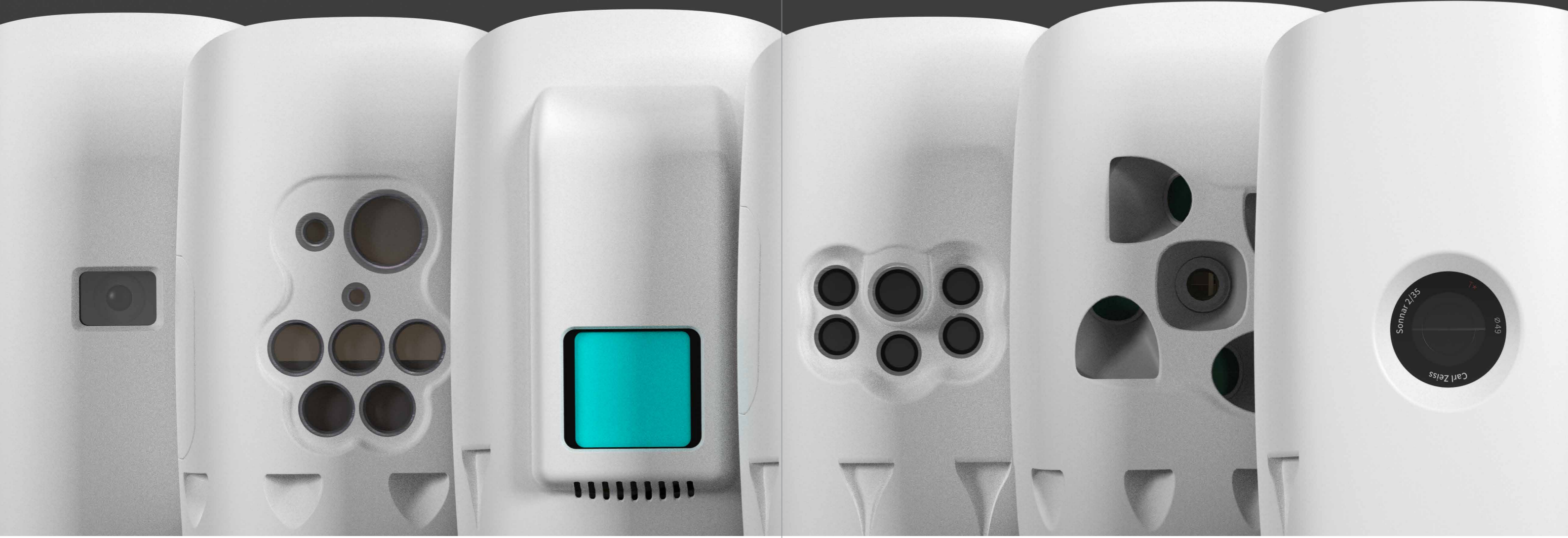


RGB | MULTISPECTRAL | LIDAR



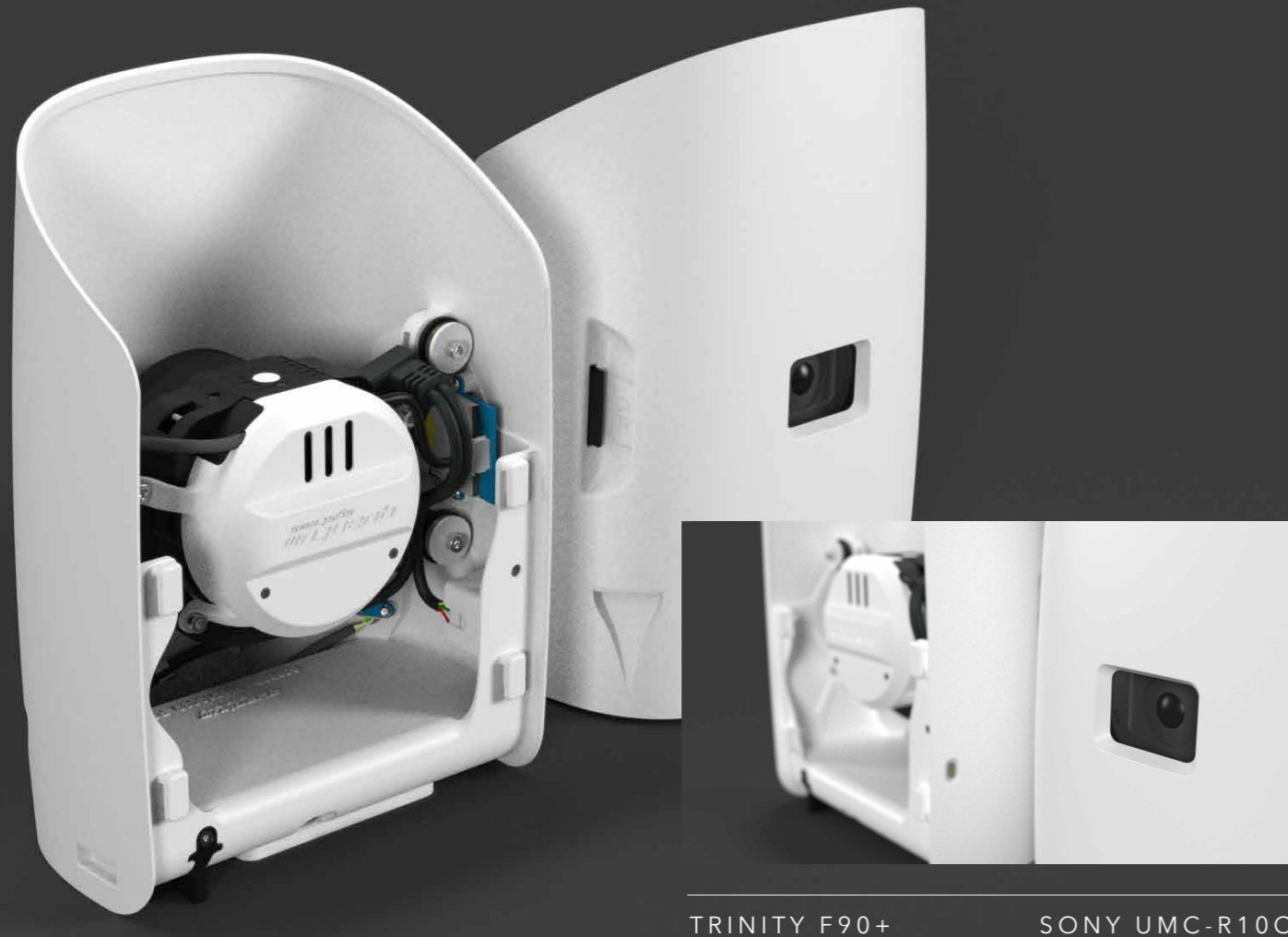
SCAN QR CODE AND LEARN MORE

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quantum-systems.com



TRINITY F90+ CAMERAS

QUANTUM-SYSTEMS | TRINITY F90+ | CAMERAS



Sony UMC-R10C Technical Specification



Sensor resolution	20.1 MP (5456 x 3632 px)
GSD	2.66 cm @100m AGL
Trigger interval	1.1 seconds
Sensor type	CMOS
Sensor format	APS-C
Sensor size	23.2 x 15.4 mm
Lens	f=16 mm, F2.8
Payload weight RTF (ready to fly)	428,7 g
Shutter type	Focal plane
Storage	SD card (external slot)

