

MACHINE VISION CAMERA

CamPerform

CP70-2-M/C-1000



- METROLOGY
- 3D SCANNING
- INLINE INSPECTION

- 1 087 fps with 1 920 x 1 080 pixels with 8 bit A/D conversion
- High light sensitivity due to large 10 µm pixels
- DIN 1.0/2.3 connectors with thread lock
- CoaXPress interface with 25 Gbit/s
- Power and trigger via CoaXPress
- EMVA1288 characterization

CamPerform CP70-2-M/C-1000

Optronis

Make time visible

FEATURES

The CP70-2-M/C-1000 camera provides full HD resolution at more than 1000 fps. Large pixels with 10 μm x 10 μm pitch result in high light sensitivity. Low noise design ensures accurate data to simplify measurement tasks.

- full HD resolution
- high light sensitivity
- frame rate increases with vertical and horizontal window size reduction

Firmware features

- Analogue gain adjustment
- Analogue offset adjustment
- LUT (factory set)
- Framenumber and Microsecond counter on image

SPECIFICATIONS

Sensor type	LUX19HS, Global Shutter
Resolution	1 920 pixel x 1 080 pixel
Frame rate (full resolution)	20 .. 1 087 fps
Exposure time	2 μs .. 1 / frame rate
Active area / Diagonal	19.20 mm x 10.80 mm / 22.029 mm
Pixel size	10 μm x 10 μm
A/D conversion	8 Bit
Sensitivity (sensor)	20 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 camera measurements (typ. preliminary)

Dynamic range	52 dB
Saturation capacity	16 410 e ⁻
Temporal dark noise	32 e ⁻
System gain	68 e ⁻ /DN
Signal-to-Noise Ratio	42 dB
DSNU	35 e ⁻
PRNU	2 %
Non-linearity error LE _{min} , LE _{max}	1 %

PERFORMANCE (EXAMPLES)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
1 920 x 1 080	1 087 fps	1 920 x 512	2 288 fps
1 280 x 720	2 332 fps	1 920 x 256	4 559 fps
640 x 480	5 186 fps	320 x 240	10 330 fps
256 x 256	9 689 fps	128 x 128	19 230 fps
100 x 100	24 509 fps	224 x 8	250 000 fps

MODELS

Article number	Description
CP70-2-M-1000	monochrome Camera
CP70-2-C-1000	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

TECHNICAL DRAWING

