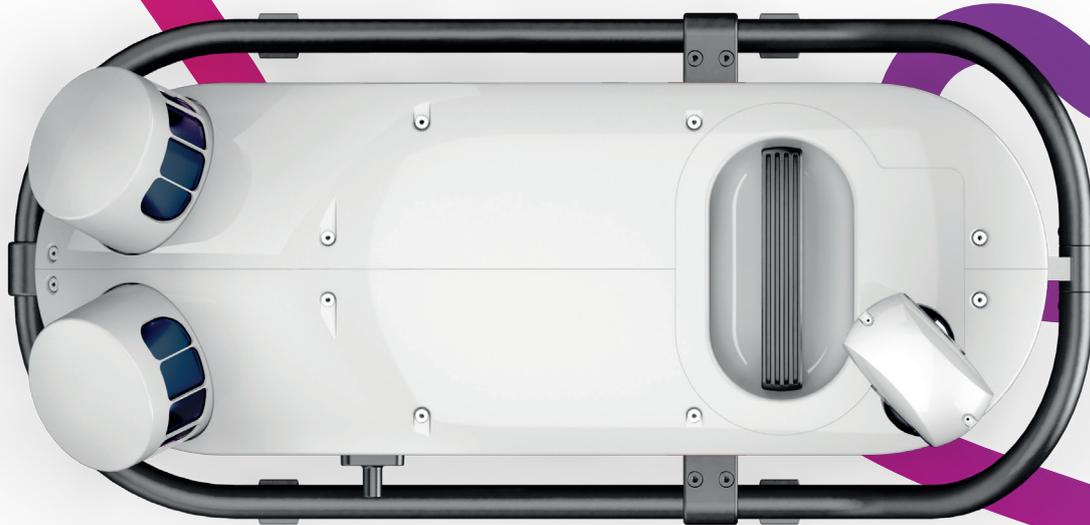


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Leica Pegasus TRK100 Data Sheet

Autonomous. Intelligent. Simplified.

System Performance

Absolute accuracy¹ in [X,Y], [Z]	No GNSS outage	60 sec GNSS outage
Post-processing	19 / 11mm	39 / 16 mm
RTK	21 / 13mm	

Scanner

Effective measurement rate	600kHz
Scan speed	20Hz per scanner
Precision	≤ 10mm*, with MatchPoint technology applied
Maximum range	100m
Channels	32 channels
Field of view	30° (+/- 15°)
Number of returns	Up to 2
Minimum range	0.4m
Field-of-view	360° full circle
Laser class	Class 1, eye safe

Camera

Maximum system resolution	120MP powered by SmartFusion technology			
Type	360° Panorama	Butterfly Side	Pavement	Front
Resolution	24MP	48MP	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 8fps			
Anonymisation	Natively AI based, real-time blurring; fully compliant to GDPR			
Colour calibration	According to CIEDE2000			
Brightness control	Real-time, fully automatic			

Positioning

GNSS	555 channels, multi-constellation, multi-frequency
Antenna	Fully integrated, with additional second antenna support
DMI	Supported - see "Accessories" section
RTK	HxGN SmartNet / NTRIP networks

*depending on various factors such as distance and density

Remote Services

Theft deterrence ²	Built-in LOC8 theft deterrence and location solution for remote tracking, localisation and locking by mobile phone or computer
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Support	Remote in-field support access
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Power Supply

Type	Vehicle independent
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	Hot-swappable, up to 3 x Li-Ion Pegasus battery units
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Interface	Ruggedised, IP54, industrial grade, 2.4" colour LCD displaying real-time battery health monitoring
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Operating time	8h / battery unit
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Transport	Transportation mode for ground and aircraft shipping
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	Fully compliant to dangerous goods UN 3480/3481
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Control Unit

Type	Ruggedised, IP54, industrial grade, multi-core PC with built-in machine learning chip
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Interface	5.0" colour and touch LCD displaying live battery health monitoring
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Real-time capabilities	Data pre-processing and AI based tasks
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Data storage	2 x 2TB or 2 x 3.8TB, real-time data stream to high performance, removable SSDs
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Environmental characteristics

Maximum speed	130km / h
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Temperature range operating	-10°C to +50°C
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Temperature range storage	-20°C to +50°C
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IP rating	IP67 during operation, fully dust tight and withstands temporary immersion under water
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Shock and vibration	Withstands 4g shocks, ISO9022, MIL-STD-810H
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Dimensions

Dimensions [L/W/H]	70 / 33 / 49cm
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Weight	14kg
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Mounting

	Rotational-fix mount, adjustable in horizontal position -30°, 0°, +30°, optional Rotational-tilt mount, tilting up to 45° improving accessibility and ergonomics by reducing 36cm the mounting height
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Accessories and Options DMI

(Distance Measurement Instrument)

Mechanical DMI

Mechanical wheel odometer for road applications

Optical DMI

Optical odometer, for road applications compliant to various "Motor Vehicle Safety Regulations"

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

48MP, horizontal or vertical mounting, self-calibrating

GNSS

Second GNSS antenna

Leica AS11 GNSS antenna for faster initialisation by more accurate heading

Upgrade

Upgrade from TRK100 to TRK500 and 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

Pegasus FIELD

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

Cyclone Pegasus OFFICE

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

Cyclone MMS DELIVER

Information extraction and feature extraction for rail and road applications



1. One sigma with DMI on Leica Geosystems reference area.
2. Not available in all geographical regions.

Illustrations, descriptions and technical specifications are not binding and may change

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