

GO SERIES

*Small, versatile, entry-level CMOS cameras
for a range of vision applications*

Scott Israel, 1stVision Inc.



See the possibilities

INTRODUCING THE GO SERIES!



See the possibilities

New small industrial cameras at a great price/performance point.



Small in size,
big on possibilities.

GO-5000



➔ WITH MEGAPIXELS & SPEED

5 MP

UP TO
107 FPS



➔ WITH CUTTING EDGE SENSOR TECHNOLOGY

1"
CMOS

5 μm
PIXELS

GLOBAL
SHUTTER



➔ WITH MAXIMUM RELIABILITY & DURABILITY

VIBRATION
10G

SHOCK
80G

MTBF
>120K
hours

TEMP
-5°/+45°



SMALL, BUT STILL
BUILT ROBUSTLY
FOR INDUSTRIAL
OPERATION

WARRANTY
3
YEARS

LOW COST
OF OWNERSHIP!

COMPACT SIZE & LOW WEIGHT

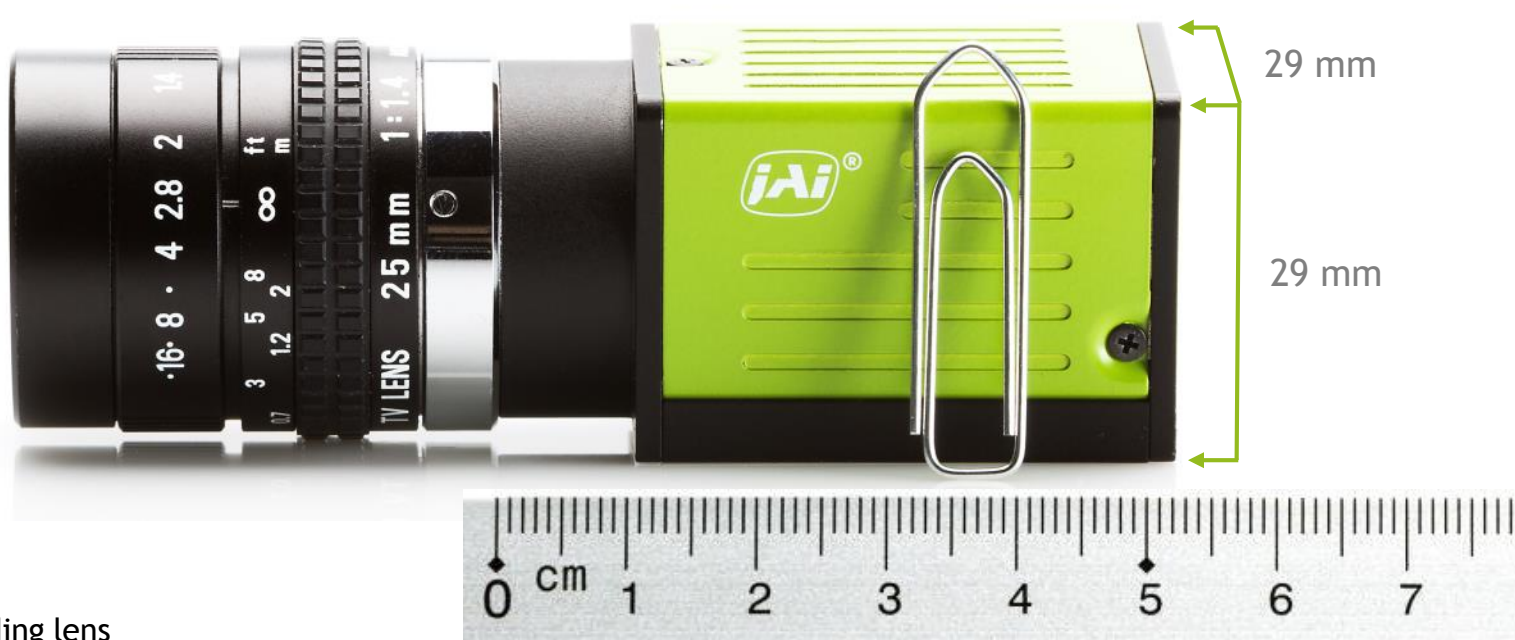
GO-5000



See the possibilities

COMPACT
SIZE

46*
GRAMS



* Weight not including lens

With GO-5000 you will discover
more cameras in one...



