COE-016-C-USB-030-IR-C | DATASHEET

OPTO ENGINEERING®

Area scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 µm pix, 1/2.9", Color, 83 fps, USB 3.0, USB 3.0, C mount, IR cut filter

KEY ADVANTAGES

USB 3.0 connectivity
Easy connectivity to most new computers with 5Gbps bandwidth.

USB3 Vision® 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.

High quality sensors
New SONY Pregius CMOS Global shutter sensors provide high quality images to the camera.

Frame Rate up to 210 fps
High frame rate ideal for high speed applications.

Sensor Sizes from 1/2.5" to 1.1" to fit all application requirements
Find the exact sensor you need for your needs.

The COE-U series includes USB3 Vision® cameras equipped with the latest sensors, ranging from high speed VGA to the latest 1.1" 12MP SONY Pregius sensor, which deliver USB 3.0 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		IMX273
Sensor type		CMOS
Shutter		Global
Chroma		Color

Connectivity

Data connector		USB 3.0 Micro-B
Data interface		USB 3.0
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, USB 3.0
Max power consumption[2]	(W)	3.3

Camera Specification

Filter		IR cut
Framerate[1]	(fps)	83
Exposure time		1 µs - 10 s
Dynamic range	(dB)	71.1
Gain range	(dB)	0-17
SNR	(dB)	40
Image buffer	(MB)	128
Pixel formats		Mono 8/10/12, RGB8, BGR8, 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

Standards	USB3 Vision, GenICam
Client software	OECS or other USB3 Vision 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[2] (mm)	29 x 29 x 42
Clamping system	3x M3 and 4x M2 threaded holes (on one side)
Mass (g)	80

HIROSE PINOUT
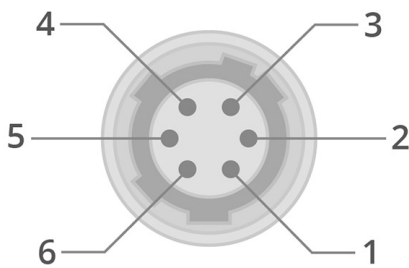
Device side

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
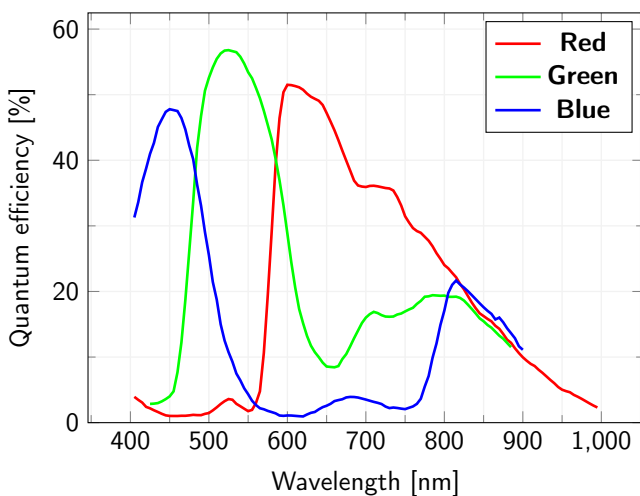
RECOMMENDED ACCESSORIES

Opto-Engineering® suggests the following accessories to power the camera:

- **CBUSB3001**, Passive USB 3.0 cable, industrial level, horizontal screw locking, 3 m
- **COE-6P-OPEN1-030-01**, HIROSE 6-pin/Open end cable, 3 meters

COMPATIBLE PRODUCTS

Full list of compatible products available *here*.

OPTICS	LIGHTING	CAMERAS	SOFTWARE	ACCESSORIES

A wide selection of innovative machine vision components.