MV-CB013-20UM/UC-C

1.3 MP 1/2" CMOS USB3.0 Board Level Camera

GEN<i>CAM

US3 VISION

Introduction

MV-CB013-20UM/UC-C camera adopts OnSemi PYTHON1300 sensor and has high frame rate. It adopts C-mount and is small in size, which can meet different spatial requirements.

Key Feature

- Single board design for flexible installation
- Supports auto and manual adjustment for gain, exposure control, white balance, LUT, etc.
- Adopts image interpolation algorithm for color camera to have better color correction
- Power supply and data transmission via USB3.0 interface
- Compatible with USB3 Vision Protocol, GenlCam standard, and the third-party software based on these protocol and standard
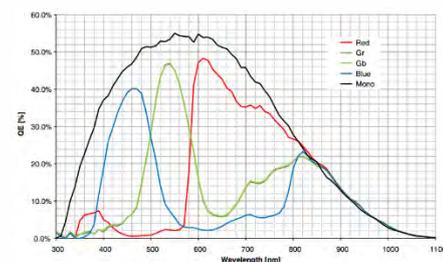
Available Model

Mono camera: MV-CB013-20UM-C
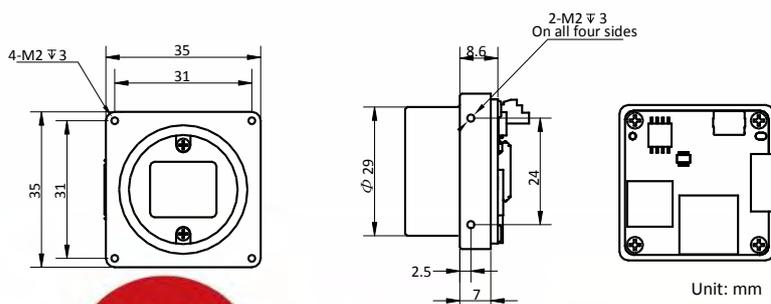Color camera: MV-CB013-20UC-C

Applicable Industry

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

Sensor Quantum Efficiency

Dimension

Unit: mm

Specification

Model	MV-CB013-20UM-C	MV-CB013-20UC-C
Camera		
Sensor type	CMOS, global shutter	
Sensor model	OnSemi PYTHON1300	
Pixel size	4.8 μm × 4.8 μm	
Sensor size	1/2"	
Resolution	1280 × 1024	
Max. frame rate	170 fps @1280 × 1024	
Dynamic range	59.6 dB	
SNR	39.8 dB	
Gain	0 dB to 15 dB	
Exposure time	40 μs to 10 s	65 μs to 10 s
Shutter mode	Off/ Once/ Continuous exposure mode	
Mono/color	Mono	Color
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
Binning	Supports 1 × 2, 1 × 4, 2 × 1, 2 × 2, 2 × 4, 4 × 1, 4 × 2, 4 × 4	Not support
Decimation	Not support	
Reverse image	Supports horizontal and vertical reverse image output	
Electrical features		
Data interface	USB3.0	
Digital I/O	Bi-directional non-isolated I/O x 2 (Line 1, Line 2)	
Power supply	USB3.0 power supply	
Power consumption	< 2.28 W@5 VDC	
Structure		
Lens mount	C-Mount	
Dimension	35 mm × 35 mm × 8.6 mm (1.4" × 1.4" × 0.3")	
Weight	Approx. 30 g (0.07 lb.)	
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 with USB3 Vision Protocol	
Operating system	32/64-bit Windows XP/7/10, 32/64-bit Linux	
Compatibility	USB3 Vision, GenICam	
Certification	CE, FCC, RoHS, KC	