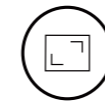
Sample Data



FLIGHT ALTITUDE
100 m | 328 ft AGL



FLIGHT SPEED
17 m/s



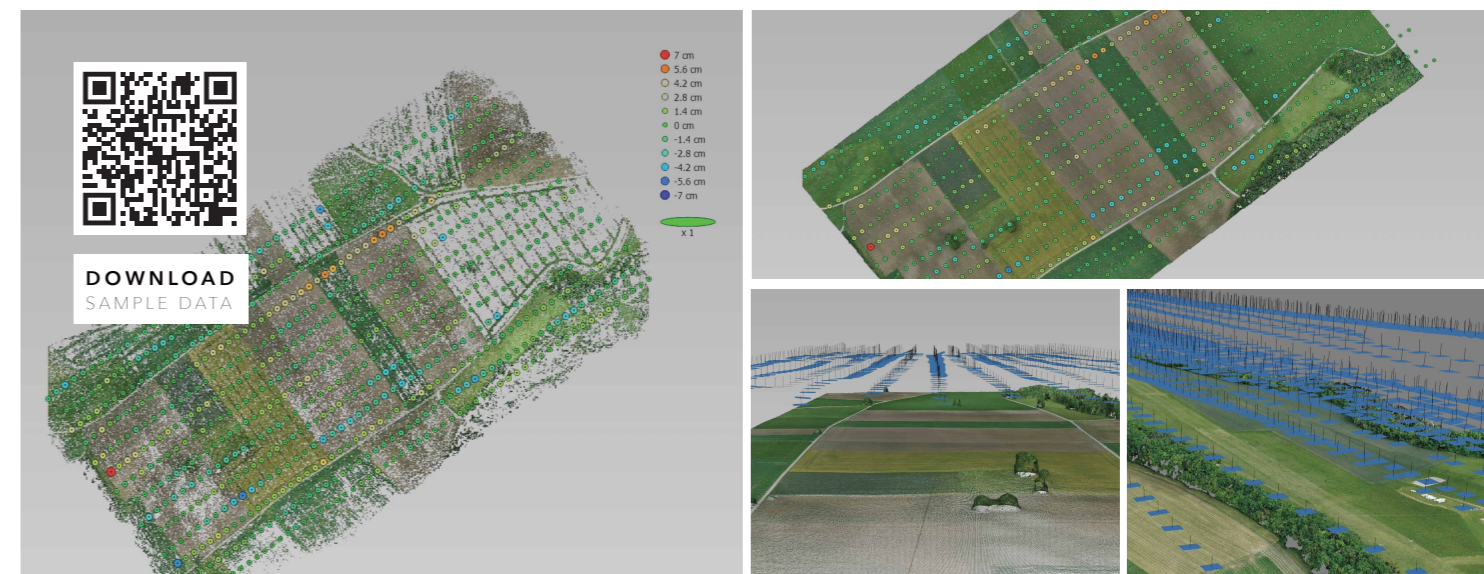
GSD
2.66 cm/px

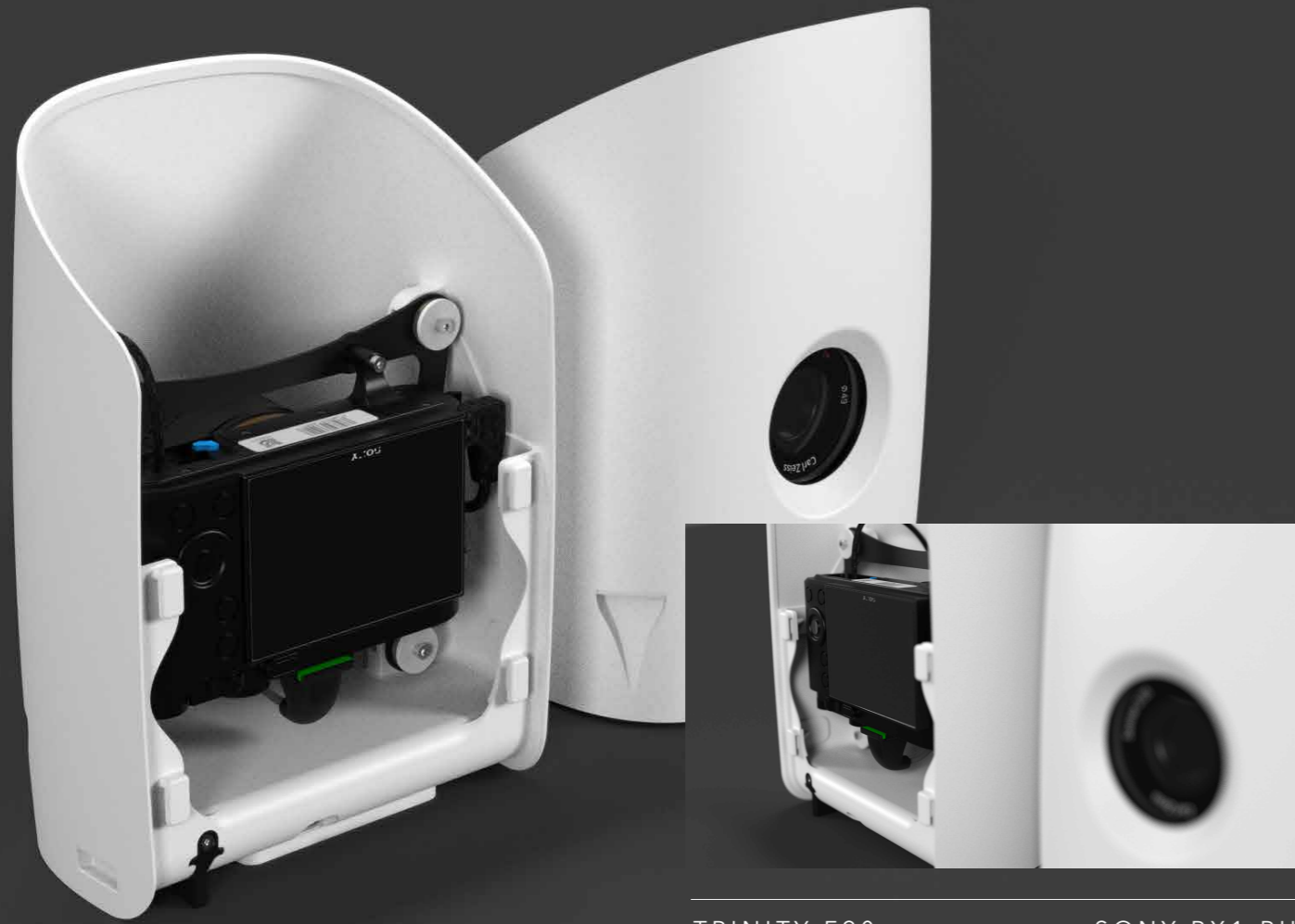
Sony UMC-R10C RGB Camera

The Sony UMC-R10C camera with 20.1 MP is used as an entry level RGB camera throughout the mapping industry.



The Sony UMC-R10C is ideal for capturing high-quality images to create maps or 3D models. With its CMOS type image sensor the Sony UMC-R10C delivers quality images even in low light conditions.





TRINITY F90+

SONY RX1 RII

Sony RX1 RII Technical Specification



Sensor resolution	42.4 MP (7952 × 5304 px)
GSD	1.29 cm @100m AGL
Trigger interval	1.4 seconds
Sensor type	CMOS
Sensor format	Full frame
Sensor size	35.9 mm × 24.0 mm
Lens	f=35 mm, F2.0
Payload weight RTF	693,7 g
Storage	SD-Card (internal slot)

