

MERCURY2 SERIES

MER2-1220-32U3M/C



- 12.2 Megapixels
- 1/1.7" rolling shutter CMOS sensor
- Ultra small, light and robust
- Compatible with GenICam™ and USB3 Vision®
- USB3.0 interface
- 2 programmable GPIOs

The MERCURY2 USB3.0 series (MER2-U3) camera is DAHENG IMAGING's new generation area scan industrial digital camera, featuring outstanding performance, compact design and extremely low noise.

The MER2-1220-32U3M/C camera is a monochrome/color USB3 Vision camera with the Sony IMX226 CMOS sensor. Thanks to the compact design (29mm × 29mm × 29mm), robust metal housings and locking screw connectors, the MERCURY2 cameras can secure the reliability of cameras deployed in harsh environments. The MER2-1220-32U3M/C camera has opto-isolated I/Os. 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
- 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, GenICam, USB3 Vision

Performance Specifications

| | |
|-----------------|---|
| Model | MER2-1220-32U3M/C |
| Interface | USB3.0 |
| Resolution | 4024(H) × 3036(V) |
| Frame rate | 32.3 fps @4024 × 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 |

Optical Specifications

| | |
|------------|---|
| Lens mount | C-Mount (standard), CS-Mount (optional) |
|------------|---|

Electrical Specifications

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

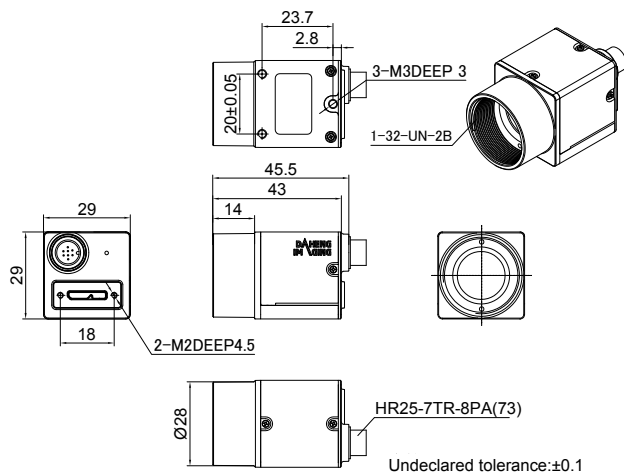
Environmental Specifications

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

Mechanical Specifications

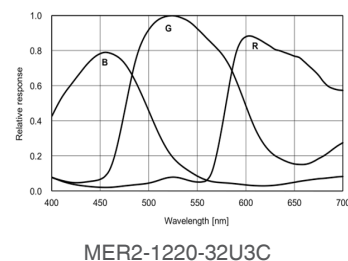
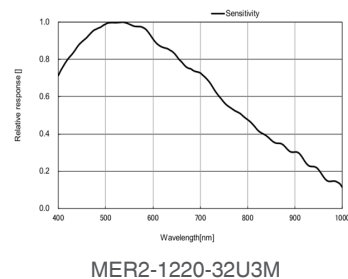
| | |
|------------|-------------------------------------|
| Weight | 65g |
| Dimensions | 29(W)×29(H)×29(L)mm, w/o connectors |

Technical Drawing



Units: mm

Spectral Response



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Specifications are subject to change without prior notice.

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