

■ 5328 x 4608

■ 5 fps

Go-X Series 

GigE
VISION

➤ **GOX-24505-PGE** 24.5-megapixel CMOS global shutter



- **High performance camera with 24.5-megapixel resolution**
- **1.2" CMOS imager (global shutter) features backside illuminated pixel technology**
- **2.74 μm square pixels**
- **Up to 5 fps standard output at full resolution (5328 x 4608). 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-24505-PGE

Go-X Series

Specifications

GOX-24505-PGE

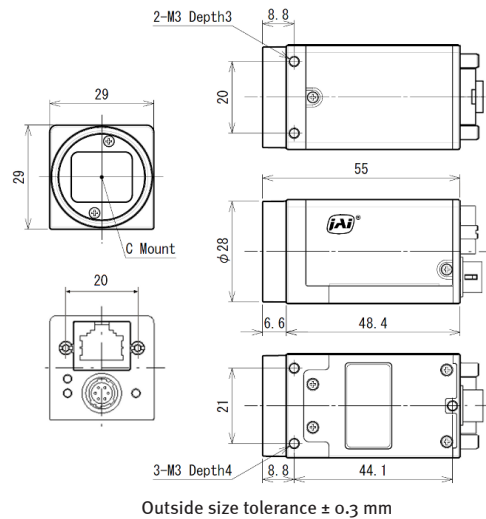
Sensor	1.2" CMOS global shutter (IMX540)
Active pixels	5328 (h) x 4608 (v)
Frame rate, full frame	5 frames/sec. @ 8-bit mono/Bayer Supports higher fps via lossless compression (Xpress mode)
Active area	14.6 mm (h) x 12.6 mm (v) - 19.3 mm diagonal
Pixel size	2.74 μm x 2.74 μm
Read-out modes	Full ROI (single) ROI (multi) Binning
	5328 (h) x 4608 (v) up to 4 fps H: 96 to 5328 pixels in 8 pixel steps V: 8 to 4608 lines in 2 line steps Up to 64 scanning areas - no overlap 1x2, 2x1, 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
Absolute sensitivity	Mono: 3.71 p Color: 2.50 p ($\lambda = 527 \text{ nm}$)
Maximum SNR	Mono: 38.76 dB Color: 39.02 dB
Traditional SNR (Dark)*	>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 or 24/30-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
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 200 ms at full resolution
Auto Level Control (ALC)	Shutter range from 100 μs to 200 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

Ordering Information

GOX-24505M-PGE
GOX-24505C-PGE

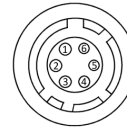
Monochrome camera with GigE Vision interface
Color camera with GigE Vision interface

Dimensions



Connector pin-out

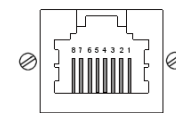
DC In / Trigger



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

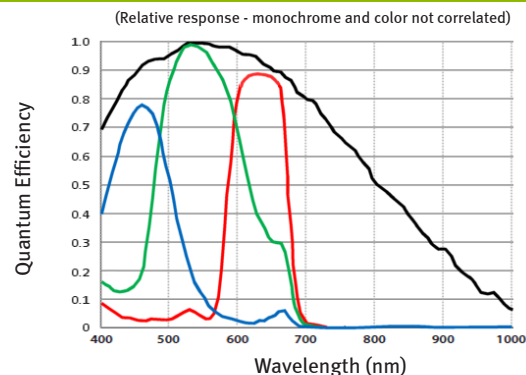
GigE Vision Interface



RJ45 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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Europe, Middle East & Africa
Phone +45 4457 8888
Fax +45 4491 8880

Asia Pacific
Phone +81 45 440 0154
Fax +81 45 440 0166

Americas
Phone (Toll-Free) 1 800 445 5444
Phone +1 408 383 0300

Visit our website on www.jai.com

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