

CK-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

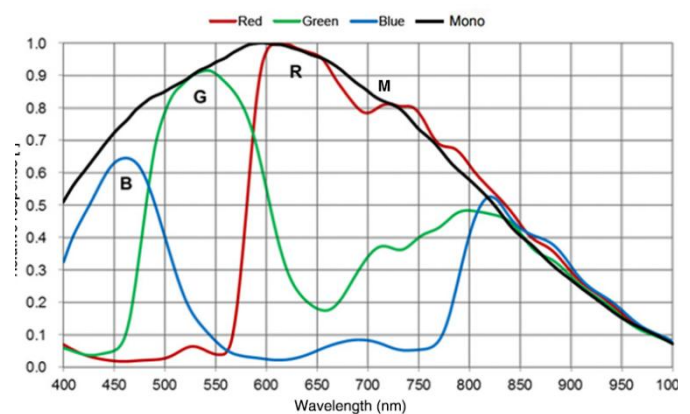
Suitable for machine vision applications such as industrial inspection, medical, scientific research, education and so on.

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; 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 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

