

VEN-830-22U3M/C

VENUS Series 8.3 MP CMOS USB3.0 Board Level Camera



The VEN-830-22U3M/C camera is a monochrome/color all-in-one board level camera with the Sony IMX334 CMOS sensor. The VEN-830-22U3M/C provides four lens mount options: C mount with housing, S mount with housing, CS mount with housing and No mount (bare board). Thanks to the extremely compact housing and various mount options, the VEN-830-22U3M/C is more flexible in demanding space.

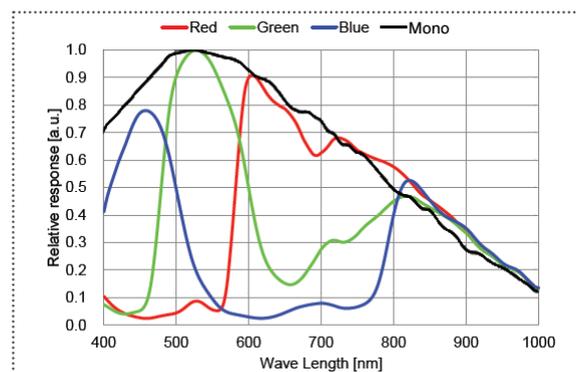
Applications

Suitable for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

Features

- USB3.0 (Micro B) interface with 10-bit or 8-bit Mono/Bayer output
- Gain, auto gain, exposure and auto exposure
- Color model supports white balance, auto white balance and light source preset function
- Storable user sets
- Support Reverse X/Y (horizontal and vertical mirroring)
- Support hardware trigger and software trigger
- 16KB data storage area for saving algorithm coefficients, parameter configuration, and so on

Spectral Response



Specifications

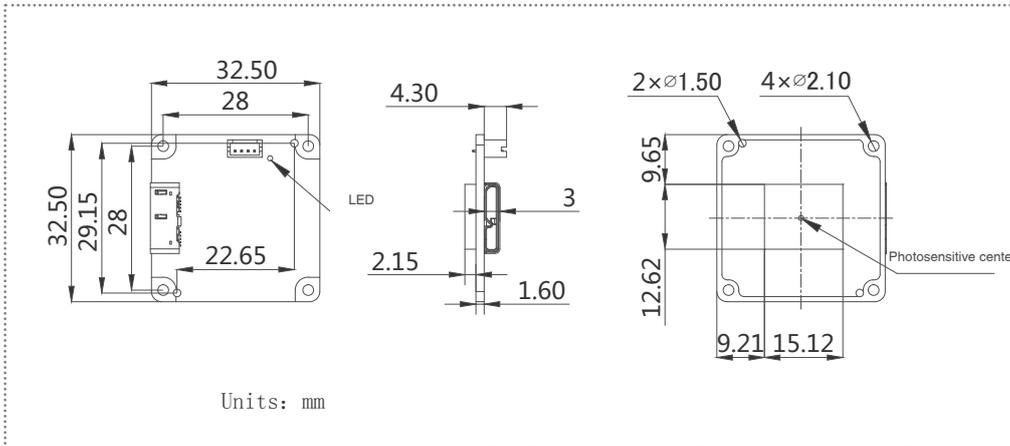
Model	VEN-830-22U3C	VEN-830-22U3M
Resolution	3840(H) × 2160(V)	
Sensor	Sony IMX334 Rolling shutter CMOS	
Sensor Format	1/1.8"	
Pixel Size	2.0μm × 2.0μm	
Frame Rate	22 fps	
ADC	12 bit	
Pixel Bit Depth	8 bit, 10 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer RG8 / Bayer RG10	Mono8 / Mono10
SNR	39.41 dB	39.36 dB
Exposure Time	Standard: 20μs~1s, Actual Steps: 1 row period	
Gain	0dB ~ 24dB; Default: 0dB, Steps: 0.1dB	
Binning	N/A	
Decimation	N/A	
Synchronization	Hardware trigger, software trigger	
Acquisition Mode	Continuous, Software trigger, Hardware trigger	
Reverse X/Y	Reverse X/Y	
I/O Interface	1 input with opto-isolated, 1 programmable GPIO	
Data Interface	USB3.0 (Micro B)	
Power Supply	Power through USB3.0 interface	
Power Consumption	< 2.7W @ 5VDC	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C / S / CS / No-mount	
Dimensions	35(W) × 35(H) × 15.8(L) mm (without C lens adapter or connectors) 35(W) × 35(H) × 15.8(L) mm (without S lens adapter or connectors) 35(W) × 35(H) × 15.8(L) mm (without CS lens adapter or connectors) 32.5(W) × 32.5(H) × 8.05(L) mm (No-mount, PCB thickness is 1.6mm)	
Weight	34 g(C); 32 g(S); 31 g(CS); 7 g(No-mount)	
Software	3rd-party software such as HALCON, MERLIC and LabVIEW	
OS	32bit / 64bit Windows, Linux, Android, ARMv7, ARMv8	
Conformity	CE, RoHS, USB3.0 Vision®, GenICam®	

