Leica
GEOSYSTEMS

Leica Geosystems mobile mapping systems comparison sheet

The Leica Pegasus TRK portfolio combines GNSS, LiDAR and imaging sensors to support reliable mobile mapping across a wide range of environments and project requirements. Each system is designed with distinct strengths to address different applications, from efficient GIS asset collection and infrastructure measurement to mining site surveys and large scale mapping projects. Depending on project scale, accuracy requirements and operational priorities, you can select the Leica Pegasus TRK solution best suited to your workflows and mapping objectives.

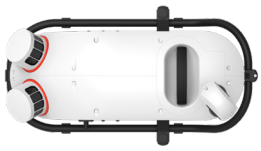
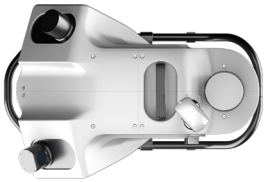
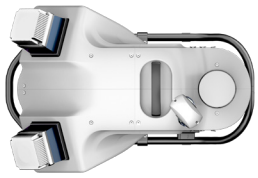
HEXAGON

The Leica Pegasus TRK300 is a lightweight and adaptable mobile mapping system designed for efficient asset documentation and routine measurement projects. It supports GIS data collection, urban mapping, mining operations and marine documentation where rapid deployment and ease of operation are essential. Its compact design enables single operator use and flexible vehicle integration, supporting fast mobilisation across changing environments. Integrated processing workflows and automated classification tools help streamline data preparation, enabling efficient project delivery from capture through to final outputs.

The Leica Pegasus TRK500/700 Evo delivers high point cloud density and fast scanning speeds to support demanding engineering and surveying applications. Designed for projects requiring precise positioning and consistent measurement quality, it performs reliably across complex environments where accuracy and data integrity are critical. AI supported classification workflows further streamline post processing, accelerating data preparation while maintaining the high level of fidelity required for engineering grade analysis.

The Leica Pegasus TRK500/700 Neo is designed for large scale data capture, delivering extended range and detailed mapping across infrastructure networks and urban environments. It supports broad area coverage with fewer capture passes, helping optimise operational efficiency while maintaining reliable positioning performance. Integrated AI supported processing, including automated classification and live anonymisation, helps accelerate project turnaround and supports privacy compliant data capture across extensive datasets.

Application	Pegasus TRK300	Pegasus TRK Evo	Pegasus TRK Neo
Engineering	1	5	4
Road	2	5	4
High Definition Mapping	3	5	5
Rail	2	5	4
GIS - Asset Collection	5	5	5
Mining	4	3	5
Marine Infrastructure	4	3	5
Public Safety	4	5	5

Positioning performance

Pegasus	TRK300		TRK500/700 Evo		TRK500/700 Neo	
Absolute accuracy[1] in [X,Y], [Z]	No GNSS Outage	60 sec GNSS Outage	No GNSS Outage	60 sec GNSS Outage	No GNSS Outage	60 sec GNSS Outage
Post-processing	11mm, 11mm	14mm, 16mm	11mm, 11mm	14mm, 16mm	11mm, 11mm	14mm, 16mm
RTK	12mm, 12mm		12mm, 12mm		12mm, 12mm	

Scanner (Class 1, Eye Safe)

Pegasus	TRK300	TRK500 Evo	TRK700 Evo	TRK500 Neo	TRK700 Neo
Maximum pulse rate	3.84MHz*	2.2MHz	2x2.2MHz	2MHz	2x2MHz
Maximum rotational speed	32 beams at 20Hz	267Hz	2x267Hz	250Hz	2x250Hz
Maximum range[2]	300m	182m	182m	730m	730m
Minimum range	0.5m	0.3m	0.3m	1.5m	1.5m
Field-of-view	360° full circle Vertical: 40.3° (-20.8° to +19.5°)	360° full circle	360° full circle	360° full circle	360° full circle
Number of returns	3	1	1	4	4

Positioning

Pegasus	TRK300	TRK500/700 Evo	TRK500/700 Neo
GNSS	✓	✓	✓
Second GNSS Antenna	✓	✓	✓
SLAM	✕	✓	✓
DMIs (mechanical, optical, rail)	✓	✓	✓
RTK	✓	✓	✓

Dimensions

Pegasus	TRK300	TRK500 Evo	TRK700 Evo	TRK500 Neo	TRK700 Neo
Dimensions [L/W/H]	70 / 40 / 49cm	70 / 40 / 56cm	72 / 46 / 56cm	70 / 40 / 56cm	72 / 46 / 56cm
Weight	14 kg	21 kg	29 kg	18 kg	23 kg

Battery Power Supply

Interface	Hot-swappable, up to 3x Li-Ion Pegasus battery units. Ruggedised, IP54, industrial grade, 2.4 inch colour LCD displaying real-time battery health monitoring				
Pegasus	TRK300	TRK500 Evo	TRK700 Evo	TRK500 Neo	TRK700 Neo
Operating time	7h / battery unit	3.5h / battery unit	2.5h / battery unit	7h / battery unit	6h / battery unit

Vehicle Connected Power Supply

Type	Vehicle connected power box (Pegasus TRK External Power Box (PPB))
	12-32V DC Input voltage, IP54, Ruggedised, Power converter unit
Buffer unit	1 x PBU

Enviromental characteristics

IP rating	IP67	IP65	IP65	IP67	IP67
Temperature range operating / storage	-10°C to +50°C / -20°C to +50°C				
Maximum speed	130km/h				

Cameras

Maximum system resolution	120MP powered by SmartFuse technology			
Type	360° Panorama	Butterfly Side	Pavement	Front
Resolution	24MP	2x24MP	24MP	24MP
Anonymisation	✓	✓	✓	✓

Carrier Platforms

Type	Rotational-Tilt	Vibration damping	Generic mount
	Horizontal: -30°, 0°, 30°, 180° Vertical: Adjustable up to 45°	For rail applications	Available for customised solutions

* multi-return enabled
[1] Root mean square with DMI on Leica Geosystems reference area.
[2] Maximum range depending on target reflectivity and scan speed
✓ = Available, ✕ = Not available

Leica GEOSYSTEMS

With more than 200 years of history, Leica Geosystems, part of Hexagon, is the trusted supplier of premium sensors, software, and services. Delivering value every day to professionals in surveying, construction, infrastructure, mining, mapping, and other geospatial content-dependent industries, Leica Geosystems leads the industry with innovative solutions to empower our autonomous future.

Learn more at leica-geosystems.com

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,800 employees in 50 countries and net sales of approximately 5.4bn EUR.

Learn more at hexagon.com

© 2026 Hexagon AB and/or its subsidiaries and affiliates.
Leica Geosystems is part of Hexagon. All rights reserved.
1072334en – 03.26

HEXAGON