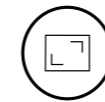
Sample Data



FLIGHT ALTITUDE
120 m | 393 ft AGL



FLIGHT SPEED
17 m/s



GSD
1.55 cm/px

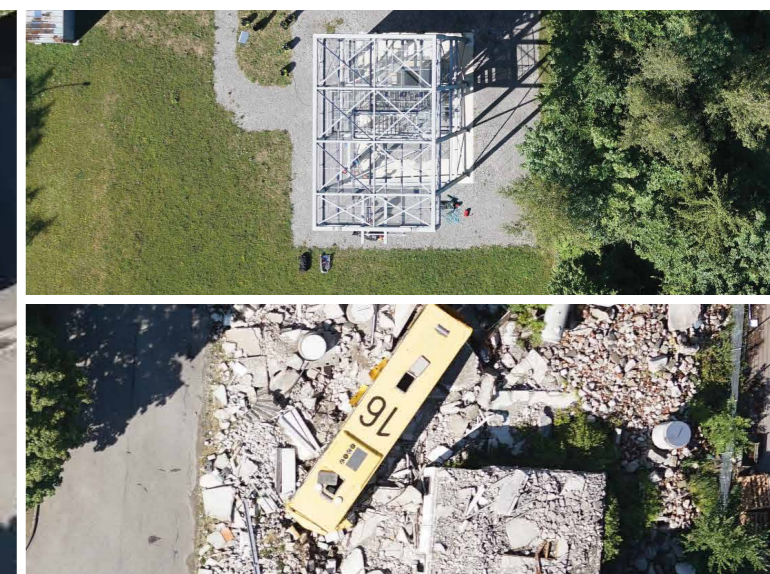
Sony RX1 RII RGB Camera

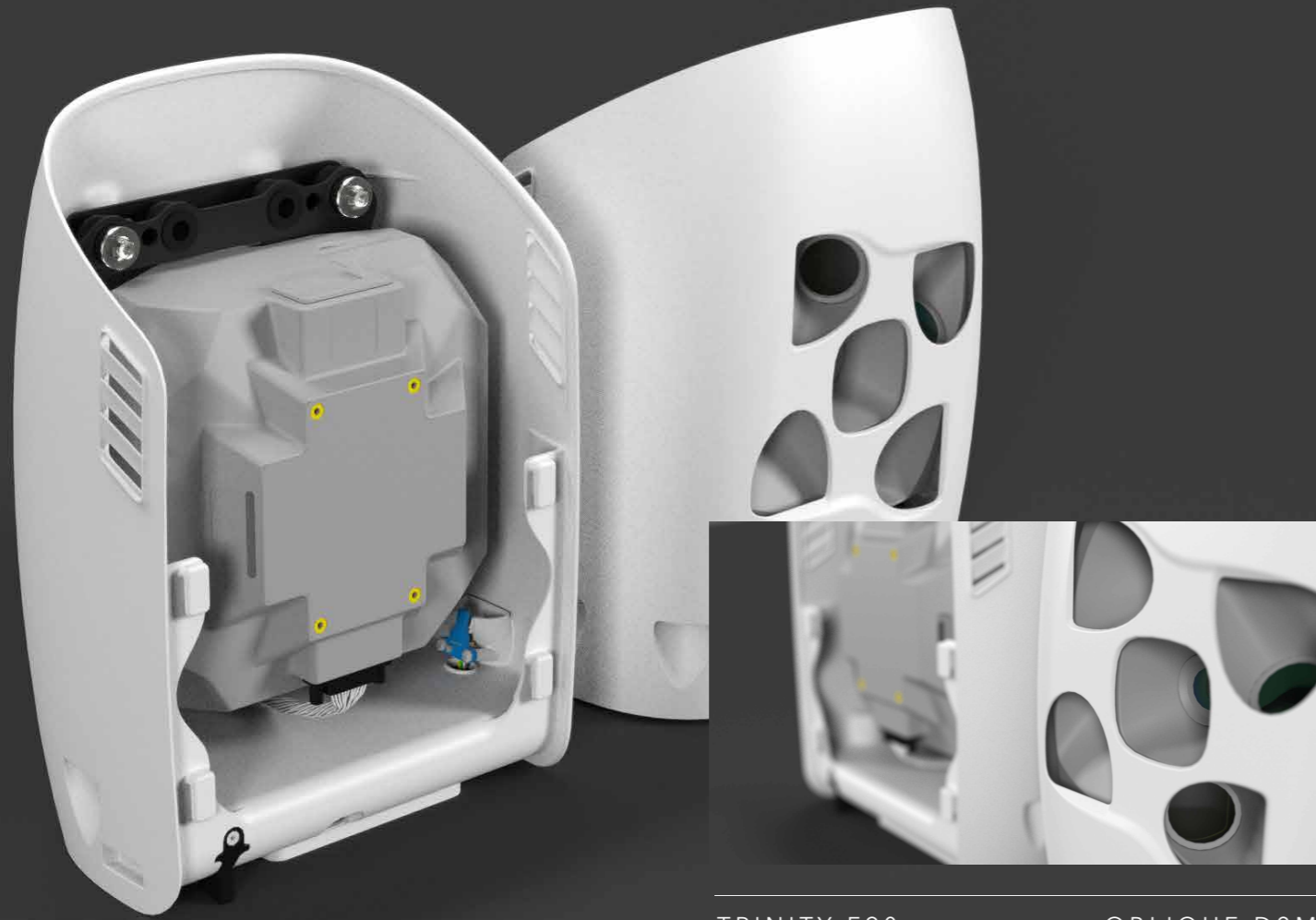
The Sony RX1 RII meets the highest demands for RGB image quality and resolution in everyday surveying and monitoring applications, especially in the mining, civil survey, and agriculture sector.



With its resolution of 42.4 megapixels, the Sony RX1 RII is ideal for all applications where the highest requirements are placed on the images. The output possibilities vary from precise data sets like digital ortho photos (DOP),

digital terrain models (DTM), digital surface models (DSM), high-resolution point clouds and detailed 3D models.





TRINITY F90+

OBLIQUE D2M

Oblique D2M Technical Specification



GSD	1.50 cm @100m AGL
Cameras	1 x NADIR, 4 x oblique
Sensor resolution	26 MP (6252 x 4168 px)
Total resolution	130 MP
Trigger interval	≥ 0.8 seconds
Sensor type	CMOS
Sensor format	APS-C
Sensor size	23.5 x 15.6 mm
Focal length	25 mm NADIR, 35 mm (oblique)
Payload weight RTF	833,7 g
Flight time	60 minutes
Storage	High speed data storage device (640 GB)

