

EoSens[®] 4CXP

High-Speed CMOS Camera



1288
EMVA Standard Compliant



CoaXPress

GEN<i>i>CAM

EoSens[®] 4CXP Key Features:

- 563 fps at 4 megapixel resolution
- Up to 225,000 fps at reduced resolution
- High-performance CoaXPress[®] interface
- Extended feature set
- 80 x 80 x 48 mm small

Engineered for Performance

Featuring a 4/3" CMOS sensor, the EoSens[®] 4CXP offers 2,336 x 1,728 pixel resolution at an outstanding speed of 563 frames per second. Higher frame rates can be achieved by defining up to three independent regions of interest. Combined with a 4-channel CXP-6 CoaXPress[®] output, the EoSens[®] 4CXP transfers megapixel images in real time.

Powerful Features

The EoSens[®] 4CXP boasts an extended feature set. Image processing functions allow you to correct noise and gamma settings, bringing unsurpassed image quality and fidelity to your application. The sequencer function enables you to define four regions of interest, each with a different exposure time.

APPLICATION EXAMPLES

- Laser triangulation
- PIV measurements
- Rail inspection
- 3D inspection
- Pick and place processing
- PCB inspection
- Flaw detection
- Ballistics and explosives



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High-Speed Vision Solutions

Compact Design

Contained within an 80 x 80 x 48 mm metal housing, the EoSens® 4CXP is suited for use in a wide range of scientific and industrial applications.

The camera is designed for operation in rough environments and has passed the IEC test for vibration, shock, temperature and humidity. It is furthermore MIL-STD-810G certified allowing it to be utilized in High-G automotive safety and military testing.

Tested according to IEC 60068-2-X

Storage temperature	-40 °C ... +80 °C
Operating temperature	-20 °C ... +40 °C
Operating humidity	96 % / 93 % relative humidity
Shock resistance	IEC 60068-2-27: 70 g
Vibration resistance	IEC 60068-2-6 / IEC 60068-2-64: 7 grms

Frame rates

Resolution	Frame rate
2,336 x 1,728 px	563 fps
1,920 x 1,080 px	900 fps
1,024 x 768 px	1,260 fps
640 x 480 px	2,020 fps
128 x 128 px	7,490 fps
	max. 225,000 fps

Smart Features

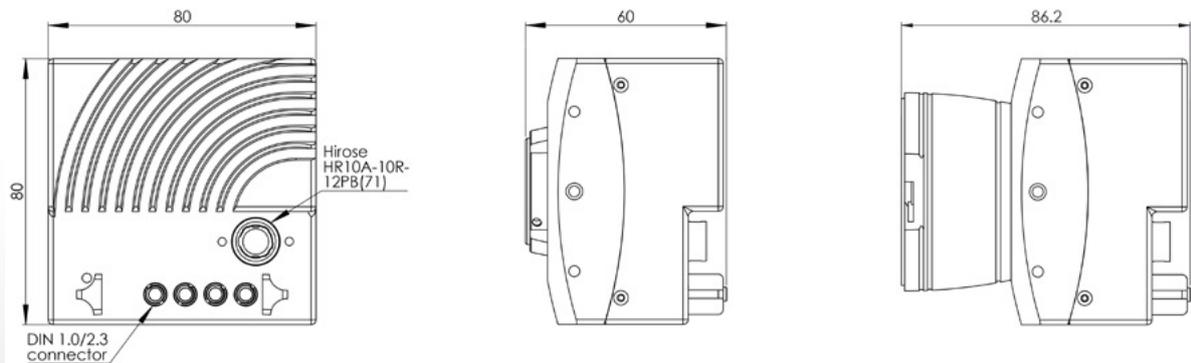
- Gamma Correction
- FPN Correction
- Noise Reduction (PRNU)
- Multiple ROI
- PoCXP
- Sequencer Function
- Skipping Mode
- GPIO

Technical Data

(More detailed specifications are available on request)

EoSens® 4CXP (monochrome / color)	
Resolution	4 Mpix
Active pixels	2,336 x 1,728 px
Interface	CoaXPress® @ 4 x 6.25 Gbit/s
Frame rate (8 bit)	563 fps
Sensor	AM41
Sensor type	CMOS global shutter
Sensor format	4/3"
Active sensor area (H x V)	16.35 x 12.10 mm
Pixel size	7 x 7 µm
Sensitivity (mono)	11 V/lux*s @ 550nm
Color depth	10 / 8 bit
Dynamic range	60 dB
Shutter time (steps)	1 µs
Shutter time range	1 µs – 1 s
Max. Trigger frequency	300 kHz
Max. Jitter	±4 ns
Connector options	DIN 1.0 / DIN 2.3
Mount options	C-Mount / F-Mount
Dimensions (W x H x L w/o mount)	80 x 80 x 48 mm
Weight (C-Mount)	450 g
Power consumption	10 W
Power supply	12 – 24 V DC
Conformity	CE / RoHS / GenICam / CoaXPress®
MIL-STD-810G certified	✓
EMVA1288 reports	✓

Camera Body Dimensions



MIKROTRON GmbH

MIKROTRON GmbH provides a full range of high-speed imaging solutions for challenging applications in industry, engineering, science and sports. The company's extreme slow-motion recording enables customers to optimize manufacturing processes, improve product design, revolutionize quality management and analyze motion.

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