PHOENIX
LiDAR SYSTEMS

miniRANGER

This system features an impressive recommended AGL of up to 75 meters, filling a major AGL gap in the lightweight UAV LiDAR market. With the photogrammetry package, operators of mid-size multirotors, like the DJI M600 Pro, can now simultaneously acquire survey-grade LiDAR data and high resolution 42 MP RTK photogrammetry at up to 100 m operating flight altitude. Available in UAV, vehicle, and backpack configurations.

FEATURES

» Survey-Grade (cm-level) accuracy with 250m+ laser range
» Outstanding intensity calibration on high altitude and high speed missions
» Penetrates vegetation to produce accurate results
» Live/Remote Data Feed: View and analyze data in real time or transmit live data to remote viewers via 4G connection

QUICK SPECS

Absolute Accuracy
55mm RMSE @ 50m Range

AGL
Up to 100m

PP Attitude Heading RMS Error
0.019 / 0.074° IMU options

Weight
2.2 kg / 4.9 lbs.

Dimensions
18.5 x 11.6 x 11.6 (cm)

Laser Range
220m @ 60% Reflectivity

Scan Rate
600k points, up to 2 returns

APPLICATIONS

- Agriculture & Forestry Monitoring
- Utility Infrastructure
- Open Pit Mining
- Construction Site Monitoring
- Cultural Preservation
- Glacier & Snowfield Mapping
- Land Erosion

PLATFORM

OVERALL DIMENSIONS (Sensor)	32.9 x 16.3 x 17.9 (cm)
OPERATING VOLTAGE	12 - 28 V
POWER CONSUMPTION	90 W
OPERATING TEMPERATURE	-10° - +40° C
WEIGHT (Including sensor + cabling)	3.85kg

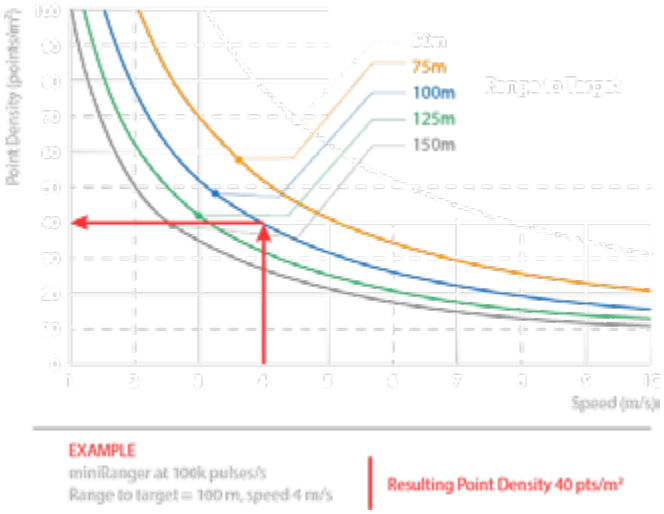
LiDAR SENSOR

LASER PROPERTIES	Class 1 (eye safe per EIC 60825-1:2014), 905nm
IMU	27
RANGE MIN	3m
LASER BEAM FOOTPRINT	160mm x 50mm @ 100m
MAX EFFECTIVE MEASUREMENT RATE	100,000 meas./s
MULTIPLE ECHOES	5
HORIZONTAL FIELD OF VIEW	360°
RANGE ACCURACY	15mm one Sigma @ 50m
ROTATION RATE (MIRROR SPEED)	10-100 Hz
ENVIROMENTAL PROTECTION	IP64
SENSOR WEIGHT	1.55KG
POWER CONSUMPTION	16W
SCANNING MECHANISM	Rotating Mirror
ANGLE MEASUREMENT RESOLUTION	0.001°

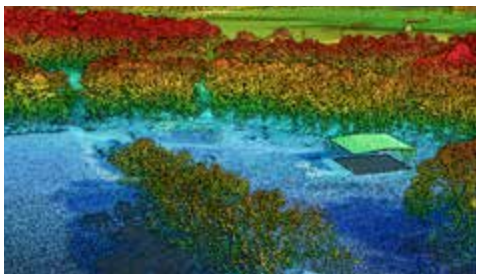
NAVIGATION SYSTEM

CONSTELLATION SUPPORT	GPS, GLONASS, BEIDOU, GALILEO
SUPPORT ALIGNMENT	Kinematic, Dual-Antenna
OPERATION MODES	Real-time, Post-Processing
ACCURACY POSITION	1 cm + 1 ppm RMS horizontal

POINT DENSITY SPEED AND ALTITUDE mini RANGER



RANGER-LR POINTCLOUDS



PHOENIX SOFTWARE SUITE INCLUDED

PLS Software Suite

Phoenix LiDAR Systems provides a proprietary complete software suite for streamlined, mission planning, acquisition, georeferencing, data fusion & export.

Explore the effects that different parameters have on your data before you fly. Estimate your data quality and reduce costs by experimenting with various flight paths, altitudes, and other variables using the **Phoenix Flight Planner**.

Streamline your LiDAR acquisition, georeferencing, data fusion and exporting with: **PLS Spatial Explorer** to enable in-field QA/QC and cut down wait-time on extensive photogrammetry applications by creating colorized point clouds; & **PLS Spatial Lighthouse** to stream real-time corrections for RTK trajectories and in-flight QA/QC.

SAVE TIME, GROW YOUR BUSINESS

LiDARMill by PHOENIX LiDAR SYSTEMS

Automated Post-Processing in the Cloud

Meet **LiDARMill**, the first cloud-based LiDAR post-processing platform that enables surveying teams to take advantage of precision laser mapping without investing in expensive post-processing software and training.

Processing your LiDAR data in the cloud has never been easier. View your data, track project status, and invite clients to view point clouds – all from your LiDARMill dashboard with faster turnaround times and lower overhead costs.

LiDARMill can be customized to serve any size organization, from small survey teams to government departments with heavy post-processing requirements. Contact sales@phoenixlidar.com for pricing and packages.

EXPLORE A PHOENIX LiDAR SYSTEM FOR YOUR TEAM, CONTACT US!

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