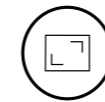
Sample Data



FLIGHT ALTITUDE
120 m | 393 ft AGL



FLIGHT SPEED
17 m/s



GSD
1.8 cm/px

Oblique D2M Five-lens RGB Camera

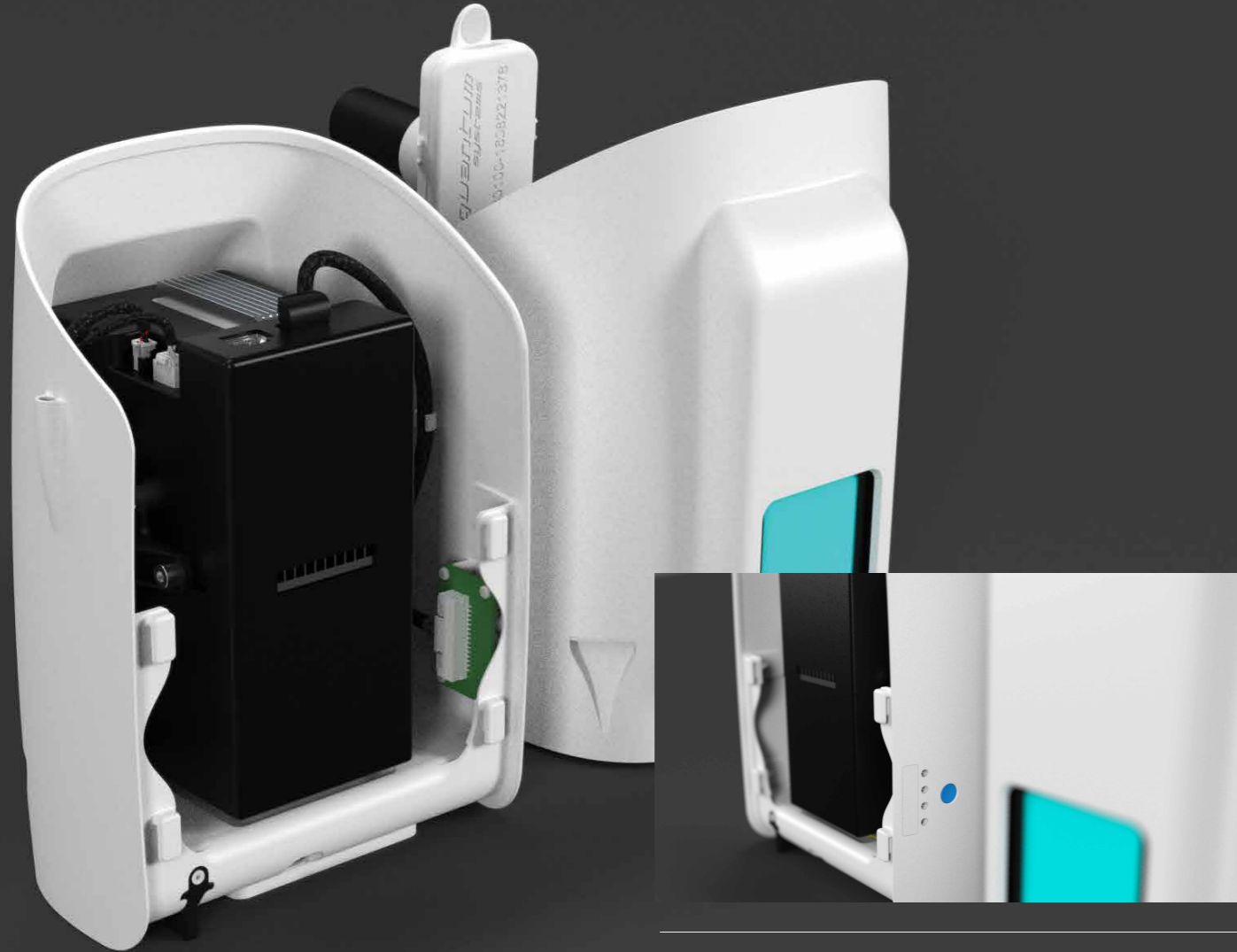
The Oblique D2M is a powerful oblique imaging system consisting of five high-resolution multidirectional cameras, making it the ideal tool for large scale 3D photogrammetry.



A fast trigger interval along with custom high-speed storage provides class-leading time efficiency without compromising data quality. The payload combines four oblique and one NADIR camera to capture complex geometries with ease.

This ensures remarkable detail even on slanted surfaces and makes Oblique D2M destined for 3D mesh generation of high-rise areas, industrial environments, archaeological sites and alike.





TRINITY F90+

QUBE 240

Qube 240 Technical Specification



Wavelength	905 nm
Maximum altitude	140 m AGL
Suggested altitude	100 m AGL
Precision	1.8 - 2.5 cm*
Accuracy	< 3 cm**
Scanner field of view	70°
Shots per second	240,000
Point density @100 m	50 -100 points/m ²
Multi-echo technology	up to 3 echoes per shot
Payload weight RTF	948,7 g
Flight time	60 minutes

- Class 1 (Eye Safe)
- Applanix POSPac™ UAV, GNSS and INS software for PPK (license for one year included)
- YellowScan Cloudstation Software to generate survey grade LAS files (license must be bought separately)

* Precision, also called reproducibility or repeatability, accounts for the variation in successive measurements taken on the same target. Depends on altitude AGL
 **Accuracy is the degree of conformity of a measured position to its actual (true) value.

