

# EoSens® 25CXP+

**High Speed CMOS Cameras** 







GEN**<i>**CAM

# EoSens® 25CXP+ Key Features:

- 80 fps at 25 megapixel resolution
- Based on OnSemi PYTHON sensor
- High-performance CoaXPress® interface
- Extremely sensitive
- Compact, fanless design

# **Engineered for Sensitivity**

Powered by an advanced OnSemi PYTHON sensor, the EoSens® 25CXP+ supports 80 frames per second at  $5,120 \times 5,120$  pixel resolution.

This extremely photo-sensitive high-speed CMOS camera 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  $CoaXPress^{\scriptsize{\scriptsize{\scriptsize{\scriptsize{B}}}}}$  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 |
|------------------|------------|
| 5,120 x 5,120 px | 80 fps     |
| 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   | 623 fps    |

## **Smart Features**

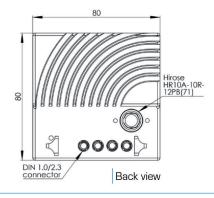
- PoCXP
- Various Trigger Modes
- Arbitrary ROI
- FPN Correction
- Direct GPIO on camera
- PRNU Correction

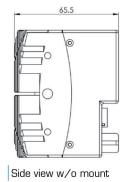
#### **Technical Data**

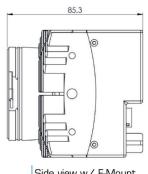
(More detailed specifications are available on request)

|                                     | Eo <i>Sens®</i> 25CXP+<br>(monochrome / color) |
|-------------------------------------|--|
| Resolution                          | 25 Mpix  |
| Active pixels                       | 5.120 x 5.120 px                               |
| Interface                           | CoaXPress® @ 4 x 6.25 Gbit/s                   |
| Frame rate (8 bit)                  | 80fps  |
| Sensor                              | OnSemi Python 25k                              |
| Sensor type                         | CMOS global shutter                            |
| Sensor format                       | 35mm   |
| 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                            |
| Pixel data width                    | 10 / 8 bit                                     |
| Dynamic range                       | 59 dB  |
| Shutter time (steps)                | 1 µs   |
| Shutter time range                  | 1 μs - 0.1 s                                   |
| Interface Connector                 | DIN 1.0/2.3                                    |
| Mount option                        | F-Mount  |
| Dimensions<br>(W x H x L w/o mount) | 80 x 80 x 66 mm                                |
| Weight (C-Mount)                    | 540 g  |
| Power consumption                   | 12 W   |
| Power supply                        | 12-24VDC external or PoCXP                     |
| Camera body temperature             | +5 °C +55 °C                                   |
| Shock / Vibration proof             | 70 g / 7 grms                                  |
| Conformity                          | CE / RoHS / GenlCam / CoaXPress®               |
| EMVA1288 reports                    | ✓  |

#### Camera Body Dimensions







## 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 solutions enable customers to optimize manufacturing processes, improve product design, revolutionize quality management and analyze motion.

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