

Leica Geosystems Mobile Mapping Systems Comparison Chart



LEICA PEGASUS TRK100



LEICA PEGASUS TRK Neo



LEICA PEGASUS TRK Evo

The Leica Pegasus TRK family is a line of easy-to-use mobile mapping systems. They work autonomously while you drive, using advanced AI and SmartFusion technology for accurate data collection. With simple setup and operation, the Pegasus TRK systems open up new possibilities for your business in the world of mobile mapping.

The **Pegasus TRK100** is a powerful, easy-to-use geospatial tool built for large-scale infrastructure measurement and digital twin creation. GIS professionals can now collect data and capture asset information quickly and autonomously to map, know and see what is where and make decisions that will bring transformation to their business.

For survey solution providers, the **Pegasus TRK Neo** will take you to new levels of data accuracy and operational efficiency, objects like powerline can be collected with confidence. Expand your mobile mapping applications and reduce project costs.

With surgical precision, the **Pegasus TRK Evo** captures rail tracks at greater point cloud density to unveil track geometry misalignments. Capturing at 1mm precision delivers confidence for critical clearance measurements. Extended data collection in GNSS challenging canyons or tunnels is boosted with GNSS-agnostic SLAM technology and dedicated rail odometers.

Application	TRK100	TRK500/700 Neo	TRK500/700 Evo
SURVEY	■ ■ ■ ■ □	■ ■ ■ ■ □	■ ■ ■ ■ □
ENGINEERING	■ ■ □ □ □	■ ■ ■ ■ □	■ ■ ■ ■ ■
RAIL	■ □ □ □ □	■ ■ ■ ■ □	■ ■ ■ ■ ■
ASSETS	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■
AUTONOMOUS	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ ■
MODELLING	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ □
MINING	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ □ □
MARINE	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ □
Features			
ABSOLUTE ACCURACY	■ ■ ■ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ ■
SCANNER PRECISION	■ ■ □ □ □	■ ■ ■ ■ □ □	■ ■ ■ ■ ■
RANGE	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ □ □
DENSITY	■ ■ □ □ □	■ ■ ■ ■ □ □	■ ■ ■ ■ ■
ROAD SIGN REFLECTION	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ □
OPERABILITY	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ □ □
PROTECTION	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ □
WEIGHT	■ ■ ■ ■ ■	■ ■ ■ ■ □	■ ■ ■ □ □

- when it has to be **right**



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Scanner	TRK100	TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Scan heads	Dual	Single	Dual	Single	Dual
Maximum pulse rate	600kHz	500kHz	2 x 500kHz	2.2MHz	2 x 2.2MHz
Maximum rotational speed	2 x 20Hz	250Hz	2 x 250Hz	267Hz	2 x 267Hz
Maximum range ¹	100m	490m		182m	
Minimum range	0.4m	1.5m		0.3m	
Field-of-View	30° (+/- 15°)	360° full circle		360° full circle	
Laser class	Class 1, eye safe	Class 1, eye safe		Class 1, eye safe	
System Performance	TRK100	TRK500/700 Neo		TRK500/700 Evo	
Absolute accuracy ² in [X,Y], [Z]	No GNSS Outage 19mm, 11mm	60 seconds GNSS outage 39mm, 16mm	No GNSS outage 11mm, 11mm	60 seconds GNSS outage 14mm, 16mm	No GNSS outage 11mm, 11mm
Post-processing	19mm, 11mm	39mm, 16mm	11mm, 11mm	14mm, 16mm	11mm, 11mm
Real-time	21mm, 13mm		12mm, 12mm		12mm, 12mm
Positioning	TRK100	TRK500/700 Neo		TRK500/700 Evo	
GNSS ³	✓		✓		✓
Second GNSS antenna	✓		✓		✓
SLAM ⁴	X		✓		✓
DMI ⁵	✓		✓		✓
RTK ⁶	✓		✓		✓
Dimensions	TRK100	TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Dimensions [L/W/H]	70 / 33 / 49cm	70 / 33 / 56cm	72 / 46 / 56cm	70 / 33 / 56cm	72 / 46 / 56cm
Weight	14kg	18kg	23kg	21kg	29kg
Environmental Characteristics	TRK100	TRK500/700 Neo		TRK500/700 Evo	
IP rating	IP67		IP67		IP65 IP66
Temperature range operating			-10°C to +50°C		
Temperature range storage			-20°C to +50°C		
Maximum speed			130km / h		
Camera (all TRK versions)	Butterfly-Side, Pavement- & Front cameras can be attached to all TRK system				
Maximum system resolution	120MP powered by SmartFusion technology				
Type	360° Panorama	Butterfly Side	Pavement	Front	
Resolution	24MP	2 x 24MP	24MP	24MP	
Mounting	Integrated	External, rotatable in Hz and V	External	External	
Anonymisation	Realtime and post-processing, fully compliant to GDPR General Data Protection Regulation (EU) 2016/679				
Power Supply (all TRK versions)	TRK100	TRK500/700 Neo		TRK500/700 Evo	
Interface	Hot-swappable, up to 3 x Li-Ion Pegasus battery units				
	Ruggedised, IP54, industrial grade, 2.4 inch colour LCD displaying real-time battery health monitoring				
Vehicle type	Vehicle independent				
Operating time	8h / battery unit	7h / battery unit	6h / battery unit	3.5h / battery unit	2.5h / battery unit

1 Maximum range depending on target reflectivity and scan speed

2 1-Sigma range noise at 50 m distance for 80% reflective targets scanned at a pulse rate of 1MHz

3 Global Navigation Satellite System

4 Simultaneous Location And Mapping (SLAM) technology

5 Distance Measurement Instrument

6 Real-Time Kinematic

✓ = Available X = Not available



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