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Premium Scientific Grade

ULTRIS X20

cubert

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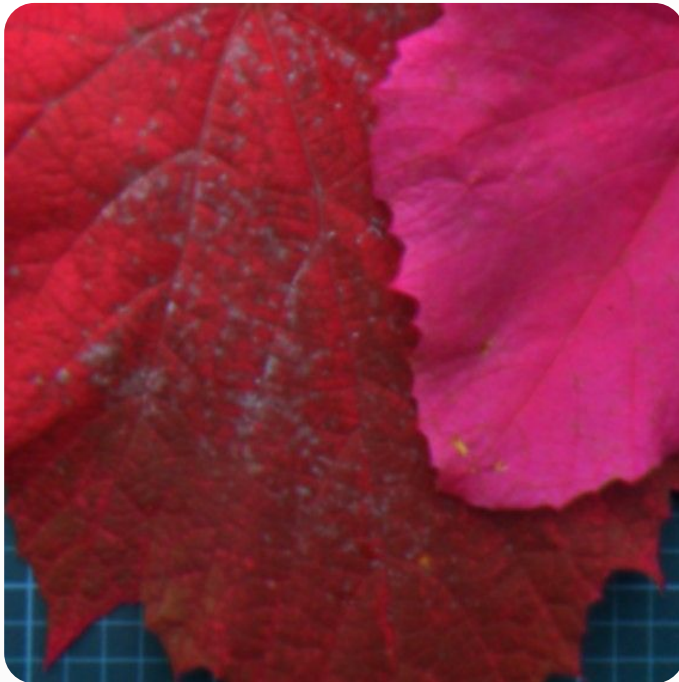
This technology provides clean hyperspectral images, right out of the box with a native image resolution of 410 × 410 spatial pixels with 164 spectral bands, resulting in 168,000 spectra per frame. The ULTRIS X20 is extremely flexible, easy-to-use and time-efficient which is equally important for scientists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

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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.
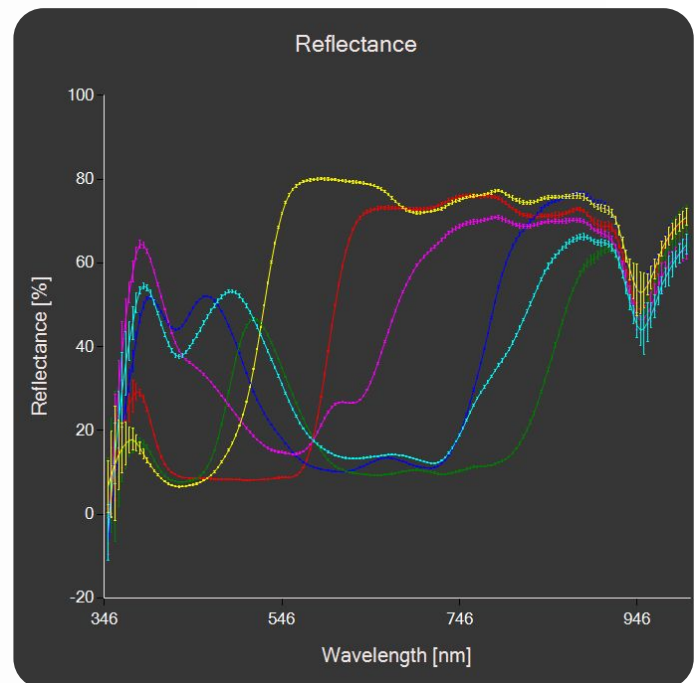
Need more information?

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