

# CK-RNE2-301M/CU-125GS-HS

3 MP CMOS USB3.0 Area Scan Camera

## Features

- Trigger mode: Frame Start /Frame Burst Start
- Two exposure time modes: Standard exposure time mode / UltraShort exposure time mode
- Decimation, Binning, Digital Shift and Black Level
- Adjustable Gamma for optimizing the brightness of images
- Support Sensor Bit Depth and Acquisition Burst Mode
- Color models support Light Source Preset, Color Transformation Control and Saturation
- Monochrome models support Noise Reduction and Sharpness
- Programmable LUTs and User Set Control
- Support Timer and Counter
- Support Remove Parameter Limit to expand the range of exposure, gain and so on
- 16KB data storage area for saving algorithm coefficients and parameter configuration
- 512KB ROM area for storing large amounts of data and files

## Applications

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

## I/O Interface



| Pin | Definition | Description            |
|-----|------------|------------------------|
| 1   | Line0+     | Opto-isolated input +  |
| 2   | GND        | GPIO GND               |
| 3   | Line0-     | Opto-isolated input -  |
| 4   | NC         | NC                     |
| 5   | Line2      | GPIO input/output      |
| 6   | Line3      | GPIO input/output      |
| 7   | Line1-     | Opto-isolated output - |
| 8   | Line1+     | Opto-isolated output + |

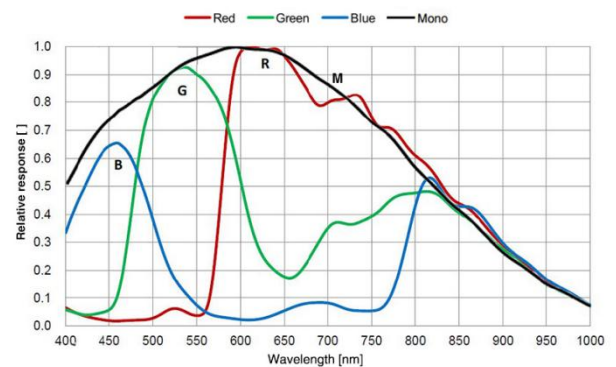
## Models

Mono: CK-RNE2-301MU-125GS-HS

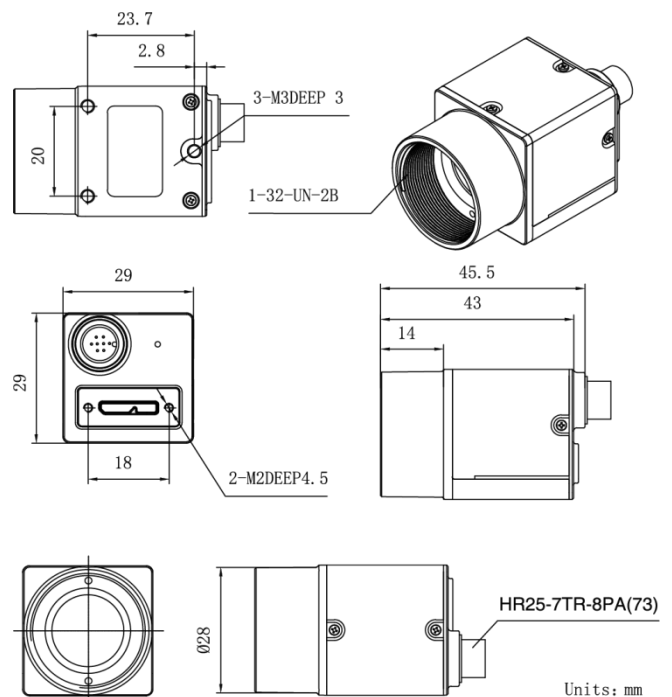
Color: CK-RNE2-301CU-125GS-HS



## Spectral Response



## Technical Drawing



## Specifications

| Model              | CK-RNE2-301CU-125GS-HS  | CK-RNE2-301MU-125GS-HS  |
|--------------------|---|-------------------------|
| Resolution         | 2048(H) × 1536(V)   |                         |
| Sensor             | Sony IMX252 Global shutter CMOS   |                         |
| Sensor Format      | 1/1.8"  |                         |
| Pixel Size         | 3.45μm × 3.45μm   |                         |
| Frame Rate         | 125 fps<br>(Max. frame rate: 151.3fps @ Acquisition Burst Mode)                               |                         |
| ADC                | 8 bit, 10 bit, 12 bit   |                         |
| Pixel Bit Depth    | 8 bit, 10 bit, 12 bit   |                         |
| Mono/Color         | Color   | Mono                    |
| Pixel Formats      | Bayer RG8 / Bayer RG10 / Bayer RG12   | Mono8 / Mono10 / Mono12 |
| SNR                | 40.76 dB  | 40.73 dB                |
| Exposure Time      | UltraShort: 1μs~100μs, Actual Steps: 1 μs;<br>Standard: 20μs ~ 1s, Actual Steps: 1 row period |                         |
| Gain               | 0dB ~ 24dB; 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         | Sensor: 1×1, 2×2  |                         |
| 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, 2 programmable GPIOs                                 |                         |
| Data Interface     | USB3.0  |                         |
| Power Supply       | Power through USB3.0 interface  |                         |
| Typical Power      | 2.48 W @ 5 VDC  |                         |
| Operating Temp.    | 0° C ~ +45° C   |                         |
| Storage Temp.      | -20 ° C~ +70° C   |                         |
| Operating Humidity | 10% ~ 80%   |                         |
| Lens Mount         | C / CS  |                         |
| Dimensions         | 29(W) × 29(H) × 45.5(L) mm  |                         |
| Weight             | 65 g  |                         |
| Software           | CKVisionBuilder or support USB3 Vision protocol software                                      |                         |
| OS                 | 32bit / 64bit Windows , Linux , Android , ARMv7 , ARMv8                                       |                         |

