

**VEXCEL**  
IMAGING

ULTRACAM CONDOR MARK 1

38,000 pixels across  
the flight strip

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ULTRACAM CONDOR MARK 1

# Higher. Farther. Faster.

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The new UltraCam Condor provides a single-source data acquisition solution for collecting 5-band imagery for wide-area, high-altitude mapping while still serving photogrammetric projects.

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The expansive image footprint of the UltraCam Condor allows it to capture large regions—even continents—in record-time, efficiently producing imagery of the industry-renowned UltraCam quality. The UltraCam Condor frame combines a high resolution RGB image capture for ortho image generation that is consistently sharp, geometrically accurate and of superior radiometry with a lower resolution PAN channel for the production of highly accurate DSMs. The camera's fast frame rate enables users of the UltraCam Condor to fly even with jets and

turboprops at fast speeds while maintaining high sensor reliability. Basic classification needs are supported by a NIR channel. This altogether makes the UltraCam Condor the ideal solution for wide-area mapping.

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The predecessor model of the new UltraCam Condor was used exclusively to provide Bing Maps imagery with stunning 30 cm blanket coverage of the continental United States and Western Europe in two flight seasons.

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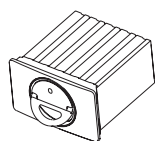
# Specifications & details

Technical changes, printing errors, mistakes and amendments reserved.

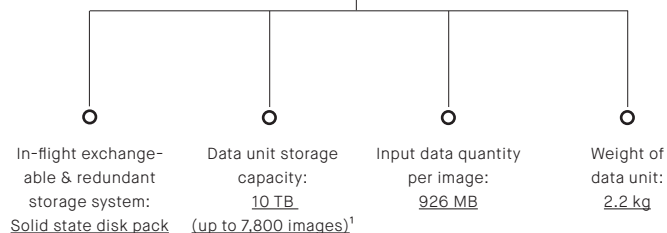
## SENSOR SYSTEM

Color capability (multi-spectral)	4 channels - RGB Bayer pattern & NIR
Color (RGB Bayer pattern) image size	38,000 x 5,000 pixels
Color (RGB Bayer pattern) physical pixel size	4.6 μm
PAN image size	13,280 x 9,000 pixels
PAN physical pixel size	5.2 μm
Color (NIR) image size	7,600 x 5,000 pixels
Color (NIR) physical pixel size	4.6 μm
Ratio RGB to PAN / NIR	1 : 2,77 / 4,37

Imaging sensor	CCD
Shutter (longlife central leaf)	1/1000 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



### DATA STORAGE SYSTEM



Power consumption: **max. 350 W**



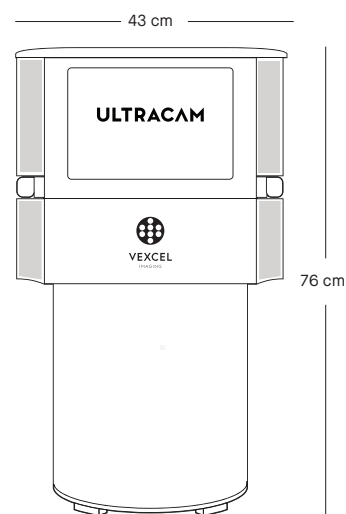
Weight: **64 kg**



Configuration: **Integrated housing concept<sup>2</sup>**



Cylinder Diameter: **360 mm**



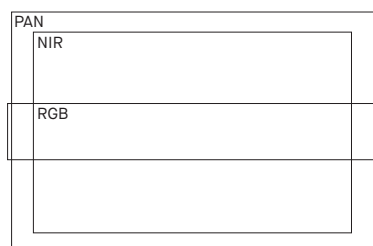
<sup>1</sup> Due to configuration and change in SSD technology, usable storage size may vary and can not be guaranteed.

<sup>2</sup> For separated housing concept options please contact our sales team.

## LENS SYSTEM

f100

UltraCam Condor camera footprint



Color (RGB Bayer pattern) lens system focal length	100 mm
Color (RGB Bayer pattern) lens aperture	f=1/5.6
PAN lens system focal length	40 mm
PAN lens aperture	f=1/4.8
Color (NIR) lens system focal length	23 mm
Color (NIR) lens aperture	f=1/5.6
PAN total field of view, across track (along track)	81,6° (60,7°)
RGB total field of view, across track (along track)	82,3° (13,1°)
NIR total field of view, across track (along track)	74,5° (53,1°)
Flying height for RGB pixel size @ 10 cm GSD	2,174 m

## 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<sup>3</sup>**



GNSS/INS/FMS system support: **UltraNav (Applanix POSTrack OEM) and most current third party systems<sup>3</sup>**



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

<sup>3</sup> 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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