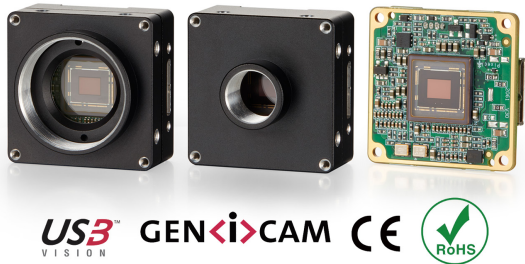


# VENUS SERIES

## VEN-505-36U3M/C



- Light and low power consumption
- 1/2.8" Rolling Shutter CMOS sensor
- Compatible with GenICam™ and USB3 Vision®
- USB3.0 Interface
- 5.0 Megapixels
- 1 input, 1 GPIO
- Various lens mounts

The VENUS series (VEN-U3) camera is DAHENG IMAGING' s board level industrial digital camera. The VEN-U3 series camera is a good choice for users who have requirements for space, weight, consumption and heat.

The VEN-505-36U3M/C is a monochrome/color USB3 Vision camera with Sony IMX335 CMOS sensors. The VEN-505-36U3M/C provides three lens mount options: CS mount with housing, S mount with housing, and No mount (bare board). Thanks to the extremely compact housing of 35mm × 35mm × 15.2mm, and various mount options, the VEN-505-36U3M/C is more flexible in demanding space.

The VEN-505-36U3M/C is 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/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)
- VEN-505-36U3C supports light source preset function
- Three acquisition controls: Continuous acquisition/ Software trigger acquisition/ External trigger acquisition
- Storable user sets
- Support Reverse X/Y (horizontal and vertical mirroring)
- Support hardware trigger and software trigger
- 16KB data storage area for saving algorithm coefficients, parameter configuration, and so on
- Optimized software package for 32/64bit Windows, and support Linux, Android, ARMv7 and ARMv8
- Compatible with GenICam™ and USB3 Vision®, can be used in a wide range of 3rd-party software such as HALCON, MERLIC and LabVIEW
- Multiple samples and easy-to-integrate SDKs for various programming tools
- Regulations: CE, RoHS, GenICam, USB3 Vision

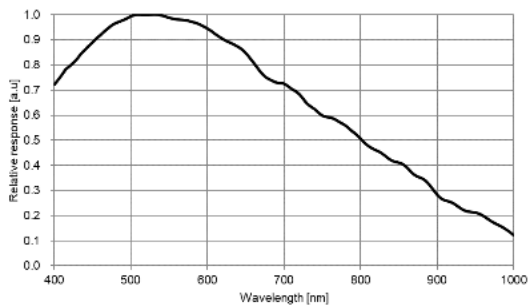
### Performance Specifications

|                 |   |
|-----------------|---|
| Model           | VEN-505-36U3M/C                             |
| Interface       | USB3.0                                      |
| Resolution      | 2592(H) × 1944(V)                           |
| Frame rate      | 36.9 fps @2592 × 1944                       |
| Sensor          | 1/2.8", Rolling Shutter<br>Sony IMX335 CMOS |
| Pixel size      | 2.0 μm × 2.0 μm                             |
| Pixel Bit Depth | 8bit, 10bit                                 |
| Spectrum        | Monochrome / Color                          |
| Exposure time   | 20μs~1s                                     |

### Optical Specifications

|            |                     |
|------------|---------------------|
| Lens mount | Camera model        |
| CS mount   | VEN-505-36U3M/C-M01 |
| S mount    | VEN-505-36U3M/C-M05 |
| No mount   | VEN-505-36U3M/C-M06 |

### Spectral Response



VEN-505-36U3M

### Electrical Specifications

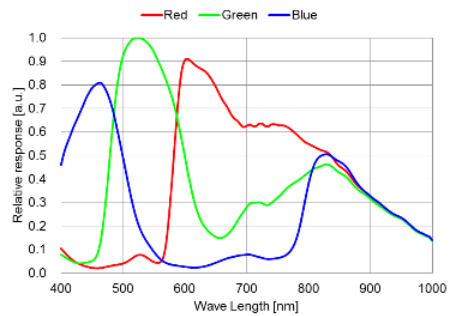
|                   |                     |
|-------------------|---------------------|
| Power requirement | 5 VDC via USB cable |
| I/Os              | 1 input, 1 GPIOs    |
| Data interface    | USB3.0 Micro B      |
| Power consumption | <2.7W @5V DC        |

