Hyperspectral Video Camera

ULTRIS X20

Hyperspectral Powerhouse in UV-VIS-NIR

With its wavelength range of **350-1000 nm**, the ULTRIS X20 continues Cubert's groundbreaking development of extremely precise, light field-based spectral snapshot cameras. This range makes it the world's very first **UV-VIS-NIR** hyperspectral **video** imager. Our premium snapshot imaging spectrometer produces rich, 3D data cubes in real-time with no need for scanning (like push-broom technology) or image combination after fast filter shifts.

This technology provides clean hyperspectral images, right out of the box with a native image resolution of **410 × 410 spatial pixels** with **164 spectral bands**, resulting in **168 000 spectra per frame**. The ULTRIS X20 is extremely flexible, easy-to-use and time-efficient which is equally important for scientists and engineers and their many diverse applications.

Technical Specifications ULTRIS X20

Technology	Light Field	FOV (Field of View)	35°
Readout	Global shutter	Data Depth	12 bit
Spatial Resolution	410 x 410 pixel	Max Frame Rate	8 Hz
Wavelength Range	350 – 1000 nm	Data Link	GigE
Spectral Bands	164	Sensor	CMOSIS CMV20000
Spectral Sampling	4 nm	File size unprocessed	< 25 MB
FWHM	Constant 10 nm	File size processed	< 55 MB
Bandpass Filter	Mosaic	Weight	350 g
Integration Time	0.1 – 1000 ms	Dimensions	60 x 60 x 57 mm

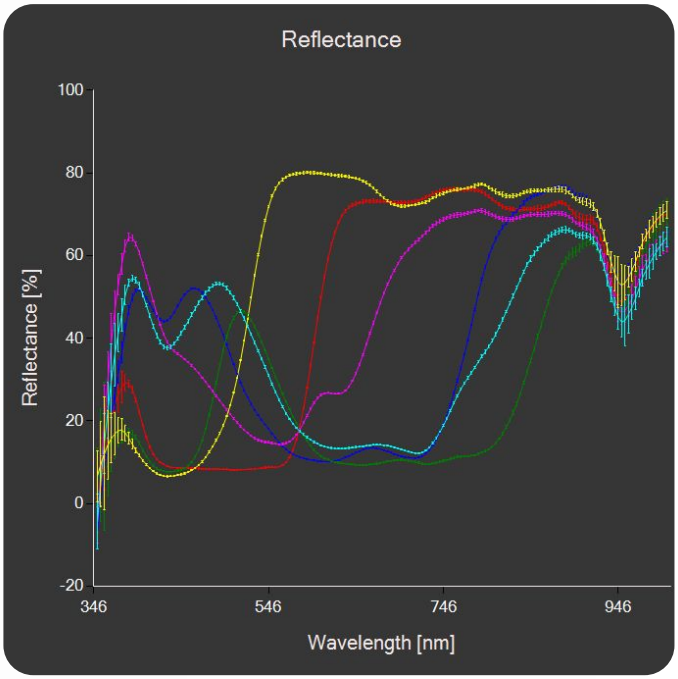
It's all about Software

The powerful Cubert CUVIS software takes **Raw Data**, **Reflectance** and even **Radiance**. The image shows a CIR radiance image of wine leaves, highlighting drought stress.
With a video rate of up to 8 Hz, you can easily apply analyses directly to the live data stream. Recorded data can be quickly exported to scientific formats, such as **ENVI** and **TIFF**. Our **SDK** is the ideal choice for seamless integration of any of our cameras into your established processes. Originally developed in **C**, the SDK is now available with wrappers for **C++** and **Python**.

The Highest Quality Standard

The X20 is based on light field technology. Equipped with optical bandpass filters an unequaled quality standard is reached. With a **transmission >90%** and an **OD4** blocking, noise and straylight effects are reduced to a minimum. The filters provide a constant **FWHM of 10 nm** throughout the entire spectrum, enabling a true **equidistant** and equally broad band setting.

Want to go for maximum with the upgraded **ULTRIS X50**? Utilizing a 50 MP sensor increases resolution to an astonishing **570 x 570 pixels**, still each in 164 spectral bands.



cubert
VIDEO SPECTROSCOPY

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Need more information?

Please contact us! We'd be delighted to answer any of your questions you may have.

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