

# GSCK-REN2X-1230M/CU-23GS

12.3 MP CMOS USB3.0 Area Scan Camera



## Features

- Trigger mode: Frame Start /Frame Burst Start
- Support timed exposure mode and triggerWidth exposure mode
- Two exposure time modes: Standard exposure time mode / UltraShort exposure time mode
- Support Gamma, Binning, Decimation, Digital Shift, Black Level and Flat Field Correction
- 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
- Sequencer Control
- 16KB data storage area for saving algorithm coefficients and parameter configuration

## Applications

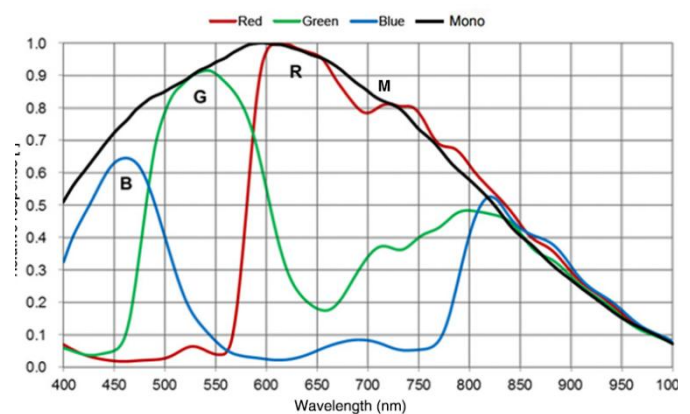
Suitable for machine vision applications such as industrial inspection, medical, scientific research, education and so on.

## I/O Interface



| Pin | Definition | Description            |
|-----|------------|------------------------|
| 1   | Line 0+    | Opto-isolated input +  |
| 2   | GND        | GPIO GND               |
| 3   | Line 0-    | Opto-isolated input -  |
| 4   | NC         | NC                     |
| 5   | Line 2     | GPIO input/output      |
| 6   | Line 3     | GPIO input/output      |
| 7   | Line 1-    | Opto-isolated output - |
| 8   | Line 1+    | Opto-isolated output + |

## Spectral Response



## Models

Mono: CK-REN2X-1230MU-23GS  
Color: CK-REN2X-1230CU-23GS

## Specifications

| Model              | CK-REN2X-1230CU-23GS   | CK-REN2X-1230MU-23GS |
|--------------------|--|----------------------|
| Resolution         | 4096(H) × 3000(V)  |                      |
| Sensor             | Sony IMX304 Global shutter CMOS  |                      |
| Sensor Format      | 1.1"   |                      |
| Pixel Size         | 3.45μm × 3.45μm  |                      |
| Frame Rate         | 23.5 fps   |                      |
| ADC                | 12 bit   |                      |
| Pixel Bit Depth    | 8 bit, 12 bit  |                      |
| Mono/Color         | Color  | Mono                 |
| Pixel Formats      | Bayer RG8 / Bayer RG12   | Mono8 / Mono12       |
| SNR                | 40.59 dB   | 40.47 dB             |
| Exposure Time      | UltraShort: 1μs~100μs, Actual Steps: 1μs;<br>Standard: 28μs ~ 1s, Actual Steps: 1 row period |                      |
| Gain               | 0dB ~ 24dB; Default: 0dB, Steps: 0.1dB   |                      |
| Binning            | FPGA: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4<br>Sensor: 1×1, 1×2 (Only for mono model)  |                      |
| 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 over USB3.0  |                      |
| Typical Power      | 2.47 W @ 5 VDC   |                      |
| Operating Temp.    | 0°C ~ +45°C  |                      |
| Storage Temp.      | -20°C ~ +70°C  |                      |
| Operating Humidity | 10% ~ 80%  |                      |
| Lens Mount         | C / CS   |                      |
| Dimensions         | 36(W) × 31(H) × 38.8(L) mm (without lens adapter or connectors)                              |                      |
| Weight             | 66 g   |                      |
| Software           | CKVisionBuilder or third-party software meeting with GigE Vision Protocol                    |                      |
| OS                 | 32bit / 64bit Windows, Linux, Mac OS   |                      |



# Technical Drawing

