# Leica Pegasus:Swift Mobile reality capture





## **Location Digitalisation**

The Leica Pegasus:Manager workflow allows to efficiently capture features of 3D scenes and assets. The software is a single workflow solution for automated feature extraction by multiple modules which can be added when needed. A data exchange module also eases localisation to 3<sup>rd</sup> party software packages.



## Smart City

Digitising city infrastructures, planning, and resources is the foundation of the Smart City. Leica Pegasus:Swift enables your business to growth and ability to offer the best solution for this market. Seamless 360° imagery calibrated to the digital point cloud will help you deliver easily realised data assets. More sensor expansion ports offer additional means to capture the city in ones and zeros.



## More data, faster

Multi-beam LiDAR enables the capture of more points with each rotation. Time savings are further increased with an industrial, yet removable, USB 3.0 hard drive, enabling the user to save the data directly on the removable drive and connect seamlessly to any PC or server with a USB 3.0 interface.





- when it has to be **right** 

## Leica Pegasus:Swift specifications

### 360° SPHERICAL CAMERA

Type of camera	Dual fish-eye camera
Sensor	24 MP panoramic camera system (2 x 12 MP)
Pixel size	3.45 μm
Coverage	360° FOV with single stitching line
SCANNER	
Wavelength:	903 nm
Beam Size @ Screen	12.7 mm (Horizontal) x 9.5 mm (Vertical)
Beam Divergence Horizontal	0.18° (3.0 mrad); Vertical: 0.07° (1.2 mrad)
Measurement Range	Up to 100 m
Accuracy	±2 cm (Typical)
Field of View (Vertical)	+10.67° to -30.67° (41.33°)
Angular Resolution (Vertical)	1.33°
Field of View (Horizontal)	360°

#### **CONTROL UNIT**

Multi-core industrial PC, low power consumption, 1 TB SSD hard disk with USB3 interface. USB, Ethernet, and wireless connections available through the battery system. Service support available through remote interface.

#### **BATTERY SYSTEM PERFORMANCE\***

Battery Adapter Box: Wifi and ethernet connection, 2x USB connectors, Acoustic and visual low voltage alarm, dual power plug.

Typical operating time	12 hrs, single power battery version; 24 hrs, dual battery version
AC input voltage	100 min to 240 max VAC autoranging
AC input power (charge cycle)	350 W Max
AC input frequency	50/60 Hz
Time to full charge	11.0 max h starting 0 %
DC output	24V / 70Ah single; 24V / 140Ah dual
BATTERY	
Weight Interface Box	1.8 kg

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Weight Battery Box	18.5 kg (without batteries)
Size Interface Box	16.5 x 9 x 20 cm
Size Battery Box	68 x 35 x 44 cm

#### GNSS/IMU/SPAN SENSOR

Includes triple band – L-Band, SBAS, and QZSS for GPS, GLONASS, Gaileo, and BeiDou constellations; single and dual antenna support; wheel sensor input; IMU without ITAR restrictions.

\* Battery performance varies upon specifications and quality of chosen battery.

ENVIRONMENTAL	
Operating temperature	0° C to + 40° C, non-condensing IP protection level IP52.
Storage temperature	- 20° C to + 50° C, non-condensing
TYPICAL ACCURACY	
Hortizontal accuracy	0.030 m RMS
Vertical accuracy	0.020 m RMS
Conditions	Without control points or any double passes adjustments, open sky conditions
PRODUCTIVITY	
Data produced per project (compressed)	1.4 GB/km
Data produced after post processing (panorama creation images and point cloud colourising)	3 GB/km
Post processing time	7min/km inlcuding panoramic and colourising
EXPORT OPTIONS	
Images	JPEG and ASCII for photogrammetric parameters
Point cloud	Binary LAS 1.2. X,Y,Z, intensity, RGB values Colourisation by camera pictures, Recap, E57 Hexagon Point Cloud Format

#### **OPTIONAL ACCESSORIES**

Wheel sensor 1,000 pulses per rotation, IP 67, integrated time stamping of wheel sensor data (handled by GNSS controller). Processing of wheel sensor data is integrated with the Kalman filtering based trajectory computational software. A variety of wheel sizes supported.

#### SENSOR PLATFORM

Weight	31 kg (without case)
Size	79.4 x 60 x 80.7 cm (Mast extended)

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