ME2P-1842-21U3C

MERCURY2 Plus Series 18.4MP CMOS USB3.0 Area Scan Camera



The ME2P-1842-21U3C camera is a color USB3.0 Vision camera with the Gpixel GMAX2518 CMOS sensor and sensor's protection glass can removable. The ME2P-1842-21U3C camera has opto-isolated I/Os that adapt to specific needs. Four-side mounting holes provide maximum installation flexibility for ME2P-U3. Thanks to the extremely compact (36mm × 31mm × 38.8mm), robust metal housings and locking screw connectors, the MERCURY2 Plus cameras can secure the reliability of cameras deployed in harsh environments.

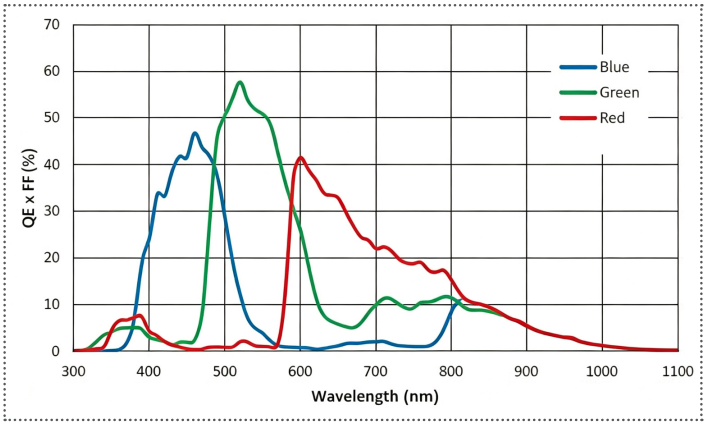
Applications

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

Features

- Trigger mode: Frame Start /Frame Burst Start
- Support Gamma, Binning, Decimation, Digital Shift, Noise Reduction and Sharpness
- Support Black Level, Flat Field Correction and Static Defect Pixel Correction
- Support Timer, Counter, Programmable LUTs and User Set Control
- Support Remove Parameter Limit to expand the range of exposure, gain, and so on
- 16KB data storage area for saving algorithm coefficients and parameter configuration

Spectral Response



Specifications

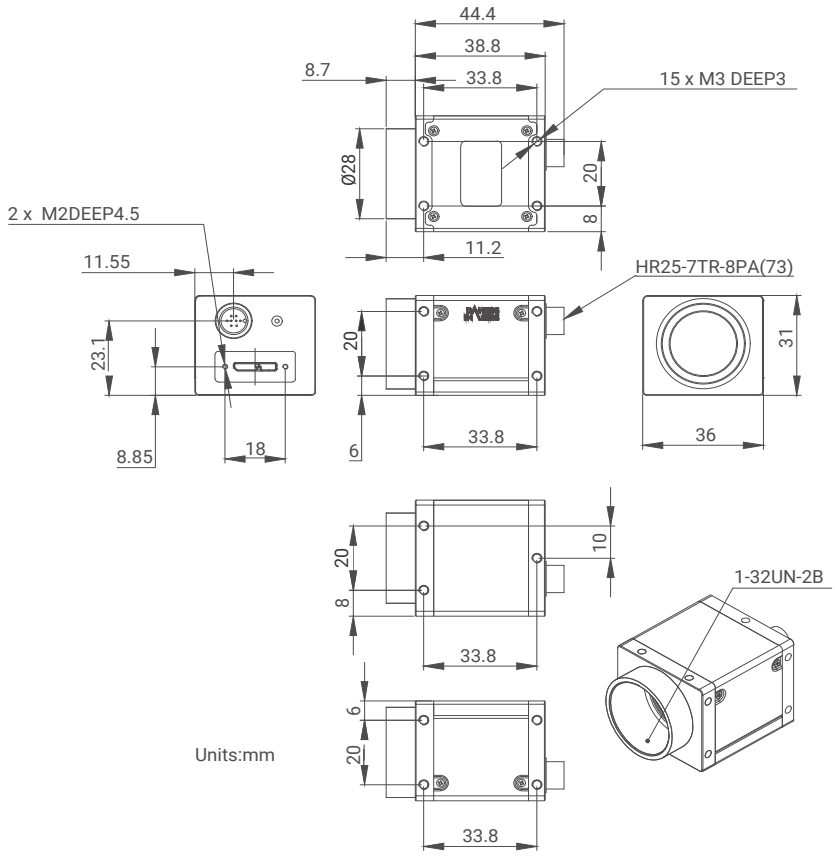
Model	ME2P-1842-21U3C
Resolution	4504(H) × 4096(V)
Sensor	Gpixel GMAX2518 Global shutter CMOS
Sensor Format	1"
Pixel Size	2.5μm × 2.5μm
Frame Rate	21.4 fps
ADC	12 bit
Pixel Bit Depth	8 bit, 12 bit
Mono/Color	Color
Pixel Formats	Bayer GB8 / Bayer GB12 / Mono8 / Mono12
SNR	38.5 dB
Exposure Time	Standard: 11μs ~ 1s, Actual Steps: 1μs
Gain	0dB ~ 16dB; Default: 0dB, Steps: 0.1dB
Binning	1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4
Decimation	Horizontal FPGA, Vertical Sensor: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4
Synchronization	Hardware trigger, software trigger
Acquisition Mode	Single frame, Continuous, Software trigger, Hardware trigger
Reverse X/Y	Reverse X/Y
I/O Interface	1 input and 1 output with opto-isolated, 2 programmable GPIOs
Data Interface	USB3.0
Power Supply	Power over USB3.0
Typical Power	3.04 W @ 5 VDC
Operating Temp.	0°C ~ +45°C
Storage Temp.	-20°C ~ +70°C
Operating Humidity	10% ~ 80%
Lens Mount	C
Dimensions	36(W) × 31(H) × 38.8(L) mm (without lens adapter or connectors)
Weight	66 g
Software	3rd-party software such as HALCON, MERLIC and LabVIEW
OS	32bit / 64bit Windows, Linux, Android, ARMv7, ARMv8
Conformity	CE, RoHS, FCC, ICES, UKCA, USB3.0 Vision®, GenICam®

I/O Interface



Pin	Definition	Description
1	Line 0+	Opto-isolated input +
2	GND	GPIO GND
3	Line 0-	Opto-isolated input -
4	NC	NC
5	Line 2	GPIO input/output
6	Line 3	GPIO input/output
7	Line 1-	Opto-isolated output -
8	Line 1+	Opto-isolated output +

Technical Drawing



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