



OPTO ENGINEERING

ITA16-GM-10C-IP | DATASHEET

Area scan camera 1.6MP, Sony IMX273, CMOS Global shutter, 1/2.9", Mono, 1 GigE, POE, C mount



KEY ADVANTAGES

IP67-RATED ENCLOSURE

High-level protection with water and dust ingress protection feature.

MADE IN ITALY

Cameras designed and manufactured in Italy by Opto Engineering.

COMPATIBLE IP67 LENS TUBES

Sealed lens tubes from IPT series ensure protection against solid particles and water.

RUGGED DESIGN

Aluminum body steel lens mount. Shock Vibration certified. Wide temperature range.

MAXIMUM CONNECTIVITY

Isolated PoE supply, broad range of I/Os, serial communication, M12 connectors.

GEN*i*CAM

GigE
VISION

1288
EMVA Standard Compliant



ITALA-G.IP series is a series of GigE vision PoE area scan cameras featuring an IP67-rated housing. By adding sealed lens tubes from IPT series and IP67 cables, ITALA G.IP cameras ensure protection against solid particles like dust, dirt, and sand and water.

KEY FEATURES



IP67



1 GIGE



12-24 VOLT



POWER OVER ETHERNET



12-BIT DEPTH



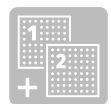
BURST



IMAGE COMPRESSION



FAST TRIGGER MODE



DUAL EXPOSURE



SEQUENCER



PRECISION TIME PROTOCOL



SCHEDULED ACTION COMMAND



REGION OF INTEREST



BINNING AND DECIMATION



CHUNK DATA



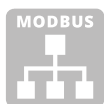
OPTO ISOLATED I/O



ENCODER



DUAL SERIAL INTERFACE



MODBUS



API C



API C++



API C#



API Python



WINDOWS



LINUX



ARM

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

SPECIFICATIONS

Sensor Specification

Megapixel		1.6
Resolution		1456 x 1088
Sensor format		1/2.9"
Sensor diagonal	(mm)	6.2
Pixel size	(μm)	3.45
Sensor model		IMX273
Sensor type		CMOS
Shutter		Global
Chroma		Mono

Connectivity

Data connector		M12 X-Coded Female IP67
Data interface		1 GigE
I/O connector		M12 A-Coded Male IP67
I/O interface		2x opto-isolated input 4x opto-isolated output
Serial interface		RS232, RS485
Liquid lens controller		no
Encoder interface		yes, incremental
Power supply	(V)	12-24, PoE (IEEE 802.3af class 2)
Max power consumption ²	(W)	3.6

Compliance

Standards		GigE Vision 2.2, GenICam, GenTL
Client software		ITALA View or other GigE Vision 2.x software
Operating systems		64-bit Windows 10/11 Ubuntu 18.04 or higher
Shock and vibration		EN 60068-2-27 EN 60068-2-6 EN 60068-2-64
Warranty	(years)	5

Mechanical Specifications

Mount		C
Dimensions	(mm)	54 x 54 x 51.3
Clamping system		16x M3 threaded holes (on all sides)
Mass	(g)	200

Camera Specification

Filter		AR glass
Frame rate ¹	(fps)	74.2
Frame rate burst	(fps)	126.6
Exposure time		1 μs - 10 s
ADC resolution	(bit)	10/12
Dynamic range	(dB)	70.2
Gain range	(dB)	0-48
SNR	(dB)	40.0
Image buffer	(MB)	384
Image processing		Binning, decimation, ROI, gamma, black level, LUT, defective pixel correction
Pixel formats		Mono 8/ 10p/ 10Packed/ 12p/12Packed
Chunk data		yes
User sets		3
Timers/Counters		2/4
Synchronization		Free run, software trigger, hardware trigger, PTP (IEEE 1588)

Environment

Operating temperature ³	($^{\circ}\text{C}$)	-25 - +65
Storage temperature ⁴	($^{\circ}\text{C}$)	-10 - +60
Operating relative humidity	(%)	20-80, non condensing
IP rating		IP67

¹ Color-model's fps are calculated using BayerRG8 pixel format

² Measured with 24V power supply

³ Case temperature, measured on the front part of the camera body

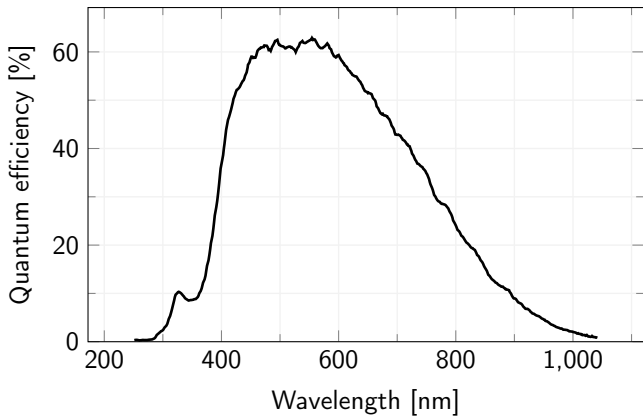
⁴ Ambient temperature

M12 PINOUT

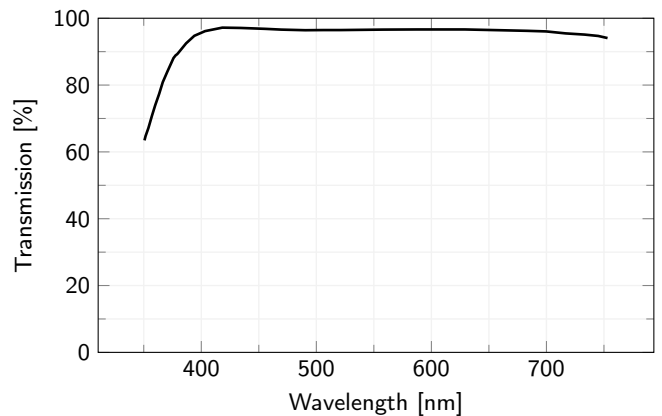


Pin	Signal
1	GND
2	+VIN
3	Opto OUT 3
4	Opto IN 0
5	Opto OUT 2
6	Opto OUT 0
7	Opto REF GND
8	RS232 RX
9	RS232 TX
10	Opto REF V+
11	Opto IN 1
12	Opto OUT 1

SENSOR QUANTUM EFFICIENCY



FILTERS TRANSMISSION



RECOMMENDED ACCESSORIES



Opto-Engineering® offers sealed lens tubes of different diameters to be used with varying lens sizes (IPT-Series) and sealed M12 cables (CB series) to complete your vision system.

COMPATIBLE PRODUCTS

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

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