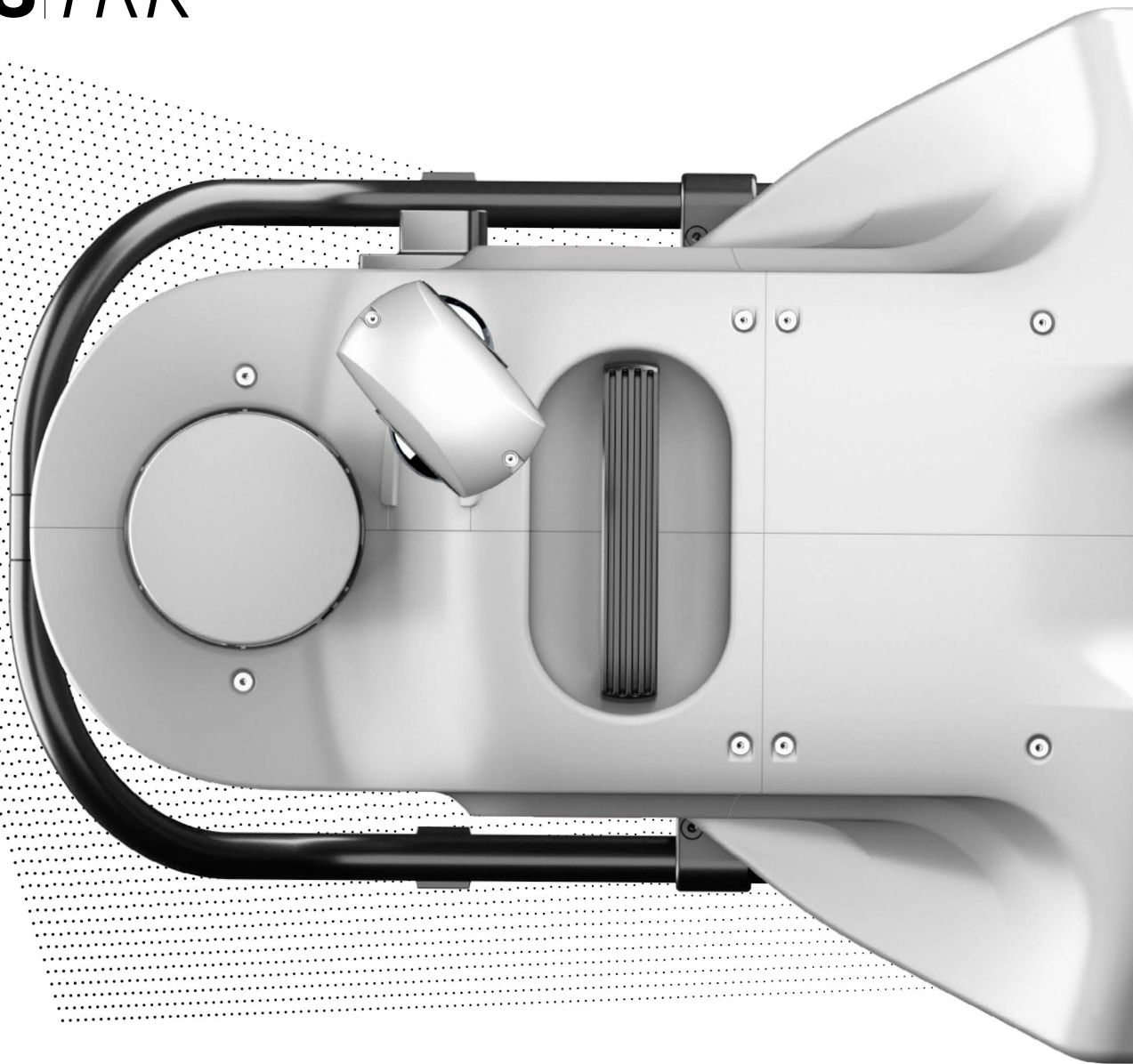


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Leica Pegasus TRK Neo & Evo

Data Sheet

Autonomous. Intelligent. Simplified.

- when it has to be **right**

Leica
Geosystems

System Performance	TRK Neo		TRK Evo	
	No GNSS outage	60 second GNSS outage	No GNSS outage	60 second GNSS outage
Absolute accuracy ¹ in [X,Y], [Z]	11mm, 11mm	14mm, 16mm	11mm, 11mm	14mm, 16mm
Post-processing	11mm, 11mm	14mm, 16mm	11mm, 11mm	14mm, 16mm
RTK	12mm, 12mm		12mm, 12mm	
Scanner	TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Maximum pulse rate	500kHz	2 x 500kHz	2.2MHz	2 x 2.2MHz
Maximum rotational speed	250Hz	2 x 250Hz	267Hz	2 x 267Hz
Precision	TRK Neo² 4mm		TRK Evo³ 1mm	
Maximum range 50% reflectivity at 200kHz / 500kHz	490m / 250m		182m	
Maximum range 10% reflectivity at 200kHz / 500kHz	205m / 130m		182m	
Number of returns	Up to 4		1	
Minimum range	1.5m		0.3m	
Field-of-View	360° full circle		360° full circle	
Laser class	Class 1, eye safe		Class 1, eye safe	
Camera				
Maximum system resolution	120MP powered by SmartFusion technology			
Type	360° Panorama	Butterfly Side	Pavement	Front
Resolution	24MP	2 x 24MP	24MP	24MP
Mounting	Fixed	Flexible; Hz & V	Fixed	Fixed
Focal length	3.3mm	12.45mm	12.45mm	12.45mm
Calibration	Permanent	Self-calibrating	Self-calibrating	Self-calibrating
Capture mode	By distance at maximum 8 frames per second			
Anonymisation	Natively AI based, real-time blurring; fully compliant to GDPR			
Colour calibration	According to CIEDE2000			
Brightness control	Real-time, fully automatic			
Positioning	TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
GNSS ⁴	555 channel, multi-constellation, multi-frequency			
Antenna	Fully integrated, with additional second antenna support			
SLAM ⁵	Dual SLAM scanner integration for optimised positioning in challenging conditions			
DMI ⁶	Supported (check the “Accessories & Options” section)			
RTK ⁷	HxGN SmartNet / NTRIP networks			

