Real-Time Spectral Imaging: introducing the ButterflEYE NIR

S137

Filter-on-chip spectral imager

Short facts

The Cubert S137 is based on a highly integrated filter-on-chip tehnology. This design combines up to 25 single spectral channels with QVGA resolution We integrated this with a state of the art intelligent camera and completed the whole setup with our in dustry leading spectral camera software.
This package enables data acquisition, data storage and data processing directly on the camera. Allto gether we deliver to you the most integrated and lightweigt spectral camera available on the market. Together with our set of accessories you get the fastest acces to UAV based imaging.
You have the choise of two options, ranging from 470 to 1000 nm enabeling applications in remote sensing and everywhere else.

Principal applications

- UAV applications
- Precision farming
- Medical applications
- Remote sensing
- Quality control
- Vegetation monitoring
- 3D-hyperspectral surface models
- Spectral mobile mapping

Special features

- Optional 16 or 25 Channels
- Control pannel for computerless operation
- Data storage on camera SD Card
- Wireless remote operation

S137 ButterflEYE NIR

Technical specifications*

Camera properties	
Detector	Si CMOS
Digitization	10 bit
Measurement time	down to 100 µs
Camera interface	USB, Power, GigE, E-SATA
Hyperspectral cube rate	up to 10 cubes/s
Sensor resolution	2 megapixel
Shutter	global
Data proccessing	Smart Camera
Storage	SD drive
Optical properties	
Objective	selectable
Mount	C-mount objective
Ground resolution	selectable mm-m
Physical properties	
Environment conditions	dry / non condensing
Operating temperature	0 - 40 °C
Weight	380 g
Power	DC 5 V, 15 W
Spectral properties	
Wavelength range	600 – 900 nm, 25 channels
Spectral Imaging	Snapshot
Channel width	20 nm

*this information may be subject of changes

What you should know

The ButterflEYE cameras uses a unique filter on chip technology which opens up a sweet spot between multi-chip multispectral cameras and full-blown hyperspectral cameras. With a medium spectral resolution of 16 to 25 channels the device enables a spatial resolution higher than QVGA.
Everything is combined in a smart camera module which enables not only the data storage directly on the device, but also application related postprocessing on the camera itself.
The device feautures computerless operation with a action-cam-like operation scheme making it easy to set up and use it in the field. With our spectral imaging software we bring you a versatile tool for data acquisition and processing, and offer full access to remote operation.

Cubert...

... was the first company concetrating on Snapshot Hyperspectral imaging. In 2011 Cubert presented the first high resolved snapshot Hyperspectrometer. Since this time our technological basis has highly evolved. Today our snapshot imaging spectrometers range from multispectral cameras to full-blown Hyperspectral cameras.

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