

# CHUM-131M/C-B

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

## Introduction

CHUM-131M/C-B camera adopts Onsemi PYTHON1300 chip and has high frame rate. It adopts single board design and is small in size which can meet different spatial requirements.



**GEN*i*CAM** **USB<sup>3</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.

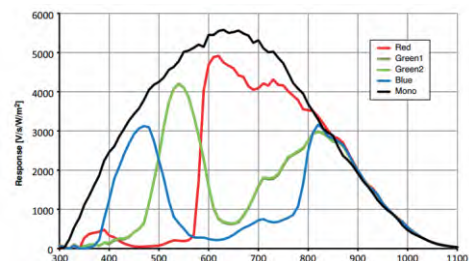
## Applicable Industry

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

## Available Model

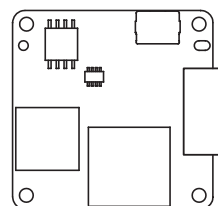
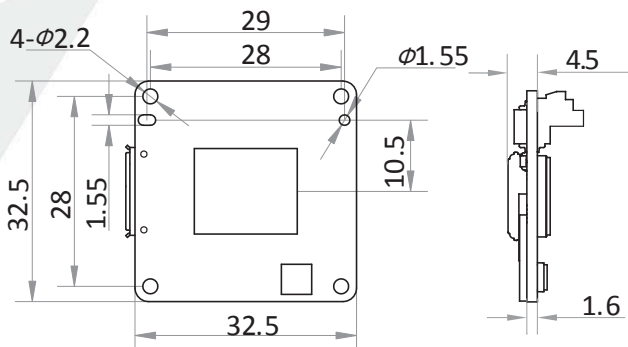
- Mono camera: CHUM-131M-B
- Color camera: CHUM-131C-B

## Sensor Quantum Efficiency



CHUM-131M/C-B

## Dimension



Unit: mm

## Specification

Model	CHUM-131M-B	CHUM-131C-B
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 $\mu\text{m}$ $\times$ 4.8 $\mu\text{m}$	
Sensor size	1/2"	
Resolution	1280 $\times$ 1024	
Frame rate	170 fps	
Dynamic range	60 dB	
SNR	40 dB	
Gain	0 dB to 15 dB	
Exposure time	40 $\mu\text{s}$ to 10 s	65 $\mu\text{s}$ 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 $\times$ 1, 1 $\times$ 2, 1 $\times$ 4, 2 $\times$ 1, 2 $\times$ 2, 2 $\times$ 4, 4 $\times$ 1, 4 $\times$ 2, 4 $\times$ 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 $\times$ 2 (Line 1, Line 2)	
Power supply	USB3.0 power supply	
Power consumption	< 2.28 W@5 VDC	
<b>Structure</b>		
Dimension	32.5 mm $\times$ 32.5 mm $\times$ 4.5 mm (1.3" $\times$ 1.3" $\times$ 0.2")	
Weight	Approx. 10 g (0.02 lb.)	
Temperature	Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$ ) Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$ )	
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	