



### ULTRACAM OSPREY 4.1

# New perspectives on 3D Aerial Mapping



Technical changes, printing errors, mistakes and amendments reserve

VEXCEL

# Taking collection efficiency to new heights.

The UltraCam Osprey 4.1 collects photogrammetry-grade nadir imagery plus oblique images simultaneously, enabling unprecedented flight collection efficiency at industryleading image and data quality.

The UltraCam Osprey introduces generation UltraCam aerial imaging sensors. A highly versatile system, the UltraCam Osprey simultaneously collects photogrammetry grade nadir images (PAN, RGB and NIR) and oblique images (RGB) in four directions. As a result of a combination of industryleading customized lens systems, next generation image sensors with custom electronics, and a best-inclass image processing pipeline, the UltraCam Osprey 4.1 delivers imagery of unprecedented quality in terms of detail resolution, clarity and dynamic range. The system pushes urban flight productivity to new levels, collecting

1.1 Gigapixels every 0.7 seconds. Customers can fly faster, cover more area and see more detail.

The new and innovative Adaptive Motion Compensation (AMC) method compensates for multidirectional motion inducted image blur and additionally also compensates for ground sampling distance variations in oblique images, produces imagery of unprecedented vividness and sharpness.

From orthophotos to point clouds and 3D models, the UltraCam Osprey 4.1 high-performance system sets new standards in urban mapping and 3D city modeling.



AICKE DAMRAU ULTRACAM OSPREY CUSTOMER

"We selected the UltraCam Osprey knowing that it was developed based on sound photogrammetric principles. The integration of the sensor and the uniquely continuous UltraMap software workflow are a winning advantage over other solutions on the market."

## Specifications & details

SENSOR SYSTEM

3 channels - RGB Bayer pattern

14,144 x 10,560 pixels

3.76 µm

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Nadir	PAN image size	20,544 x 14,016 pixels
	PAN physical pixel size	3.76 µm
	Color capability (multi-spectral)	4 channels - RGB Bayer pattern & NIR
	Color image size	12,840 x 8,760 pixels
	Color physical pixel size	3.76 µm
	Pansharpen ratio	1:1.6

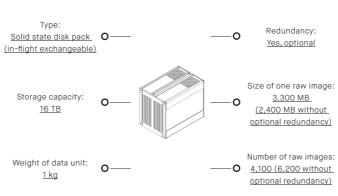
	Shutter (longlife central leaf)	Prontor magnetic-0 HS; field exchangable
	Motion compensation (multi-directional)	Adaptive Motion Compensation (AMC)
	Frame rate (min. inter-image interval)	1 frame per 0.7 seconds
	Dynamic range	> 83 dB at base ISO
	Analog-to-digital-conversion at	14 bits
	Spectral bands (FWHM <sup>1</sup> )	R (580 - 690 nm) G (480 - 600 nm) B (420 - 510 nm) IR (690 - 800 nm) PAN (430 - 690 nm)

Color capability

Color image size

Color physical pixel size







330 W (average) 350 W (peak)

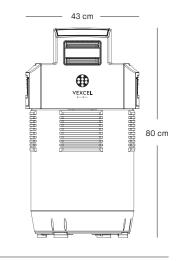




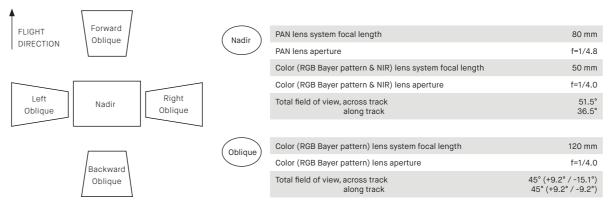
Cylinder diameter



Operator display: Vexcel IPT v3 with 1024 x 768 resolution and 2.1 kg



### LENS SYSTEM





heights: 2128m @ 10cm GSD 1596m @ 7.5cm GSD

### OPERATIONAL SPECIFICATION

and most current third

party mounts<sup>2</sup>



Flight altitude:

<u>≤ 7,000 m</u>

above sea level

Humidity

5 % to 95 %

no condensation



Temperature: -20 °C to +45 °C

(operation, sensor)

0 °C to +45 °C

(operation, computer)

-20 °C to +65 °C (storage)

Mounting: UltraMount (GSM 4000 & GSM 3000)

GNSS/INS/FMS

POSTrack OEM) and

most current third

party systems<sup>2</sup>

system support: UltraNav (Applanix



Installation (Camera UltraNav & UltraMount): <98 kg weight, 480 W (avg.) and 560 W (peak) power consumption



including data export

in standard formats

<sup>2</sup> Please contact our sales team for detailed information

printed by aerial-survey-base.com

<sup>&</sup>lt;sup>1</sup> Full Width at Half Maximu

