Optronis

Make time visible

MACHINE VISION CAMERA

CamPerform

CP70-16-M/C-148

METROLOGY AND HIGH SPEED MACHINE VISION

MOTION ANALYSIS

BROADCAST

- 148 fps with 4 672 x 3 416 pixels
- Global shutter with low noise pixel
- New DIN 1.0/2.3 connectors with thread lock
- CoaXPress interface with 25 Gbit/s
- Power and trigger via CoaXPress
- Microsecond and frame counter

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FEATURES

The CP70-16-M/C-148 is a very high resolution camera with low noise pixels. Frame rate increase is possible by vertial but also horizontal resolution reduction. This makes the camera a flexible tool for many applications and measurement tasks.

Firmware features

- Dual ROI
- Analogue gain adjustment (coarse and fine)
- Analogue offset adjustment
- Hot pixel correction (customer activatable)
- Flat field correction (FFC)
- Framenumber and Microsecond counter on image

PERFORMANCE (EXAMPLES)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
4 672 x 3 416	148 fps	4 672 x 512	988 fps
4 080 x 3 072	187 fps	4 672 x 256	1 968 fps
4 080 x 2 048	281 fps	4 672 x 128	3 907 fps
2 048 x 1 024	1 012 fps	4 672 x 32	14 939 fps
1 024 x 512	2 021 fps	2 048 x 32	30 557 fps

MODELS

CP70-16-M-148	monochrome Camera
CP70-16-C-148	color Camera
Scope of delivery	Camera, brief introduction

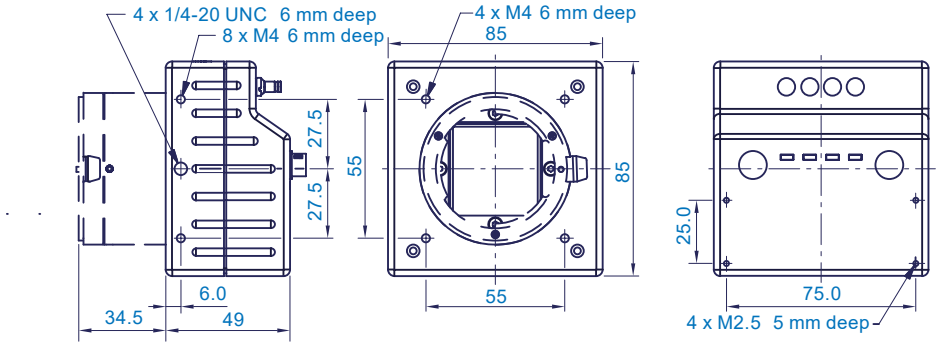
ACCESSORIES

CP-FM	F-Mount lens adapter
CP-CM	C-Mount lens adapter
CP-FMG	G-Mount lens adapter
CP-M42	M42 Mount lens adapter
CPH4-PSA	Power supply
CPH6-PTC	Pigtail cable
CPH6-USB	Programming cable

SPECIFICATIONS

Sensor type	LUX160, Global Shutter
Resolution	4 672 pixel x 3 416 pixel
Frame rate (full resolution)	20 .. 148 fps
Exposure time	4 µs .. 1 / frame rate
Active area / Diagonal	18.22 mm x 13.32 mm / 22.57 mm
Pixel size	3.9 µm x 3.9 µm
A/D conversion	8 Bit
Sensitivity (sensor)	5 V/lux·s @ 550 nm
Synchronization	internal, external, CoaXPress
Synchronization signals	Synch IN and Synch OUT, TTL level, electrically isolated
Interface	CoaXPress 1.1 (4 ch., CXP-6) DIN 1.0/2.3 connectors
Power	<10 W, PoCXP, ext.
Operating ambient temperature	0 .. +40°C / 32 .. 104°F
Weight	400 g without mount
Dimensions	85 mm x 85 mm x 49 mm (3D model data available)
EMVA1288 measurements (v3.1 typ. preliminary)	
Dynamic range	55 dB
Saturation capacity	7 800 e^-
Temporal dark noise	10 e^-
System gain	34 e^-/DN
Signal-to-Noise Ratio	39 dB
DSNU	135 e^-
PRNU	2 %
Non-linearity error $\|LE_{min}\|$, $\|LE_{max}\|$	1 % (0.2% EMVA1288 v3.0)

TECHNICAL DRAWING



CONTACT INFORMATION

Optronis GmbH
Ludwigstraße 2
77694 Kehl
Germany

Phone: +49 7851 91 26 - 0
Fax: +49 7851 91 26 - 10
info@optronis.com
www.optronis.com

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