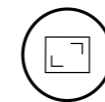
Sample Data



FLIGHT ALTITUDE
80 m | 262 ft AGL



FLIGHT SPEED
18 m/s



GSD
118 pts/sqm

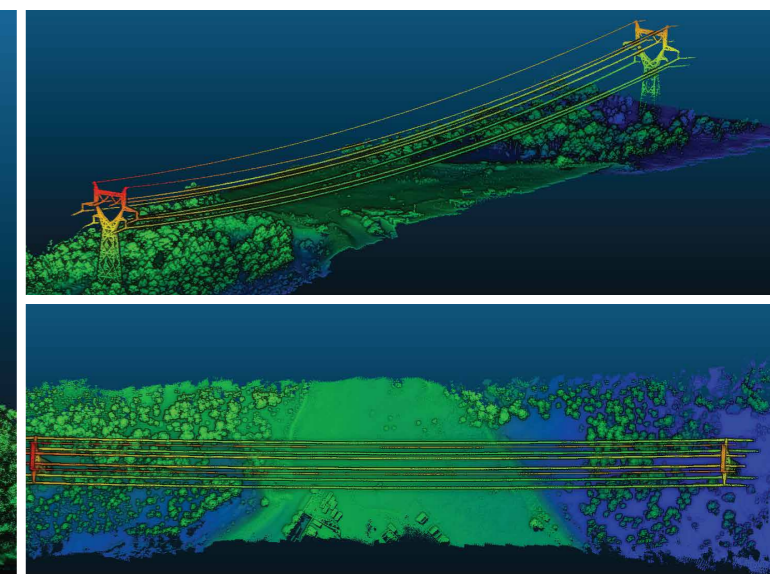
Qube 240 LiDAR Scanner

The Qube 240 is a geomatics grade LiDAR providing essential information by generating an accurate point cloud of the processed environment through 240,000 distance measurements per second.



The Qube 240 produces outstanding absolute accuracy that is achieved with the help of the integrated Applanix APX15 INS. It generates precise, three-dimensional information about the shape of the earth and its surface characteristics, which is crucial for example for mine operators when calculating stock volumes,

for energy companies when inspecting power lines, elevation models of ground under dense vegetation, or for feed biomass calculation. LiDAR technology allows for mapping infrastructure and surveying large areas also at night.



RedEdge-P Technical Specification




Sensor resolution	1456 x 1088 (1.6MP per MS band), 2464 x 2056 (5.1MP panchromatic band)
Wavelength	Blue (475 nm center, 32 nm bandwidth), Green (560 nm center, 27 nm bandwidth), Red (668 nm center, 14 nm bandwidth), RedEdge (717 nm center, 12 nm bandwidth), near-IR (842 nm center, 57 nm bandwidth)
RGB color output	5.1 MP (global shutter, aligned with all bands)*
GSD	7.7 cm per pixel (per MS band) at 120m (393 ft) AGL 3.98 cm per pixel (panchromatic band) at 120m (393 ft) AGL
Trigger interval	0.8 seconds
Interfaces	3 configurable GPIO / select from trigger input, PPS input, PPS output, and top of frame signals. Host virtual button. USB 2.0 port for WiFi. Serial. 10/100/1000 Ethernet.
Field of view	50° HFOV x 38° VFOV (MS), 44° HFOV x 38° VFOV (PAN)
Storage	CFexpress Card
Payload weight RTF	503,7 g
Dimensions	8.9 x 7.0 x 6.7 cm (3.5in x 2.8in x 2.6in)
External Power	7.0 V - 25.2 V
Power input	5.5/7.0/10W (standby, average, peak)

