

GO-8105M-5GE-UV

Technical Datasheet

IMX487-AAMJ



See the possibilities



Apex Series



JAI's Go Series delivers an exceptional blend of small size, high versatility, and excellent performance, all at an entry-level price, making the cameras a perfect starting point for a wide range of machine vision applications.

CMOS technology, low-noise pixels, global shutters, sequencer functions, and other advanced features help ensure image quality and operational flexibility beyond entry-level expectations.

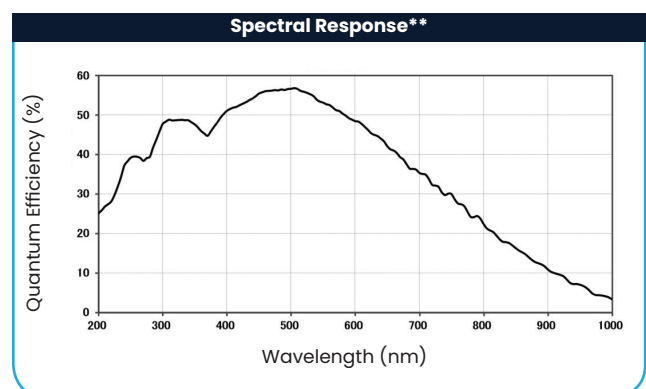
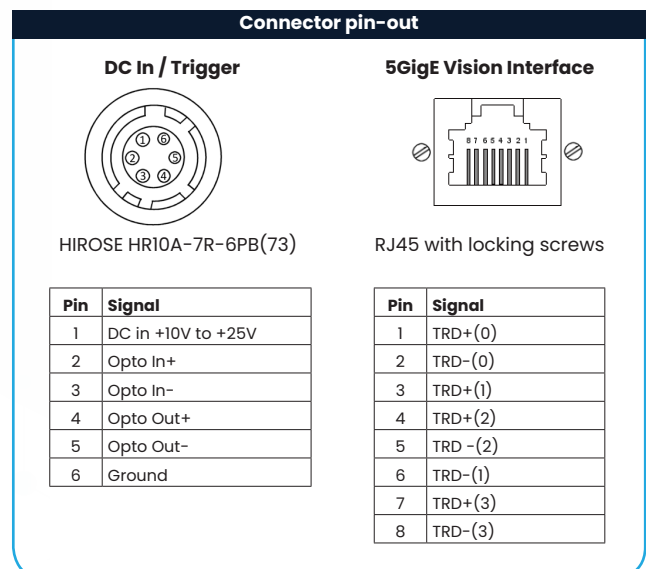
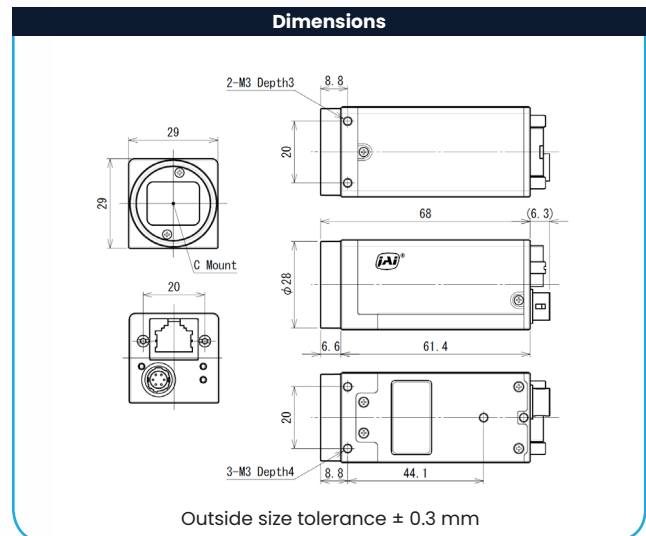
Specification Highlights

SENSOR:	IMX487-AAMJ	SHUTTER:	Global Shutter
FORMAT:	2/3"	FRAME RATE:	66 fps
PIXEL SIZE:	3.45 x 3.45 μ m	INTERFACE:	5 Gbps GigE Vision
LENS MOUNT:	C-Mount	RESOLUTION MP:	8.1 MP
SPECTRUM:	Monochrome (Visible + UV)	RESOLUTION WxH:	2856 x 2848 px

Specifications		GO-8105M-5GE-UV
Sensor		2/3" CMOS global shutter (IMX487)
Active pixels		2856 (h) x 2848 (v)
Frame rate, full frame		66 frames/sec. @ 8-bit, 5GBASE-T
Active area		7.8 mm (h) x 7.8 mm (v) - 11.05 mm diagonal
Pixel size		2.74 μm x 2.74 μm
Read-out modes		
Full ROI (single)		2856 (h) x 2848 (v) up to 66 fps H: 96 to 2856 pixels in 8 pixel steps V: 8 to 2848 lines in 2 line steps
ROI (multi)		Up to 64 scanning areas - no overlap
Binning		1x2, 2x1, 2x2
Image scaling (Xscale)		Supports independent, sub-pixel rescaling of H and/or V resolution (1/16 max.)
EMVA 1288 Parameters		10-bit output format
Absolute sensitivity		Mono: TBD p ($\lambda = \text{xxx nm}$)
Maximum SNR		Mono: TBD dB
Traditional SNR*		>60 dB mono, >60 dB color (0 dB gain, 10-bit)
Video signal output		Monochrome: 8/10/12-bits
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
Time synchronization		Support for Precision Time Protocol (IEEE 1588)
Trigger input		Opto In, Pulse Generators (4), Software, NAND Out (2), User Output (4), Actions
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 15.1 ms at full resolution
Auto Level Control (ALC)		Shutter range from 100 μs to 15.1 ms, gain range from 0 dB to +42 dB. Tracking speeds and min/max values adjustable.
Shading correction		Flat shading
Video processing functions		H & V flip (mirroring), blemish compensation, edge enhancement
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 PoE [†]	+10V to +25V DC. 5.1 W typical @ +12 V +36V to +57 V DC. 6.7 W typical @ +48 V
Lens mount		C-mount
Dimensions (H x W x L)		29 mm x 29 mm x 68 mm
Weight		95 g (85 g for GL model)
Ordering Information		
GO-8105M-5GE-UV		UV-sensitive camera with 5GigE Vision interface
GO-8105M-5GE-UV-GL		Glassless model with removable protective glass

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

[†]PoE use limited to specific pre-defined conditions. Refer to product manual for details.



**Note: sensitivity extends below 200 nm but specific QE has not been measured. Images captured at wavelengths above 400 nm may exhibit lower quality due to parasitic light sensitivity (PLS).

Product Highlights

- High performance camera with 8.1-megapixel resolution and UV sensitivity
- 2/3" CMOS imager (global shutter) features backside illuminated pixel technology
- 2856 x 2848 resolution with 2.74 μm square pixels
- Up to 66 fps over high performance 5GBASE-T interface (5 gigabits per second)
- Can auto-negotiate to 2.5GBASE-T and standard GigE (1000BASE-T)
- 8/10/12-bit monochrome output
- Flexible ROI & rescaling function (Xscale) plus 1x2, 2x1, and 2x2 binning
- Horizontal/vertical image flip function, plus blemish compensation and shading correction
- Includes Sequencer function and Automatic Level Control (ALC) for dynamic lighting conditions
- Compact size with excellent shock and vibration resistance
- Accepts power over GigE Vision interface or via separate 6-pin connector
- Available with quartz glass cover on sensor or with user-removable protective glass
- C-mount lens mount

Additional Product Images



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