

❖ **GO-2400-PMCL**
2.35-megapixel CMOS global shutter



- **2.35-megapixel 1/1.2" CMOS imager (global shutter)**
- **Up to 165.5 fps at full resolution**
- **5.86 μm square pixels**
- **Small size (29 x 29 x 41.5 mm, excluding lens mount)**
- **8/10-bit output in choice of monochrome or raw Bayer color models**
- **Exposure control from 15 μs to 8 seconds in 1 μs steps**
- **2X binning for increased sensitivity (monochrome only)**
- **Single and multi-ROI modes for increasing frame rate and use of smaller optics**
- **Automatic Level Control (ALC) for dynamic lighting conditions**
- **Accepts power over Camera Link interface or separate 4-pin connector**
- **C-mount lens mount**

www.jai.com



See the possibilities

Specifications		GO-2400-PMCL
Sensor		1/1.2" CMOS Global Shutter (IMX174)
Camera Link Clock		37.125/ 74.25/ 84.85 MHz
Frame rate (Full frame)		165,5 frames/sec (8-bit, continuous)
Active area		11.3 mm (h) x 7.13 mm (v) – 13.4mm (diagonal)
Cell size		5,86 µm (h) x 5,86 µm (v)
Active pixels		1936 (h) x 1216 (v)
Read-out modes	Full ROI	1936 (h) x 1216 (v) up to 165,5 fps 2 lines to 1216 lines (1 or 2 line steps), 96 to 1936 pixels wide (16 pixel steps)
	Binning	1x2, 2x2, 2x1 (monochrome only)
EMVA 1288 Parameters		10-bit output format
Absolute sensitivity (mono)		TBD p (λ = 525 nm)
Absolute sensitivity (color)		TBD p (λ = 525 nm)
Maximum SNR (mono)		45.29 dB
Maximum SNR (color)		45.15 dB
Traditional SNR*	mono color	> 60dB @10-bit (0 dB gain, non-linear) > 60dB @10-bit (0 dB gain, green, non-linear)
Video signal output	mono color	8/10-bit monochrome 8/10-bit raw Bayer (12-bit available in Video Process Bypass Mode)
Gain control		Manual/auto 0 dB to +24 dB
White balance (GO-2400C)		Manual/one-push auto, or continuous (3000K to 9000K)
Gamma		0.45, 0.6, 1.0 or 256-point LUT
Synchronization		Internal
Video modes		Normal, Single ROI, Multi ROI, Sequence (Trigger & Command)
Trigger input		TTL, Camera Link (CC1), NAND (2), Pulse Generator, Software
Trigger modes		Timed (EPS), Trigger Width, Sequence
Electronic shutter		Timed: 15 µs to 8 sec (1 µs/step) Auto: 1/165 to 1/10000
Auto level control (ALC)		Shutter range from 1/165 to 1/10000, gain range from 0 dB to +24 dB Tracking speeds and max values adjustable
Pre-processing functions		Shading correction, blemish comp. (256 pixels)
Lens control		P-Iris, video iris (optional configuration*)
Operating temperature		-5°C to +45°C
Storage temperature		-25°C to +60°C
Humidity		20 - 80% non-condensing
Vibration		10G (20 Hz to 200 Hz XYZ)
Shock		80 G
Regulations		CE (EN 61000-6-2, EN 61000-6-3), FCC part 15 class B, RoHS/WEEE
Power		12V to 24V DC ± 10%. 2.76W typical @ 12V (via PoCL or 4-pin connector)
Lens mount		C-mount
Dimensions (H x W x L)		29 mm x 29 mm x 41.5 mm (excl. lens mount)
Weight		46g

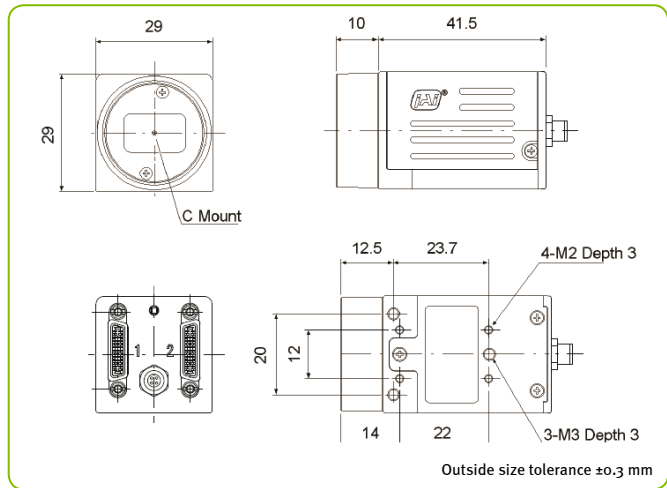
Ordering Information

GO-2400M-PMCL	Monochrome camera with Mini Camera Link
GO-2400C-PMCL	Color 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.

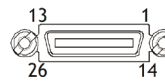
† Uses 4-pin connector for P-iris control. 4-pin cannot be used for power or TTL in/out in this configuration. Use ordering number GO-2400M-PMCL-AUX1 (monochrome only).

Dimensions



Connector pin-out

Mini-CL Interface Interface 1



Pin	Signal	Function
1	26	Power
2	15	-/+ TxOUT 0
3	16	-/+ TxOUT 1
4	17	-/+ TxOUT 2
5	18	-/+ TxClk
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+

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.

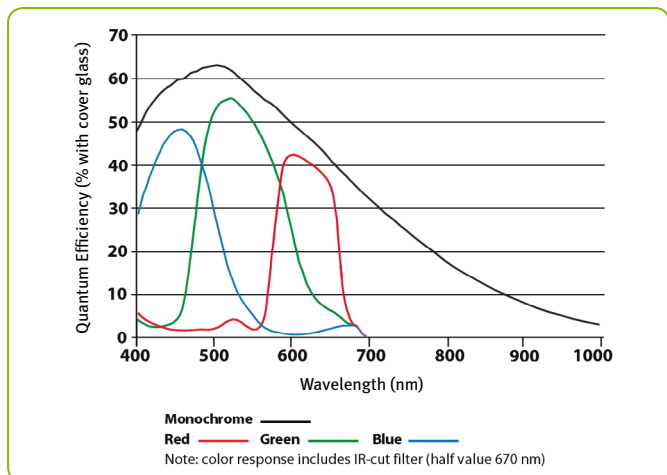
DC In / Trigger



09-3111-81-04 (Binder)

Pin	Signal
1	+12V to +24V DC Input
2	TTL In (Line 4)
3	TTL Out (Line 1)
4	GND

Spectral Response



K-JA1085-03/2016 · Subject to technical change without notice. No liability is accepted for errors which may be contained in this document.