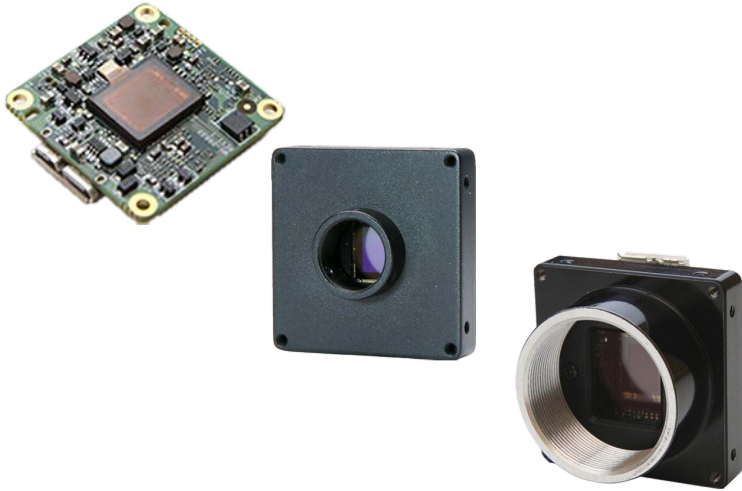


# HC-CB013-20UM/UC

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



GEN*<i>i>*CAM

US3<sup>™</sup>  
VISION

### Introduction

HC-CB013-20UM/UC camera adopts OnSemi PYTHON1300 sensor and has high frame rate. With single board design, it is small in size, which can meet different spatial requirements.

### Key Feature

- Compact 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, GenICam standard, and the third-party software based on these protocol and standard.

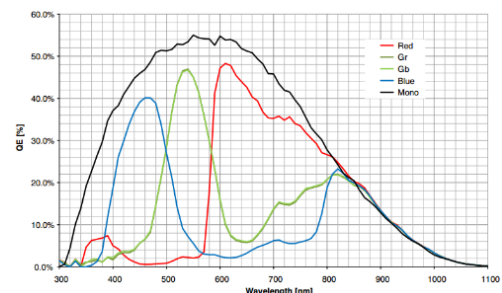
### Available Model

- Single board mono camera: HC-CB013-20UM-B
- Single board color camera: HC-CB013-20UC-B
- C-mount mono camera: HC-CB013-20UM-C
- C-mount color camera: HC-CB013-20UC-C
- M12-mount mono camera: HC-CB013-20UM-S
- M12-mount color camera: HC-CB013-20UC-S

### Applicable Industry

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

### Sensor Quantum Efficiency

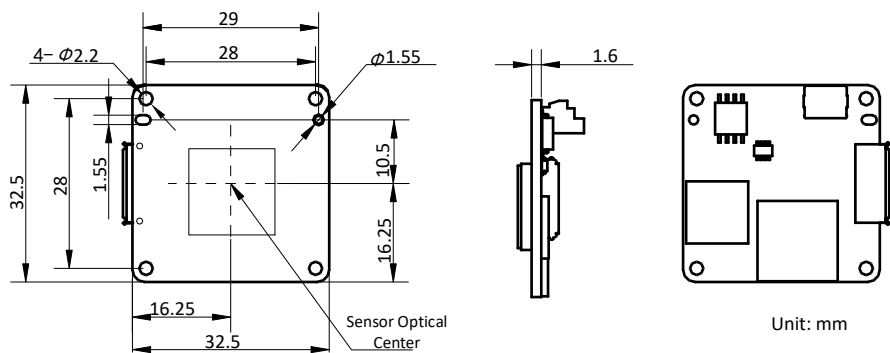


## Specification

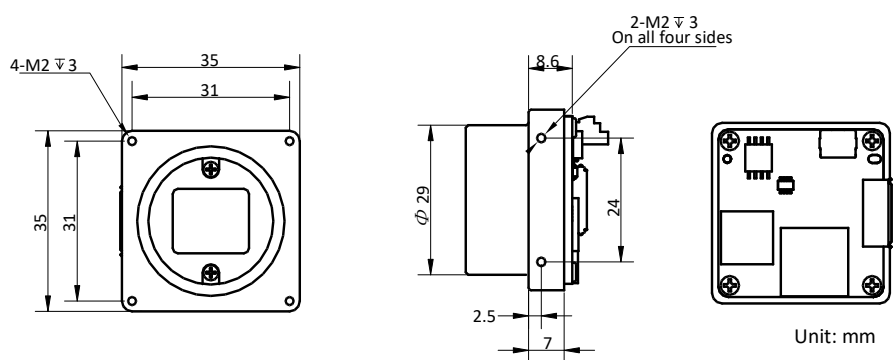
Model	HC-CB013-20UM		HC-CB013-20UC
Camera			
Sensor type	CMOS, global shutter		
Sensor model	OnSemi PYTHON1300		
Pixel size	4.8 μm × 4.8 μm		
Sensor size	1/2"		
Resolution	1280 × 1024		
Max. frame rate	170 fps @1280 × 1024		
Dynamic range	59.6 dB		
SNR	39.8 dB		
Gain	0 dB to 15 dB		
Exposure time	40 μs to 10 sec	65 μs to 10 sec	
Exposure 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, RGB 8	
Binning	Supports 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		
Electrical feature			
Data interface	USB3.0		
Digital I/O	Bi-directional non-isolated I/O × 2 (Line 1, Line 2)		
Power supply	USB3.0 power supply		
Power consumption	Typ. 2.28 W@5 VDC		
Mechanical			
Lens mount	Single board camera: none C-mount camera: C-mount M12-mount camera: M12-mount		
Dimension	Single board camera: 32.5 mm × 32.5 mm × 1.6 mm (1.3" × 1.3" × 0.1") C-mount camera: 35 mm × 35 mm × 8.6 mm (1.4" × 1.4" × 0.3") M12-mount camera: 35 mm × 35 mm × 8.6 mm (1.4" × 1.4" × 0.3")		
Weight	Single board camera: Approx. 10 g (0.02 lb.) C-mount camera: Approx. 30 g (0.07 lb.) M12-mount camera: 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, non-condensing		
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		

## Dimension

Single board camera:



C-mount camera:



M12-mount camera:

