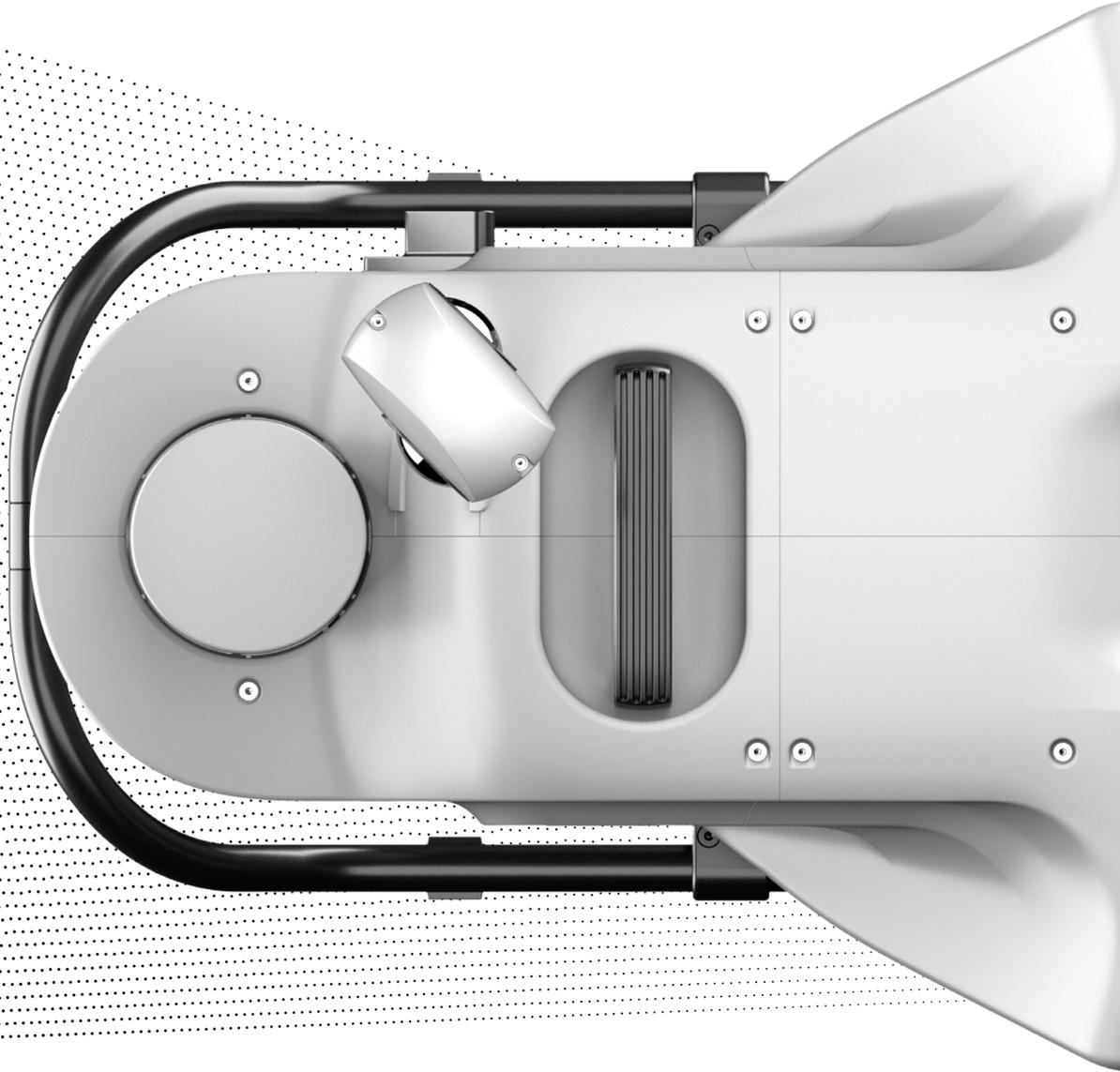


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Leica Pegasus TRK Neo & Evo

Data Sheet

Autonomous. Intelligent. Simplified.

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System Performance

	TRK Neo		TRK Evo	
Absolute accuracy ¹ in [X,Y] / [Z]	No GNSS outage	60 second GNSS outage	No GNSS outage	60 second GNSS outage
Post-processing	11 / 11mm	14 / 16mm	11 / 11mm	14 / 16mm
RTK	12 / 12mm		12 / 12mm	

Scanner

	TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Maximum pulse rate	2MHz	2x2MHz	2.2MHz	2x2.2MHz
Maximum rotational speed	250Hz	2x250Hz	267Hz	2x267Hz
Precision	TRK Neo² 4mm		TRK Evo³ 1mm	
Maximum range 50% reflectivity	45m (2MHz) - 730m (200kHz)		182m (2.2MHz - 547kHz)	
Maximum range 10% reflectivity	40m (2MHz) - 205m (200kHz)		182m (2.2MHz - 547kHz)	
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

Type	360° Panorama	Butterfly Side	Pavement	Front
Resolution	24MP	2x24MP	24MP	24MP
Mounting	Fixed	Flexible; Hz & V	Fixed	Fixed
Focal length	3.3mm	12.45mm	12.45mm	12.45mm
Calibration	Permanent	Semi-automatic/ manual	Semi-automatic/ manual	Semi-automatic/ manual
Capture mode	By distance at maximum 8 frames per second			
Anonymisation	Natively AI-based, real-time anonymisation; 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	TRK500 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	TRK500 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	TRK500 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	2x2TB or 2x3.8TB, 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		IP64 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 / 40 / 56cm	72 / 46 / 56cm	70 / 40 / 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, optional Vibration Damping mount for railway applications			

Accessories and Options

Distance Measurement Instruments

Mechanical DMI

Mechanical wheel odometer for road applications

Optical DMI

Optical odometer for road applications, adhering to international vehicle safety standards, suitable for occasional rail applications

Rail DMI

Optical odometer, dedicated for rail applications

Cameras

Front camera

24MP, horizontal mounting, semi-automatic/manual calibration

Rear camera

24MP, horizontal mounting, semi-automatic/manual calibration

Butterfly side cameras

2x24MP, horizontal or vertical mounting, semi-automatic/manual calibration

GNSS

Second GNSS antenna

Leica AS11 GNSS antenna for more accurate heading

Upgrade

Upgrade options available, contact your sales representative for more information

Customer Care Packages

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

Software

Pegasus FIELD

Multi-lingual browser-based interface, accessible via Wi-Fi or ethernet cable, mission planning, autonomous data acquisition, real-time anonymisation, in-field exports, remote support

Pegasus OFFICE

Multi-lingual desktop application for post-processing, trajectory refinement, point cloud adjustment, GCP management, image anonymisation, point cloud classification, point cloud colourisation, 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 & Mapping (SLAM) technology.
- 6 Distance Measurement Instrument.

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



Integrate with LOC8 – Lock & Locate

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

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