SCAN ME

SVS-VISTEK

A BRAND OF SVS-VISTEK
MIKROTRON
High-Speed Vision Solutions

GEN<i>CAM
10 GiGE VISION

EoSens® Creation 2.0XGE

High-Speed Processing at the Edge

EoSens® Creation 2.0XGE Key Features:

- Quick reaction time - no latency
- Real time processing in the camera (40Gbit/s)
- 2,240 fps at 2 megapixel resolution
- Simple API interface with separate blocks for camera logic and customer applications in the FPGA simplifies programming
- Can also be used as a streaming camera
- High sensitivity
- Embedded capabilities for high-speed
- 80 x 80 x 53.4 mm small

EoSens® Creation 2.0XGE

High-Speed Imaging with excellent image quality

The *EoSens®* Creation 2.0XGE provides excellent image quality at highest data rates starting from full HD with more than 2,240 fps down to small ROI's with some ten thousand frames per second. The high sensitivity of the sensor and adequate pixel size guarantees best imaging results

Processing Capabilities

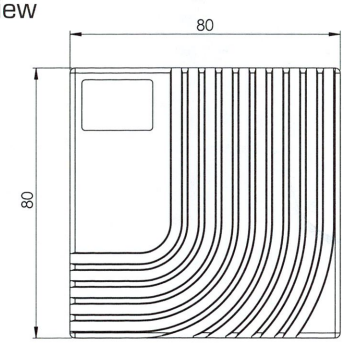
The *EoSens®* Creation 2.0XGE is a unique camera platform, which internally captures and processes images with highest fps up to 2,240 fps and allows to transfer images via 10GigE Interface. Based on a huge FPGA, internal memory and an open platform concept the camera is equipped for internal, real time processing of the huge data rate up to 5GByte/s. This unique performance is the ideal combination of high-speed and high data rate, machine vision application with a standard 10GigE interface.

Advantages of camera internal processing

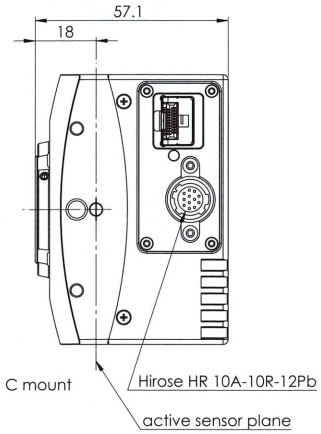
- Parallelization of processing cycles
- Real time processing for large data rates up to 5 GB/s at the image source
- Standard interface - no grabber
- Significant reduction of system costs

Dimensions [mm]

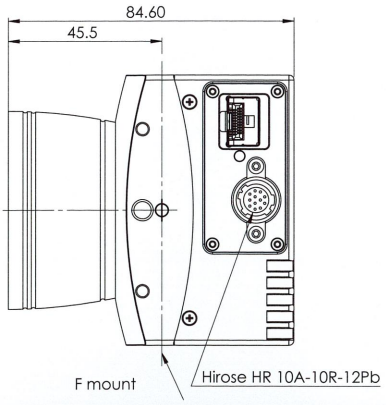
Back view



Side view
w/ C mount

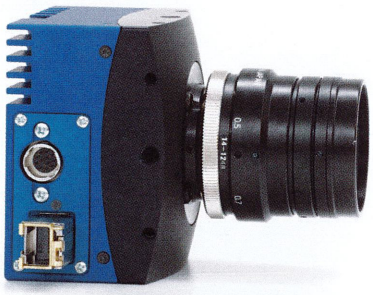


Side view
w/ F mount



Resolution [px]	Frame Rates [fps]	
	capture & process	output via XGigE
1,920 x 1,080	2,247	536
1,024 x 768	3,152	1,421
640 x 480	5,020	1,421
128 x 128	18,177	1,421
1,920 x 8	170,578	1,421

Specifications	EoSens® Creation2.0 XGE
Resolution	2 MP
Active pixels	1,920 x 1,080 px
Interface	10GigE via SFP+/RJ45
Sensor	LUX19HS
Sensor type	CMOS (Global Shutter)
Sensor format Ø	4/3"
Pixel size	10 x 10 µm
Sensitivity	20 V/lux*s @ 550 nm
Pixel data width	10 / 8 bit
Dynamic range	up to 56 dB
Shutter time / steps	1 µs
Shutter time / range	2 µs – 1 s
FPGA type	Kintex® UltraScale™ KU035
Volatile memory	2 GB, DDR4
Usable resources in FPGA	70%
Mount options	C, F, FG mount
Dimensions w/o mount	80 x 80 x 52.8 mm
Weight w/o mount	450 g
Power consumption	11 W
Power supply	12 – 24 VDC
Camera body temp.	+5 °C ... +50 °C
Shock / vibration proof	70 g / 7 grms
Conformity	GenICam



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Markets and Application Examples

Melt pool monitoring	Additive manufacturing
Laser triangulation	Inspection
Metrology	Sorting
3D scanning	Laser tracking

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