

# ME2S-560-70U3M/C

## MERCURY2 Super Series 5.6MP CMOS USB3.0 Area Scan Camera



The ME2S-560-70U3M/C camera is a monochrome/color USB3.0 Vision camera with the Gpixel GMAX2505 CMOS sensor. The ME2S-560-70U3M/C camera has opto-isolated I/Os that adapt to specific needs. Four-side mounting holes provide maximum installation flexibility for ME2S-U3. Thanks to the extremely compact (29mm × 29mm), robust metal housings and locking screw connectors, the MERCURY2 Super cameras can secure the reliability of cameras deployed in harsh environments.

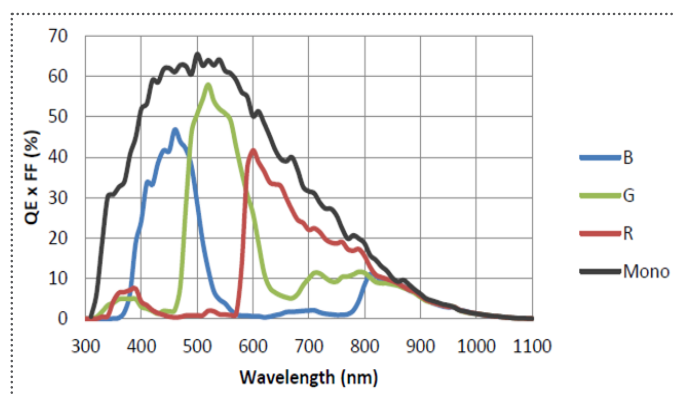
### Applications

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

### Features

- Support Gamma, Binning, Decimation, Digital Shift, Black Level, Auto Black Level, Flat Field Correction and Static Defect Pixel Correction
- Acquisition Burst Mode
- Color models support Light source preset, Color Transformation Control and Saturation
- Monochrome models support Sharpness and Noise Reduction
- Programmable LUTs and User Set Control
- Support Timer and Counter
- Support Remove Parameter Limit to expand the range of exposure, gain, white balance, and so on
- 16KB User Data Area for saving algorithm coefficients and parameter configuration

