

■ 4024 x 3036

■ 9 fps

Go-X Series 

GiG
VISION

➤ **GOX-12409-PGE** 12.2-megapixel CMOS rolling shutter



- **1/1.7" CMOS imager (rolling shutter with global reset)**
- **Up to 9 fps at full resolution (4024 x 3036)**
- **1.85 μm square pixels**
- **Back-side illuminated (BSI) sensor technology for enhanced low-light performance**
- **8/10/12-bit* output in choice of monochrome or raw Bayer color models**
- **ROI settings for added flexibility**
- **Includes Automatic Level Control (ALC) to maintain exposure in dynamic lighting conditions**
- **Compact size with excellent shock and vibration resistance**
- **Accepts power over GigE Vision interface or separate 6-pin connector**
- **C-mount lens mount**

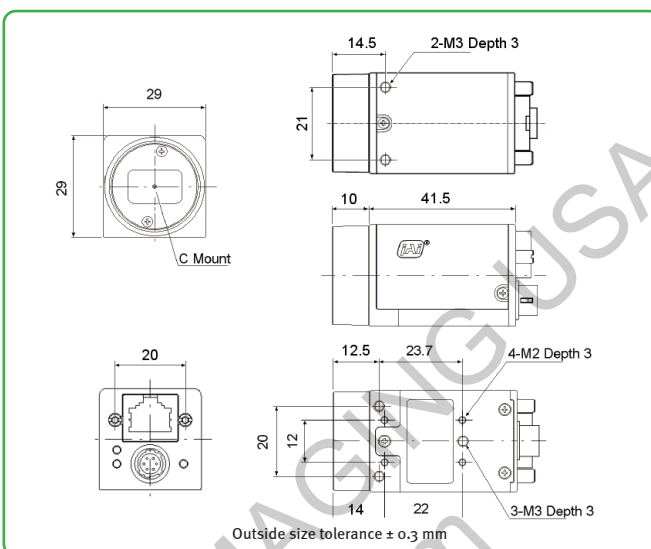
* Not all processing functions supported with 12-bit output.

Specifications for GOX-12409-PGE

Go-X Series

Specifications	GOX-12409-PGE
Sensor	1/1.7" CMOS rolling shutter (IMX226)
Active pixels	4024 (h) x 3036 (v)
Frame rate	9 frames/sec. @ 8-bit mono/Bayer
Active area	7.44 mm (h) x 5.61 mm (v) - 9.32 mm diagonal
Pixel size	1.85 μ m x 1.85 μ m
System clock	74.25 MHz (for pulse generator)
Read-out modes	Full ROI (single) Binning
EMVA 1288 Parameters	10-bit output format Mono: TBD p Color: TBD p ($\lambda = 527$ nm) Maximum SNR Mono: TBD dB Color: TBD dB
Traditional SNR*	>60 dB mono, >60 dB color (0 dB gain, 10-bit)
Video signal output	Monochrome: 8/10/12-bits [†] Color: 8/10/12-bit Bayer [†]
Gain control	Manual/auto 0 dB to +42 dB
White balance	Off, presets, or one-push/continuous AWB
Gamma/LUT	0.45 to 1.0 (9 steps) or 257-point programmable LUT
Synchronization	Internal
Video modes	Normal/Single ROI
Trigger input	Opto In, Pulse Generator, Software, NAND Out (2), User Output (4)
Exposure modes	Timed/EPS, Auto
Electronic shutter	Timed: 80 μ s to 8 s in 1 μ s steps Auto: 100 μ s to 107 ms at full resolution
Auto Level Control (ALC)	Shutter range from 100 μ s to 107 ms, gain range from 0 dB to +42 dB. Tracking speeds and max. values adjustable.
Shading correction	Flat shading, color shading (color model)
Pre-processing functions	Blemish compensation (256 user definable)
Operating temp. (ambient)	-5°C to +45°C (20 to 80% non-condensing)
Storage temp. (ambient)	-25°C to +60°C (20 to 80% non condensing)
Vibration	10G (20 Hz to 200 Hz, XYZ directions)
Shock	80G
Regulations	CE(EN 55032:2015(CISPR32:2015), EN 55035:2017(CISPR35:2016)), FCC Part 15 Class A, RoHS/WEEE, KC
Power	6-pin PoE +10V to +25V DC, 2.7 W typical @ +12 V +36V to +57 V DC, 3.7 W typical @ +48 V
Lens mount	C-mount
Dimensions (H x W x L)	29 mm x 29 mm x 51.5 mm
Weight	65 g

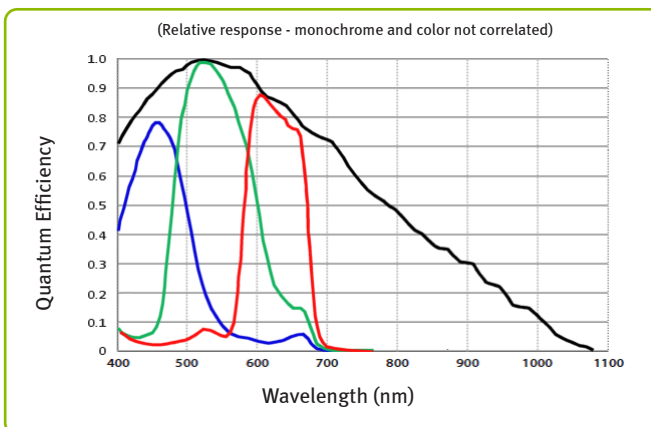
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Connector pin-out

DC In / Trigger	GigE Vision Interface																																
HIROSE HR10A-7R-6PB(73)	RJ-45 with locking screws																																
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Spectral response



Ordering Information

GOX-12409M-PGE	Monochrome camera with GigE Vision interface
GOX-12409C-PGE	Color camera with GigE Vision interface

*Traditional SNR is based on random noise in a single frame, where EMVA SNR measurements consider more comprehensive noise sources and variance over time.

[†]12-bit output only available in video processing bypass mode. See manual for details.

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