

# MERCURY2 SERIES

## MER2-1220-32U3M/C-W90



- Ultra small, light and robust
- 90 degree angle lens mount
- 1/1.7" rolling shutter CMOS sensor
- Compatible with GenICam™ and USB3 Vision®
- USB3.0 interface
- 12.2 Megapixels
- 1 input/1 output with opto-isolated
- 2 programmable GPIOs

The MERCURY2 USB3.0 series (MER2-U3) camera with 90 degree angle lens mount is DAHENG IMAGING's new generation area scan industrial digital camera. Compared to MER-U3 and MER2-U3 with standard lens mount, MER2-U3 camera with 90 degree lens angle mount has more installation flexibility.

The MER2-1220-32U3M/C-W90 camera is a monochrome/color USB3 Vision camera with the Sony IMX226 CMOS sensor. Thanks to the compact design (29mm × 29mm × 58.8mm, including lens mount), robust metal housings and locking screw connectors, the MER2-1220-32U3M/C-W90 camera can secure the reliability of cameras deployed in harsh environments. The MER2-U3 cameras have opto-isolated I/Os, and the GPIOs give MER2-U3 cameras maximum flexibility to adapt to specific needs.

The MERCURY2 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 12-bit or 8-bit Mono/Bayer output
- Programmable ROI, increased frame rate with partial scan
- Gain, exposure and white balance programmable (white balance only for color models)
- Support auto gain, auto exposure and auto white balance (auto white balance only for color models)
- Three acquisition controls: Continuous acquisition/ Software trigger acquisition/ External trigger acquisition
- Flash sync for firing external lights at precisely the moment when exposure is performed
- Adjustable URB
- Software reset function
- Storable user sets
- 90 degree angle lens mount enables the camera to be angle installed in harsh environment
- Robust full metal housing and optional lockable devices
- 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, GenICam, USB3 Vision

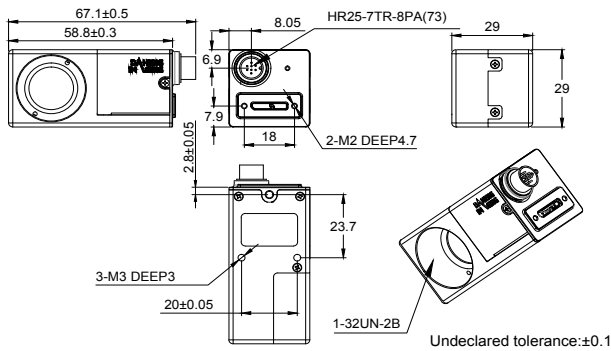
## Performance Specifications

Model	MER2-1220-32U3M/C-W90
Interface	USB3.0
Resolution	4024(H) × 3036(V)
Frame rate	32.3 fps @4024 x 3036
Sensor	1/1.7", Sony IMX226 Rolling shutter CMOS
Pixel size	1.85 μm × 1.85 μm
Pixel Bit Depth	8bit, 12bit
Spectrum	Monochrome / Color
Exposure time	10μs~1s

## Mechanical Specifications

Weight	78g
Dimensions	29(W)×29(H)×58.8(L)mm (with lens mount, without I/O connector)

## Technical Drawing



Units: mm

## Electrical Specifications

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

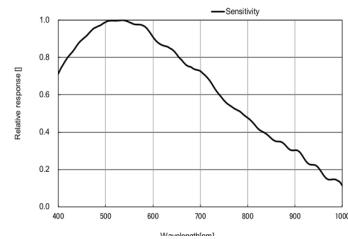
## Environmental Specifications

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

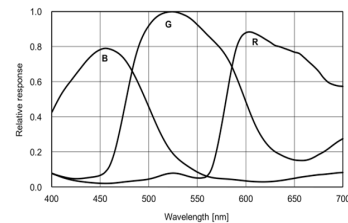
## Optical Specifications

Lens mount	C-Mount (standard), CS-Mount (optional)
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## Spectral Response



MER2-1220-32U3M-W90



MER2-1220-32U3C-W90

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