ACCURATE & ADVANCED
Long-range UAV for Lidar & Photogrammetry mapping - Survey, Monitor and inspect

70
Density up to 70 pts/m²

DUAL
LIDAR & Photo-grammetry payload

5
Absolute accuracy down to 5 cm

5
targets echoes

Expert Line

DT26X
LiDAR

LONG-RANGE UAV FOR LASER MAPPING SURVEY, MONITOR & INSPECT

INDUSTRIES

- Geospatial
- Agriculture & Forestry
- Power & Utilities
- Mines and Quarries
- Railways & Roads
- Oil & Gas

KEY APPLICATIONS

- Large Scale Mapping
- Digital Surface and Terrain Modeling
- Powerline Digitization & Modeling
- Forest inventory
- Vegetation classification

KEY DIFFERENTIATORS

High-quality dual-sensor mapping : A unique long-range fixed-wing UAV offering a dual-sensor payload for simultaneous LiDAR and photogrammetry mapping. Benefit from true point cloud colorization which simplifies the classification process.

Safe technology: Advanced automatic failsafe modes, an emergency parachute, and safety analysis conducted according to aeronautical standards (ARP4761). Ready for airworthiness certifications with local CAA.

Quick return on investment: Beat traditional airborne solutions by capturing high-resolution data on-demand without costly mobilzation fees or long leadtimes. Unlike other LiDAR drones, collect LiDAR and photogrammetry in a single flight up to 110 minutes, increasing productivity and decreasing operational costs.

Accuracy matters: Direct georeferencing technology with the Applanix APX-15 enables centimeter-level accuracy for precision mapping of infrastructure, vegetation, forests, and the bare earth.

UAV SPECIFICATIONS

Endurance[1]	Up to 110 minutes
Weight (payload included)	17 kg
Wingspan / Length	3.3 m / 1.6 m
Material	Composite (fiberglass, carbon, kevlar), EPP foam
Deployment time[1]	8 min
Take-off / Landing	Catapult / Belly (all terrain)
Cruise speed	60 km/h (32 kts)
Field of view / Scanning width	46° / 102 m @ 120 m AGL
Point density	35 pts/m² @ 120 m AGL
Point cloud accuracy	4 cm horizontally / 2 cm vertically
Maximum distance covered[1]	110 km
Maximum surface area covered[1]	11 km² @ 120 m
Communication range[1]	Up to 30 km (250 m AGL) / 3G option
Operating conditions	
Wind resistance - Weather	36 km/h, moderate rain, -15 to 40°C (at sea level)
Take-off & landing altitude / ceiling[1]	0 to 2000 m ASL / 2750 m ASL
Landing space	15 m x 50 m (Typical)

SENSOR

RIEGL miniVUX-1DL

Max. measurement rate	up to 100,000 meas./sec
Max. range @ target reflectivity 20%	120 m
Range accuracy	15 mm
Targets number of echoes	5

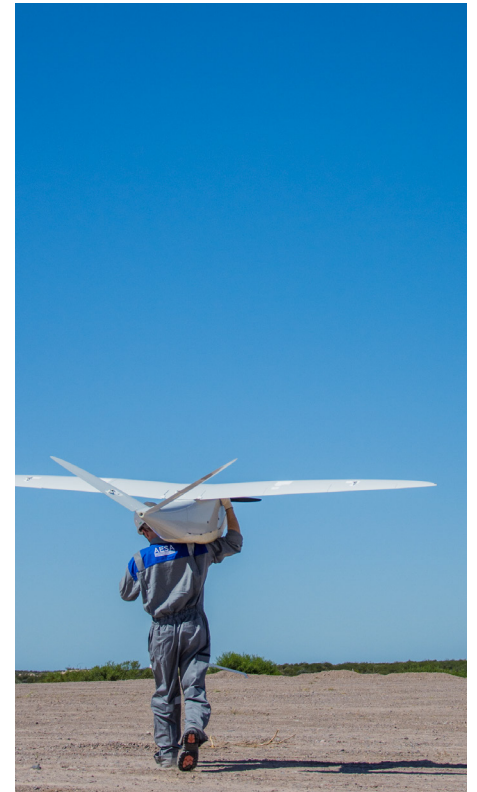**High precision IMU & L1/L2 GNSS Receiver for PPK processing**

Industrial-grade Photogrammetry Camera

Sensor type	Global shutter, distortion-free
Image resolution / Dynamic range	21.4 Mpix / 70 dB
HFOV / VFOV	38°/ 32°

In-flight sensor configuration: Auto or manual (shutter, gain, brightness)

DELAIR AUTHORIZED DISTRIBUTION PARTNER

DELIVERABLES

RAW DATA COMPATIBLE WITH ALL PHOTOGRAMMETRY SOFTWARE.

ANALYTICS

3D point cloud (colourised with camera data), DTM (Digital Terrain Model), DSM (Digital Surface Model), Contour Lines, Cross Sections, Elevation Profiles, Stockpile Volume Calculation, Vegetation Encroachment

ANALYTICS COMPATIBLE WITH

ESRI ArcGIS, QGIS, Surpac, GlobalMapper, AutoCAD, PLS-CADD and many more.

1   Actual results may vary depending on UAV configuration, battery age and condition, and operational, environmental and climate conditions.

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