

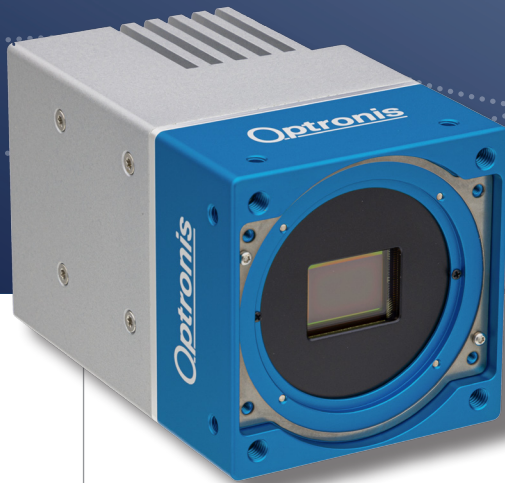
Optronis

Make time visible

CYCLONEFIBER SERIES

CycloneFiber-2

High-Speed Machine Vision Camera



CoaXPress
over-Fiber

- ✓ OUTDOOR TEST AREA
- ✓ MEDICAL ENVIRONMENT
- ✓ PRODUCTION FLOOR INSPECTION

- 2 166 fps with 1 920 x 1 080 pixels
- Global shutter mode with low noise pixel
- CoaXPress-over-Fiber 40 Gbit/s
- EMC immune transmission up to 20 km
- Trigger via CoaXPress-over-Fiber

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CycloneFiber-2 High-Speed Machine Vision Camera

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FEATURES

CycloneFiber-2 is a 2 MPixel camera with low noise pixel. Providing more than 2,000 fps at full resolution it is designed for demanding high-speed machine vision applications. The camera uses the CoaXPress-over-Fiber (CoF) de-facto standard protocol. Standard QSFP+ optical transceiver modules can be installed. The main advantage of this transmission is the long range and immunity to EM interference.

- 1920 x 1080 pixel resolution
- low noise pixel

Firmware features

- Analogue gain and offset adjustment
- Defect pixel correction (customer activatable)
- LUT factory set or customer definition

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

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
1920 x 1080	2 166 fps	1920 x 960	2 435 fps
1280 x 960	2 587 fps	1920 x 480	4 840 fps
640 x 480	5 148 fps	1920 x 120	18 667 fps
512 x 384	6 409 fps	1920 x 32	61 842 fps
256 x 4	248 756 fps	1920 x 8	167 504 fps

MODELS

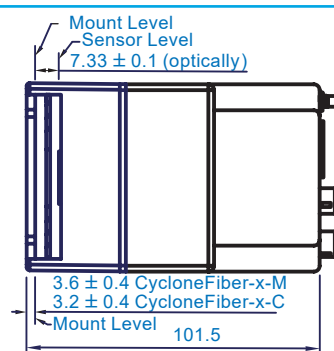
CycloneFiber-2-M	monochrome Camera
CycloneFiber-2-C	color Camera
Scope of delivery	Camera, brief introduction

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.

TECHNICAL DRAWINGS



CONTACT INFORMATION

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SPECIFICATIONS

Sensor type	LUX19HS, Global Shutter
Resolution	1 920 pixel x 1 080 pixel
Frame rate (full resolution)	20 .. 2 166 fps
Exposure time	4 µs .. 1 / frame rate
Active area / Diagonal	19.20 mm x 10.80 mm / 22.03 mm
Pixel distance	10.0 µm x 10.0 µm
A/D conversion	8/10 Bit
Quantum efficiency (sensor)	45 % @ 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)	11.5 W
Temperature Ranges	
- operation, ambient	0 .. +35°C / 32 .. 95°F
- operation, amb., with CY-FAN2	0 .. +50°C / 32 .. 122°F
- operation, case temperature	0 .. +70°C / 32 .. 158°F
Weight	540 g w/o mount, w/o cooling
Dimensions	65 mm x 65 mm x 101.5 mm (3D model data available)

EMVA1288 measurements (v3.1 typ.)

Dynamic range	53 dB
Saturation capacity	13 000 e ⁻
Temporal dark noise	22 e ⁻
System gain	60 e ⁻ /DN
Signal-to-Noise Ratio	41 dB
DSNU	40 e ⁻
PRNU	1.8 %
Non-linearity error (v 3.0)	2 %