*with appropriate post-processing



TRINITY F90+ MICASENSE REEDGE-P


Sample Data

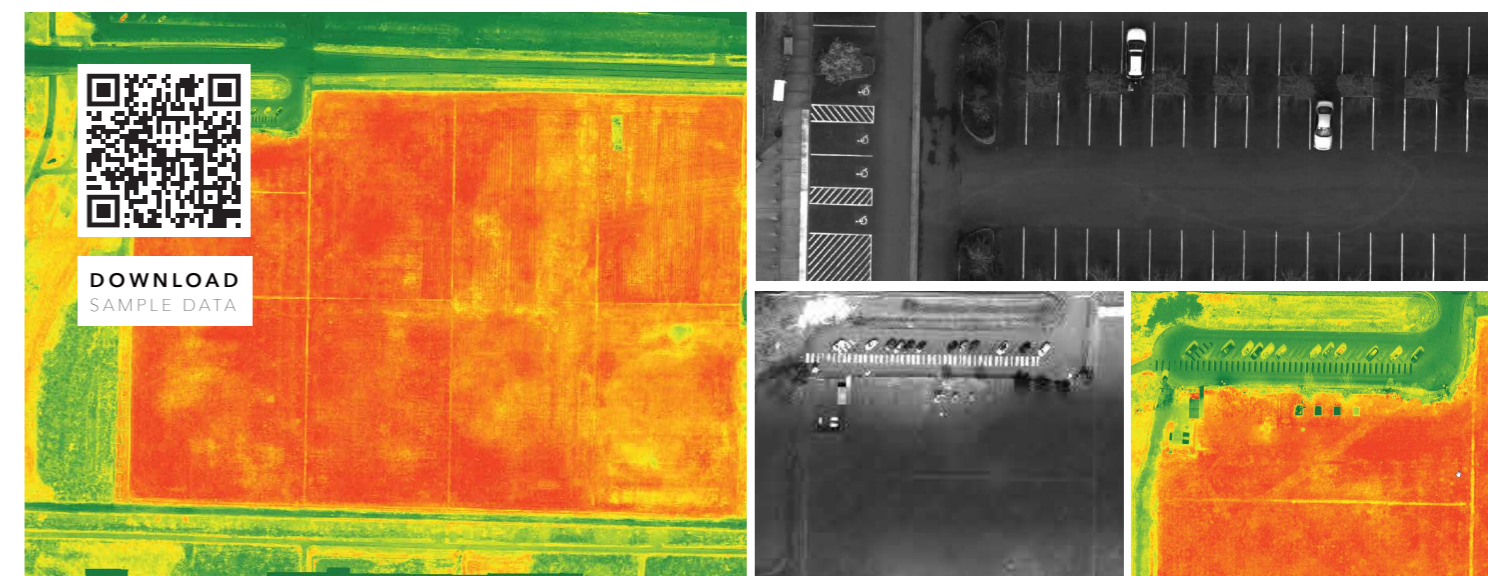
-  **FLIGHT ALTITUDE**
120 m | 393 ft AGL
-  **FLIGHT SPEED**
17 m/s
-  **GSD**
4.01 cm/px

MicaSense RedEdge-P

RGB and Multispectral Data

The RedEdge-P is the ultimate premium solution for high-res RGB and multispectral data applicable for agriculture, forestry, environmental monitoring and more.

 The RedEdge-P is the premium multispectral camera for general plant health monitoring plus plant counting, early weed detection and other tasks requiring machine learning. With pan-sharpening.



Altum-PT

Technical Specification

Sensor resolution	2064 x 1544 (3.2MP per MS band), 4112 x 3008 (12MP per PAN band)
Spectral Bands	320 x 256 thermal infrared Blue (475 nm center, 32 nm bandwidth), Green (560 nm center, 27 nm bandwidth), Red (668 nm center, 14 nm bandwidth), Red Edge (717 nm center, 12 nm bandwidth), NIR 842 nm center, 57 nm bandwidth)
RGB color output	12.4 MP (global shutter, aligned with all bands)
Thermal	FLIR LWIR thermal infrared 7.5-13.5um radiometrically calibrated
Multispectral GSD	5.28 cm per pixel at 120 m (per multispectral band)
Thermal GSD	33.5 cm per pixel at 120 m
Panchromatic GSD	2.49 cm per pixel at 120 m
Trigger interval	1.0 seconds
Interfaces	3 configurable GPIO: select from trigger input, PPS input, PPS output, and top of frame signals. Host virtual button. USB 2.0 port for WiFi. Serial. 10/100/1000 Ethernet.
Field of view	50° HFOV x 38° VFOV (multispectral) 46° HFOV x 35° VFOV (panchromatic) 48° x 39° (thermal)
Storage	CFexpress Card
Payload weight RTF	733,7 g
Flight time	60min
Dimensions	11.0 x 8.0 x 6.9 cm (4.3 in x 3.1 in x 2.7 in)
External Power	7.0 V - 25.2 V
Power Input	5.5/7.0/10W (standby, average, peak)



TRINITY F90+ MICASENSE ALTUM-PT



MicaSense Altum-PT




RGB, Multispectral and Thermal Camera

The Altum-PT is the best-in-class multispectral camera with synchronized thermal images applicable for production agriculture, phenotyping, and environmental monitoring.

i The MicaSense Altum-PT captures synchronized multi-spectral, thermal, and panchromatic data for pixel-aligned outputs at incredibly high resolutions for advanced vegetation research applications.

These comprise plant health monitoring from early emergence and on, with thermal for water stress and irrigation system monitoring as well.

Sample Data

-  **FLIGHT ALTITUDE**
60 m | 197 ft AGL
-  **FLIGHT SPEED**
17 m/s
-  **GSD**
1.27 cm/px

