# DELAIR
AERIAL INTELLIGENCE

## 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**
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 & 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 geopositioning 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 (37.5 pounds) |
| Wingspan / Length | 3.3 m / 1.6 m (10.8 ft / 5.2 ft) |
| Material | Composite (fiberglass, carbon, kevlar), EPP foam |
| Deployment time[1] | 8 min |
| Take-off / Landing | Catapult / Belly (all terrain) |
| Cruise speed | 60 km/h (37 mph) |
| Field of view / Scanning width | 46° / 102 m @ 120 m AGL (334 ft @ 394 ft AGL) |
| Point density | 35 pts/m² @ 120 m AGL (394 ft AGL) |
| Point cloud accuracy[1] | Down to 10 cm horizontal / 5 cm vertical |
| Maximum distance covered[1] | 110 km (68 miles) |
| Maximum surface area covered[1] | 9.7 km² @ 120 m (3.7 mi2 @ 394 ft) |
| Communication range[1] | Up to 30 km (250 m AGL) / 18 miles (820 ft AGL)) / 3G option |

**Operating conditions**

| | |
|---|---|
| Wind resistance - Weather | 36 km/h (22 mph), moderate rain, -15 to 40°C (5 - 104 °F) |
| Take-off & landing altitude / ceiling (MSL)[1] | 0 to 2,000 m ASL / 2,750 m ASL (0 - 6,600 ft / 9000 ft) |
| Landing space | 15 m x 50 m (Typical) / 50 ft x 165 ft (Typical) |

# SENSOR

**RIEGL miniVUX-1DL**

| | |
|---|---|
| Max. measurement rate | up to 100,000 meas./sec |
| Max. range @ target reflectivity 60% | 200 m / 657 ft |
| Range accuracy | 15 mm / 0.5 inches |
| Number of target echoes | 5 |

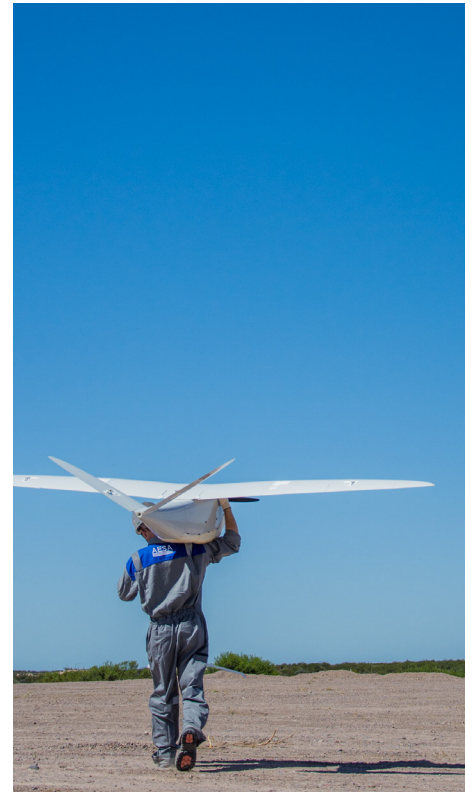**High precision IMU & L1/L2 GNSS Receiver for PPK processing**

**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.