20 Megapixel
Spectral Video Camera
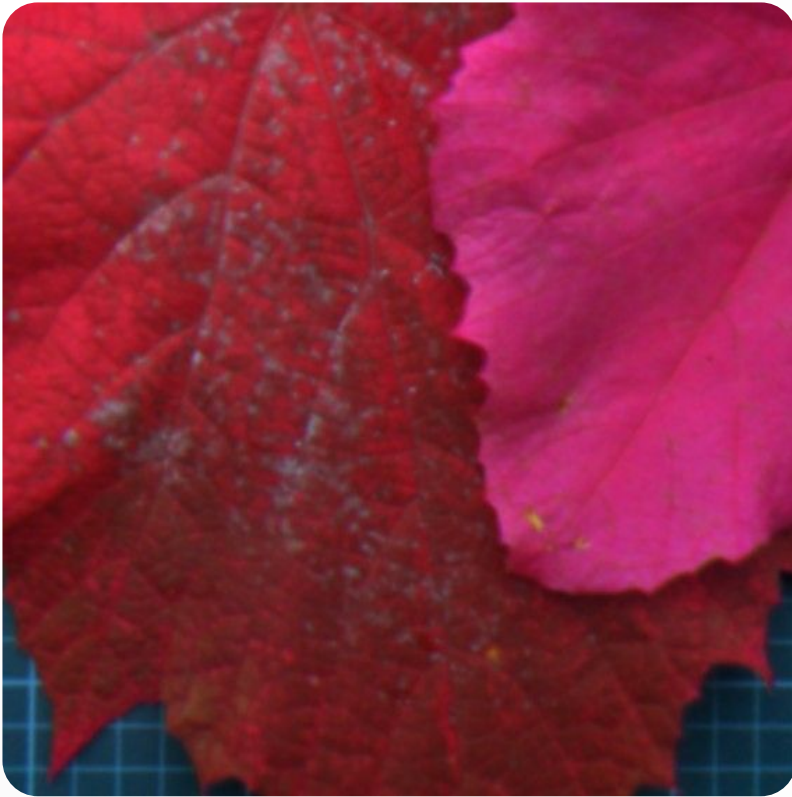
ULTRIS X20

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Hyperspectral Powerhouse - our UV-VIS-NIR Flagship

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**.

Available in three different housings

Standard lightweight housing **IP40** - Weighing less than **350g**, the camera is even lighter than the established FireflEYE 185, making it perfect for deployment on small UAVs. A rugged industrial housing, **IP65,** is available, ensuring optimal protection in harsh environments.. And even underwater, the X20 is in safe hands. A **waterproof IP68** housing ensures usage to a depth of 10 meters. Cable lengths of 20 meters or more provide a maximum flexibility.

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VIDEO SPECTROSCOPY

Need more information?

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