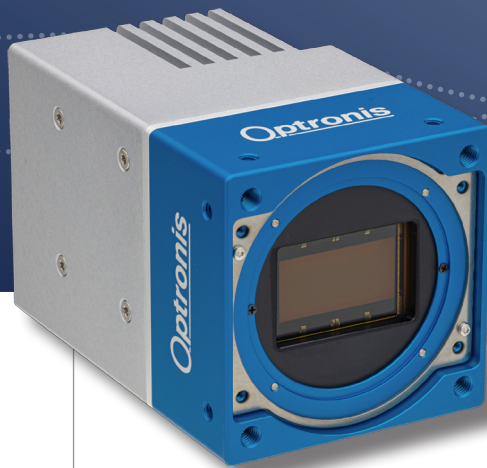


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CYCLONEFIBER SERIES

CycloneFiber-9



CoaXPress
over-Fiber

- ✓ METROLOGY AND HIGH SPEED MACHINE VISION
- ✓ AUTOMATED OPTICAL INSPECTION (AOI)
- ✓ PRODUCTION FLOOR INSPECTION

- 509 fps with 4 096 x 2 304 pixels
- >66 000 fps with 4 096 x 16 pixels
- CoaXPress over-Fiber 40 Gbit/s
- EMC immune transmission up to 20 km
- Trigger via CoaXPress-over-Fiber

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CycloneFiber-9 High-Speed Machine Vision Camera

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FEATURES

The CycloneFiber-9 is designed for demanding high-speed and high resolution machine vision applications. The camera uses the CoaXPress-over-Fiber (CoF) de-facto standard protocol. The main advantage of this transmission is the long range and immunity to EM interference.

- 4 096 x 2 304 pixel resolution
- Short back focal (BF) distances

Firmware features

- Analogue gain, RGB gain and offset adjustment
- Defect pixel correction (customer activatable)
- LUT factory set or customer definition
- Framenumber and Microsecond counter on image

PERFORMANCE (EXAMPLES, 8 BIT, SEE ALSO FRAME RATE CALCULATOR)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
4 096 x 2 304	509 fps	3 840 x 2 160	577 fps
4 096 x 128	8 936 fps	2 560 x 1 440	1 065 fps
4 096 x 4	122 399 fps	256 x 4	200 000 fps

MODELS

CycloneFiber-9-M	monochrome Camera
CycloneFiber-9-C	color Camera,
Scope of delivery	Camera, brief introduction

ACCESSORIES

CYP-CM	C-Mount lens adapter
CYP-FM	F-Mount lens adapter
CYP-M42-12	M42 Mount, BF 12 mm
CYP-M58-11,58	M58 Mount, BF 11.58 mm
CPH6-PTC	Pig tail cable for synch
CPH6-USB	Programming Cable
CYP-FAN	Cooling Fan
CPH4-PSA	Power Supply

For camera operation, power supply and typically one lens mount are needed.

SPECIFICATIONS

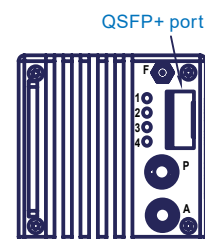
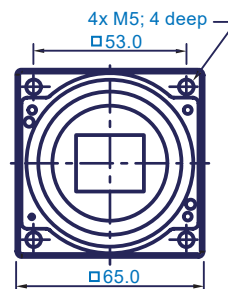
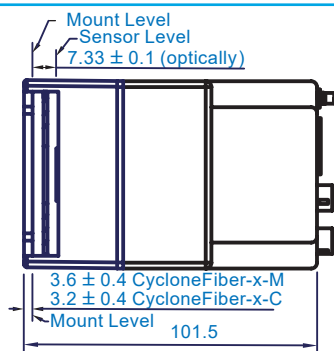
Sensor type	LUX9506, Global Shutter
Resolution	4 096 pixel x 2 304 pixel
Frame rate (full resolution)	20 .. 509 fps
Exposure time	4 µs .. 1 / frame rate
Active area / Diagonal	26.62 mm x 14.98 mm / 30.55 mm
Pixel distance	6.5 µm x 6.5 µm
A/D conversion	8 bit
Quantum efficiency (sensor)	38 % @ 550 nm
Synchronization	internal, external, CoF
Synchronization signals	Synch IN and Synch OUT, TTL level, electrically isolated
Interface	QSFP+ port
Protocol	CoaXPress-over-Fiber (CoF)
Power (incl. 1.5 W QSFP+ module)	21 W (typ.)
Temperature Ranges (prelim.)	
- operation, amb., no cooling	0 .. +20°C / 32 .. 68°F
- operation, amb., with CY-FAN2	0 .. +40°C / 32 .. 104°F
- operation, case temperature	0 .. +65°C / 32 .. 149°F
Weight	560 g w/o mount, cooling, QSFP+
Dimensions	65 mm x 65 mm x 101.5 mm (3D model data available)

EMVA1288 measurements (v3.1 typ. 8 bit)

Dynamic range	57 dB
Saturation capacity	10 600 e ⁻
Temporal dark noise	19 e ⁻
System gain	46 e ⁻ /DN
Signal-to-Noise Ratio	40 dB
DSNU	64 e ⁻
PRNU	2.4 %
Non-linearity error (v 3.0)	1 %



TECHNICAL DRAWINGS



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