COE-016-C-POE-022-IR-C | DATASHEET

OPTO ENGINEERING

Area scan camera IMX296, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 µm pix, 1/2.9", Color, 21.9 fps, 1 GigE, POE, C mount, IR cut 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		1.6
Resolution		1440 x 1080
Sensor format		1/2.9"
Sensor diagonal	(mm)	6.2
Pixel size	(µm)	3.45
Sensor model		IMX296
Sensor type		CMOS
Shutter		Global
Chroma		Color

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
Enconder interface		no
Power supply	(V)	9-24, PoE
Max power consumption[2]	(W)	2

Camera Specification

Filter		IR cut
Framerate[1]	(fps)	21.9
Exposure time		1 µs - 10 s
Dynamic range	(dB)	74
Gain range	(dB)	0-24
SNR	(dB)	41
Image buffer	(MB)	128
Pixel formats		Mono 8/10/12, RGB8, Bayer RG 8/10/10Packed/12/12Packed, YUV 422Packed, YUV422_YUYVPacked
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

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Compliance

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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)	76

HIROSE PINOUT
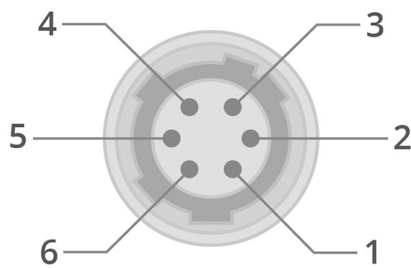
Device side

Pin	Signal	I/O	Description
1	V+	Input	Power DC V+
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
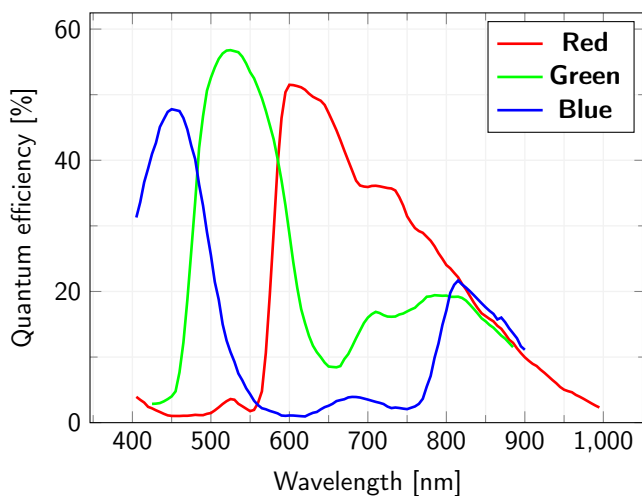
RECOMMENDED ACCESSORIES

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*.

OPTICS	LIGHTING	CAMERAS	SOFTWARE	ACCESSORIES

A wide selection of innovative machine vision components.