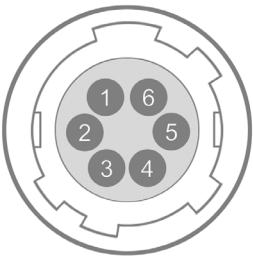
### Spectral Response



## Specifications

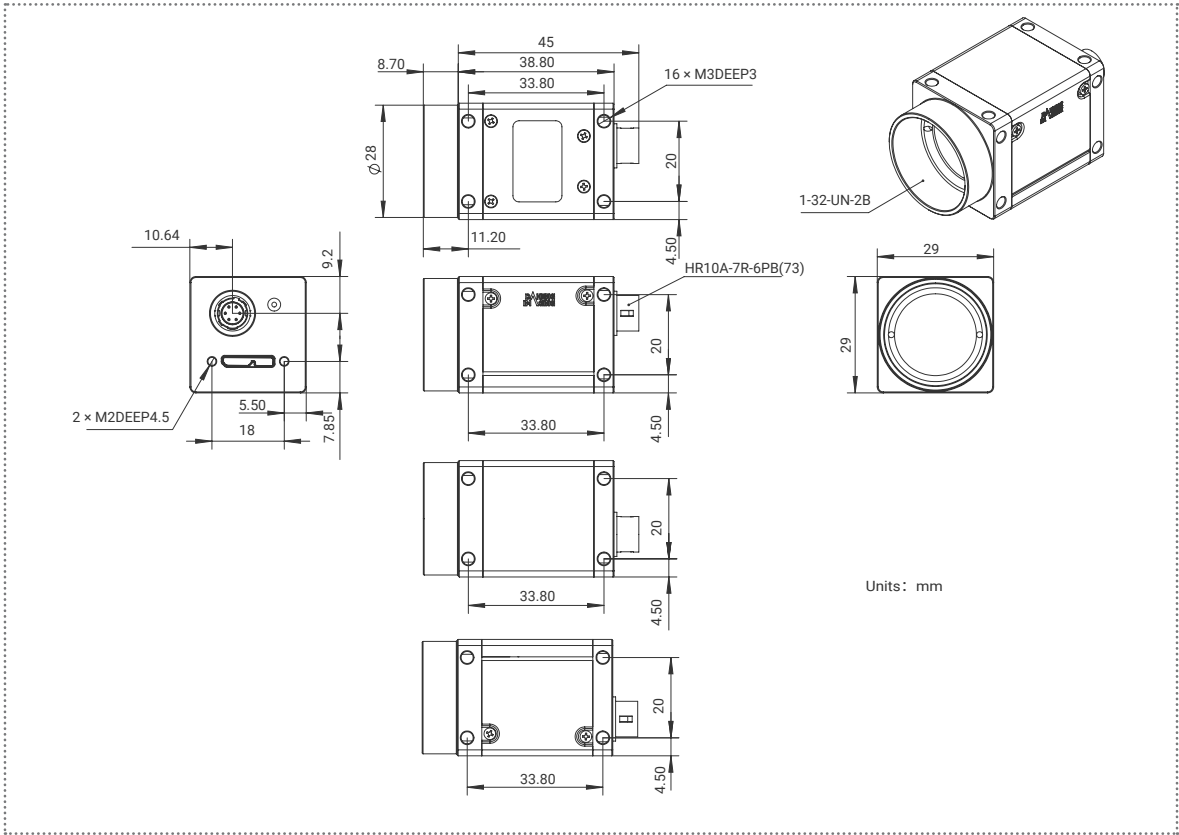
| Model              | ME2S-560-70U3C                                                                                  | ME2S-560-70U3M |
|--------------------|-------------------------------------------------------------------------------------------------|----------------|
| Resolution         | 2600(H) × 2160(V)                                                                               |                |
| Sensor             | Gpixel GMAX2505 Global shutter CMOS                                                             |                |
| Sensor Format      | 1/2"                                                                                            |                |
| Pixel Size         | 2.5μm × 2.5μm                                                                                   |                |
| Frame Rate         | 70.3 fps<br>(Max. frame rate: 75.3fps @ Acquisition Burst Mode)                                 |                |
| ADC                | 12 bit                                                                                          |                |
| Pixel Bit Depth    | 8 bit, 12 bit                                                                                   |                |
| Mono/Color         | Color                                                                                           | Mono           |
| Pixel Formats      | Bayer GB8 / Bayer GB12                                                                          | Mono8 / Mono12 |
| SNR                | 37.34 dB                                                                                        | 37.21 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, 1 programmable GPIO                                    |                |
| Data Interface     | USB3.0                                                                                          |                |
| Power Supply       | Power over USB3.0                                                                               |                |
| Typical Power      | 3.76 W @ 5 VDC                                                                                  |                |
| Operating Temp.    | 0° C ~ +45° C                                                                                   |                |
| Storage Temp.      | -20° C ~ +70° C                                                                                 |                |
| Operating Humidity | 10% ~ 80%                                                                                       |                |
| Lens Mount         | C                                                                                               |                |
| Dimensions         | 29(W) × 29(H) × 38.8(L) mm (without lens adapter or connectors)                                 |                |
| Weight             | 60 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   | POWER_IN      | Camera external power, +12V DC(-10%)~+24V DC(+10%)              |
| 2   | Line0+        | Opto-isolated input +                                           |
| 3   | Line2         | GPIO input/output                                               |
| 4   | Line1+        | Opto-isolated output +                                          |
| 5   | Line0-/Line1- | Line0-: Opto-isolated input -<br>Line1-: Opto-isolated output - |
| 6   | GND           | PWR GND & GPIO GND                                              |

Technical Drawing



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