

Preliminary

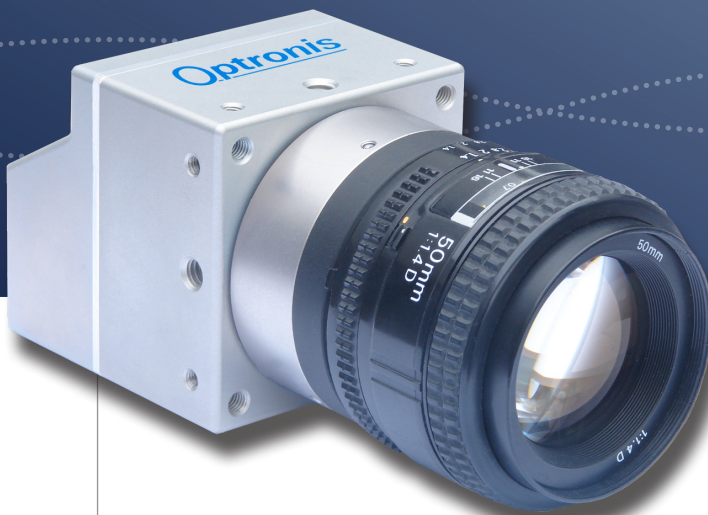
Optronis

Make time visible

CAMPERFORM-CYCLONE SERIES

Cyclone-5-700

High-Speed Machine Vision Camera



CXP-12

- METROLOGY AND HIGH SPEED MACHINE VISION
- AUTOMATED OPTICAL INSPECTION (AOI)
- LASER TRIANGULATION

- 705 fps with 2 560 x 1 920 pixels
- Global shutter with low noise pixel
- Micro-BNC (HD-BNC™) connectors
- CoaXPress V2.0 interface with 4 x 12.5 Gbit/s
- Power and trigger via CoaXPress
- Microsecond and frame counter

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Cyclone-5-700 High-Speed Machine Vision Camera

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FEATURES

The Cyclone-5-700 is a high resolution camera with low noise pixels. It is part of Optronis CamPerform-Cyclone series for demanding machine vision applications. Reducing vertical resolution allows to increase frame rate.

- 2 560 x 1 920 pixel resolution
- low noise pixel
- frame rate increases with vertical window size reduction

Firmware features

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

SPECIFICATIONS

Sensor type	LUX51, Global Shutter
Resolution	2 560 pixel x 1 920 pixel
Frame rate (full resolution)	20 .. 705 fps
Exposure time	4 µs .. 1 / frame rate
Active area / Diagonal	12.80 mm x 9.60 mm / 16.00 mm
Pixel size	5.0 µm x 5.0 µm
A/D conversion	8/10 Bit
Sensitivity (sensor)	6 V/lux·s @ 550 nm
Quantum efficiency (sensor)	>45 % @ 550 nm
Synchronization	internal, external, CoaXPress
Synchronization signals	Synch IN and Synch OUT, TTL level, electrically isolated
Interface	CoaXPress 2.0 (4 ch., CXP-12) Micro-BNC (HD-BNC) connectors
Power	10 W, PoCXP, ext.
Operating ambient temperature	0 .. +40°C / 32 .. 104°F
Weight	400 g without mount
Dimensions	65 mm x 65 mm x 71 mm (3D model data available)

PERFORMANCE (EXAMPLES)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
2 560 x 1 920	705 fps	2 560 x 960	1 408 fps
1 920 x 1 080	1 252 fps	2 560 x 480	2 812 fps
1 280 x 960	1 408 fps	2 560 x 120	11 110 fps
512 x 384	3 511 fps	2 560 x 32	39 865 fps
256 x 8	135 542 fps	2 560 x 8	135 542 fps

MODELS

Cyclone-5-700-M	monochrome Camera
Cyclone-5-700-C	color Camera
Scope of delivery	Camera, brief introduction

ACCESSORIES

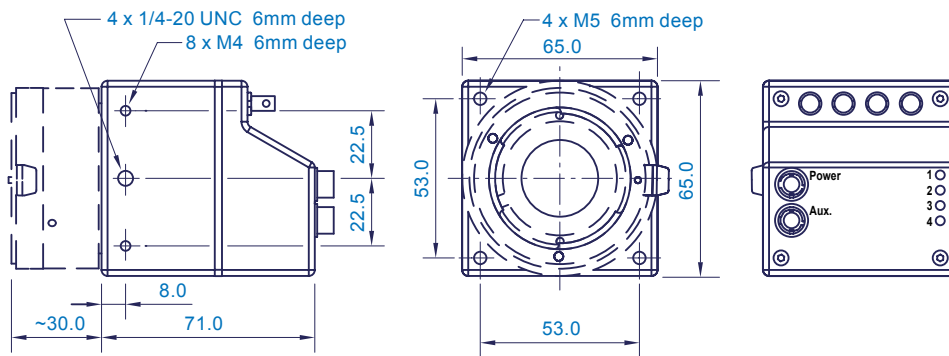
Lens mounts: C-mount, F-mount, G-mount, M42-mount

Power supply, pig tail cable, programming cable, fan

EMVA1288 measurements (v3.1 typ. preliminary)

Dynamic range	TDB dB
Saturation capacity	15 000 e ⁻
Temporal dark noise	10 e ⁻
System gain	15 e ⁻ /DN
Signal-to-Noise Ratio	50 dB
DSNU	50 e ⁻
PRNU	1.5 %
Non-linearity error $ LE_{min} , LE_{max} $	TBD % (TBD % EMVA1288 v3.0)

TECHNICAL DRAWING



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