

■ 2472 x 2064

■ 23 fps

Go-X Series 

GOX-5105-PGE

5.1-megapixel CMOS global shutter

GigE
VISION

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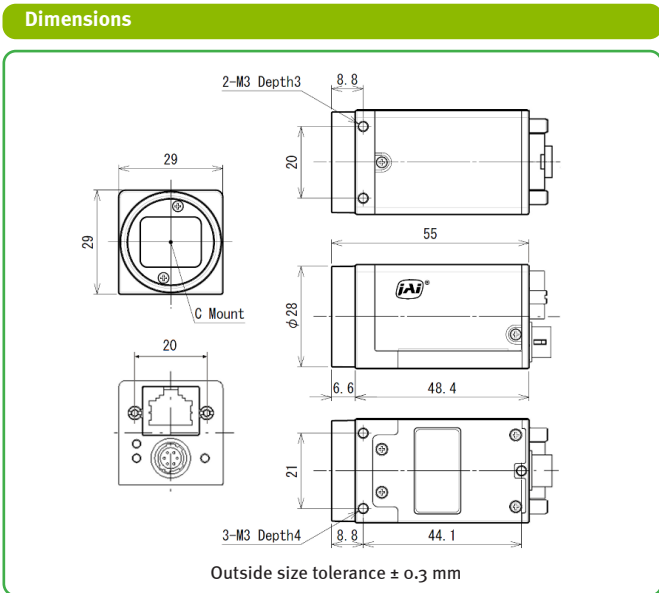
- **High performance camera with 5.1-megapixel resolution**
- **1/1.8" CMOS imager (global shutter) features backside illuminated pixel technology**
- **2.74 μm square pixels**
- **Up to 23 fps standard output at full resolution (2472 x 2064). Burst mode also available.**
- **Lossless compression function (Xpress) compresses image data to support higher frame rates**
- **8/10/12-bit output in choice of monochrome or raw Bayer color models**
- **Color model includes a 5 x 5 debayering capability for RGB output**
- **Flexible ROI & rescaling function (Xscale) for sub-pixel color/mono binning and resolution matching**
- **Traditional 1x2, 2x1, or 2x2 binning also included on monochrome model**
- **Horizontal/vertical image flip function, plus blemish compensation and shading correction**
- **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 via separate 6-pin connector**
- **C-mount lens mount**

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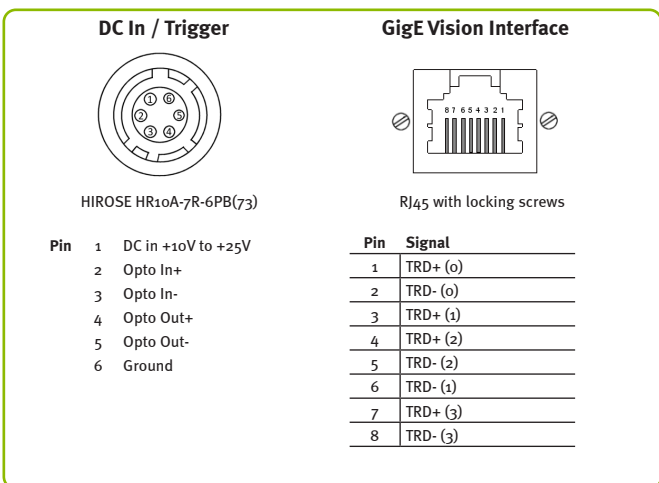
Specifications for GOX-5105-PGE

Go-X Series

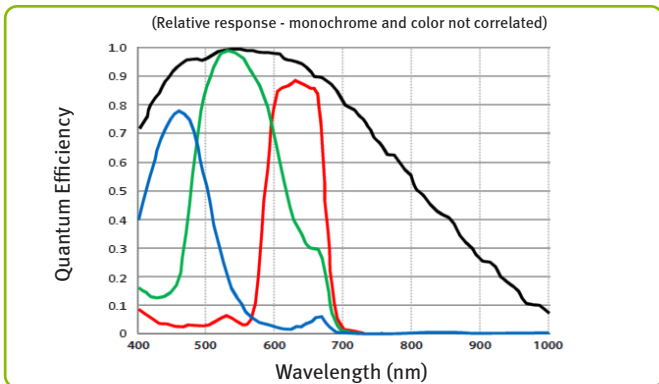
| Specifications | GOX-5105-PGE |
|----------------------------|---|
| Sensor | 1/1.8" CMOS global shutter (IMX547) |
| Active pixels | 2472 (h) x 2064 (v) |
| Frame rate, full frame | 23 frames/sec. @ 8-bit mono/Bayer Supports higher fps via lossless compression (Xpress mode) |
| Active area | 6.8 mm (h) x 5.7 mm (v) - 8.82 mm diagonal |
| Pixel size | 2.74 μm x 2.74 μm |
| Read-out modes | Full ROI (single) 2472 (h) x 2064 (v) up to 23 fps H: 96 to 2472 pixels in 8 pixel steps V: 8 to 2064 lines in 2 line steps ROI (multi) Binning Up to 64 scanning areas - no overlap 1x2, 2x1, or 2x2 (mono only) |
| Image scaling (Xscale) | Supports independent, sub-pixel rescaling of H and/or V resolution (1/16 max.) |
| EMVA 1288 Parameters | 12-bit output format Mono: TBD p Color: TBD p ($\lambda = 527 \text{ nm}$) Mono: TBD dB Color: TBD dB |
| Traditional SNR (Dark)* | >60 dB mono, >60 dB color (0 dB gain, 10-bit) |
| Video signal output | Monochrome: 8/10/12-bit Color: 8/10/12-bit Bayer or 24/30/36-bit RGB |
| Gain | 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 |
| Time synchronization | Support for Precision Time Protocol (IEEE 1588) |
| Trigger input | Opto In, Pulse Generators (4), Software, NAND Out (2), User Output (4), Actions (ToE) |
| Exposure modes | Timed/EPs, RCT, Trigger Width, Auto |
| Electronic shutter | Timed: 3.5 μs to 8 sec. in 1 μs steps Auto: 100 μs to 43.4 ms at full resolution |
| Auto Level Control (ALC) | Shutter range from 100 μs to 43.4 ms, gain range from 0 dB to +42 dB. Tracking speeds and min/max values adjustable. |
| Shading correction | Flat shading, color shading (color model) |
| Video processing functions | H & V flip (mirroring), blemish compensation, gradation compression, color enhancement & color conversion (color model) |
| 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. 4.1 W typical @ +12 V +36V to +57 V DC. 4.1 W typical @ +48 V |
| Lens mount | C-mount |
| Dimensions (H x W x L) | 29 mm x 29 mm x 55 mm |
| Weight | 65 g |



Connector pin-out



Spectral Response



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

Ordering Information

| | |
|---------------|--|
| GOX-5105M-PGE | Monochrome camera with GigE Vision interface |
| GOX-5105C-PGE | Color camera with GigE Vision interface |

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