

CCD USB2.0 LINE CAMERA



LC1544 - M

2048 pixel / monochrome

Description

Due to their highly sensitive CCD sensor the LC1544-M line camera is suitable for various high-end applications in research, development, and production. The line sensor pixel have an extreme aspect ratio (pixel size: $13 \mu\text{m} \times 500 \mu\text{m}$) and show excellent dynamics. The pixel geometry reduces adjustment efforts in many applications. The anti-blooming level can be adjusted during camera operation.

The temperature optimized design leads to very good and reproducible image quality.

The maximum line frequency of the LC1544-M reaches 12 kHz at full A/D resolution of 12 bit. Disturbances are reduced considerably by Correlated Double Sampling (CDS)

Several camera parameters can be adjusted during operation, e.g. exposure time, gain (analog and digital) and offset.

The optional available M42 to C-mount adapter extends the number of lenses which can be used with this camera.

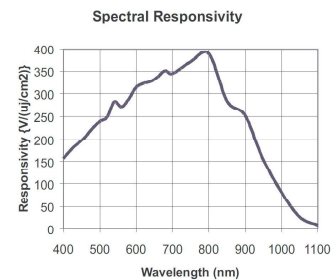
Application Examples

- spectroscopy
- special industrial applications (inspection / barcode scan / calibration and measurement)
- measurement applications

Special Features

- sensor with extreme aspect ratio
- high light sensitivity with excellent dynamics
- adjustable anti-blooming level
- temperature optimized housing design
- 12 kHz line frequency at full resolution (inside camera)

Spectral sensor Sensitivity



Technical Specifications

Sensor	line sensor, CCD, monochrome type: Dalsa IL-C6-2048C
Resolution	1 x 2048 pixel
Pixel size	$13 \mu\text{m} \times 500 \mu\text{m}$
max. line frequency	12 kHz
max. pixel rate	25 MHz
Exposure time	max. $84 \mu\text{s}$ @ 12 kHz line frequency max. $166 \mu\text{s}$ @ 6 kHz line frequency
A/D resolution	8 bit / 10 bit / 12 bit
Gain	1x to 256x (16x analog / 16x digital)
Dynamics	> 57 dB
Computing power	1200 MMAC/s
Internal memory	32 MB
Data interface	USB2.0
Power supply	12 V
Power loss	ca. 9 W
Temperature range (operational)	0 °C to +50 °C
Temperature range (storage)	-20 °C to +80 °C
Dimensions	91 mm x 91 mm x 85 mm
Weight	ca. 900 g (without lens)
Lens mount	M42 (C-mount by adapter)
Flange distance	17,5 mm
Temperature sensor	near sensor

