

Real-Time Spectral Imaging: introducing the ButterflEYE X2

S258



Short facts

The S 258 ButterflEYE X2 is based on our successful range of ButterflEYE cameras. In this compact design, two filter-on-chip sensors are optically overlapped to give you the full VIS-NIR wavelength range. This advanced design combines 41 spectral bands in the range of 475 to 875 nm.

Using Cubert's sophisticated data fusion technology, you do not have to care about post processing the data as you have access to complete spectral cubes with the size higher than QVGA and 41 channels with each readout of the sensors. The intelligent camera platform will take care about the data acquisition, the data fusion, the data storage and processing without the need of an external computer. By combining the device with Cubert's spectral imaging software, the Cubert Utils, for data capturing and analysis, the system fits to all of your applications.

First of its kind, Dual Chip snapshot spectral imager

Principal applications

- Sorting
- Quality Control
- Medical Imaging
- Remote Sensing
- Areal Mapping

Special features

- First VIS-NIR filter on Chip camera on the market
- Sophisticated sensor fusion
- No need for post processing
- Data storage on microSD card
- Tablet App for remote control



S258 ButterflEYE X2

Spectral properties

Wavelength range	475 nm - 875 nm
Spectral imaging	Snapshot
Filter width	20 nm
Spectral filters	41 (Mosaic, 1x16 + 1x25)
Multispectral-cube generation	yes

Camera properties

Detector	2 * Silicon CMOS
Digitalization	8 bit / 10 bit on request
Measurement time	0.1 ms up to 10 000 ms
Connectors	USB, Power, GigE, Trigger
Hyperspectral cube rate	1 Hz auton./ 5 Hz perform.
Sensor resolution	2x2048x1024
Shutter	Global
Data processing	SmartCam/1GHz Arm Cortex A8
Storage	Micro SD Card + PC

Optical properties

Objective	selectable
Lens adapter	C-Mount
Ground resolution	selectable mm-m

Physical properties

Environmental conditions	Not condensing
Operating temperature	0°C up to +40°C
Weight (without lens)	appr. 800 g
Power	15W

The information above may be subject of changes

What you should know?

Due to the nature of the double mosaic filter-on-chip technology it is possible to produce a full VIS-NIR spectra in a single device. With Cubert's sensor overlapping technique, the camera provides a complete data cube in 1/1000 of a second.

The device features autonomous, action-cam-like operation, with the Cubert plugin architecture it is possible to define your own spectral applications, load them to the camera and enjoy the online output of the results with our brand new tablet application.

Cubert...

...is the trusted partner of IMEC for Sensor Fusion. In 2016, the two partners joined a cooperation to produce the first completely integrated two-sensor mosaic device. This was based on Cubert's innovative experiences in image fusioning.

