Hyperspectral Powerhouse for Highest Standards

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, generating real-time spectral data cubes without the need for post-shift scanning or image combination.

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	Attachable Optics	-
Readout	Global Shutter	FOV (Field of View)	35°
Spatial Resolution	410 x 410 pixel	Data Depth	12 bit
Wavelength Range	350 - 1000 nm	Max Frame Rate	8 Hz
Spectral Bands	164	Data Link	GigE
Spectral Sampling	4 nm	Sensor	CMOSIS CMV20000
FWHM	Constant 10 nm	File size processed	< 55 MB
Spectral Data Points	164 x 168 100 (24.5 M)	Weight	350 g
Bandpass Filter	Mosaic	Dimensions	60 x 60 x 57 mm
Integration Time	0.1 – 1000 ms	Options	Industrial Housing (IP66) Underwater Housing (IP68)

ULTRIS X20

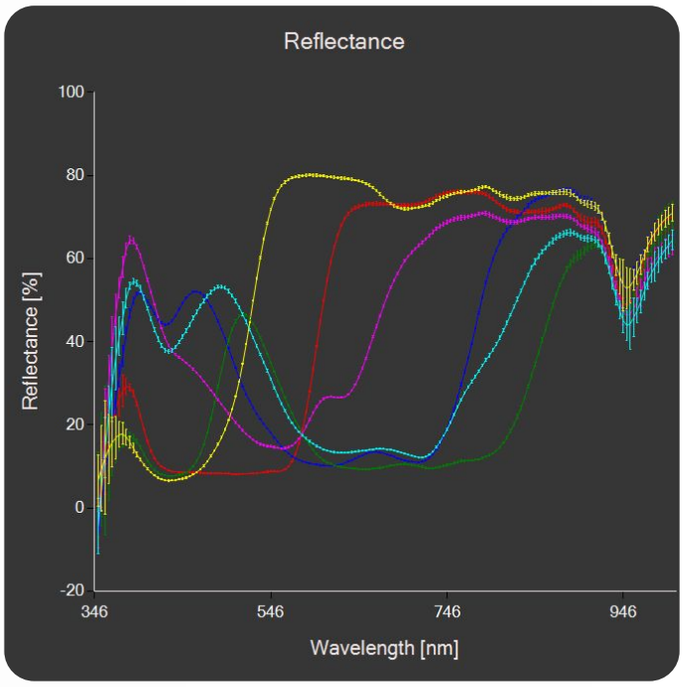
Cubert CUVIS Software

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.

Optional IP66 and IP68 housings are available for the camera, enabling versatile applications, including underwater use.



cubert VIDEO SPECTROSCOPY

Cubert GmbH
Science Park II
Lise-Meitner Straße 8/1
D-89081 Ulm
Germany

Need more information?

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

✆ +49 791 708 156 70
✉ sales@cubert-gmbh.de
www.cubert-hyperspectral.com