

MERCURY SERIES

MER-502-79U3M POL



- Ultra small, light and robust
- 2/3" Global Shutter CMOS sensor
- Polarization camera
- Compatible with GenICam™ and USB3 Vision®
- USB3.0 Interface
- 5.0 Megapixels
- 2 Programmable GPIOs
- Very attractive price

The MERCURY USB3.0 series (MER-U3) camera is DAHENG IMAGING's mature area scan industrial digital camera, featuring outstanding performance, compact design and extremely low noise.

The MER-502-79U3M POL camera is a polarization camera with the Sony IMX250MZR CMOS sensor, and capture image of four different light directions simultaneously. Polarization camera can inspect reflective surface such as glass, metal which are difficult for monochrome or color camera. Thanks to the extremely compact, robust metal housings and locking screw connectors, the MERCURY cameras can secure the reliability of cameras deployed in harsh environments.

The MER-502-79U3M POL camera is powered over the USB interface and has opto-isolated I/Os. The GPIOs give MER-U3 maximum flexibility to adapt to specific needs. The camera has an outstanding price/performance ratio.

The MERCURY family cameras are especially suitable for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

Features

- USB3.0 interface with 10-bit or 8-bit Mono output
- Programmable ROI, increased frame rate with partial scan
- Gain and exposure programmable
- Support auto gain and auto exposure
- Three acquisition controls: Continuous acquisition/ Software trigger acquisition/ External trigger acquisition
- Capture image of four different light directions simultaneously
- Flash sync for firing external lights at precisely the moment when exposure is performed
- Adjustable URB
- Software reset function
- Storable user sets
- Robust full metal housing and optional lockable devices
- Hot plugging available
- Compatible with GenICam™ and USB3 Vision®, support a variety of 3rd-party software such as HALCON, MERLIC and LabVIEW
- Optimized software package for 32/64bit Windows, and support Linux, Android, ARMv7 and ARMv8
- Multiple samples and easy-to-integrate SDKs for various programming tools
- Regulations: CE, RoHS, FCC, GenICam, USB3 Vision

Performance Specifications

Model	MER-502-79U3M POL
Interface	USB3.0
Resolution	2448(H) × 2048(V)
Frame rate	79 fps
Sensor	2/3", Global Shutter Sony IMX250MZR CMOS
Pixel size	3.45 μm × 3.45 μm
Pixel Bit Depth	8bit, 10bit
Spectrum	Polarization
Exposure time	20μs ~ 1s

Optical Specifications

Lens mount	C-Mount (standard), CS-Mount (optional)
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Electrical Specifications

Power requirement	5 VDC via USB cable
I/Os	1 input / 1 output, 2 GPIOs
Data interface	Micro B
Power consumption	<2.7W @5V DC

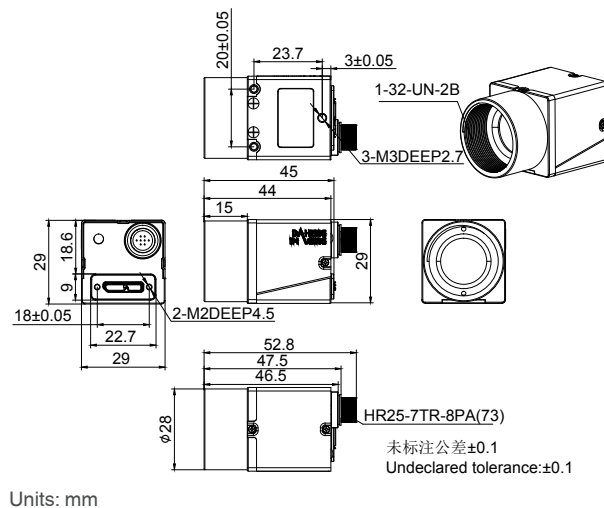
Environmental Specifications

Operating temp.	0°C ~ +45°C
Storage temp.	-20°C ~ +70°C
Operating humidity	10% ~ 80%

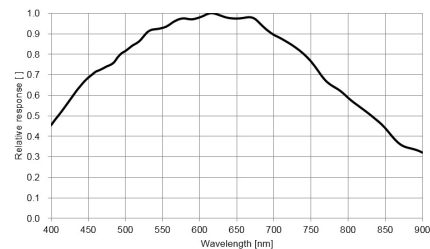
Mechanical Specifications

Weight	57g
Dimensions	29(W)×29(H)×29(L)mm, w/o connectors

Technical Drawing



Spectral Response



MER-502-79U3M POL

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Specifications are subject to change without prior notice.

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October 14, 2021