

■ 2048 x 1536

■ 119 fps

Go-X Series 

➤ **GOX-3200-USB** 3.2-megapixel CMOS global shutter

USB[™]
VISION



- *Go-X Series delivers exceptional combination of price and performance*
- *3.2-megapixel, 1/1.8" CMOS imager (global shutter)*
- *Up to 119 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 USB3 Vision interface or via separate 6-pin connector*
- *C-mount lens mount*

* Not all processing functions supported with 12-bit output



Specifications for GOX-3200-USB

Go-X Series

Specifications	GOX-3200-USB
Sensor	1/1.8" CMOS global shutter (IMX252)
Active pixels	2048 (h) x 1536 (v)
Frame rate, full frame	119 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 119 fps H: 96 to 2032 pixels in 16 pixel steps V: 8 to 1534 lines in 2 line steps Binning 1x2, 2x1, 2x2
EMVA 1288 Parameters	10-bit output format
Absolute sensitivity	Mono: 3.28 p Color: 3.59 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	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, Multi 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 sec. in 1 µs steps Auto: 100 µs to 8.4 ms at full resolution
Auto Level Control (ALC)	Shutter range from 100 µs to 8.4 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 USB 3.0 +10V to +25V DC. 4.3 W typical @ +12 V +5V DC. 4.2 W typical @ +5 V
Lens mount	C-mount
Dimensions (H x W x L)	29 mm x 29 mm x 51.5 mm
Weight	62 g

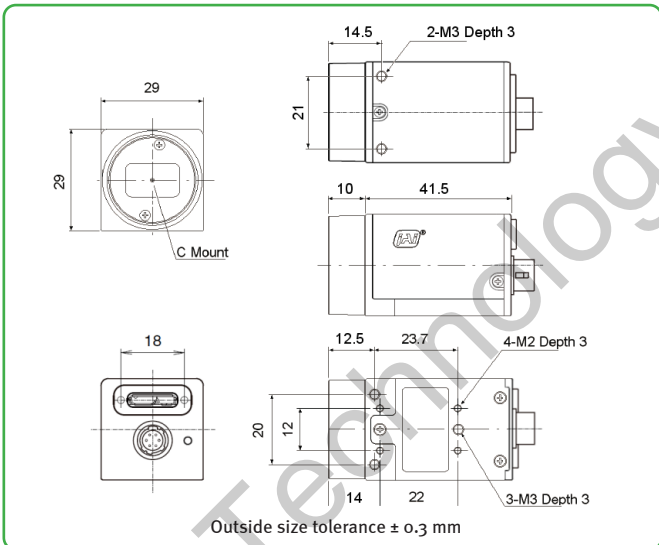
Ordering Information

GOX-3200M-USB	Monochrome camera with USB3 Vision interface
GOX-3200C-USB	Color camera with USB3 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 available in video processing bypass mode. See manual for details.

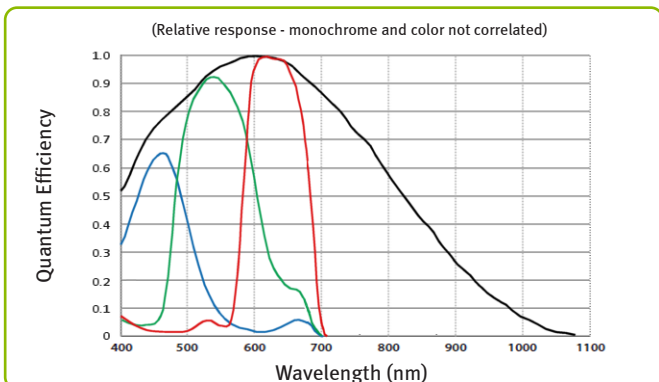
Dimensions



Connector pin-out

DC In / Trigger		USB 3.0 Interface																																													
HIROSE HR10A-7R-6PB(73) Pin 1 DC in +10V to +25V Pin 2 Opto In+ Pin 3 Opto In- Pin 4 Opto Out+ Pin 5 Opto Out- Pin 6 Ground		Micro B type - ZX3600-B-10P or equiv. <table> <thead> <tr> <th>No.</th><th>I/O</th><th>Name</th><th>Note</th></tr> </thead> <tbody> <tr> <td>1</td><td>I</td><td>VBUS IN</td><td>Power (VBUS)</td></tr> <tr> <td>2</td><td>I/O</td><td>DM</td><td>USB2.0 Differential pair (-)</td></tr> <tr> <td>3</td><td>I/O</td><td>DP</td><td>USB2.0 Differential pair (+)</td></tr> <tr> <td>4</td><td></td><td>OTG ID</td><td>USB OTG ID for identifying lines</td></tr> <tr> <td>5</td><td></td><td>GND</td><td>GND</td></tr> <tr> <td>6</td><td>O</td><td>FX3 SSTXM</td><td>USB3.0 Signal Transmission line (-)</td></tr> <tr> <td>7</td><td>O</td><td>FX3 SSTXP</td><td>USB3.0 Signal Transmission line (+)</td></tr> <tr> <td>8</td><td></td><td>GND</td><td>GND</td></tr> <tr> <td>9</td><td>I</td><td>FX3 SSRXP</td><td>USB3.0 Signal Receiving line (-)</td></tr> <tr> <td>10</td><td>I</td><td>FX3 SSRXM</td><td>USB3.0 Signal Receiving line (+)</td></tr> </tbody> </table>		No.	I/O	Name	Note	1	I	VBUS IN	Power (VBUS)	2	I/O	DM	USB2.0 Differential pair (-)	3	I/O	DP	USB2.0 Differential pair (+)	4		OTG ID	USB OTG ID for identifying lines	5		GND	GND	6	O	FX3 SSTXM	USB3.0 Signal Transmission line (-)	7	O	FX3 SSTXP	USB3.0 Signal Transmission line (+)	8		GND	GND	9	I	FX3 SSRXP	USB3.0 Signal Receiving line (-)	10	I	FX3 SSRXM	USB3.0 Signal Receiving line (+)
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