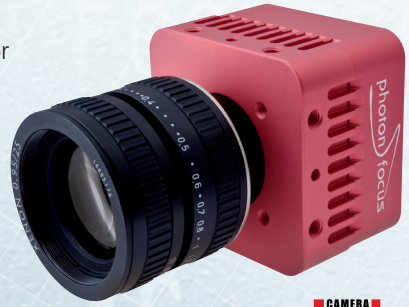
CMOS Camera

EL1-D1312-160-CL-12

Electroluminescence camera with NIR sensitive Photonfocus sensor

Features

- Photonfocus A1312 CMOS image sensor
- 1312 x 1082 pixel resolution
- Good NIR response
- Uncooled CMOS camera
- Designed for electroluminescence applications
- Global shutter
- Monochrome
- CameraLink® interface
- 12 bit greyscale resolution



Sample image of solar cell inspection

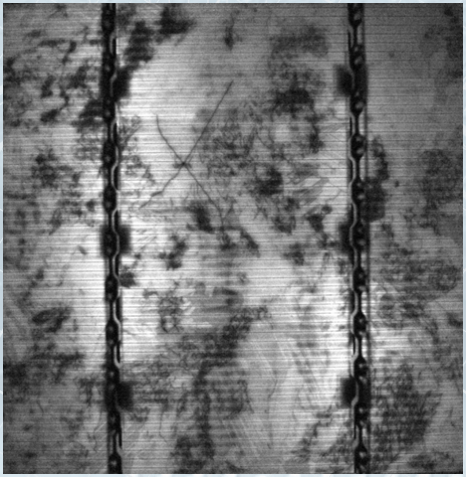


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Image Sensor

Image sensor	Photonfocus A1312 (3. Generation)
Technology	CMOS active pixel (APS)
Scanning system	Progressive scan
Optical format / diagonal	1" (13.6 mm diagonal) maximum resolution
Resolution	1312 x 1082 pixels
Pixel size	8 µm x 8 µm
Active optical area	10.48 mm x 8.64 mm (maximum)
Dark current	0.65 fA/pixel
Full well capacity	~100 ke$^-$ (nominal)
Spectral range	< 370 to 1000 nm (to 10 % of peak responsivity)
Responsivity	Adjustable
Quantum Efficiency	> 50 %
Optical fill factor	> 60 %
Dynamic range	TBD
Colour format	Monochrome
Characteristic curve	Linear
Shutter mode	Global shutter

Camera

Exposure time	10 ms .... 1.6 s / 100 ns steps
Frame rate	5 fps
Pixel clock	80 MHz
Camera taps	2
Greyscale resolution	12 bit
Configuration interface	CL SERIAL (9600 or 57600 Baud, user selectable)
Trigger modes	• Free running (non triggered) • Interface trigger • External trigger input
Features	Optimized for electroluminescence applications
Interface	CameraLink® Base
Operating temperature	0°C ... +40°C
Power supply	+12 V DC (±10%)
Power consumption	< 3.3 W
Lens mount	C-Mount (CS-Mount optional)
Dimensions (H x W x L)	60 x 60 x 45 mm³
Mass	265 g
Conformity	CE / RoHS / WEEE
Specials	Adjustable backfocus; Opto-isolated I/Os

Software

Camera control	Electroluminescence API (PfEL1Lib)
OS	win2k; winxp; winvista