

Leica Geosystems Mobile Mapping Systems Comparison Sheet



PEGASUS TRK100



PEGASUS TRK Neo



PEGASUS TRK Evo

The Leica Pegasus TRK product family is characterised by autonomy, intelligence and simplicity. Autonomous data capture and collection, transforming mobile mapping and delivering confidence. Intelligent sensor and imagery system, enhanced with AI and SmartFusion technology, delivers rich immersive point cloud detail with greater data accuracy. Simplified system set-up, operation workflows, and application of the mobile mapping system expands business opportunities for all.

The Leica 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 Leica Pegasus TRK Neo mobile mapping solution 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.

The Leica Pegasus TRK Evo captures rail tracks at greater point cloud density with surgical precision to unveil track geometry misalignment. 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	TRK Neo	TRK Evo
SURVEY	■ ■ ■ ■ □	■ ■ ■ ■ □	■ ■ ■ ■ □
ENGINEERING	■ ■ □ □ □	■ ■ ■ ■ □	■ ■ ■ ■ ■
RAIL	■ □ □ □ □	■ ■ ■ ■ □	■ ■ ■ ■ ■
ASSETS	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■
AUTONOMOUS	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ ■
MODELLING	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ □
MINING	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ □ □
MARINE	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ □
Features			
ABSOLUTE ACCURACY	■ ■ ■ □ □	■ ■ ■ ■ ■	■ ■ ■ ■ ■
SCANNER PRECISION	■ ■ □ □ □	■ ■ ■ □ □	■ ■ ■ ■ ■
RANGE	■ ■ □ □ □	■ ■ ■ ■ ■	■ ■ ■ □ □
DENSITY	■ ■ □ □ □	■ ■ ■ □ □	■ ■ ■ ■ ■
ROAD SIGN REFLECTION	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ □
OPERABILITY	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ □ □
PROTECTION	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ □
WEIGHT	■ ■ ■ ■ ■	■ ■ ■ ■ □	■ ■ ■ □ □

Leica Geosystems Mobile Mapping Systems Comparison Sheet



System Performance	TRK100		TRK Neo		TRK Evo	
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	19mm, 11mm	39mm, 16mm	11mm, 11mm	14mm, 16mm	11mm, 11mm	14mm, 16mm
RTK	21mm, 13mm		12mm, 12mm		12mm, 12mm	
Scanner	TRK100		TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Maximum pulse rate	600kHz		2MHz	2x2MHz	2.2MHz	2x2.2MHz
Maximum rotational speed	2x20Hz		250Hz	2x250Hz	267Hz	2x267Hz
Maximum range*	100m		730m		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	
Camera	120MP powered by SmartFuse technology					
Maximum system resolution	120MP powered by SmartFuse technology					
Type	360° Panorama		Butterfly Side	Pavement	Front	
Resolution	24MP		2x24MP	24MP	24MP	
Positioning	TRK100		TRK Neo		TRK Evo	
GNSS	✓		✓		✓	
Second Antenna	✓		✓		✓	
SLAM	X		✓		✓	
DMI	✓		✓		✓	
RTK	✓		✓		✓	
Dimensions	TRK100		TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
Dimensions [L/W/H]	70 / 40 / 49cm		70 / 40 / 56cm	72 / 46 / 56cm	70 / 40 / 56cm	72 / 46 / 56cm
Weight	14 kg		18 kg	23 kg	21 kg	29 kg
Power Supply	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					
Vehicle Type	Vehicle independent					
Operating time	TRK100		TRK500 Neo	TRK700 Neo	TRK500 Evo	TRK700 Evo
	7h / battery unit		7h / battery unit	6h / battery unit	3.5h / battery unit	2.5h / battery unit
Environmental characteristics	TRK100		TRK Neo		TRK 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					
Cameras	24MP SmartFusion Imagery					
Front camera	24MP SmartFusion Imagery					
Rear camera	24MP SmartFusion Imagery					
Side cameras	2x 24MP with SmartFusion and Dual Angle Mechanism					
360° Panorama (24MP)	✓					
Anonymisation	✓					
GNSS	Leica AS11 GNSS antenna for faster initialisation by more accurate heading					
Second GNSS antenna	Leica AS11 GNSS antenna for faster initialisation by more accurate heading					

* Maximum range depending on target reflectivity and scan speed

✓ = Available X = Not available