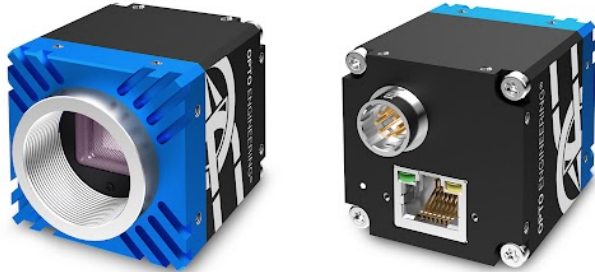




ITA120-GC-10C | DATASHEET

Area scan camera 12.3MP, Sony IMX304, CMOS Global shutter, 1.1", Color, 1 GigE, POE, C mount



KEY ADVANTAGES

MADE IN ITALY

Cameras designed and manufactured in Italy by Opto Engineering.

TOP QUALITY SERVICE

5 years warranty.

HIGH ROBUSTNESS

Aluminum body & steel lens mount, shock & vibration certified, wide temperature range.

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



The **ITALA-G series** is a series of GigE Vision industrial cameras designed and manufactured in Italy by Opto Engineering®.

SPECIFICATIONS

Sensor Specification

Megapixel	12.3
Resolution	4112 x 3008
Sensor format	1.1"
Sensor diagonal (mm)	17.6
Pixel size (µm)	3.45
Sensor model	IMX304
Sensor type	CMOS
Shutter	Global
Chroma	Color

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
Encoder interface	yes, incremental
Power supply (V)	12-24, PoE (IEEE 802.3af class 2)
Max power consumption ¹ (W)	4

Camera Specification

Filter	IR cut
Frame rate (fps)	3.2
Frame rate burst (fps)	15.1
Exposure time	1.51 µs - 10 s
ADC resolution (bit)	10/12
Dynamic range (dB)	70.0
Gain range (dB)	0-48
SNR ¹ (dB)	40.2
Image buffer (MB)	384
Image processing	Binning, decimation, ROI, gamma, black level, LUT, defective pixel correction, white balance, color correction matrix
Pixel formats	Mono 8/10/12, RGB8, Bayer GR 8/10p/10Packed/12p/12Packed, YUV 422Packed
Chunk data	yes
User sets	3
Timers/Counters	2/4
Synchronization	Free run, software trigger, hardware trigger

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.

Compliance

Standards	GigE Vision 2.x, GenICam, GenTL	
Client software	ITALA View or other GigE Vision 2.x software	
Operating systems	64-bit Windows 10/11	
Shock and vibration ²	n.a.	
Warranty (years)	5	

Mechanical Specifications

Mount	C	
Dimensions (mm)	40.5 x 40.5 x 51.2	
Clamping system	16x M3 threaded holes (on all sides)	
Mass (g)	142	

Environment

Operating temperature ³	(°C)	-25 - +65
Storage temperature ⁴	(°C)	-10 - +60
Operating relative humidity	(%)	20-80, non condensing
IP rating	IP30	

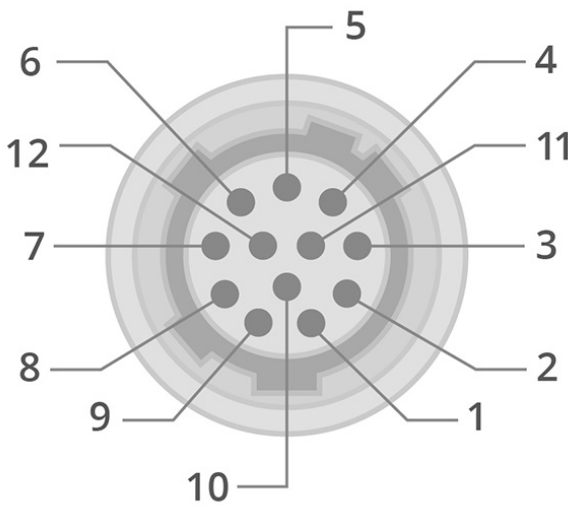
¹ Measured with PoE power supply

² To be measured after pre-series production

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

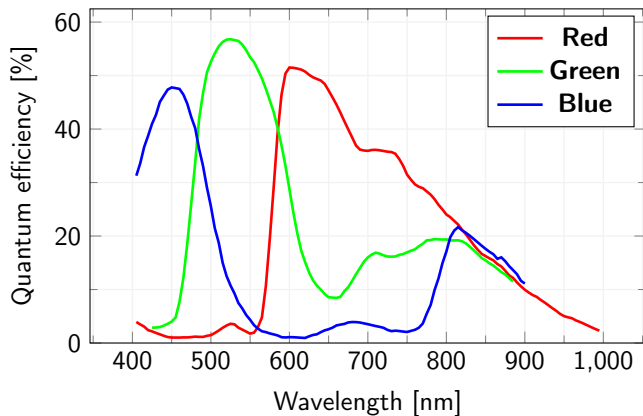
⁴ Ambient temperature

HIROSE PINOUT

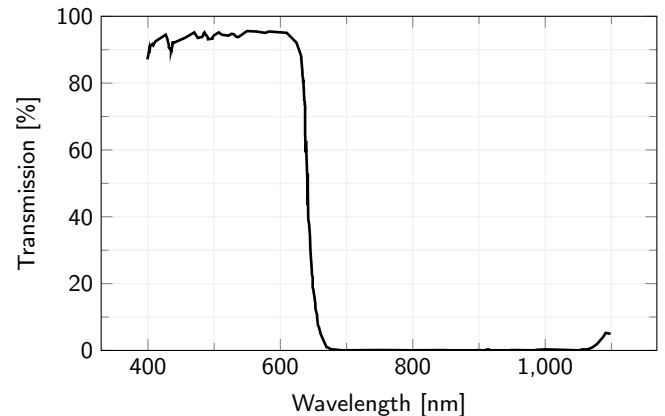


Pin	Signal
1	GND
2	+VIN
3	Opto OUT 3
4	Opto IN 0
5	Opto OUT 2
6	Opto OUT 0
7	Opto REF GND
8	RS232 RX
9	RS232 TX
10	Opto REF V+
11	Opto IN 1
12	Opto OUT 1

SENSOR QUANTUM EFFICIENCY



FILTERS TRANSMISSION



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RECOMMENDED ACCESSORIES

Opto-Engineering® suggests the following accessories to power the camera:

- **CBETH003**, Ethernet cable, CAT6, industrial level, high flexible cable with screw, 5 m
- **CBGPIO001**, I/O cable, side 1 HIROSE 12 pin, side 2 cable end, 3 m
- **RT-POE15M-1AFE-R**, 15.4W Single Port Power-over-Ethernet IEEE802.3af Power Injector

COMPATIBLE PRODUCTS

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



A wide selection of innovative machine vision components.