

ME2P-1231-32U3M POL

MERCURY2 Plus Series 12.3MP CMOS USB3.0 Area Scan Camera



The ME2P-1231-32U3M POL camera is a monochrome polarization USB3.0 Vision camera with the Sony IMX253MZR CMOS sensor. The ME2P-1231-32U3M POL 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.

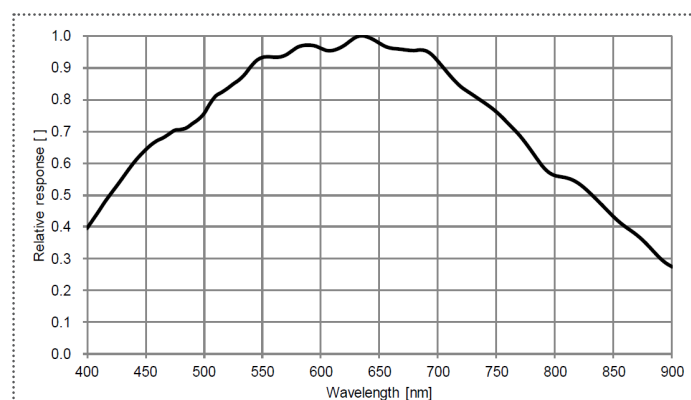
Applications

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 timed exposure mode and triggerWidth exposure mode.
- Two exposure time modes: Standard / UltraShort
- Support Gamma, Binning, Decimation, Digital Shift and Black Level
- Support Sequencer Control, Sensor Bit Depth, Timer and Counter
- Programmable LUTs and User Set Control
- Support 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

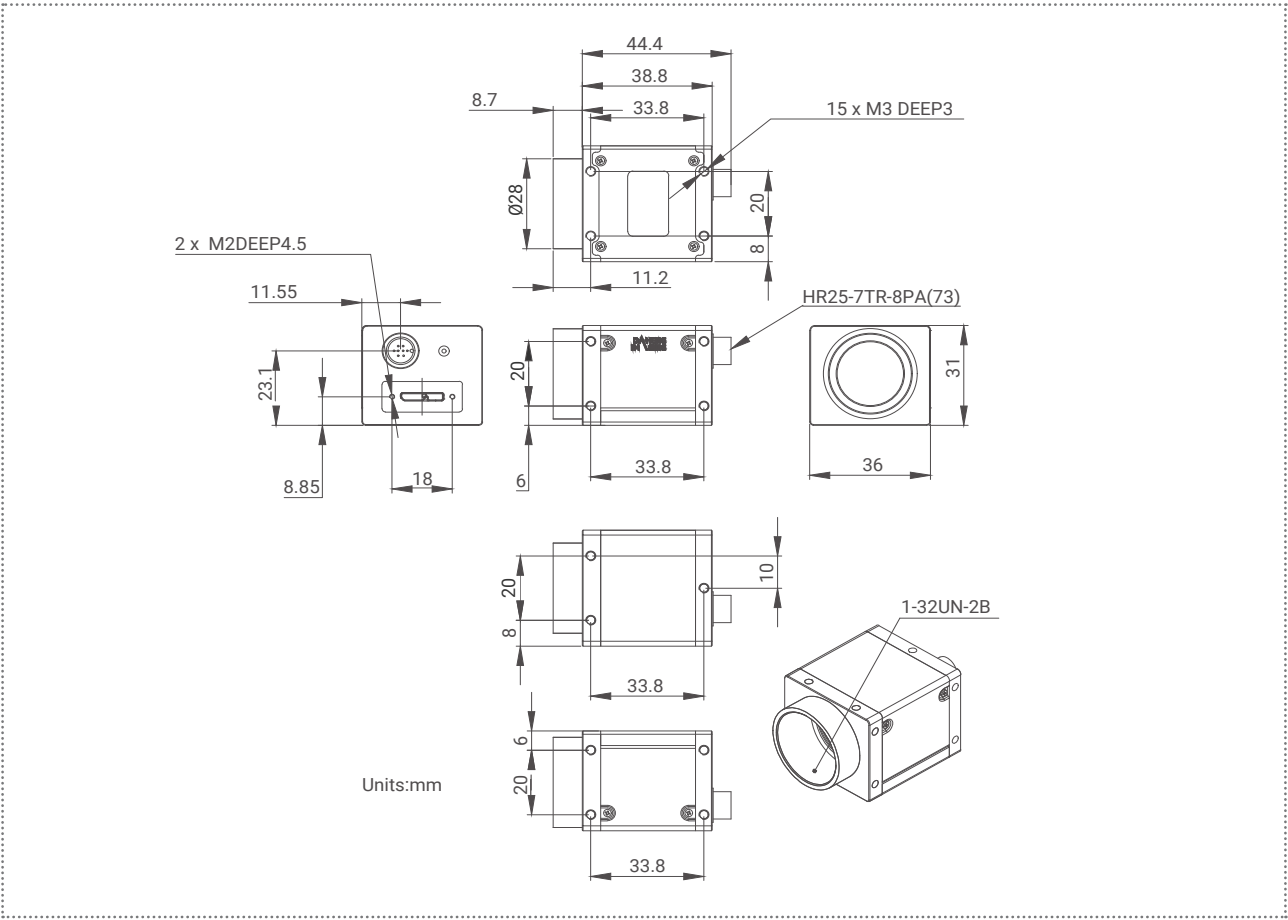
Model	ME2P-1231-32U3M POL
Resolution	4096(H) × 3000(V)
Sensor	Sony IMX253MZR Global shutter CMOS
Sensor Format	1.1"
Pixel Size	3.45μm × 3.45μm
Frame Rate	32.1 fps
ADC	8 bit, 10 bit, 12 bit
Pixel Bit Depth	8 bit, 10 bit, 12 bit
Mono/Color	Mono polarization
Pixel Formats	Mono8 / Mono10 / Mono12
SNR	40.76 dB
Exposure Time	UltraShort: 1μs~100μs, Actual Steps: 1μs; Standard: 24μs ~ 1s, Actual Steps: 1 row period
Gain	0dB ~ 24dB; Default: 0dB, Steps: 0.1dB
Binning	FPGA: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4 Sensor: 1×1, 1×2 (Only for mono model)
Decimation	Sensor: 1×1, 2×2
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	3.05 W @ 5 VDC
Operating Temp.	0°C ~ +45°C
Storage Temp.	-20°C ~ +70°C
Operating Humidity	10% ~ 80%
Lens Mount	C / CS
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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