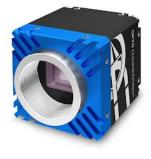


# ITA162-GC-20C | DATASHEET

## Area scan camera 16.2MP, Sony IMX542, CMOS Global shutter, 1.1", Color, 1 GigE, POE, C mount





GEN**<i>**CAM







**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®.

## **KEY FEATURES**

1 GigE	12-24 <b>%</b> Volt	PoE	12-BIT					1 2 3
1 GIGE	12-24 VOLT	POWER OVER ETHERNET	12-BIT DEPTH	BURST	IMAGE COM- PRESSION	FAST TRIGGER MODE	DUAL EXPOSURE	SEQUENCER
	Ō							nn nn
PRECISION TIME PROTOCOL	SCHEDULED ACTION COMMAND	REGION OF INTEREST	BINNING AND DECIMATION	CHUNK DATA	AUTO WHITE BALANCE	COLOR CORRECTION MATRIX	OPTO ISOLATED I/O	ENCODER
RS-232 RS-485	MODBUS	API C	API C++	API C#	<b>API</b> python <sup>-</sup>			
DUAL SERIAL INTERFACE	MODBUS	API C	API C++	API C#	API Python	WINDOWS	LINUX	

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### **SPECIFICATIONS**

Sensor Specification			Camera Specificat	tion	
Megapixel		16.2	Filter		IR cut
Resolution		5328 x 3040	Frame rate <sup>1</sup>	(fps)	7.3
Sensor format		1.1"	Frame rate burst	(fps)	13.6
Sensor diagonal	(mm)	16.8	Exposure time		1.01 µs - 10 s
Pixel size	(µm)	2.74	ADC resolution	(bit)	10/12
Sensor model		IMX542	Dynamic range	(dB)	70.4
Sensor type		CMOS	Gain range	(dB)	0-48
Shutter		Global	SNR	(dB)	39.7
Chroma		Color	Image buffer	(MB)	384
Connectivity Data connector		 Rj45	Image processing		Binning, decimation, ROI, gamma, black level, LUT, defective pixel correction, white
Data interface		1 GigE			balance, color corection matrix
I/O connector		12-pin Hirose	Pixel formats		Mono 8, RGB8, Bayer GR 8/10p/10Packed/12p/12Packed, YUV 422_8, YUV411_8_UYYVYY
I/O interface		2x opto-isolated input 4x opto-isolated output	Chunk data		yes
Serial interface		RS232, RS485	User sets		3
Liquid lens controller		no	Timers/Counters		2/4
Enconder interface		yes, incremental			Free run, software trigger,
Power supply	(V)	12-24, PoE (IEEE 802.3af class 2)	Synchronization		hardware trigger, PTP (IEEE
Max power consumption <sup>2</sup>	(W)	4			1588)
Compliance			Environment		

Standards	GigE Vision 2.2, GenICam, GenTL			
Client software		ITALA View or other GigE Vision 2. software		
Operating systems		64-bit Windows 10/11		
Operating systems		Ubuntu 18.04/20.04/22.04		
		EN 60068-2-27		
Shock and vibration		EN 60068-2-6		
		EN 60068-2-64		
Warranty	(years)	5		

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

<sup>1</sup> Color-model's fps are calculated using BayerRG8 pixel format

 <sup>2</sup> Measured with 24V power supply
<sup>3</sup> Case temperature, measured on the front part of the camera body <sup>4</sup> Ambient temperature

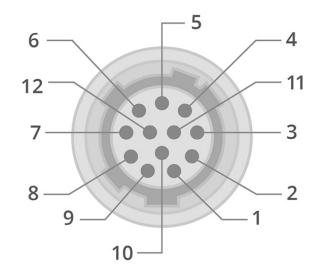
#### **Mechanical Specifications**

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

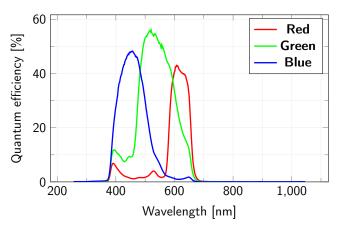
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#### **HIROSE PINOUT**



#### SENSOR QUANTUM EFFICIENCY



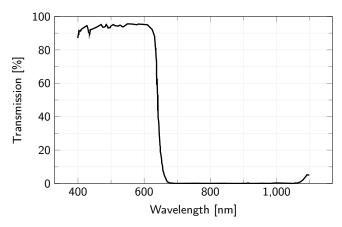
#### **RECOMMENDED ACCESSORIES**

Opto-Engineering<sup>®</sup> suggests the following accessories to power the camera:

- **RT-A72-0418-05**, Ethernet cable, CAT6A, industrial level, high flexible cable with screw, 5 m
- **RT-A65-7105-05**, I/O cable, side 1 HIROSE 12 pin, side 2 cable end, 5 m
- **RT-POE15M-1AFE-R**, 15.4W Single Port Power-over-Ethernet IEEE802.3af Power Injector

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

#### **FILTERS TRANSMISSION**



#### **COMPATIBLE PRODUCTS**

Full list of compatible products available here.



A wide selection of innovative machine vision components.

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