VERSATILE AND ADAPTABLE

One camera, many possibilities!

GO-5000



See the possibilities



5 μm PIXEL PITCH + ROI & BINNING CREATES MANY POSSIBILITIES

A few selected examples for the PMCL interface...

5 megapixels, 2560 X 2048
Up to 107 fps



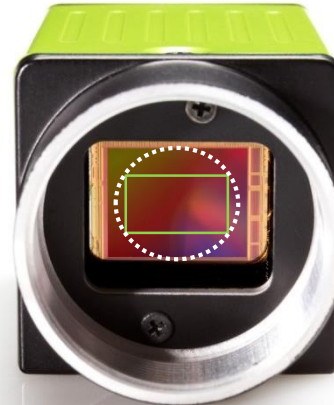
1-inch lens circle

2x2 binning, 1280 x 1024
213 fps



1-inch lens circle

HDTV ROI, 1920 X 1080
202 fps

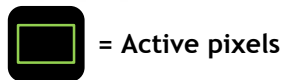


2/3-inch lens circle

VGA ROI, 640 x 480
447 fps



1/4-inch lens circle



= Active pixels



= Lens circle

NB= The binning function is only available in monochrome version - GO-5000M

.....AND EVEN MORE POSSIBILITIES



See the possibilities



← Transform the GO camera to a new resolution using ROI and Binning!

Megapixel	Standard	Pixel size	ROI/Binning	Pixel size (µm)	Sensor format (") and mm diagonal	Frames/s (PMCL) 8 / 10 / 12 bit	Frames/s (USB3 Vision) 8 / 10 / 12 bit	Frames/s (PGE) 8 / 10 / 12 bit
5 MP	QSXGA	2560 x 2048	None	5.0 x 5.0	1" (16.39 mm)	107 / 84 / 63	62 / 49 / 41	22 / 14 / 14
4 MP	2K x 2K	2048 x 2048	ROI	5.0 x 5.0	1" (14.48 mm)	107 / 86 / 71	62 / 49 / 41	27 / 18 / 18
2 MP	UXGA	1600 x 1200	ROI	5.0 x 5.0	2/3" (10.00 mm)	182 / 145 / 121	105 / 84 / 70	60 / 39 / 39
2 MP	1080p	1920 x 1080	ROI	5.0 x 5.0	2/3" (11.01 mm)	202 / 161 / 135	117 / 94 / 78	56 / 37 / 37
1,4 MP	SXGA+	1400 x 1050	ROI	5.0 x 5.0	1/2" (8.75 mm)	208 / 166 / 138	120 / 96 / 80	68 / 45 / 45
1,3 MP	SXGA	1280 x 1024	ROI	5.0 x 5.0	1/2" (8.20 mm)	213 / 170 / 142	123 / 99 / 82	70 / 46 / 46
1,3 MP	SXGA	1280 x 1024	2 x 2 binning	10.0 x 10.0	1" (16.39 mm)	213 / 170 / 142	123 / 99 / 82	54 / 46 / 46
0,5 MP	SVGA	800 x 600	ROI	5.0 x 5.0	1/3" (5.00 mm)	360 / 287 / 240	210 / 169 / 141	119 / 78 / 78
0.5 MP	SVGA	800 x 600	ROI + 2 x 2 binning	10.0 x 10.0	2/3" (10.00 mm)	359 / 287 / 240	210 / 169 / 141	92 / 78 / 78
0,3 MP	VGA	640 x 480	ROI	5.0 x 5.0	1/4" 4.00 mm)	446 / 356 / 298	262 / 212 / 176	148 / 97 / 97
0,3 MP	VGA	640 x 480	ROI + 2 x 2 binning	10.0 x 10.0	1/2" (8.00 mm)	446 / 355 / 298	262 / 212 / 176	114 / 97 / 97
0,3 MP	VGA	640 x 480	ROI + 4 x 4 binning	20.0 x 20.0	1" (16.00 mm)	446 / 355 / 297	262 / 212 / 176	114 / 97 / 97

