UVA-NIR Imager

3D Hyperspectral Video Camera

FirefIEYE 496 Blue

Blue Light Sensitivity & Double the Resolution

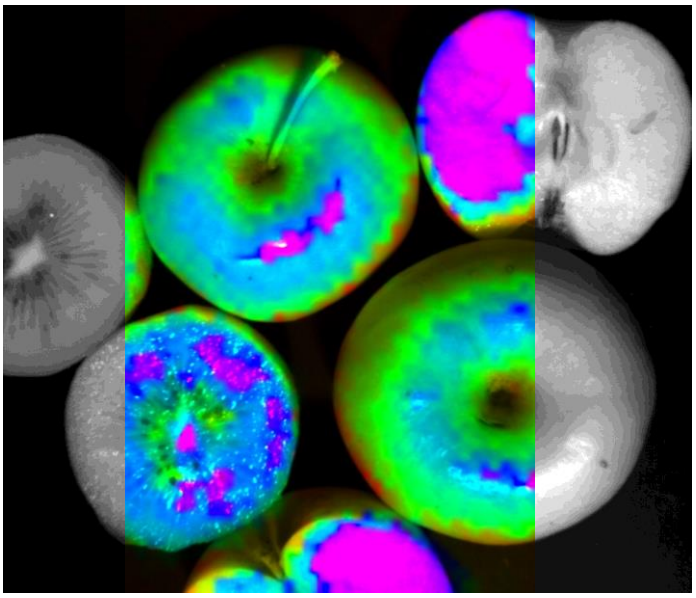
Advantages

- 3D hyperspectral snapshot imager (x, y, λ)
- 370-870 nm
- 4,900 spectra / cube
- 4 MP sensor
- Full video functionality
- Classification engine
- >60 predefined hyperspectral indices

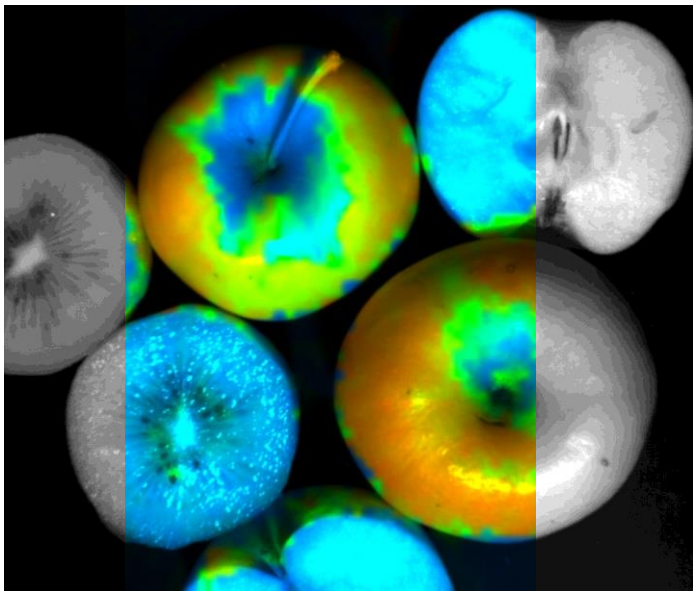
Advanced optical design

Need even more precision? The 496 Blue is the latest development of our hyperspectral FirefIEYE technology.

It doubles the spatial resolution: the size of both the panchromatic and the spectral sensor grew to 4 Megapixels, enabling the camera to record a high-resolution image of 4,900 spectra simultaneously.



Detect specific absorption features through sophisticated image classification



Apply a chlorophyll index and visualize the differences

Spectral Properties	
Wavelength range	370 – 870 nm
Number of bands	125
Spectral resolution / FWHM	10 nm @ 532 nm
Spectral sampling	4 nm
Spatial Properties	
Resolution pan	1600 * 1600 px
Resolution spectral	70 * 70 px
Data cube	4,900 spectra / cube
Optical Properties	
Field of View (FOV)	30°, 20°, 13°, 7°
Macroscopy possible	Yes (close-up lenses)
Microscopy possible	Yes (relay optics)
Sensor Properties	
Detector	Silicon CCD
Sensor size	4 Megapixel
Radiometric resolution	12 bit
Integration time	0.5 – 1000 ms
Frame rate	Appx. 3 Hz (fps)
Data size	12 MB / data cube
Camera Properties	
Connection	USB 3.0 & GigE
Operation temperature	0 – 40° C
Protection class	IP 40
Power consumption	DC 12 V / 8 W
Size	313 * 76 * 85 mm
Weight	Appx. 1200 g

Special Features

To enable time-saving analyses, a complete hyperspectral index library for agricultural applications is fully integrated.

Furthermore, a classification engine based on machine learning is also available. This easy-to-use software add-on allows online classification directly in the live data stream.

What you should know

The spectral range of the 496 Blue is shifted towards shorter wavelengths covering 370-870 nm, enabling analyses in the UVA and very short blue light.

In lab use the FireflEYE can be equipped with close-up lenses, enabling macroscopic-scale viewing with a spot size of only a few mm to cm.

Attaching a relay lens to the FireflEYE provides for full interchangeability of C-mount lenses, and enables the camera to your microscope or endoscope without the need of an additional calibration.

Suitable for:

MICROSCOPE	LAB	UAV & FIELD

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REAL-TIME SPECTRAL IMAGING