



UAV



VEHICLE



BACKPACK



SLAM



SCOUT-M2X

The **SCOUT-M2X** is the ideal combination of performance, flexibility and affordability. It brings a new level of precision and accuracy to the long trusted SCOUT lineup of multi-channel mapping scanners.

Long range, high pulse rate and triple return capability allow for UAV acquisitions of more data faster through vegetation. Dense survey data can be collected by nearly any method; UAV, Mobile, Backpack, and more. The **SCOUT-M2X** is also SLAM capable, taking you where others cannot.

FEATURES

- Fast and accurate measurements with a 640 kHz pulse rate scanner
- Live control and feedback during acquisition, including Phoenix's signature real-time point cloud
- SLAM (Simultaneous localization and mapping) capable
- Integrated high resolution camera options up to 61 MP

QUICK SPECS

ABSOLUTE ACCURACY

2 - 4 cm RMSEz @ 100 m AGL⁽¹⁾ (2) (4)

INTRASWATH PRECISION

4 cm RMSDz @ 100 m AGL⁽¹⁾ (2) (3)

WEIGHT

1.8 kg (without camera)

PULSE RATE

640 kHz, up to 3 returns

LINE RATE

10 Hz

APPLICATIONS



CONSTRUCTION SITE SURVEYING



AGRICULTURE & FORESTRY MONITORING



OPEN PIT MINING OPERATIONS



STOCKPILE VOLUMETRICS



GENERAL MAPPING

(1) Approximate values based on PLS test condition.

(2) Using a 90° downward field of view.

(3) Expected RMSEz when following the PLS recommended acquisition & processing workflow and ASPRS check point guidelines.

(4) Range of elevation values on flat surfaces with >20% reflectivity at the laser's wavelength.

(5) Estimated post processed accuracy with IMU-25.

PLATFORM

OVERALL DIMENSIONS*	17.7 x 11.6 x 12.3 cm
OPERATING VOLTAGE	12-28 V DC
OPERATING TEMPERATURE	0° - 40° C / 32° - 104° F
POWER CONSUMPTION*	-30 W
WEIGHT*	1.8 kg

*Without Accessories

LIDAR SENSOR

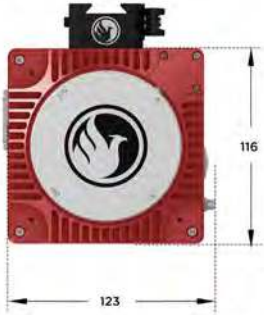
LASER PROPERTIES	905 nm Class 1 (eye safe)
RANGE MAX	300 m (80 m @ 10% for all channels)
RANGE MIN	0.5 m
NUMBER OF LASERS	32
PULSE RATE	640 kHz
LINE RATE	10 Hz
VERTICAL FIELD OF VIEW	40.3° (-20.8° to +19.5°)
VERTICAL RESOLUTION	1.3°
HORIZONTAL FIELD OF VIEW	360°
MULTIPLE ECHOES	3
LASER BEAM FOOTPRINT H X V	19 cm x 22 cm @ 80m, 24 cm x 27cm @ 100 m, 28 cm x 33 cm @ 120 m

NAVIGATION SYSTEM

CONSTELLATION SUPPORT	GPS+GLONASS+BEIDOU +GALILEO
SUPPORT ALIGNMENT	Kinematic, Dual-Antenna
POSITION ACCURACY	1 cm + 1 ppm RMS horizontal
ACCURACY ATTITUDE ⁽⁵⁾	
ROLL, PITCH	0.003° RMS
HEADING	0.010° RMS

SCOUT-M2X DIMENSIONS (mm)

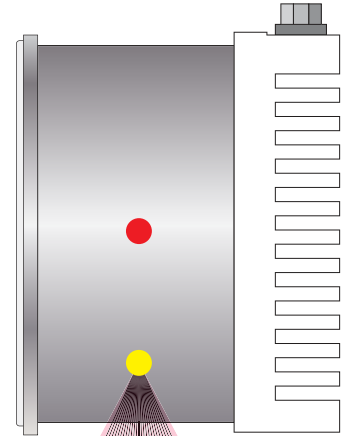
Front View



Side View



CHANNEL VERTICAL DISTRIBUTION



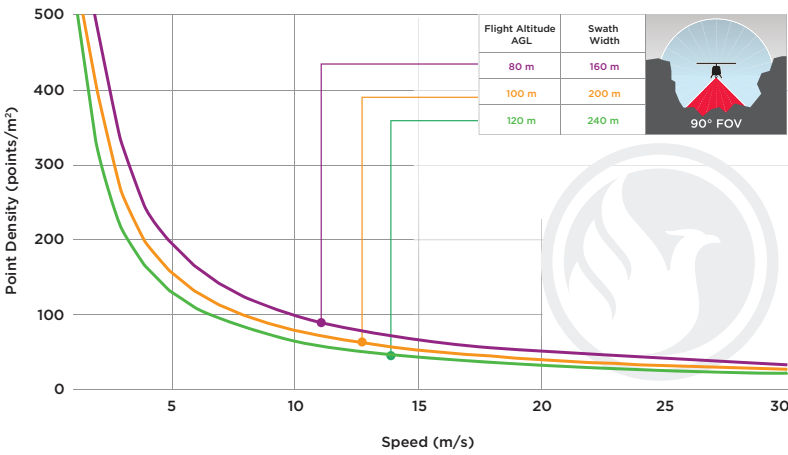
Channel 1
+19.5°

Channel 16
0°

Channel 32
-20.8°

The vertical resolution is 1.3° across the field of view.

SCOUT-M2X POINT DENSITY



SCOUT-M2X OPTIONS & MOUNTS

SLAM



ROOF RACK



BACKPACK



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

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