More cameras in one....same vendor means:



LESS
COMPLEXITY

LESS
HANDLING COSTS

FASTER
LEARNING CURVE

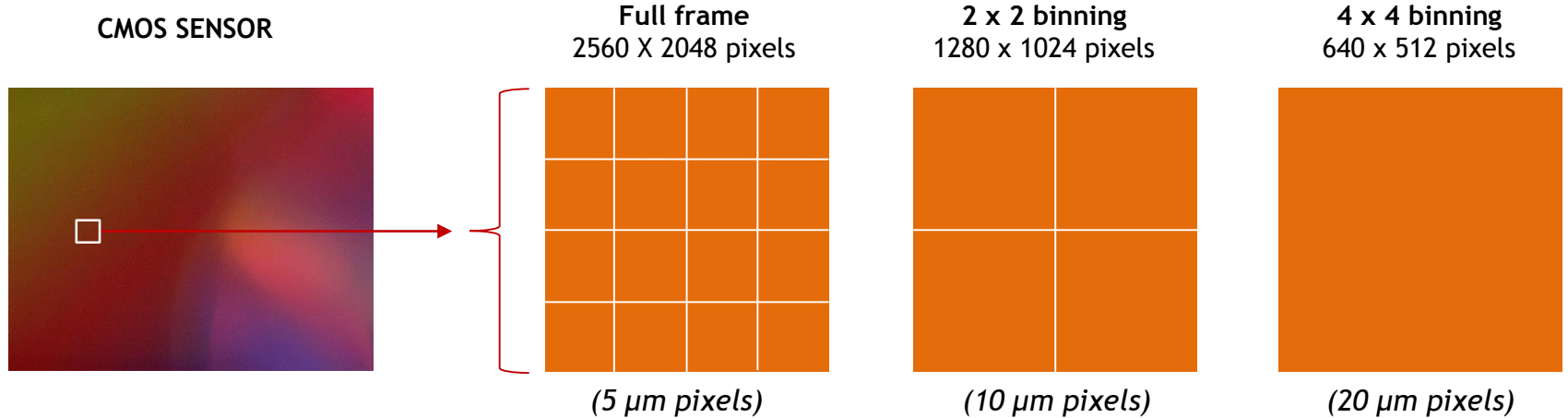
BINNING

Higher sensitivity



See the possibilities

➔ Getting higher sensitivity with binning. Less scene light required !



NB= The binning function is only available in monochrome version - GO-5000M

MULTI REGION OF INTEREST (MULTI-ROI)

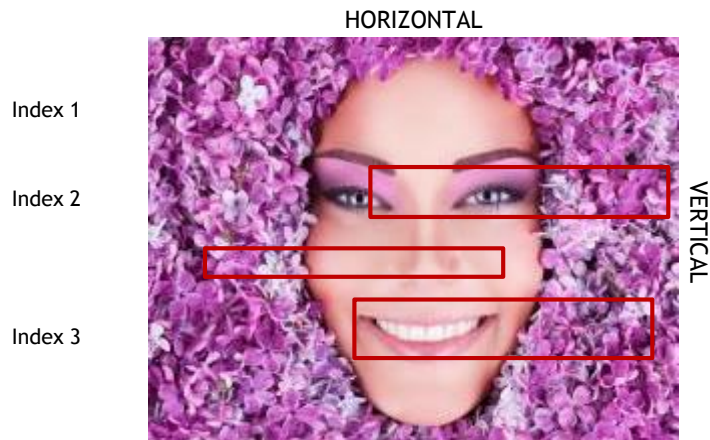
Even more versatility!

GO-5000



See the possibilities

- ➔ Faster image processing. Only regions of interest are computed.
- ➔ Better utilization of PC interface bandwidth.
- ➔ Vertical ROI increases the frame rate.



