

## MV-CB013-20UM/UC-S

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

### Introduction

MV-CB013-20UM/UC-S camera adopts Onsemi PYTHON1300 chip and has high frame rate. It adopts M12-mount and is small in size which can meet different spatial requirements.



GEN*i*CAM USB<sup>TM</sup> VISION

### Key Feature

- Single board design for flexible installation
- Supports auto and manual adjustment for gain, exposure control, white balance, LUT, Gamma correction, and 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, GeniCam standard, and the third-party software based on these protocol and standard.

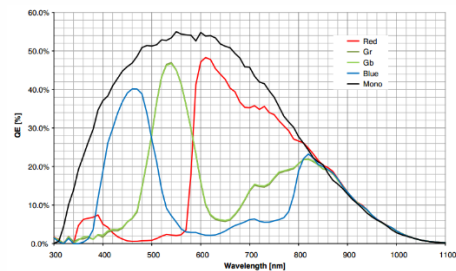
### Applicable Industry

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

### Available Model

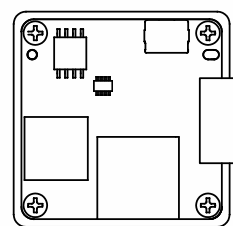
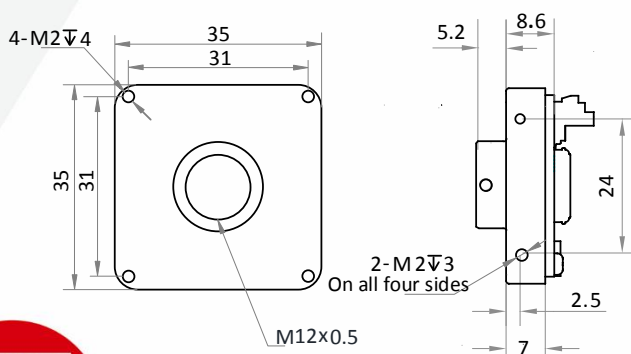
- Mono camera: MV-CB013-20UM-S
- Color camera: MV-CB013-20UC-S

### Sensor Quantum Efficiency



MV-CB013-20UM/UC-S

### Dimension



Unit : mm



## Specification

Model	MV-CB013-20UM-S	MV-CB013-20UC-S
Parameters	1.3 MP 1/2" CMOS USB3.0 Board Level Camera	
<b>Camera</b>		
Sensor type	CMOS, global shutter	
Sensor model	Onsemi PYTHON1300	
Pixel size	4.8 μm × 4.8 μm	
Sensor size	1/2"	
Resolution	1280 × 1024	
Frame rate	170 fps	
Dynamic range	60 dB	
SNR	40 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
Acquisition mode	Continuous mode, single frame mode	
Binning	1×1, 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	
<b>Electrical features</b>		
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	
<b>Structure</b>		
Lens mount	M12-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	
<b>General</b>		
Client software	MVS or third-party software with USB3 Vision Protocol	
Operating system	Windows XP/7/10 32/64bits, Linux 32/64bits or MacOS 64bits	
Compatibility	USB3 Vision, GenICam	
Certification	CE, FCC, RoHS	