VEXCEL
IMAGING

ULTRACAM OSPREY MARK 3 PREMIUM

Photogrammetry meets oblique

We have you covered from all angles

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."

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.

Specifications & details

SENSOR SYSTEM

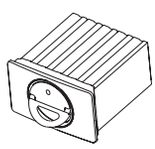
Nadir

PAN image size	13,470 x 8,670 pixels
PAN physical pixel size	5.2 µm
Color capability (multi-spectral)	4 channels - RGB Bayer pattern & NIR
Color image size	6,735 x 4,335 pixels
Color physical pixel size	5.2 µm
Pansharpen ratio	1 : 2

Imaging sensor	CCD
Shutter (longlife central leaf)	1/750 to 1/64
Forward-motion compensation (FMC)	TDI controlled
Maximum FMC capacity	50 pixels
Frame rate (minimum inter-image interval)	1 frame per 1.75 seconds
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

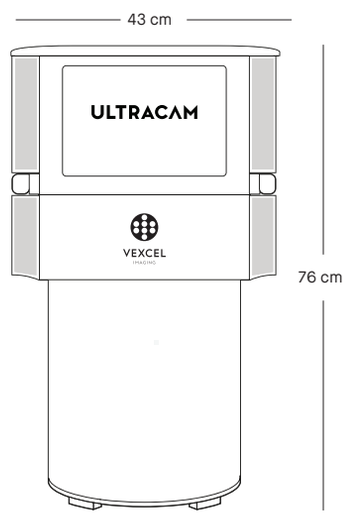
- In-flight exchangeable & redundant storage system: Solid state disk pack
- Data unit storage capacity: 10 TB (~6,300 images)
- Input data quantity per image: 1295 MB
- Weight of data unit: 2.2 kg

Power consumption: max. 350 W

Weight: 64 kg

Configuration: Integrated housing concept[1]

Cylinder Diameter: 360 mm



[1] For separated housing concept options please contact our sales team.

LENS SYSTEM

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 above sea level

Humidity: 5 % to 95 % no condensation

Temperature: 0 °C to +45 °C (operation, computer stack) -20 °C to +45 °C (operation, sensor stack) -20 °C to +65 °C (storage)

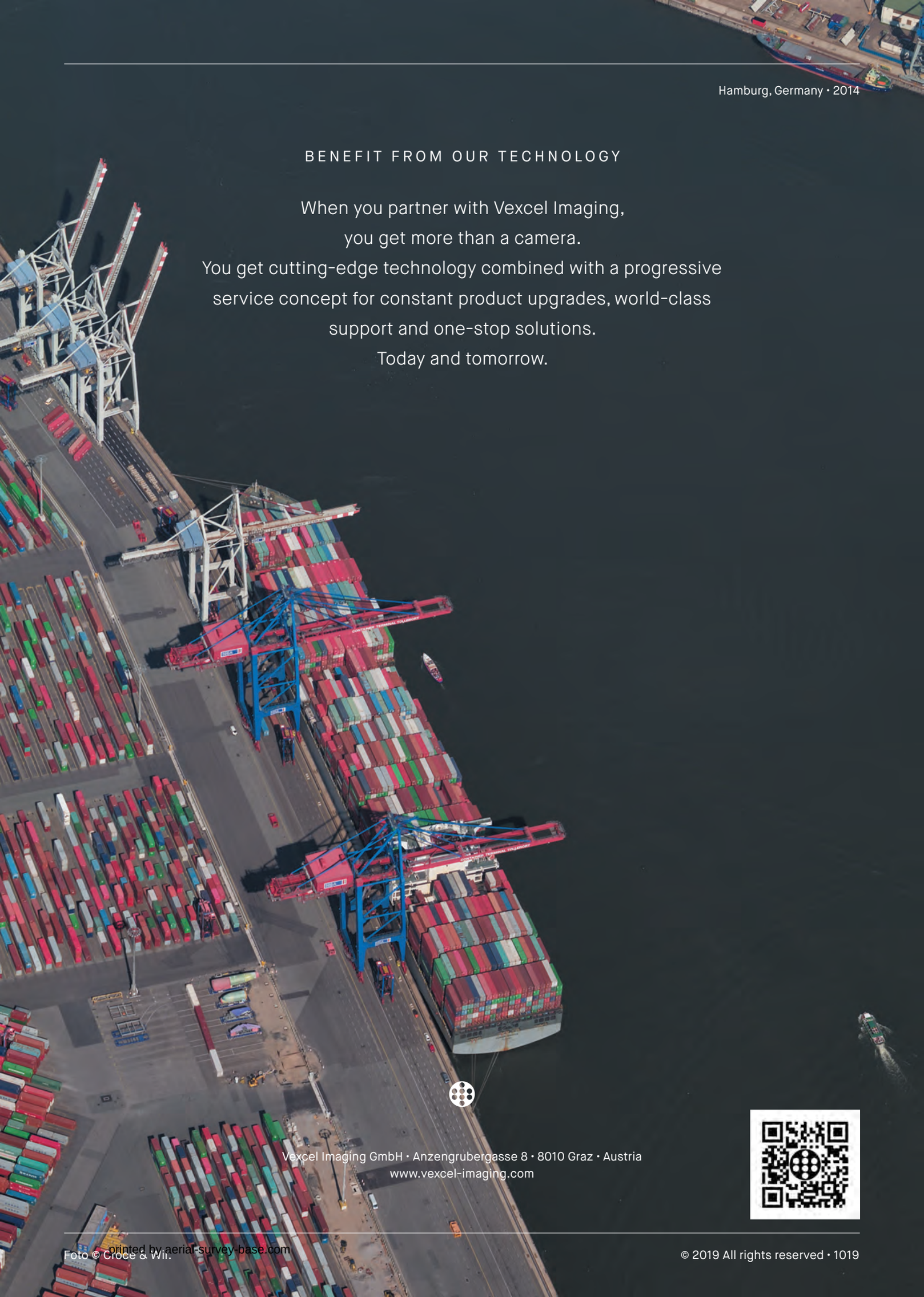
Mounting: UltraMount (GSM 4000 & GSM 3000) and most current third party mounts[2]

GNSS/INS/FMS system support: UltraNav (Applanix POSTrack OEM) and most current third party systems[2]

Data processing: UltraMap processing suite including data export in standard formats

[2] Please contact our sales team for detailed information.

printed by aerial-survey-base.com



Hamburg, Germany • 2014

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.

Vexcel Imaging GmbH • Anzengrubergasse 8 • 8010 Graz • Austria
www.vexcel-imaging.com