I/O Interface

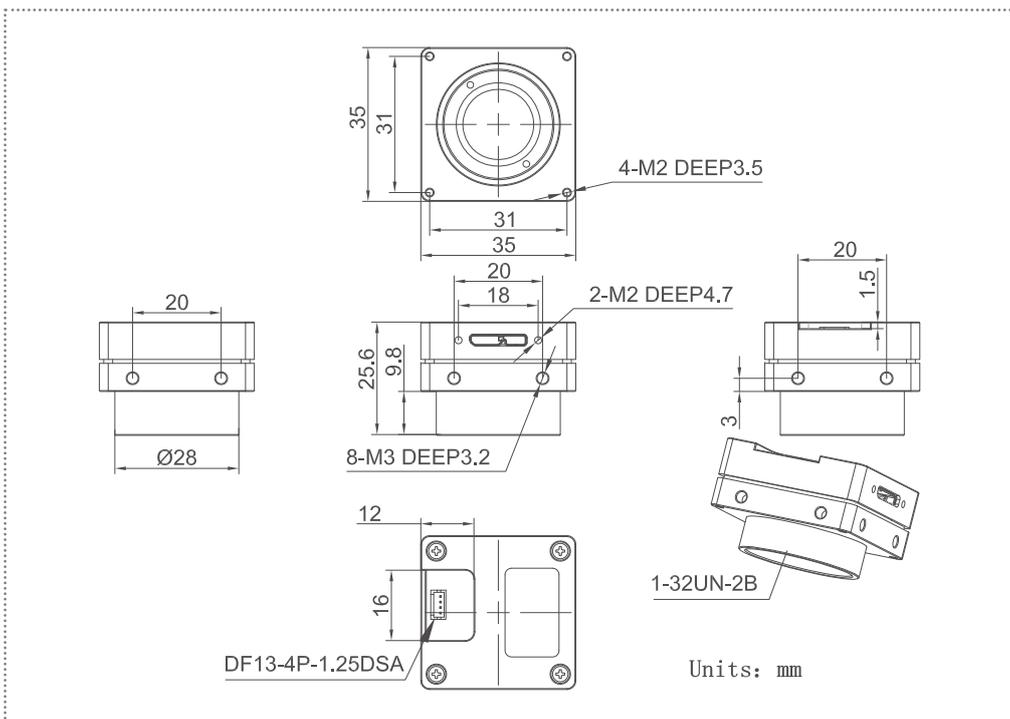


Pin	Definition	Description
1	GND	GPIO GND
2	Line2	GPIO input/output
3	Line0+	Opto-isolated input +
4	Line0-	Opto-isolated input -

