

ULTRIS X20 PLUS



Expanding Human Vision

The ULTRIS X20 Plus combines the 164-channel hyperspectral sensor of the X20 with a dedicated high-resolution panchromatic sensor. The spectral camera captures 410×410 pixels from 350 to 1002 nm, while the second sensor provides 1886×1886 pixel panchromatic images. Both datasets can be combined through pansharpening to add spatial detail to the spectral image.

At 630 g, the X20 Plus is designed for UAV-based hyperspectral mapping. Integrated payload solutions support current platforms including the DJI Matrice 400 and Freefly Astro Max. Snapshot acquisition captures the complete spectral image in every exposure, while positioning information supports subsequent georeferencing and mapping.

164

Spectral Channels

1886² PX

Spatial Resolution Pan

350-1002 NM

Wavelength Range

630 G

Weight

Technical Specifications Ultris X20 Plus

Imaging

Technology	Light Field · Dual Sensor
Readout	Global Shutter
Imaging Sensors	2
Spatial Resolution	410×410 pixel
Spatial Resolution Pan	1886×1886 pixel
Pansharpening	yes, chosen at export
Field of View	32°
Integration Time	0.1-1000 ms
Data Depth	8/12 bit (pan 8)

Spectral & System

Wavelength Range	350-1002 nm
Spectral Channels	164
Spectral Sampling	4 nm
FWHM	Constant 10 nm
Bandpass Filter	Mosaic
Spectral Data Points	$164 \times 168,100$ (27.6 M)
Sensor	CMV 20,000 · Sony IMX264 (pan)
Data Link	GigE
File size, snapshot	212.3 MB
Weight · Dimensions	630 g · $86 \times 121 \times 105$ mm



The ULTRIS X20 Plus on the Cubert Knowledge Base.

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PANSHARPENING FOR ENHANCED SPATIAL DETAIL

The ULTRIS X20 Plus combines hyperspectral data with a high-resolution panchromatic sensor. Pansharpending adds spatial detail to the spectral dataset while retaining all 164 spectral channels.



Spectral Image
False Colour (CIR)
164 bands
native 410 × 410 pixels



Panchromatic Image
Greyscale Image
1 band
native 1886 × 1886 pixels



Pansharpended Product
False Colour (CIR)
164 bands
pansharpended 1886 × 1886 pixels



The X20 Plus can be integrated as a complete payload for UAV-based hyperspectral mapping. Current integration options include DJI Matrice 400 and Freefly Astro Max platforms. Camera, onboard computing, triggering and positioning interfaces can be combined in a single airborne system for synchronized data acquisition.

Applications range from precision agriculture and vegetation research to environmental monitoring, infrastructure inspection and other remote-sensing tasks.



Find out more about **Pansharpending**
on the Cubert Knowledge Base

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