

# EoSens® 12CXP+

High Speed CMOS Cameras



1288  
EMWA Standard Compliant

CoaXPRESS

GEN<i>CAM

## EoSens® 12CXP+ Key Features:

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

## Engineered for Sensitivity

The EoSens® 12CXP+ is a high-speed CMOS camera, supporting 160 frames per second at full resolution of 4,096 x 3,072 pixels. Powered by an OnSemi PYTHON sensor it features FPN and PRNU correction.

The extreme photo-sensitivity of 5.8 V/lux\*s @550nm the EoSens® 12CXP+ delivers high-contrast images even in low-light conditions. Integrated in a robust, small, metal housing, the camera 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.

## APPLICATION EXAMPLES

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



**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 25Gbit/s, 4 lanes with max. 6,25Gbit/s
- Data, communication, control and power over one cable
- Real time behavior through fixed, low latency
- Precise triggering capability, even in multi-camera applications
- Plug and play

**Frame rates**

Resolution	Frame rate
4,096 x 3,072 px	160 fps
1,920 x 1,080 px	448 fps
1,280 x 1,024 px	472 fps
1,024 x 768 px	620 fps

**Smart Features**

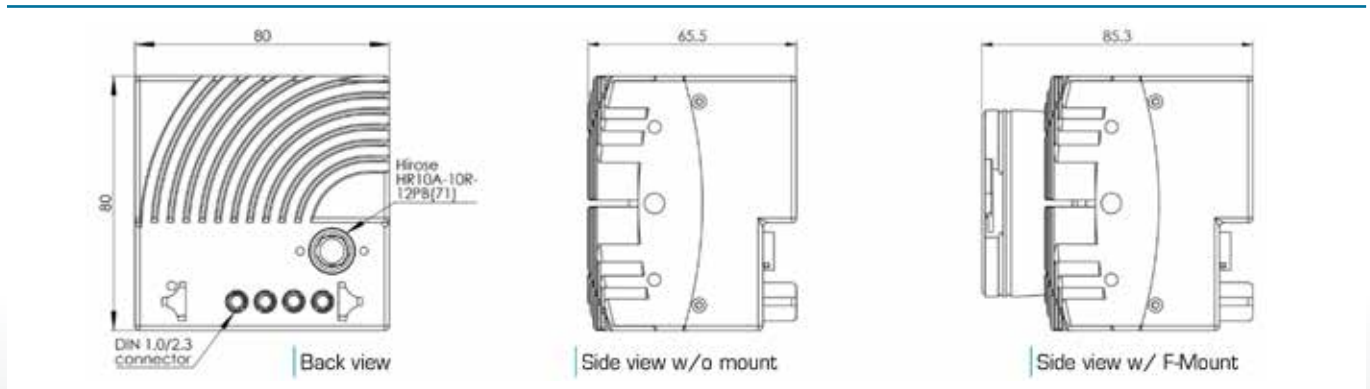
- PoCXP
- Various Trigger Modes
- Arbitrary ROI
- FPN Correction
- Direct GPIO on camera
- PRNU Correction

**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)	160 fps
<hr/>	
Sensor	OnSemi Python 12k
Sensor type	CMOS global shutter
Sensor format	4/3"
Active sensor area (H x V)	18,43 x 13,82 mm
Pixel size	4.5 x 4.5 µm
Sensitivity (mono)	5.8 V/lux*s @ 550nm
Pixel data width	10 / 8 bit
<hr/>	
Dynamic range	59 dB
Shutter time (steps)	1 µs
Shutter time range	1 µs - 0.1 s
<hr/>	
Interface Connector	DIN 1.0/2.3
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	12-24VDC external or PoCXP
<hr/>	
Camera body temperature	+5 °C ... +55 °C
Shock / Vibration proof	70 g / 7 grms
Conformity	CE / RoHS / GenICam / CoaXPress®
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.

**Germany**  
 Landshuter Str. 20-22  
 D85716 Unterschleißheim  
 Phone: +49(0)89-726342-00  
 E-Mail: info@mikrotron.de  
 Web: www.mikrotron.de

**North America**  
 14032 Hermosillo Way  
 US: Poway, CA 92064  
 Phone: +1-858-774-1176  
 E-Mail: steve.ferrill@mikrotron.de  
 Web: www.mikrotron.de



All trademarks are properties of their respective owners. Mikrotron reserves the right of change without notice. Mikrotron is not liable for harm or damage incurred by information contained in this document.