### Environmental Specifications

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

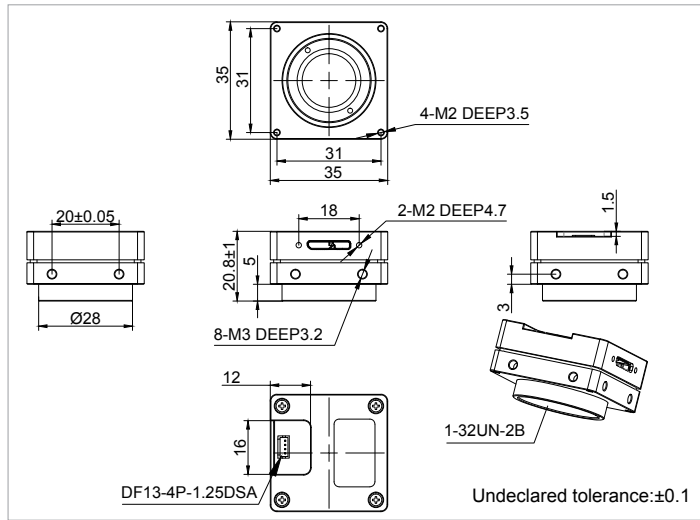
### Mechanical Specifications

|            |   |
|------------|---|
| Weight     | 31g (CS mount), 32g (S mount),<br>7g (bare board)   |
| Dimensions | 35(W)x35(H)x15.2(L) mm (without CS lens mount),<br>35(W)x35(H)x15.1(L) mm (without S lens mount),<br>32.5(W)x32.5(H)x8.1(L) mm (bare board, the PCB thickness is 1.6mm) |

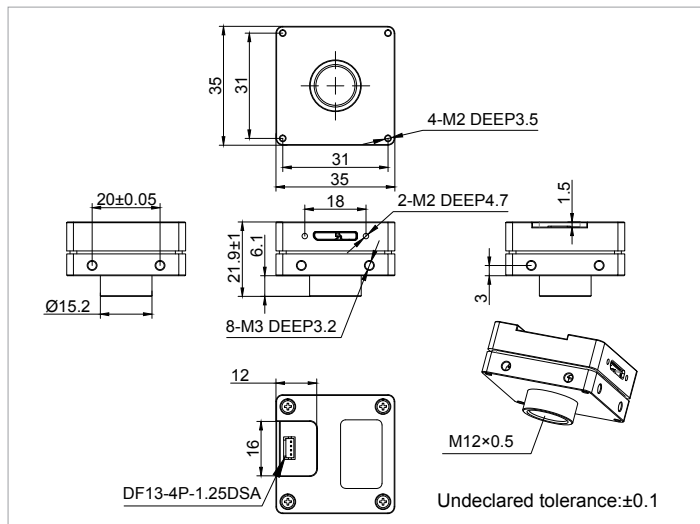


VEN-505-36U3C

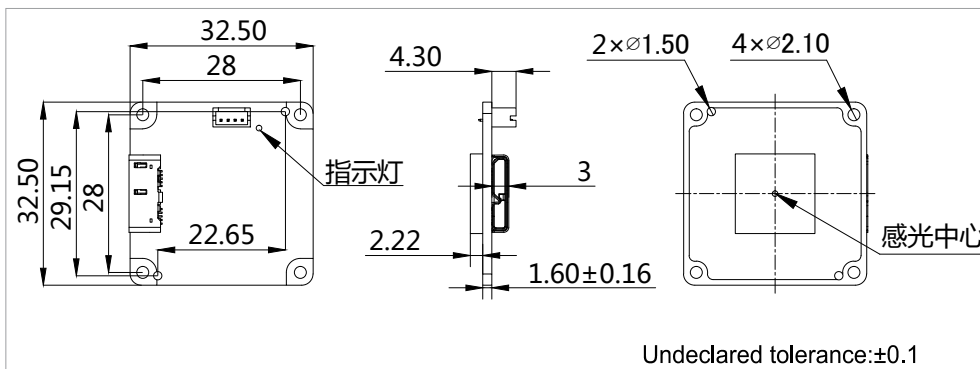
Technical Drawing



VEN-505-36U3M/C-M01



VEN-505-36U3M/C-M05



VEN-505-36U3M/C-M06

Units: mm

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Specifications are subject to change without prior notice.

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Sep 09, 2021