

▪ 2048 x 1536

▪ 36 fps

Go-X Series 

GigE
VISION

➤ **GOX-3201-PGE**
3.2-megapixel CMOS global shutter



- *Go-X Series delivers exceptional combination of price and performance*
- *3.2-megapixel, 1/1.8" CMOS imager (global shutter)*
- *Up to 36.5 fps at full resolution (2048 x 1536)*
- *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 or CS-mount lens mount*

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

Specifications for GOX-3201-PGE

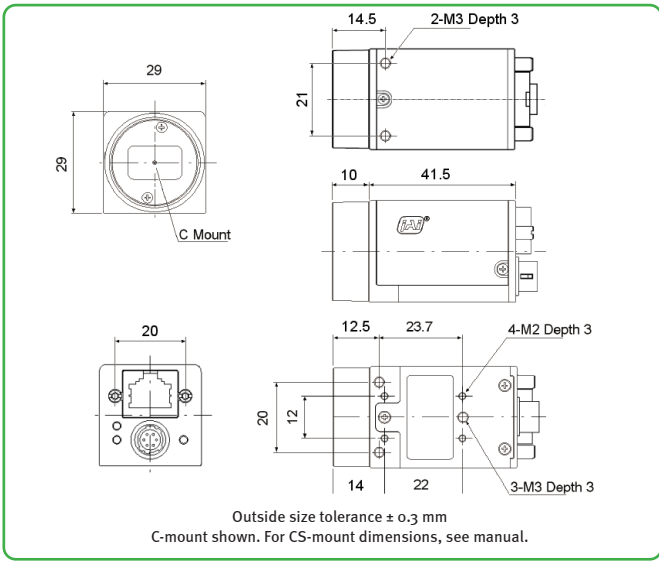
Go-X Series

| Specifications | | GOX-3201-PGE |
|---------------------------|--|---|
| Sensor | 1/1.8" CMOS global shutter (IMX265) | |
| Active pixels | 2048 (h) x 1536 (v) | |
| Frame rate | 36.5 frames/sec. @ 8-bit mono/Bayer | |
| Active area | 7.07 mm (h) x 5.3 mm (v) - 8.83 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) 2048 (h) x 1536 (v) up to 36.5 fps H: 96 - 2032 pixels in 16-pixel steps V: 8 to 1534 lines in 2-line steps Binning 1x2, 2x1, 2x2 (mono only) | |
| EMVA 1288 Parameters | 10-bit output format | |
| Absolute sensitivity | Mono: 3.29 p Color: 3.58 p (λ = 527 nm) | |
| Maximum SNR | 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 +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, 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 27.3 ms at full resolution | |
| Auto Level Control (ALC) | Shutter range from 100 μs to 27.3 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 | 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 or CS-mount | |
| Dimensions (H x W x L) | 29 x 29 x 51.5 mm (length of CS model is 46.5 mm) | |
| Weight | 65 g | |

| Ordering Information | |
|----------------------|---|
| GOX-3201M-PGE | Monochrome camera with GigE Vision I/F and C-mount |
| GOX-3201C-PGE | Color camera with GigE Vision I/F and C-mount |
| GOX-3201M-PGE-CS | Monochrome camera with GigE Vision I/F and CS-mount |
| GOX-3201C-PGE-CS | Color camera with GigE Vision I/F and CS-mount |

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

Dimensions



Connector pin-out

DC In / Trigger

HIROSE HR10A-7R-6PB(73)

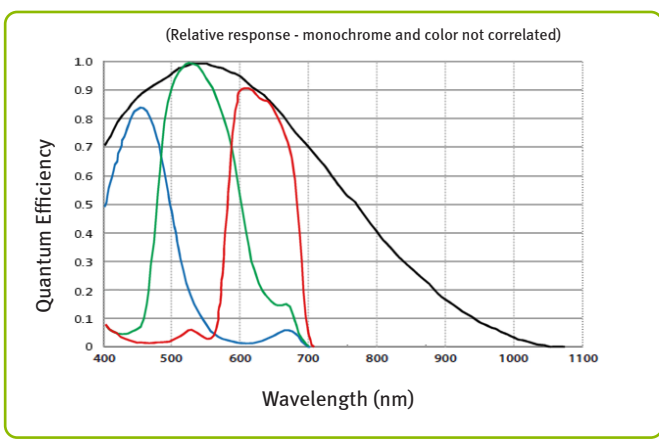
| Pin | Signal |
|-----|--------------------|
| 1 | DC in +10V to +25V |
| 2 | Opto In+ |
| 3 | Opto In- |
| 4 | Opto Out+ |
| 5 | Opto Out- |
| 6 | Ground |

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



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

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