-CA004-10UC
	0.4 MP 1/2.9" CMOS USB3.0 Camera	
Camera		
Sensor type	CMOS, global shutter	
Sensor model	Sony IMX287	
Pixel size	6.9 μm × 6.9 μm	
Sensor size	1/2.9"	
Resolution	720 × 540	
Frame rate	Mono8 523.5 fps	Bayer8 523.5 fps
Dynamic range	74 dB	
SNR	41 dB	
Gain	0 dB to 20 dB	
Exposure time	1 μs to 10 s	
Shutter mode	Off/ Once /Continuous exposure mode	
Pixel format	Mono 8/10/10p/12/12p	Mono8/10/12, Bayer RG 8/10/10p/12/12p YUV 422 Packed, YUV422_YUYV_Packed, RGB8, BGR8
Acquisition mode	Continuous mode, single frame mode	
Reverse image	Supports horizontal and vertical reverse image output	
Image buffer	128 MB	
Electrical features		
Data interface	USB3.0	
Digital I/O	6-pin Hirose connector provides power supply and I/O, including opto-isolated input x 1 (Line 0), opto-isolated output x 1 (Line 1), and bi-directional non-isolated I/O x 1 (Line 2)	
Power supply	9 VDC to 26 VDC, supports USB3.0 power supply	
Power consumption	Approx. 3 W@12 VDC	
Structure		
Lens mount	C-Mount	
Dimension	29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2")	
Weight	Approx. 56 g (0.1 lb.)	
Ingress protection	IP 30 (under proper lens installation and wiring)	
Temperature	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)	
Humidity	20% to 80% RH, without condensation	
General		
Client software	MVS or third-party software meeting with USB3 Vision Protocol	
Operating system	Windows XP/7/10 32/64bits, Linux 32/64bits or MacOS 64bits	
Compatibility	USB3 Vision	
Certification	CE, FCC, RoHS	