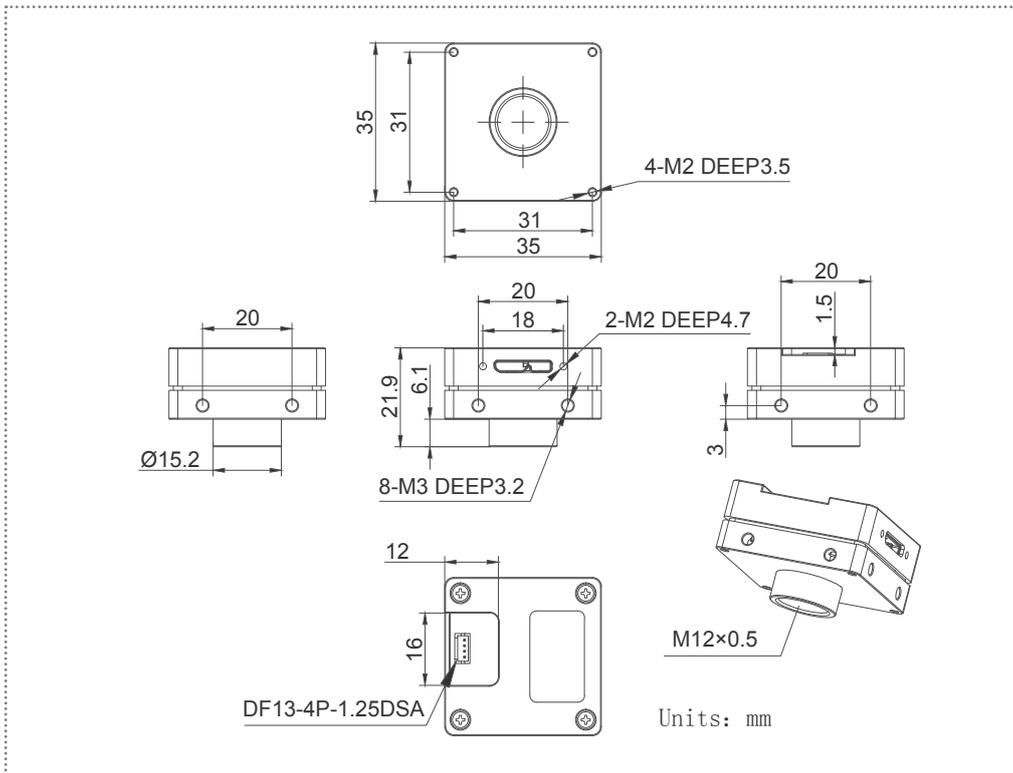
Technical Drawing



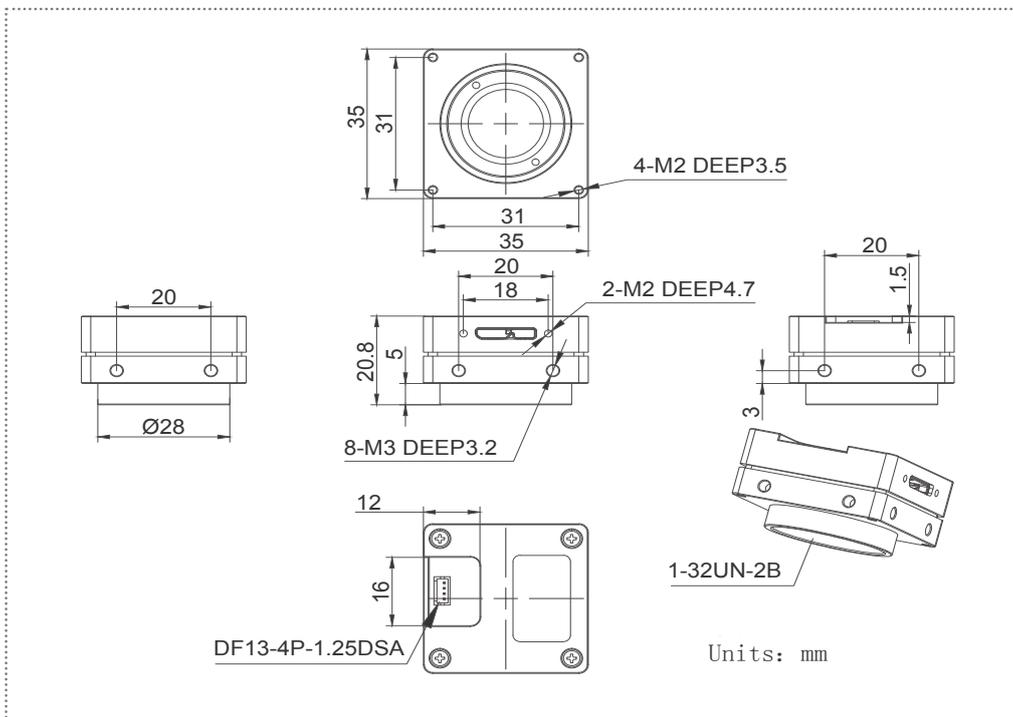
VEN-830-22U3M/C, No Mount



VEN-830-22U3M/C, C Mount



VEN-830-22U3M/C, S Mount



VEN-830-22U3M/C, CS Mount

China Daheng Group, Inc. Beijing Image Vision Technology Branch

12F Daheng Science & Technology Tower, No.3 Suzhou Street, Haidian District, Beijing China, 100080

Tel: +86 10 82828878

E-mail: isales@daheng-imaging.com