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VEHICLE

## QUICK SPECS

### INTRASWATH PRECISION

1.5 cm RMSDz at 10 m <sup>(1)(2)(3)</sup>

### EXAMPLE ACQUISITIONS:

#### MOBILE - URBAN

- » Pulse Rate = 640 kHz
- » Field of View = 360°
- » Point Density = Up to 900 points/m<sup>2</sup>  
@ 10 m range to target <sup>(3)</sup>
- » Collection Rate = 40 km/h (25 mph)

#### MOBILE - HIGHWAY

- » Pulse Rate = 640 kHz
- » Field of View = 360°
- » Point Density = Up to 500 points/m<sup>2</sup>  
@ 10 m range to target <sup>(3)</sup>
- » Collection Rate = 72 km/h (45 mph)

## APPLICATIONS



GENERAL MAPPING



ASSET INVENTORY MAPPING



CONSTRUCTION SITE SURVEYING



UTILITIES MAPPING



RAILWAY TRACK MAPPING

## SCOUT-X

The **SCOUT-X** is a fully integrated LiDAR and panoramic imaging solution purpose-built for the Mosaic X camera platform. The **SCOUT-X** adapts the proven Phoenix Scout-M2X into a streamlined, camera-mounted configuration that delivers cleaner integration, improved performance, and faster deployment. Designed as a true all-in-one mapping solution, the **SCOUT-X** combines LiDAR and high-resolution imaging into a compact, vehicle-ready system.

By mounting the LiDAR directly to the Mosaic X at an elevated position, the **SCOUT-X** achieves superior 360° coverage with fewer platform obstructions. The steeper 30° scan angle improves laser incident angle on the ground, resulting in enhanced point precision, stronger surface intensity returns, and higher quality data capture.

Better coverage. Better precision. Better data.

## FEATURES

- Elevated, obstruction-reduced 360° LiDAR coverage
- Removable micro-SD Express storage for rapid data transfer
- Clean, integrated cabling, power and Ethernet only
- Optional dual GNSS antenna upgrade

## PLATFORM

OVERALL DIMENSIONS	Without pyramid stand: 29.8 x 23.7 x 36.1 cm With pyramid stand: 99.8 x 99.8 x 101.2 cm
OPERATING VOLTAGE	14 - 16.5 VDC
OPERATING TEMPERATURE	0° - 40° C / 32° - 104° F
POWER CONSUMPTION	-50 W typical
WEIGHT	-9 kg

## 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 (Up to 1.28 mHz in dual return mode)
LINE RATE	10 Hz
VERTICAL FIELD OF VIEW	40.3° (-20.8° to +19.5°)
VERTICAL RESOLUTION	1.3°
HORIZONTAL FIELD OF VIEW	360°
MAX RETURN COUNT	3

## NAVIGATION SYSTEM

CONSTELLATION SUPPORT	GPS + GLONASS + BEIDOU + GALILEO
SUPPORT ALIGNMENT	KINEMATIC, DUAL-ANTENNA
POSITION ACCURACY	1 CM + 1 PPM RMS HORIZONTAL
ACCURACY ATTITUDE <sup>(4)</sup>	
ROLL, PITCH	0.003° RMS
HEADING	0.011° RMS

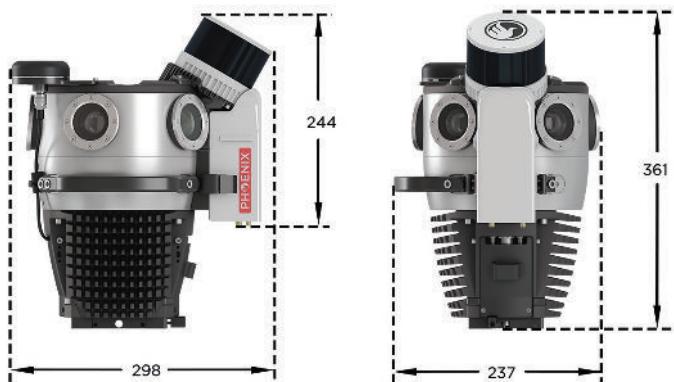
(1) Approximate values based on PLS test conditions

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

(3) Estimated for surfaces perpendicular to the beam path.

(4) Estimated post-processed accuracy with IMU-27

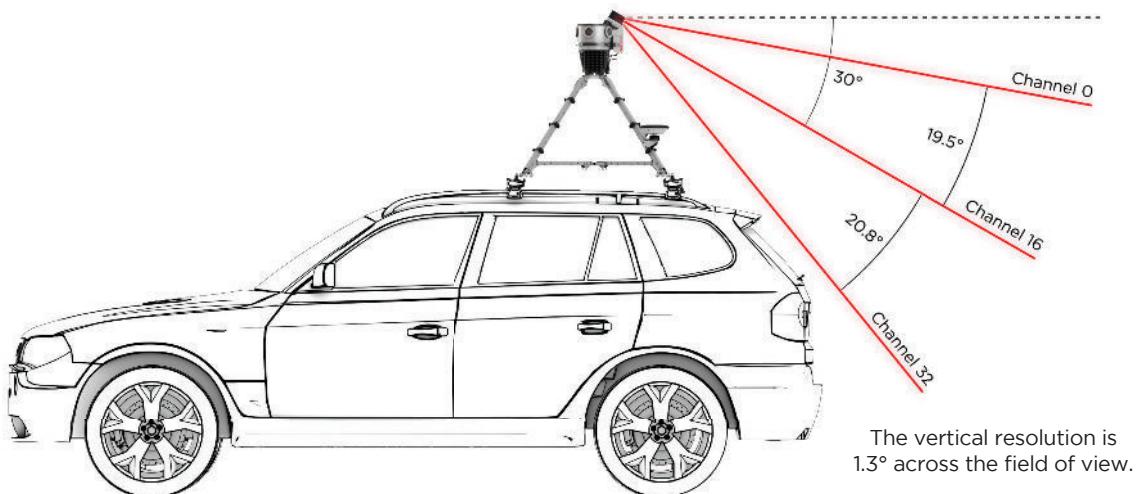
## SCOUT-X DIMENSIONS



## SCOUT-X COMPONENTS



## CHANNEL VERTICAL DISTRIBUTION



## SCOUT-X OPTIONS & MOUNTS



Mounted on Mosaic 360  
Pyramid Roof Rack



Single GPS Antenna Option



Dual GPS Antenna Option



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

[PhoenixLiDAR.com](http://PhoenixLiDAR.com) • [sales@phoenixlidar.com](mailto:sales@phoenixlidar.com) • USA +1.323.577.3366