

COE-106-M-POE-031-IR-C-2 | DATASHEET OPTO ENGINEERING

Area scan camera MT9J003, CMOS, Rolling shutter, 3840 x 2748, 10.6 MP, 1.67 μm pix, 1/2.3", Mono, 7 fps, 1 GigE, POE, C mount, AR filter



KEY ADVANTAGES

High quality sensors

New SONY Pregius CMOS Global shutter sensors provide high quality images.

GigEVision® protocol & GenICam® standard

Standard vision SDK platform for easy integration in existing software.

Full GenICam® compliant: easy to integrate

GenICam® compliant SDK package provides more flexibility to Vision Systems.

GigE PoE compliance

With the COE-G cameras, you do not need separate cables to transfer the information to the computer and provide power to the camera.

120 MB RAM and Frame Rate up to 300fps

High frame rate ideal for high speed applications. The internal memory up to 120MB guarantees no image loss and enables useful features like Record / Playback and sequence recordings.

The COE-G series includes Gigabit Ethernet cameras equipped with the latest sensors, ranging from high speed VGA to the latest 12MP SONY Pregius sensor, which deliver GigE connectivity with high frame rate.

SPECIFICATIONS

Sensor Specification

Megapixel		10.6
Resolution		3840 x 2748
Sensor format		1/2.3"
Sensor diagonal	(mm)	7.9
Pixel size	(μm)	1.67
Sensor model		MT9J003
Sensor type		CMOS
Shutter		Rolling
Chroma		Mono

Connectivity

Data connector		RJ45
Data interface		1 GigE
I/O connector		6-pin Hirose
I/O interface		1x opto-isolated input 1x opto-isolated output 1x bi-directional non-isolated
Serial interface		no
Encoder interface		no
Power supply	(V)	12, PoE
Max power consumption ²	(W)	2.6

Camera Specification

Filter		AR
Framerate ¹	(fps)	7
Exposure time		50 μs - 2 s
Dynamic range	(dB)	65
Gain range	(dB)	0-15.3
SNR	(dB)	34
Image buffer	(MB)	128
Pixel formats		Mono 8/10/ 10Packed/ 12/12Packed
Chunk data		yes
User sets		3
Timers/Counters		0/1
Synchronization		Free run, software trigger, hardware trigger

¹ Color-model's fps are calculated using RGB8 pixel format

² Measured at 12 VDC

Compliance

Standards	GigE Vision, GenICam	
Client software	OECS or other GigEVision software	
Operating systems	32/64-bit Windows XP/7/10	
Warranty (years)	1	

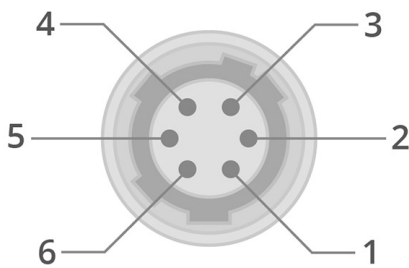
Environment

Operating temperature (°C)	0-50	
Storage temperature (°C)	-30-+70	
Operating relative humidity (%)	20-80, non condensing	
IP rating	IP30	

Mechanical Specifications

Mount	C	
Dimensions (mm)	29 x 29 x 55	
Clamping system	3x M3 and 4x M2 threaded holes (on one side)	
Mass (g)	68	

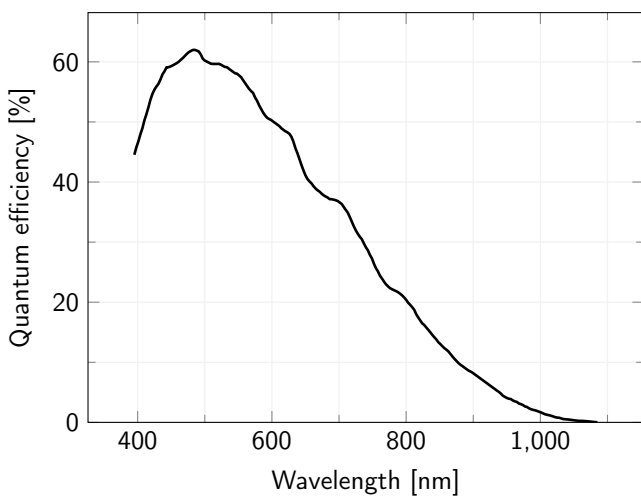
HIROSE PINOUT



Device side

Pin	Signal	I/O	Description
1	12V	Input	DC 12V
2	Opt-Iso In	Input	Opto-isolated input
3	GPIO	I/O	Can be configured as input or output
4	Opt-Iso Out	Output	Opto-isolated output
5	I/O Ground	Input	Opto-isolated I/O grounding
6	GND	Input	Power and GPIO grounding

SENSOR QUANTUM EFFICIENCY



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
- **COE-6P-OPEN1-030-01**, HIROSE 6-pin/Open end cable, 3 meters
- **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.

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.