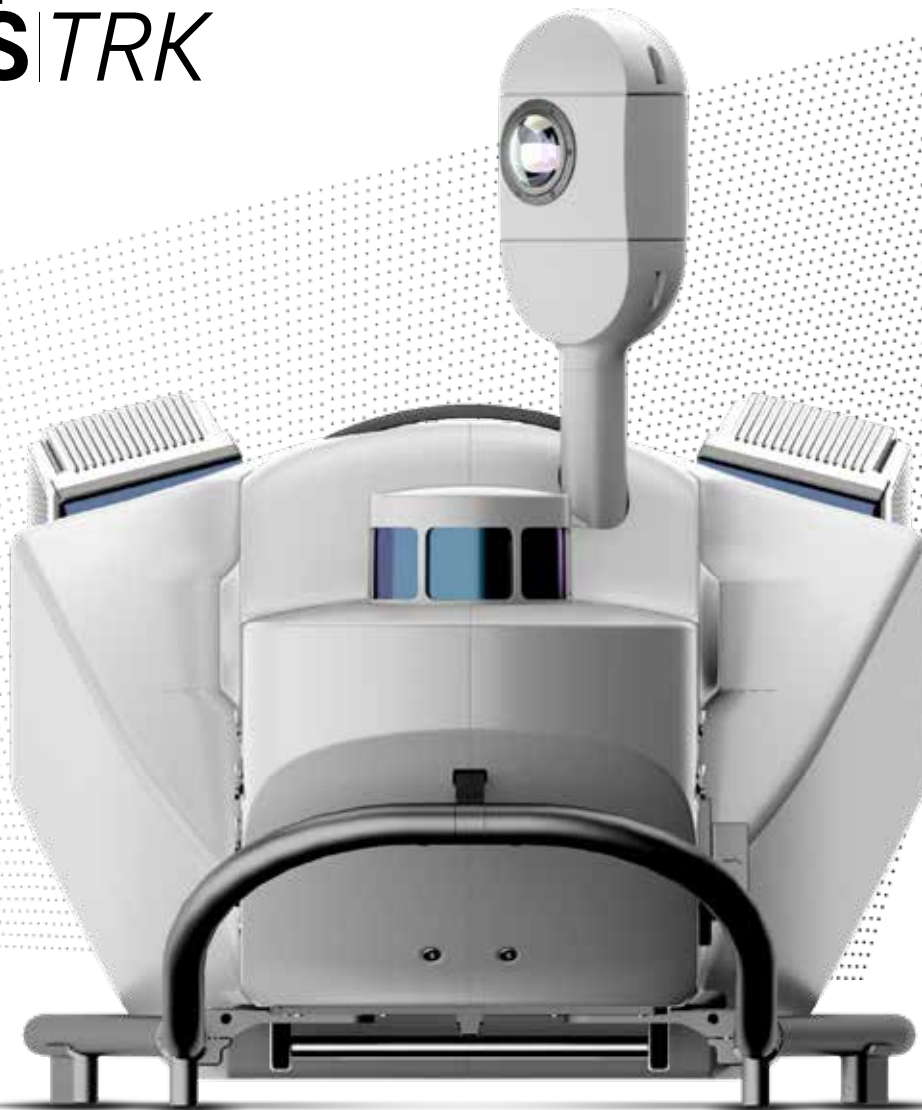


THE  
FUT  
URE  
IS | *TRK*



# Leica Pegasus TRK Neo

## Data Sheet

**Autonomous. Intelligent. Simplified.**

---

## System Performance

Absolute accuracy <sup>1</sup> in [X,Y], [Z]	<b>No GNSS outage</b>	<b>60 sec GNSS outage</b>
Post-processing	11mm, 11mm	14mm, 16mm
RTK	12mm, 12mm	

---

## Scanner

	<b>TRK500 Neo</b>	<b>TRK700 Neo</b>
Effective measurement rate	500kHz	1000kHz
Scan speed	Up to 250Hz	Up to 500Hz
Maximum range 50% reflectivity at 200kHz / 500kHz	490m / 250m	
Maximum range 10% reflectivity at 200kHz / 500kHz	205m / 130m	
Number of returns	Up to 4	
Minimum range	1.5m	
Field-of-view	360° full circle	
Laser class	Class 1, eye safe	

---

## Camera

Maximum system resolution	120MP powered by SmartFuse technology			
<b>Type</b>	<b>360° Panorama</b>	<b>Butterfly Side</b>	<b>Pavement</b>	<b>Front</b>
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 8 fps			
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 channel, multi-constellation, multi-frequency
Antenna	Fully integrated, with additional second antenna support
SLAM	Dual SLAM scanner integration for optimised position in challenging conditions
DMI	Supported - see "Accessories" section
RTK	HxGN SmartNet / NTRIP networks

---

---

## Remote Services

Theft deterrence <sup>2</sup>	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

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
	<b>TRK500 Neo</b> <b>TRK700 Neo</b>
Operating time	7h / battery unit      6h / battery unit
Transport	Transportation mode for ground and aircraft shipping
	Fully compliant to dangerous goods UN 3480/3481

---

## Control Unit

Type	Ruggedised, IP54, industrial grade, multi-core PC with built-in machine learning chip
Interface	5.0 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 SSD's

---

## Environmental characteristics

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

---

## Dimensions

	<b>TRK500 Neo</b>	<b>TRK700 Neo</b>
Dimensions [L/W/H]	70 / 33 / 56cm	72 / 46 / 56cm
Weight	18 kg	23 kg

---

## Mounting

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

---

---

## 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 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

---

### 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

All rights reserved. Printed in Switzerland - Copyright Leica Geosystems AG, Heerbrugg, Switzerland 2022.  
966256en - 05.22

### Leica Geosystems AG

Heinrich-Wild-Strasse  
9435 Heerbrugg, Switzerland  
+41 71 727 31 31

