



OPTO ENGINEERING

# ITA196-GC-10J | DATASHEET

Area scan camera 19.6MP, Sony IMX367, CMOS Global shutter, 4/3", Color, 1 GigE, POE, M42x1 FD 12 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

GEN*<i>i*

**GiG**  
VISION



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 VOLT



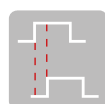
POWER OVER  
ETHERNET



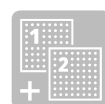
12-BIT DEPTH



BURST



FAST  
TRIGGER  
MODE



DUAL  
EXPOSURE



SEQUENCER



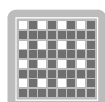
PRECISION  
TIME  
PROTOCOL



SCHEDULED  
ACTION  
COMMAND



REGION OF  
INTEREST



BINNING  
AND  
DECIMATION



CHUNK DATA



AUTO WHITE  
BALANCE



COLOR  
CORRECTION  
MATRIX



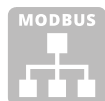
OPTO  
ISOLATED I/O



ENCODER



DUAL SERIAL  
INTERFACE



MODBUS



API C



API C++



API C#



WINDOWS



LINUX

## SPECIFICATIONS

## Sensor Specification

Megapixel	19.6
Resolution	4432 x 4436
Sensor format	4/3"
Sensor diagonal (mm)	21.6
Pixel size (μm)	3.45
Sensor model	IMX367
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 <sup>2</sup> (W)	5.5

## 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	-
Warranty (years)	5

## Mechanical Specifications

Mount	M42x1 FD 12
Dimensions (mm)	52.5 x 52.5 x 56.6
Clamping system	16x M3 threaded holes (on all sides)
Mass (g)	246

## Camera Specification

Filter	IR cut
Frame rate <sup>1</sup> (fps)	6.0
Frame rate burst (fps)	11.7
Exposure time	2.80 μs - 10 s
ADC resolution (bit)	10/12
Dynamic range (dB)	69.4
Gain range (dB)	0-48
SNR (dB)	40.030311403668
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, PTP (IEEE 1588)

## Environment

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

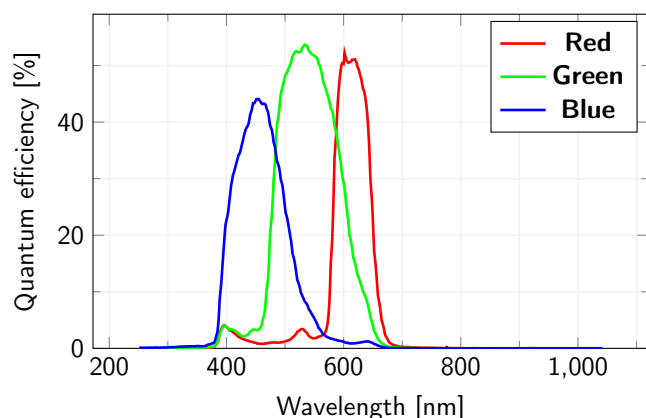
<sup>4</sup> Ambient temperature

## HIROSE PINOUT

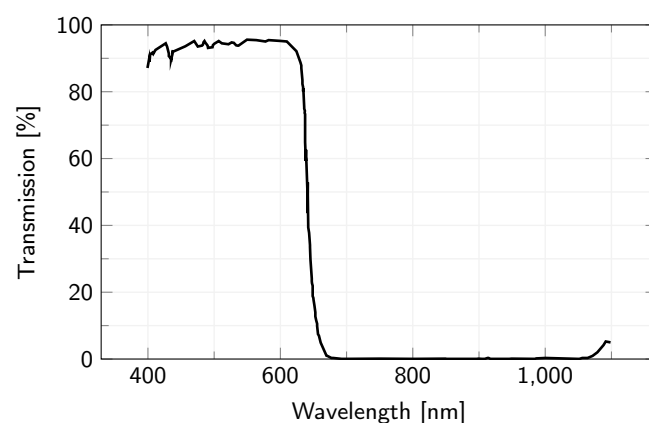


Pin	Signal
1	GND
2	+VIN
3	Opto OUT 3
4	Opto IN 0
5	Opto OUT 2
6	Opto OUT 0
7	Opto REF GND
8	RS232 RX
9	RS232 TX
10	Opto REF V+
11	Opto IN 1
12	Opto OUT 1

## SENSOR QUANTUM EFFICIENCY



## FILTERS TRANSMISSION



## 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.