VIDEO OUTPUT FORMAT

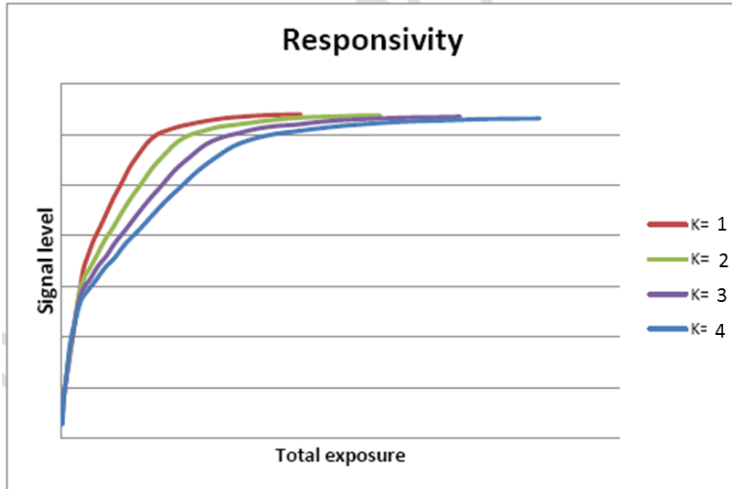


□ Up to 5 indexes can be defined with varying height. In PMCL model, horizontal width must be the same. For USB & PGE, width can vary and ROIs can be overlapped.

HDR FUNCTION

GO-5000

Increasing the dynamic range with built-in knee slopes



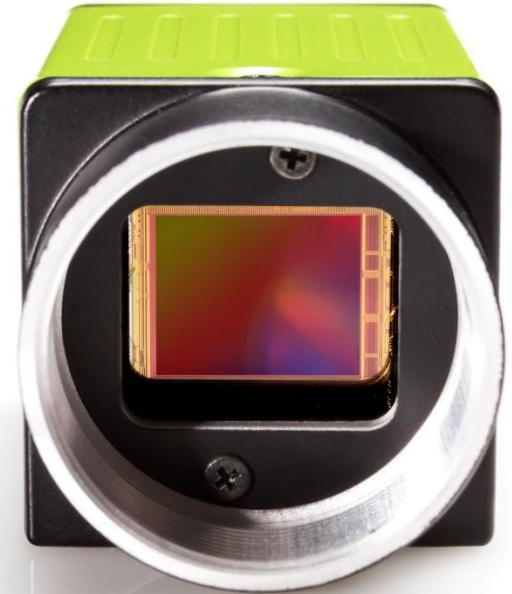
Knee Slope	Dynamic Range
1	200% (~70 dB)
2	400% (~80 dB)
3	800% (~90 dB)
4	1600% (~100 dB)



Choose from 4 built-in HDR slopes to achieve the required HDR response.
(Only available in monochrome version - GO-5000M)

Robust feature set:

- ALC - automatic level controlled exposure mode (auto gain + auto shutter).
- Built-in LUT for gamma and other transformations.
- In-camera CMOS pattern corrections.
- 8 binning modes, including 2x2 and 4x4 (monochrome only).
- Analog and digital gain controls for less quantized noise when adding gain.
- Pixel blemish compensation (256 pixels).
- Flat field shading correction.
- 8, 10 and 12-bit output.



C-mount

➔ LATEST HIGH PERFORMANCE INTERFACES

MONO

COLOR



Released



Released



Released

Model names:

GO-5000M-PMCL

GO-5000C-PMCL

GO-5000M-USB

GO-5000C-USB

GO-5000M-PGE

GO-5000C-PGE

Frame rates:

	<u>8-bit</u>	<u>10-bit</u>	<u>12-bit</u>
2 cables:	107 fps	84 fps	63 fps
1 cable:	48 fps	32 fps	32 fps

	<u>8-bit</u>	<u>10-bit</u>	<u>12-bit</u>
	62 fps	49 fps	41 fps

	<u>8-bit</u>	<u>10-bit</u>	<u>12-bit</u>
	22 fps	14 fps	14 fps