

■ 1920 X 1200

■ 50 fps

Go-X Series 

GigE[®]
VISION

➤ **GOX-2402-PGE**
2.3-megapixel CMOS global shutter



- *Go-X Series delivers exceptional combination of price and performance*
- *2.3-megapixel, 1/2.3" CMOS imager (global shutter)*
- *Up to 49.9 fps at full resolution (1920 x 1200)*
- *3.45 μm square pixels*
- *8/10/12-bit* output in choice of monochrome or raw Bayer color models*
- *ROI settings for added flexibility*
- *Horizontal/vertical image flip function, plus blemish correction and shading compensation*
- *Includes Sequencer function and Automatic Level Control (ALC) for 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-2402-PGE

Go-X Series

| Specifications | | GOX-2402-PGE |
|---------------------------|-------------------------------------|--|
| Sensor | | 1/2.3" CMOS global shutter (IMX392) |
| Active pixels | | 1920 (h) x 1200 (v) |
| Frame rate | | 49.9 frames/sec. @ 8-bit mono/Bayer |
| Active area | | 6.62 mm (h) x 4.14 mm (v) - 7.81 mm diagonal |
| Pixel size | | 3.45 μm x 3.45 μm |
| System clock | | 74.25 MHz (for pulse generator) |
| Read-out modes | Full ROI (single) Binning | 1920 (h) x 1200 (v) up to 49.9 fps H: 96 - 1904 pixels in 16-pixel steps V: 8 to 1198 lines in 2-line steps 1x2, 2x1, 2x2 (mono only) |
| EMVA 1288 Parameters | Absolute sensitivity Maximum SNR | 10-bit output format Mono: 3.71 p Color: 4.87 p (λ = 527 nm) Mono: 39.7 dB Color: 39.7 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 +24 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, Sequencer (Trigger & Command) |
| Trigger input | | Opto In, Pulse Generators (4), Software, NAND Out (2), User Output (4) |
| Exposure modes | | Timed/EPS, RCT, Trigger Width, Auto |
| Electronic shutter | | Timed: 14.73 μs to 8 s in 1 μs steps Auto: 100 μs to 20 ms at full resolution |
| Auto Level Control (ALC) | | Shutter range from 100 μs to 20 ms, gain range from 0 dB to +24 dB. Tracking speeds and max. values adjustable. |
| Shading correction | | Flat shading, color shading (color model) |
| Pre-processing functions | | H & V flip (mirroring), blemish compensation, H & V decimation |
| 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 | | 62 g |

Ordering Information

| | |
|---------------|--|
| GOX-2402M-PGE | Monochrome camera with GigE Vision interface |
| GOX-2402C-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.

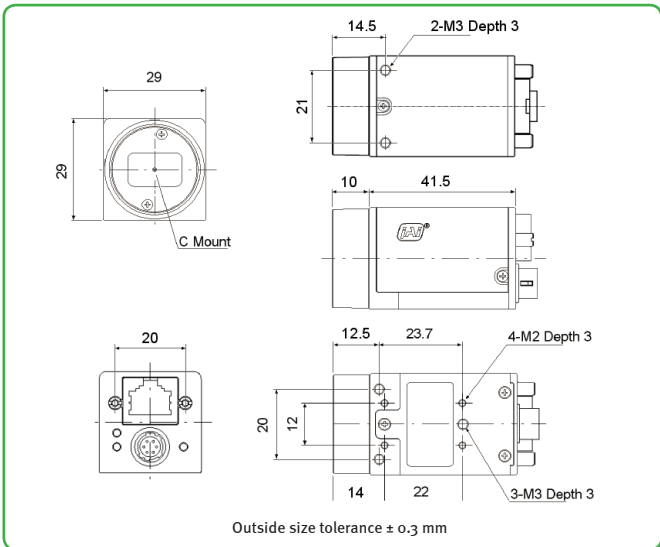
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Dimensions



Connector pin-out

DC In / Trigger

HIROSE HR10A-7R-6PB(73)

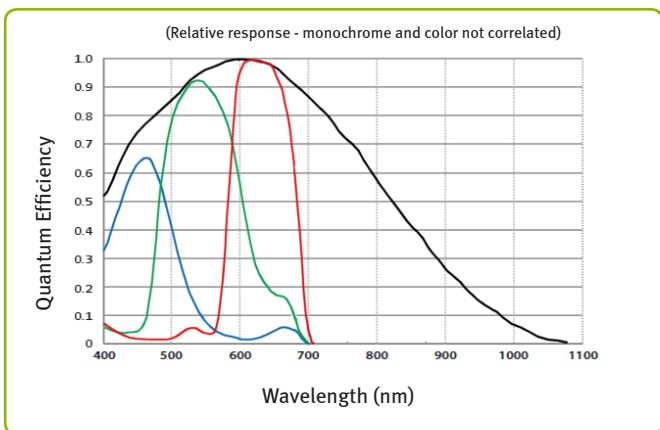
| Pin | Signal |
|-----|--------------------|
| 1 | DC in +10V to +25V |
| 2 | Opto In+ |
| 3 | Opto In- |
| 4 | Opto Out+ |
| 5 | Opto Out- |
| 6 | Ground |

GigE Vision Interface

RJ-45 with locking screws

| Pin | Signal |
|-----|----------|
| 1 | TRD+ (0) |
| 2 | TRD- (0) |
| 3 | TRD+ (1) |
| 4 | TRD+ (2) |
| 5 | TRD- (2) |
| 6 | TRD- (1) |
| 7 | TRD+ (3) |
| 8 | TRD- (3) |

Spectral response



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See the possibilities