

## Real-Time Spectral Imaging: introducing the ButterflEYE VIS

# S128



### Short facts

The Cubert S 128 ButterflEYE VIS is based on the latest integrated filter-on-chip technology. This technique combines 16 single spectral channels in mosaic design with higher than QVGA resolution.

Cubert integrates this innovative filter-on-chip technology with a state of the art intelligent camera, combined with an industry leading spectral camera software.

This camera system enables data acquisition, storage and processing directly on the camera. Cubert delivers the most integrated and lightweight spectral camera available on the market. Together with our set of accessories you get the fastest access to UAV based spectral imaging.

The spectral range covers from 475 to 650 nm, enabling most remote sensing applications as well as other more specialised applications from medical to mining over quality control.

### Filter-on-chip spectral imager

#### Principal applications

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

#### Special features

- 16 Channels
- Control panel for autonomous operation
- Data storage on camera microSD-Card
- Wireless remote operation

# S128 ButterflEYE VIS

## Spectral properties

Wavelength range	475 nm - 650 nm
Spectral imaging	Snapshot
Filter width	20 nm
Spectral filters	16 (Mosaic)
Multispectral-cube generation	yes

## Camera properties

Sensor resolution	2048x1088 Pixel
Detector	Silicon CMOSIS CMV 2000
Digitalization	8 bit / 10 bit on request
Measurement time	0.1 ms up to 10 000 ms
Connectors	USB, Power, GigE, Trigger
Multippectral cube rate	2 Hz auton./10 Hz perform.
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. 450 g
Power	15W

The information above may be subject of changes

## What you should know?

The S 128 ButterflEYE VIS cameras use a unique filter on chip technology, which fills the gap between multi-chip multispectral cameras and hyperspectral cameras. Using a medium spectral resolution of 16 channels, the device enables a spatial resolution higher than QVGA.

Everything is combined in a compact smart camera module, what handles the data storage and also the application related post processing directly on the device.

The camera features autonomous, action-cam-like operation, making it easy to set up and use it on the field.

Combined with the Cubert Utils spectral imaging software, Cubert brings you a versatile tool for data acquisition, data processing, as well as offering full access to remote operation.

## Cubert...

... was one of the first companies to help pioneer Snapshot Hyperspectral imaging. In 2011, Cubert presented the first high-resolution snapshot hyperspectrometer. Since this time, Cubert's technological basis has rapidly evolved.

Today our snapshot imaging spectrometers range is from multispectral cameras to high precision hyperspectral cameras.

