

▪ 5328 x 3040

▪ 36 fps

Go-X Series 

❖ **GOX-16205-CXP**
16.2-megapixel CMOS global shutter

CoaXPress[®]



- **High performance camera with 16.2-megapixel resolution**
- **1.1" CMOS imager (global shutter) features backside illuminated pixel technology**
- **Up to 36 fps at full resolution (5328 x 3040)**
- **2.74 μm square pixels**
- **8/10/12-bit output in choice of monochrome or raw Bayer color models**
- **Flexible ROI & rescaling function for sub-pixel color/mono binning and resolution matching**
- **Traditional 1x2, 2x1, or 2x2 binning also included on monochrome models**
- **Horizontal/vertical image flip function, plus blemish compensation and shading correction**
- **Bayer model includes 5x5 debayering function plus built-in color conversion and temperature presets**
- **Includes Sequencer function and Automatic Level Control (ALC) for dynamic lighting conditions**
- **Compact size with excellent shock and vibration resistance**
- **Accepts power over CoaXPress interface or via separate 6-pin connector**
- **C-mount lens mount**

Specifications for GOX-16205-CXP

Go-X Series

Specifications | GOX-16205-CXP

Sensor	1.1" CMOS global shutter (IMX542)
Active pixels	5328 (h) x 3040 (v)
Frame rate, full frame	36 frames/sec. @ 8-bit mono/Bayer
Active area	14.6 mm (h) x 8.3 mm (v) - 16.81 mm diagonal
Pixel size	2.74 μm x 2.74 μm
Read-out modes	Full ROI (single) 5328 (h) x 3040 (v) up to 36 fps H: 96 to 5328 pixels in 8 pixel steps V: 8 to 3040 lines in 2 line steps ROI (multi) Binning Up to 64 scanning areas - no overlap 1x2, 2x1, or 2x2 (mono only)
Image scaling	Supports independent, sub-pixel rescaling of H and/or V resolution (1/16 max.)
EMVA 1288 Parameters	12-bit output format
Absolute sensitivity	Mono: TBD p Color: TBD p ($\lambda=527\text{ nm}$)
Maximum SNR	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-bits 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
Synchronization	Internal
Trigger input	CXP In, Opto In, Pulse Generators (4), Software, NAND Out (2), User Output (4)
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 27 ms at full resolution
Auto Level Control (ALC)	Shutter range from 100 μs to 27 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, edge enhancement, 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 PoCXP +10V to +25V DC. 4.1 W typical @ +12 V Supported
Lens mount	C-mount
Dimensions (H x W x L)	29 mm x 29 mm x 55 mm
Weight	60 g

Ordering Information

GOX-16205M-CXP	Monochrome camera with CoaXPress interface
GOX-16205C-CXP	Color camera with CoaXPress interface

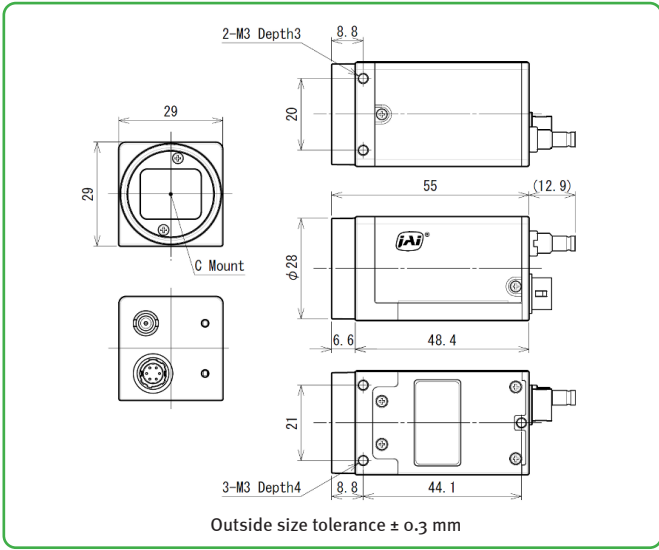
Europe, Middle East & Africa
 Phone +45 4457 8888
 Fax +45 4491 8880

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

Dimensions



Connector pin-out

DC In / Trigger

HIROSE HR10A-7R-6PB

Pin

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

CoaXPress Interface

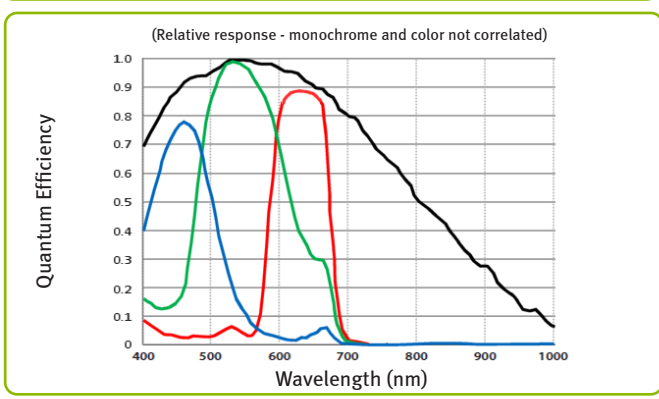
DIN type

Single channel output, CXP 2.0

Requires cable with 75 Ω 1.0/2.3 DIN-type connector

Supports up to 6.25 Gbps output speed (CXP-6)

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.

Company and product names mentioned in this datasheet are trademarks or registered trademarks of their respective owners. JAI A-5 Cannot be held responsible for any technical or typographical errors and reserves the right to make changes to products and documentation without prior notice.



See the possibilities

May 2022