heliCam C3 - Fast Lock-in Camera

The lock-in camera was originally developed for low coherence interferometry, but the heliSens™ S3.1 sensor and the camera board have found new life with a variety of applications other than OCT, for example, pump-probe spectroscopy. For ease of integration, the Heliotis' core technology is now available as a rigid camera, capable of capturing and processing more than 1 million 2D-images per second.

Features

- Robust and compact aluminum housing
- C-mount for objectives
- USB data interface
- Comprehensive software package
  - heliViewer™
  - Driver for C++, Halcon, LabVIEW®, Python

Specification
C3.1.1-CP-ML0 and C3.1.1-CP-ML1

Parameter	Value
Die Size	19.71 mm x 16.89 mm
Number of Columns	300, (center 280 usable, 2x10 columns are test columns)
Number of Rows	300, (center 292 usable, 2x4 rows are test rows)
Total number of pixels	90'000
Column Pitch ΔXpixel	39.6 µm
Row Pitch ΔYpixel	39.6 µm
Photodiode dim. X ΔXphotodiode	11 µm
Photodiode dim. Y ΔYphotodiode	11 µm
Photodiode area	121 µm²
Optical fill factor	9% for C3.1.1-CP-ML0 (without micro lenses) >50% for C3.1.1-CP-ML1 (with micro lenses)
Pixel Field Width	11.9 mm
Pixel Field Height	11.9 mm
Max. External Frame Rate	3.8 kHz (2 x 10bit per frame)
Demodulation Frequency (standard firmware)	2 - 250 kHz (equivalent to an internal frame rate of 8k - 1M fps)
Output Resolution	10 bit
Quantum Efficiency η	20-60% between 330 and 400 nm 60-80% between 400 and 720 nm 60-20% between 720 and 900 nm

Please contact support@heliotis.ch to discuss your specific application.

Our experts can help with your experiment design.