Remote Services	TRK500 Neo	TRK700 Neo	TRK 500 Evo	TRK700 Evo
Theft deterrence ⁸	Built-in LOC8 theft deterrence and location solution for remote tracking, localisation and locking by mobile phone or computer			
Support	Remote in-field support access			
Power Supply	TRK500 Neo	TRK700 Neo	TRK 500 Evo	TRK700 Evo
Type	Vehicle independent			
	Hot-swappable, up to 3 x Li-Ion Pegasus battery units			
Interface	Ruggedised, IP54, industrial grade, 2.4 inch colour LCD displaying real-time battery health monitoring			
Operating time ⁹	7h / battery unit	6h / battery unit	3.5h / battery unit	2.5h / battery unit
Transport	Transportation mode for ground and aircraft shipping			
	Fully compliant to dangerous goods UN 3480/3481			
Control Unit	TRK500 Neo	TRK700 Neo	TRK 500 Evo	TRK700 Evo
Type	Ruggedised, IP54, industrial grade, multi-core PC with built-in machine learning chip			
Interface	5 inch colour and touch LCD displaying live battery health monitoring			
Real-time capabilities	Data pre-processing and AI based tasks			
Data storage	2 x 2TB or 2 x 3.8TB, real-time data stream to high performance, removable SSDs			
Environmental characteristics	TRK500/700 Neo		TRK500/700 Evo	
Maximum speed	130km/h		130km/h	
Temperature range operating	-10°C to +50°C		-10°C to +50°C	
Temperature range storage	-20°C to +50°C		-20°C to +50°C	
IP rating	IP67 during operation, fully dust tight and withstands temporary immersion under water		IP65 IP66 with protection cap	
Shock and vibration	Withstands 4g shocks, ISO9022, MIL-STD-810H			
Dimensions	TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Dimensions [L/W/H]	70 / 33 / 56cm	72 / 46 / 56cm	70 / 33 / 56cm	72 / 46 / 56cm
Weight	18kg	23kg	21kg	29kg
Mounting	Rotational-tilt mount, adjustable in horizontal position -30°, 0°, +30°, tilting up to 45° improving accessibility and ergonomics by reducing the mounting height by 36cm. Rotational-fix mount, adjustable in horizontal position -30°, 0°, +30°			

Accessories and Options DMI

(Distance Measurement Instrument)

Mechanical DMI

TRK500 Neo

TRK700 Neo

TRK500 Evo

TRK700 Evo

Mechanical wheel odometer for road applications

Optical DMI

Optical odometer for road applications, compliant to international vehicle safety standards. Suitable for rail applications.

Rail DMI

Optical odometer, dedicated for rail applications

Cameras

Front camera

24MP, horizontal mounting, self-calibrating

Rear camera

24MP, horizontal mounting, self-calibrating

Butterfly side cameras

2 x 24MP, horizontal or vertical mounting, self-calibrating

GNSS

Second GNSS antenna

Leica AS11 GNSS antenna for faster initialisation by more accurate heading

Upgrade

Upgrade from TRK500 to TRK700 available

Customer Care Packages

Various multi-year CCPs covering support, hardware and software maintenance, extended warranty, re-calibrations and loan units are offered

Software

Leica Pegasus FIELD

TRK500 Neo

TRK700 Neo

TRK500 Evo

TRK700 Evo

Multi-lingual browser-based interface, accessible by Wi-Fi or cable, mission planning, project management, autonomous data acquisition, real-time anonymisation, pre-processing and remote support

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Post-processing software, project management, trajectory refinement, point cloud classification and anonymisation, feature extraction and data export



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- 1 Root mean square with DMI on Leica Geosystems reference area
- 2 1-sigma, valid for all pulse rates
- 3 1-sigma range noise at 50 m distance for 80% reflective targets scanned at a pulse rate of 1MHz
- 4 Global Navigation Satellite System
- 5 Simultaneous Location And Mapping (SLAM) technology
- 6 Distance Measurement Instrument

- 7 Real-Time Kinematic
- 8 Not available in all geographical regions.
- 9 Results based on a typical configuration. May vary according to configuration, environmental, and battery conditions.

For further details about scanners' specifications please refer to the technical datasheet available by the suppliers.



Integrate with LOC8 – Lock & Locate

For more information visit: leica-geosystems.com/LOC8

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