

VEXCEL
IMAGING

ULTRACAM OSPREY MARK 3 PREMIUM

Photogrammetry meets oblique





ULTRACAM OSPREY MARK 3 PREMIUM

We have you covered from all angles

Designed for maximum flexibility, the UltraCam Osprey Mark 3 Premium extends a full photogrammetric nadir camera with oblique capture capability in four directions.

More than a standard camera, the UltraCam Osprey offers cutting-edge technology to collect photogrammetry-grade nadir images (PAN, RGB and NIR) and oblique images (80 Mega pixel RGB) simultaneously, supporting city mapping as well as classical nadir applications from the same flight mission. Additionally, the unique camera design of the UltraCam Osprey Premium enables generation of imagery based high-resolution point clouds. The result are dense, consistent and aligned data sets. The nadir and oblique camera channels

are designed and oriented such that the full nadir footprint of 13,470 pixels can be leveraged. Meanwhile, oblique image characteristics such as resolution and overlap are well aligned. The combination of these factors leads to best-in-class flight collection efficiency.

By offering automated features such as nadir and oblique color balancing, nadir and oblique AT, dense point cloud generation, DTM/DSM generation as well as 3D model generation through UltraMap, the UltraCam Osprey Premium is taking photogrammetry to new levels.



ROBERT CHENG
ULTRACAM OSPREY CUSTOMER

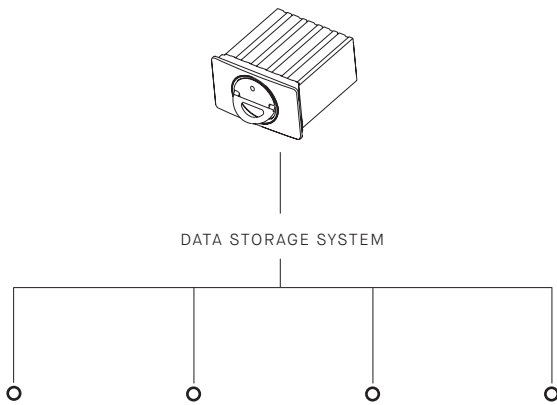
“UltraCam Osprey, simple-to-use but versatile enough to meet both the present and future requirements of our company. Two weeks after the initial training, we were able to produce orthomosaic images and 3D city models already.”

Specifications & details

Technical changes, printing errors, mistakes and amendments reserved.





SENSOR SYSTEM

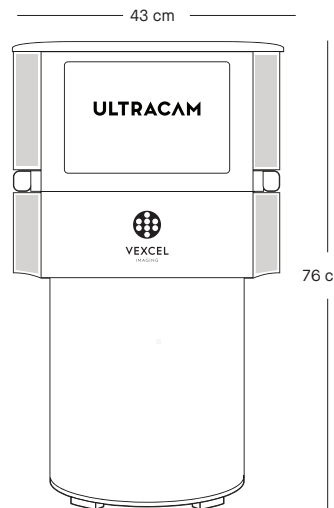
View	Parameter	Value	Parameter	Value
Nadir	PAN image size	13,470 x 8,670 pixels	Imaging sensor	CCD
	PAN physical pixel size	5.2 μm	Shutter (longlife central leaf)	1/750 to 1/64
	Color capability (multi-spectral)	4 channels - RGB Bayer pattern & NIR	Forward-motion compensation (FMC)	TDI controlled
	Color image size	6,735 x 4,335 pixels	Maximum FMC capacity	50 pixels
	Color physical pixel size	5.2 μm	Frame rate (minimum inter-image interval)	1 frame per 1.75 seconds
	Pansharpen ratio	1 : 2	Dynamic range	> 72 db
			Analog-to-digital-conversion at	14 bits
Oblique	Color capability	3 channels - RGB Bayer pattern		
	Color image size	10,300 x 7,700 pixels		
	Color physical pixel size	5.2 μm		



DATA STORAGE SYSTEM

In-flight exchangeable & redundant storage system: Solid state disk pack	Data unit storage capacity: 10 TB <small>(up to 6,300 images)¹</small>	Input data quantity per image: 1295 MB	Weight of data unit: 2.2 kg
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-  Power consumption: **max. 350 W**
-  Weight: **64 kg**
-  Configuration: **Integrated housing concept²**
-  Cylinder Diameter: **360 mm**









¹ Due to configuration and change in SSD technology, usable storage size may vary and can not be guaranteed.

² For separated housing concept options please contact our sales team.

LENS SYSTEM

View	Parameter	Value
Nadir	PAN lens system focal length	80 mm
	PAN lens aperture	f=1/5.6
	Color (RGB Bayer pattern & NIR) lens system focal length	40 mm
	Color (RGB Bayer pattern & NIR) lens aperture	f=1/5.6
	Total field of view, across track along track	47,3° 31,5°
Flying height for RGB pixel size @ 10 cm GSD		1,538 m
Oblique	Color (RGB Bayer pattern) lens system focal length	120 mm
	Color (RGB Bayer pattern) lens aperture	f=1/4.4
	Total field of view, across track along track	45° (+9,5° / -15,7°) 45° (+9,5° / -9,5°)

OPERATIONAL SPECIFICATION

					
Flight altitude: ≤ 7000 m <u>above sea level</u>	Humidity: 5 % to 95 % <u>no condensation</u>	Temperature: 0 °C to +45 °C <u>(operation, computer stack)</u> -20 °C to +45 °C <u>(operation, sensor stack)</u> -20 °C to +65 °C (storage)	Mounting: UltraMount (GSM, 4000 & GSM 3000) and most current third party mounts³	GNSS/INS/FMS system support: UltraNav (Applanix POSTrack OEM) and most current third party systems³	Data processing: UltraMap processing suite including data export in standard formats

³ Please contact our sales team for detailed information.

BENEFIT FROM OUR TECHNOLOGY

When you partner with Vexcel Imaging,
you get more than a camera.

You get cutting-edge technology combined with a progressive
service concept for constant product upgrades, world-class
support and one-stop solutions.

Today and tomorrow.



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