Optronis

Make time visible

CAMPERFORM-CYCLONEFIBER SERIES

CycloneFiber-21

High-Speed Machine Vision Camera

Camera shown with CY-FM

CoaXPress over-Fiber

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

- 230 fps with 5 120 x 4 096 pixels
- GSPRINT4521 global shutter sensor
- High full well capacity >30 ke^-
- CoaXPress over-Fiber 40 Gbit/s
- EMC immune transmission up to 20 km
- Trigger via CoaXPress over-Fiber

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CycloneFiber-21 High-Speed Machine Vision Camera

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FEATURES

The CycloneFiber-21 is desinged 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.

- 5 120 x 4 096 pixel resolution
- low noise pixel

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
5 120 x 4 096	230 fps	5 120 x 2 048	456 fps
3 840 x 2 176	442 fps	5 120 x 1 024	897 fps
1 920 x 1 088	871 fps	5 120 x 512	1 735 fps
640 x 480	1 898 fps	4 928 x 32	14 436 fps

MODELS

CycloneFiber-21-M	monochrome Camera
CycloneFiber-21-C	color Camera,
Scope of delivery	Camera, brief introduction

ACCESSORIES

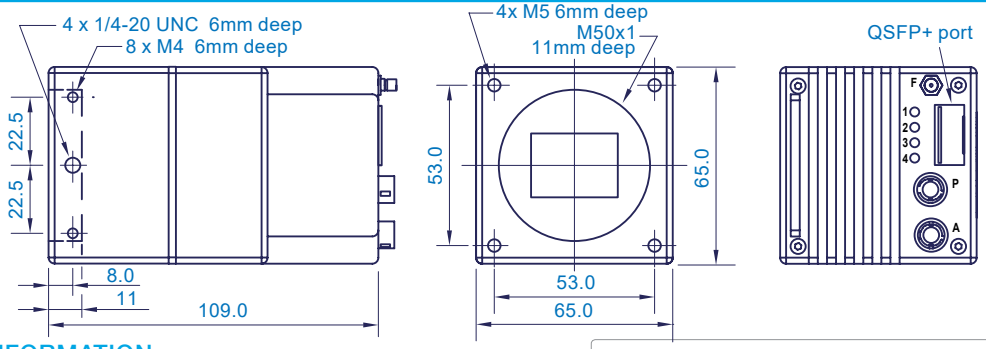
CY-CM	C-Mount lens adapter
CY-FM	F-Mount lens adapter
CY-M42	M42 Mount lens adapter
CPH6-PTC	Pig tail cable for synch
CPH6-USB	Programming Cable
CY-FAN2	Cooling Fan
CPH4-PSA	Power Supply

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

SPECIFICATIONS

Sensor type	GSPRINT4521, Global Shutter
Resolution	5 120 pixel x 4 096 pixel
Frame rate (full resolution)	1 .. 230 fps
Exposure time	4 µs .. 1 / frame rate
Active area / Diagonal	23.04 mm x 18.43 mm / 29.50 mm
Pixel distance	4.5 µm x 4.5 µm
A/D conversion	8/10 Bit
Device Tap Geometry	1X-2YE
Quantum efficiency (sensor)	63 % @ 520 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)	23 W
Temperature Ranges	
- operation, amb., no cooling	0 .. +15°C / 32 .. 59°F
- operation, amb., with CY-FAN2	0 .. +35°C / 32 .. 95°F
- operation, case temperature	0 .. +60°C / 32 .. 140°F
Weight	560 g w/o mount, cooling, QSFP+
Dimensions	65 mm x 65 mm x 109 mm (3D model data available)
EMVA1288 measurements (v3.1 typ. 10 bit)	
Dynamic range	59 dB
Saturation capacity	31 000 e^-
Temporal dark noise	35 e^-
System gain	31 e^-/DN
Signal-to-Noise Ratio	45 dB
DSNU	18 e^-
PRNU	1.6 %
Non-linearity error (v 3.0)	0.5 %

TECHNICAL DRAWINGS



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