

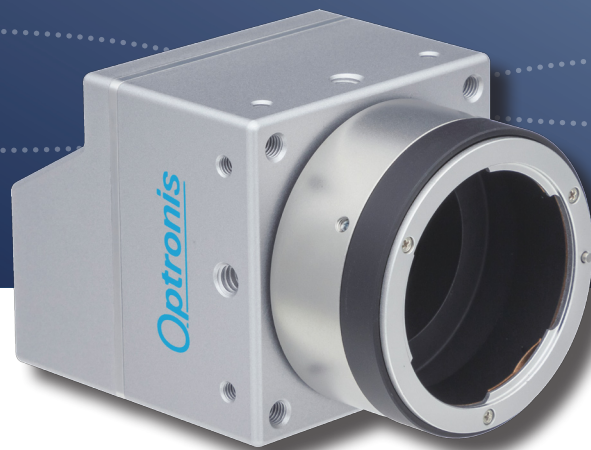
**Optronis**

*Make time visible*

CAMPERFORM-CYCLONE SERIES

# Cyclone-25-150

High-Speed Machine Vision Camera



**CXP-12**

- HIGH SPEED MACHINE VISION
- AUTOMATED OPTICAL INSPECTION (AOI)
- SEMICONDUCTOR QUALITY CONTROL

- 150 fps with 5 120 x 5 120 pixels
- Global shutter mode
- Low noise pixel
- CoaXPress V2.0 interface with 4 x 12.5 Gbit/s
- Power and trigger via CoaXPress

[www.optronis.com](http://www.optronis.com)

# Cyclone-25-150 High-Speed Machine Vision Camera **Optronis**

Make time visible

## FEATURES

Cyclone-25-150 camera provides high resolution images at high frame rate of 150 fps. The camera is part of Optronis CamPerform-Cyclone series for demanding machine vision applications.

- 5 120 x 5 120 pixel resolution
- low noise pixel
- sensor frame rate increases with vertical window size reduction

Firmware features

- Analogue gain and offset adjustment
- Defect pixel correction (customer activatable)
- Dual ROI and Line skipping
- Framenumber and Microsecond counter on image

## SPECIFICATIONS

Sensor type	GMAX0505, High-Speed, Grade 1
Resolution	5 120 pixel x 5 120 pixel
Frame rate (full resolution)	20 .. 150 fps
Exposure time	12 μs .. 1 / frame rate
Active area / Diagonal	12.80 mm x 12.80 mm / 18.10 mm
Pixel distance	2.5 μm x 2.5 μm
A/D conversion	8/10 Bit
Quantum efficiency (sensor)	65 % @ 500 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	12 W, PoCXP, ext.
Temperature Ranges	
- operation, amb., no cooling	0 .. +30°C / 32 .. 82°F
- operation, amb., with CY-HIS	0 .. +40°C / 32 .. 104°F
- operation, amb., with CY-FAN	0 .. +55°C / 32 .. 131°F
- operation, case temperature	0 .. +70°C / 32 .. 158°F
Weight	400 g w/o mount, w/o cooling
Dimensions	65 mm x 65 mm x 71 mm (3D model data available)

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

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
5 120 x 5 120	150 fps	5 120 x 2 560	298 fps
4 096 x 4 096	187 fps	5 120 x 1 280	590 fps
3 840 x 2 160	353 fps	5 120 x 640	1 152 fps
1 920 x 1 080	696 fps	5 120 x 128	4 838 fps
1 280 x 720	1 029 fps	5 120 x 4	21 496 fps

## MODELS

Cyclone-25-150-M	monochrome Camera
Cyclone-25-150-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-HIS	Heat Sink
CY-FAN	Cooling Fan

## EMVA1288 measurements (v3.1 typ.)

Dynamic range	55 dB
Saturation capacity	6 500 e <sup>-</sup>
Temporal dark noise	6 e <sup>-</sup>
System gain	17 e <sup>-</sup> /DN
Signal-to-Noise Ratio	36 dB
DSNU	15 e <sup>-</sup>
PRNU	2.5 %
Non-linearity error (v3.0)	0.6 %



## TECHNICAL DRAWINGS

