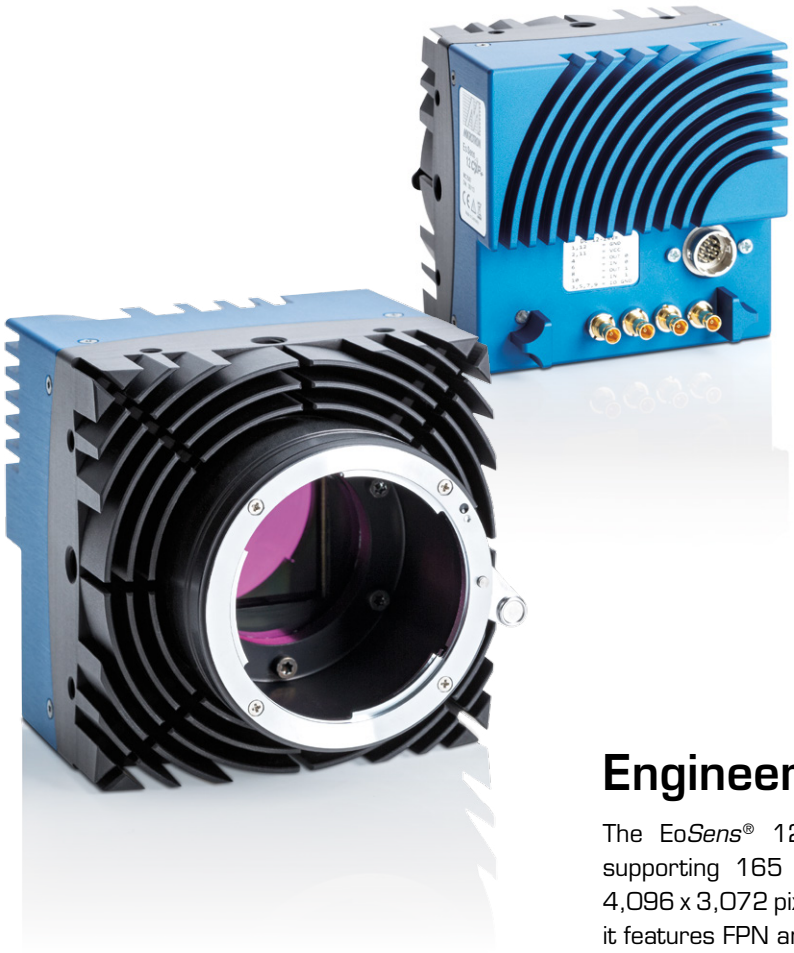
Machine Vision Cameras

EoSens® 12CXP+

High-Speed CMOS Camera



1288 EMVA Standard Compliant

CoaXPress

GEN<i>CAM

Engineered for Sensitivity

The EoSens® 12CXP+ is a high-speed CMOS camera, supporting 165 frames per second at full resolution of 4,096 x 3,072 pixel. Powered by an OnSemi PYTHON sensor it features FPN and PRNU correction.

With an extraordinary photo-sensitivity of 5.8 V/lux*s @550nm the EoSens® 12CXP+ delivers high-contrast images even in low-light conditions. Contained within a robust and small metal housing, it is engineered for use in rough environments.

All this is combined with a 4-channel CXP-6 CoaXPress® interface, transmitting data at speeds of up to 25 Gigabits per second in real time.

EoSens® 12CXP+ Key Features:

- 165 fps at 12 megapixel resolution
- Based on OnSemi PYTHON sensor
- High-performance CoaXPress® interface
- Extremely sensitive
- Compact, fanless design

APPLICATION EXAMPLES

- PCB inspection
- Wafer inspection
- Aerial surveillance
- Surface inspection
- Flaw detection
- Materials science
- LCD panel inspection
- LED inspection

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Future Proof Interface

The CoaXPress® interface standard is one of the most powerful transmission technologies in image processing today. Its features speak for themselves:

- Data rates up to 6.25 Gbit/s over a single coax cable
- Up to 25 Gbit/s using four cables
- Data, communication, control and power over one cable
- Real time behavior through fixed, low latency
- Precise triggering capability, even in multi-camera applications
- Flexible and reliable through use of standard coax cables
- Plug and play

Technical Data

(More detailed specifications are available on request)

	EoSens® 12CXP+ (monochrome / color)
Resolution	12 Mpix
Active pixels	4,096 x 3,072 px
Interface	CoaXPress® @ 4 x 6.25 Gbit/s
Frame rate (8 bit)	165 fps
Sensor	OnSemi Python 12k
Sensor type	CMOS global shutter
Sensor format	35 mm FF
Active sensor area (H x V)	23.04 x 23.04 mm
Pixel size	4.5 x 4.5 µm
Sensitivity (mono)	5.8 V/lux*s @ 550nm
Color depth	10 / 8 bit
Dynamic range	59 dB
Shutter time (steps)	1 µs
Shutter time range	1 µs – 0.1 s
Max. Jitter	±4 ns
Interface Connector	DIN 1.0 / DIN 2.3
Mount option	F-Mount
Dimensions (W x H x L w/o mount)	80 x 80 x 66 mm
Weight (w/o mount)	540 g
Power consumption	10 W
Power supply	12 - 24 V DC
Camera body temperature	+5 °C ... +55 °C
Shock / Vibration proof	70 g / 7 grms
Conformity	CE / RoHS / GenICam / CoaXPress®
EMVA1288 reports	✓

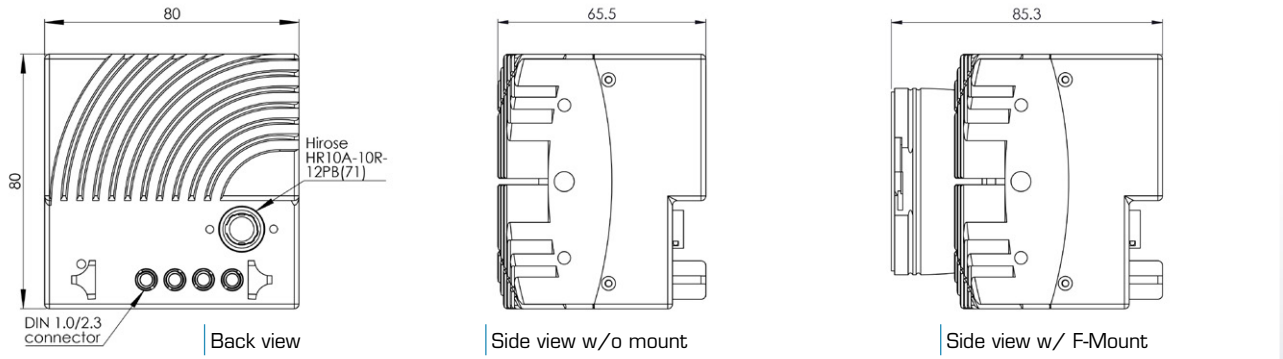
Frame Rates

Resolution	Frame rate
4,096 x 3,072 px	165 fps
1,920 x 1,080 px	562 fps
1,280 x 1,024 px	590 fps
1,024 x 768 px	765 fps

Smart Features

- PoCXP
- Trigger Modes
- Arbitrary ROI
- FPN Correction
- GPIO
- PRNU Correction

Camera Body Dimensions



Back view | Side view w/o mount | Side view w/ F-Mount

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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