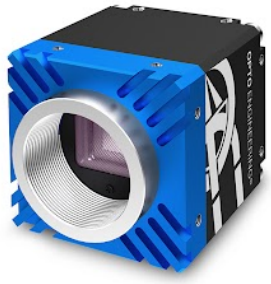
ITA246-GM-20C | DATASHEET

OPTO ENGINEERING

Area scan camera 24.55MP, Sony IMX540, CMOS Global shutter, 1.2", Mono, 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®.

KEY FEATURES

1 GIGE

12-24 VOLT

POWER OVER ETHERNET

PRECISION TIME PROTOCOL

12-BIT DEPTH

BURST

FAST TRIGGER MODE

DUAL EXPOSURE

SCHEDULED ACTION COMMAND

REGION OF INTEREST

BINNING AND DECIMATION

CHUNK DATA

OPTO ISOLATED I/O

DUAL SERIAL INTERFACE

ENCODER

MODBUS

AUTO WHITE BALANCE

COLOR CORRECTION MATRIX

API C++

WINDOWS

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SPECIFICATIONS

Sensor Specification

Megapixel		24.55
Resolution		5328 x 4608
Sensor format		1.2"
Sensor diagonal	(mm)	19.3
Pixel size	(µm)	2.74
Sensor model		IMX540
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)	4

Camera Specification

Filter		AR glass
Frame rate[1]	(fps)	4.8
Frame rate burst	(fps)	9.1
Exposure time		2.46 µs - 10 s
ADC resolution	(bit)	10/12
Dynamic range	(dB)	70.0
Gain range	(dB)	0-48
SNR	(dB)	40.2
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)

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
Shock and vibration[3]		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[4]	(°C)	-25 - +65
Storage temperature[5]	(°C)	-10 - +60
Operating relative humidity	(%)	20-80, non condensing
IP rating		IP30

[1] Color-model's fps are calculated using RGB8 pixel format
[2] Measured with 24V power supply
[3] To be measured after pre-series production
[4] Case temperature, measured on the front part of the camera body
[5] Ambient temperature

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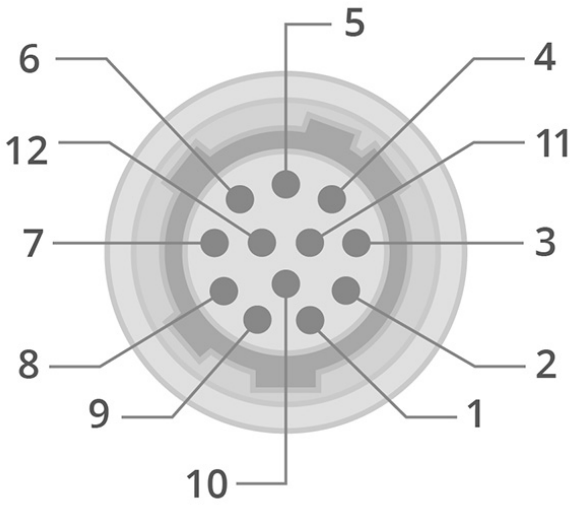
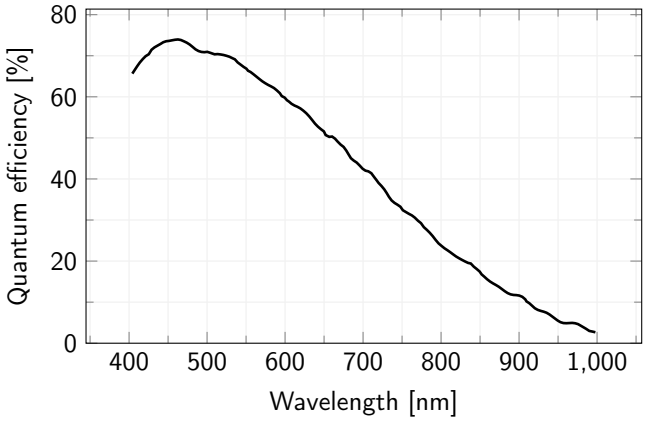
HIROSE PINOUT

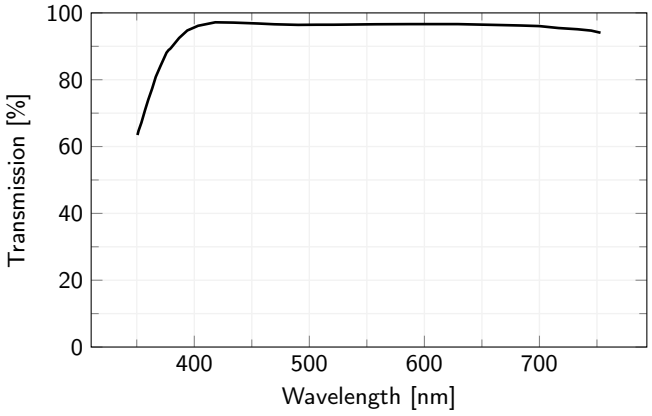


Pin	Signal
1	GND
2	+VIN
3	Opto OUT 3
4	Opto IN 0
5	Opto OUT 2
6	Opto OUT 0
7	Opto REF GND
8	RS232 RX
9	RS232 TX
10	Opto REF V+
11	Opto IN 1
12	Opto OUT 1

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.

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