

GO-5000M-PMCL-UV-1

5-megapixel CMOS global shutter



- Large format 5 MP CMOS imager (global shutter) with extended UV sensitivity
- Up to 107 fps at full resolution
- 5.0 μm square pixels
- Small size (29 x 29 x 41.5 mm, excluding lens mount)
- 8/10/12-bit monochrome output
- 60 dB linear dynamic range with built-in HDR modes up to 100 dB
- Analog and digital gain control for less quantized noise in low-light situations
- Exposure control from 10 μs (1/100,000) to 8 seconds in 1 μs steps
- 2X and 4X binning for increased sensitivity
- Single and multi-ROI modes for flexible windowing and use of 2/3" or smaller optics
- Automatic Level Control (ALC) for dynamic lighting conditions
- Accepts power over Mini Camera Link or via separate 4-pin connector
- C-mount lens mount

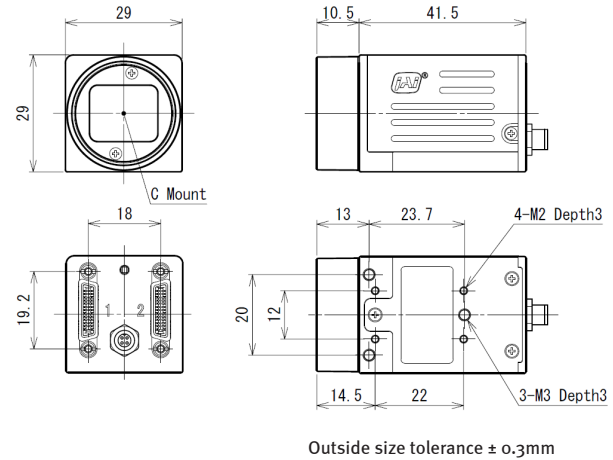


Specifications for GO-5000M-PMCL-UV-1

Go Series

Specifications		GO-5000M-PMCL-UV-1
Sensor		1" CMOS global shutter (Lince 5M) with no microlenses
Sensor protective covering		Quartz glass with double AR coating
Pixel clock		36/28.8/24 MHz
Frame rate, full frame		107 frames/sec. (8-bit, 8-tap, full CL)
Active area		12.8 mm (h) x 10.24 mm (v), 16.39 mm diagonal
Cell size		5.0 μ m (h) x 5.0 μ m (v)
Active pixels		2560 (h) x 2048 (v)
Read-out modes	Full ROI	2560 (h) x 2048 (v) up to 107 fps Any start line, any height in 1 line steps, with X offset and width in 8 pixel steps
	Binning	1x2, 2x1, 2x2, 2x4, 4x2, 4x4
Traditional SNR*		>55 dB (0 dB gain, non-linear)
Video signal output		8/10/12-bit monochrome
Gain (digital)		Manual/automatic 0 dB to +24 dB
Gain (analog)		0 dB, +6 dB, +12 dB
Gamma		0.45, 0.6, 1.0 or 32-point LUT
Synchronization		Internal
Trigger input		TTL, CL, Pulse Generator, Software, NANDo, NAND1
Trigger modes		EPS, Trigger Width, Timed RCT (with ALC)
Electronic shutter	Timed exposure Auto shutter	10 μ s to 8 sec in 1 μ s steps 1/107 to 1/10,000 sec.
Auto Level Control (ALC)		Shutter range from 1/107 to 1/10,000, gain range from 0 dB to +24 dB Tracking speeds and max values adjustable.
Pre-processing functions		Flat field correction, blemish compensation (512 pixels)
High Dynamic Range mode (HDR)		4 user-selectable knee slopes – 70/80/90/100 dB
Operating temperature		-5°C to +45°C
Storage temperature		-25°C to +60°C
Humidity		20 - 80% non-condensing
Vibration		10 G (20Hz to 200Hz XYZ, 20 mins.)
Shock		80 G
Regulations		CE (EN55032: 2015, EN55035: 2017), FCC Part 15 class A, RoHS/WEEE
Power	PoCL 4-pin	12V $\pm$ 1V DC. 3.24W typical @ 12V 12V to 24V DC $\pm$ 10%. 3.24W typical @ 12V
Lens mount		C-mount
Dimensions (H x W x L)		29 mm x 29 mm x 41.5 mm (excluding lens mount)
Weight		60 g

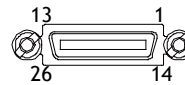
Dimensions



Connector pin-out

Mini-CL interface

Interface 1



Pin	Signal	Function
1	26	Power
13	14	GND
2	15	-/+ TxOUT 0
3	16	-/+ TxOUT 1
4	17	-/+ TxOUT 2
5	18	-/+ TxOUT 3
6	19	-/+ TxOUT 3
7	20	+/- RXD
8	21	-/+ TXD
9	22	CC1-/CC1+
10	23	CC2-/CC2+
11	24	CC3-/CC3+
12	25	CC4-/CC4+

DC In / 4-pin

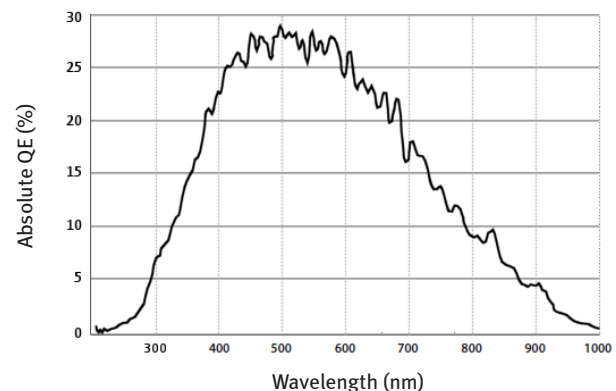


09-3111-81-04 (Binder)

Pin	Signal
1	+12V to +24V DC Input
2	NC
3	NC
4	GND

For Medium and Full implementations a second Mini-CL interface is provided. Video Channel 2 is on pin pairs (2,15), (3,16), (4,17), (5,18), and (6,19). Video Channel 3 is on pin pairs (8,21), (9,22), (10,23), (11,24), and (12,25). Consult manual for specific bit depths and pin assignments.

Spectral Response



Ordering Information

GO-5000M-PMCL-UV-1 | Monochrome UV camera with Mini Camera Link

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

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