ITA16-GM-10C-IP | DATASHEET

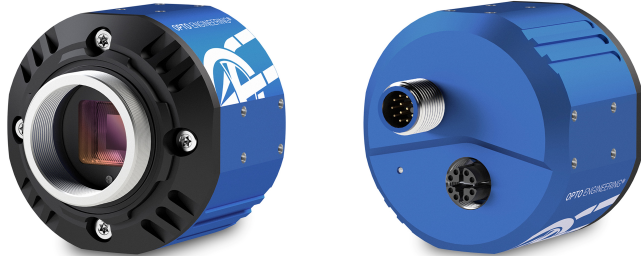**OPTO ENGINEERING®**

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

KEY ADVANTAGES

IP67-rated housing
Protection against water and dust.

MADE IN ITALY
Cameras designed and manufactured in Italy by Opto Engineering.

TOP QUALITY SERVICE
5 years warranty.

Ruggedized
-25° C to 65° operating temperature. Stainless steel mount, milled aluminum body. Tested for shock and vibration resistance.

MAXIMUM CONNECTIVITY
Isolated PoE supply, broad range of I/Os, serial communication.

HIGH PROCESSING CAPABILITY
Large on-board image buffer, large FPGA.

EXCELLENT QUALITY/PRICE RATIO

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.

GEN<i>CAM | GigE VISION | 1288 EMVA Standard Compliant

KEY FEATURES

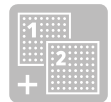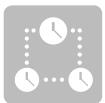| IP67	1 GIGE	12-24 VOLT	POWER OVER ETHERNET	12-BIT DEPTH	BURST	IMAGE COMPRESSION	FAST TRIGGER MODE	DUAL EXPOSURE

SEQUENCER	PRECISION TIME PROTOCOL	SCHEDULED ACTION COMMAND	REGION OF INTEREST	BINNING AND DECIMATION	CHUNK DATA	OPTO ISOLATED I/O	ENCODER	DUAL SERIAL INTERFACE
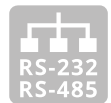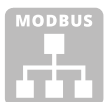
MODBUS	API C	API C++	API C#	API Python	WINDOWS	LINUX

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		RJ45
Data interface		1 GigE
I/O connector		12-pin Hirose
I/O interface		2x opto-isolated input 4x opto-isolated output
Serial interface		RS232, RS485
Liquid lens controller		no
Enconder 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 18.04/20.04/22.04
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

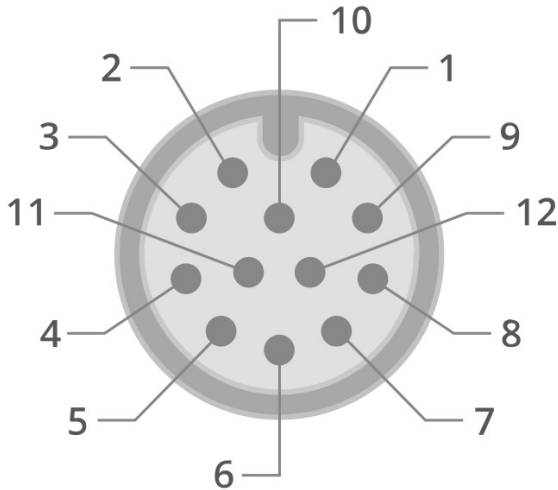|		
Operating temperature[3]	(°C)	-25 - +65
Storage temperature[4]	(°C)	-10 - +60
Operating relative humidity	(%)	20-80, non condensing
IP rating		IP67

[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
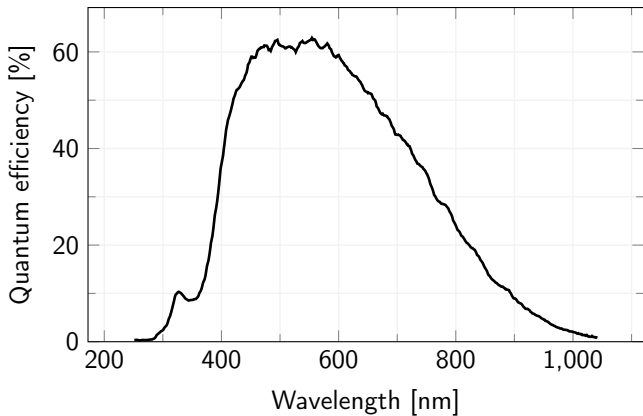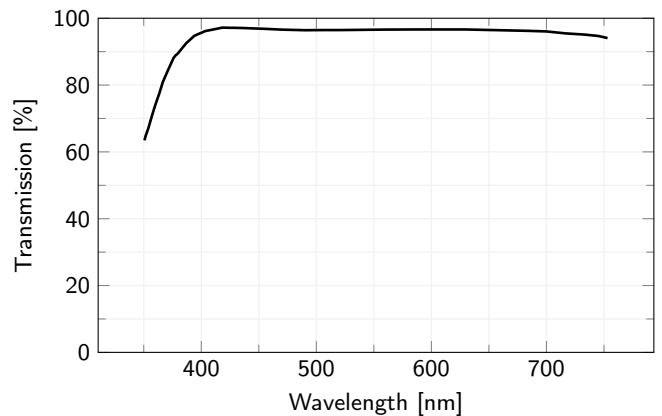[4] Ambient temperature

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*.

| OPTICS | LIGHTING | CAMERAS | SOFTWARE | ACCESSORIES |

A wide selection of innovative machine vision components.