



For even more detail

Hyperspectral High Resolution Camera



More data, more detail

The X20 is extended with a second camera sensor: panchromatic – just one band, high resolution. We use this data to increase the spatial resolution of the spectral camera to 1880 x 1880 pixel, giving incredibly detailed images. The X20 Plus was designed for aerial mapping, gathering high resolution hyperspectral images. Even though the X20 plus integrates two camera sensors it is still lightweight (less than 690 g), so together with a mini computer and GPS the payload is less than 1.5 kg, making it suitable for a wide range of drones.

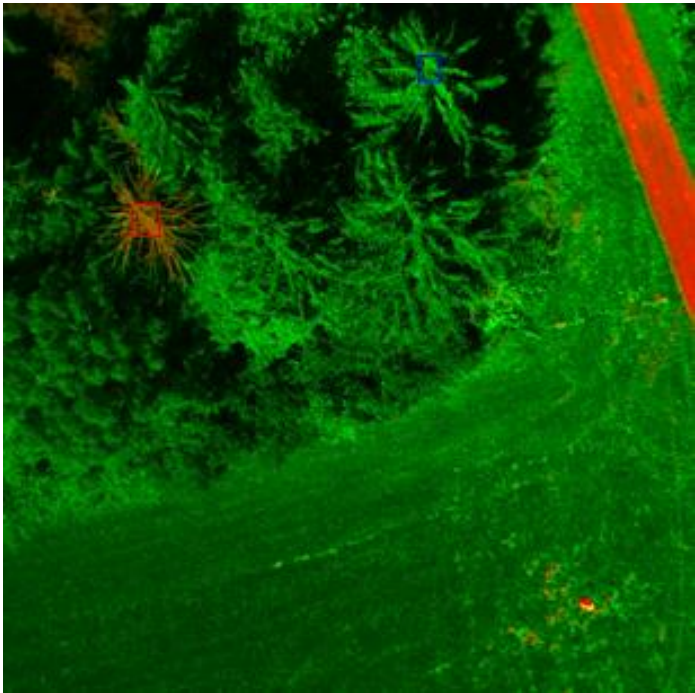
ULTRIS X20 Plus

Advantages

- 20 MP hyperspectral snapshot imager (x, y, λ)
- 350 – 1000nm (UV-VIS-NIR)
- 164 spectral bands
- 1880 x 1880 px spatial resolution
- Dual sensor approach for pansharpened products



Easy integration on a UAS together with the Cubert mounting kit, compatible with any drone



Export to common tools like ENVI & QGIS
Meta-Data is optimized for stitching tools like Agisoft Metashape / Pix4D

TECHNICAL SPECIFICATIONS
ULTRIS X20 PLUS

Technology	Light Field, Dual Sensor
Wavelength Range	350 – 1000 nm
Spectral Bands	164
Spectral Sampling	4 nm
Spectral Resolution (FWHM)	Constant 10 nm
Spatial Resolution	410 x 410 pixel 1880 x 1880 pixel
Total Spectra / Image	168 000
Total Data Points / Cube	27 Million
Data Depths	12 bit
Readout	Global shutter
Max Frame Rate	8 Hz
Integration Time	0.1 – 1000 ms
Field of View (FOV)	35°
Power Consumption	8 W
Data Link	1-2 GigE
Weight	630 g
Size	60 x 107 x 95 mm

Extra sharp and flying high

The extra data provided by the second camera on the ULTRIS X20 Plus allows us to use a technique called pansharpening or image fusion – a version of which we have developed inhouse – to enhance the images even further. This enables analysis at the leaf level of vegetation even from a UAV, helping to detect diseases and other issues that require action at an early stage.

The level of detail provided by the ULTRIS X20 Plus lends itself particularly to mobile mapping, so UAS applications are the primary beneficiaries. However, it is equally able to be used in the field or the lab, where you benefit from an unrivalled resolution without having to forego the spectral resolution of 164 bands.