

P310 UAV



KEY FEATURES

- *Simple construction design, easy to assemble in short time*
- *Full automatic operation, controlled by GCS*
- *Dual-differential Module (GPS and PPK) and reduce 80% control points collection*
- *Intelligent PPS and POS data export software make sure the data integrity*
- *VTOL, no requirement for runway and airspace, high efficiency*
- *Aircraft-grade reliability, perfect system surveillance warning and emergency processing logic*
- *Apply in Powerline/Pipeline Inspection, Disaster Prevention, Geological Survey, Emergency Response, etc*

P310 adopts hybrid configuration design of fixed wing and quadrotor, solving the difficulty of VTOL by this simple and reliable way. P310 has many characteristics, like long endurance, high speed, long flight range and large payload.

VTOL

P310 is VTOL fixed wing UAV, using fixed wing with four rotors of composite wing layout form, in a simple and reliable way to solve the problem of the fixed wing VTOL. P310 owns both long fixed-wing UAV navigation time, high speed and far distance features and the function of the rotorcraft UAV VTOL.

Intelligent Dual differential Module

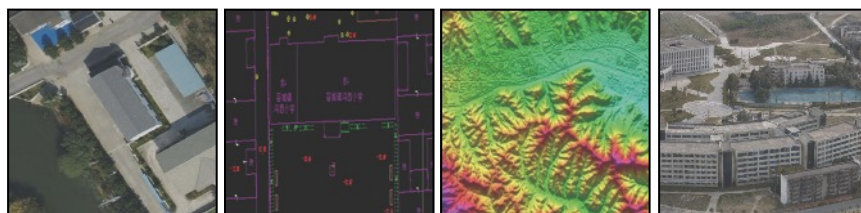
Dual differential system can achieve RTK and PPK automatic switching based on communication environment. The RTK/PPK vertical and Horizontal accuracy can up to centimeter level.

Long endurance

Main body use lightweight macromolecule fiber glass materials and special model design more comply with aerodynamic principle which can achieve long endurance (70 mins), fast cruise speed (20m/s).

Easy to Operate

P310 electric UAV can fully automatic & vertical take off and landing, it is easy to assemble without tools and easy to transport, which is an ideal choice for separate operation. Autonomous flight all the way, without operator intervention to complete cruise, flight state transitions, such as VTOL.



Technical Specifications

Physical

- Wingspan: 2.4 m
- Fuselage: 1.5 m
- MTOW: 10 kg
- Payload: 2 kg
- Material: Fiberglass
- Suitcase Size: 1.5 x 0.5 x 0.5 m

Takeoff & Landing

- Takeoff & Landing Method: VTOL
- Landing Accuracy: 5 cm

Performance Specifications⁽¹⁾

- RTK/PPK:
 - Horizontal: 10 mm + 1 ppm RMS
 - Vertical: 30 mm + 1 ppm RMS

Flight Specifications

- Wind Resistance: 10.7 m/s
- Operating Temperature: -20 °C to + 50 °C (-4 °F to 122 °F)
- Flight Endurance: 100 min
- Battery: 25.2 V, 10000 mAh for rotor wings; 25.2 V, 30000 mAh for fixed wings
- Max. Speed: 108 km/h
- Cruise Speed: 75 km/h
- Ceiling Altitude: 4 km

Camera

- Sony A7R (Standard): 36 mega pixel
- Sony A7RII (Optional): 42 mega pixel

Autopilot System

- GPS Module
 - Data Update Frequency: 10Hz
 - Positioning Accuracy: 2.5M
- Tri-Axis Gyroscope
 - Range: ± 300 deg/s
 - Rate Noise Density: 0.02 deg/s/sqrt(Hz) RMS
- Tri-Axis Accelerometer
 - Range: ± 18 G
 - Noise Density: 0.06 mg/sqrt(Hz) RMS
- Tri-Axis Magnetic Sensor
 - Range: ± 8 G
- Air Pressure Sensor
 - Height Resolution: 0.1 m
 - Dynamic Pressure Range: 13.78 Kpa
 - Maximum Airspeed: 150 m/s (540 km/h)
- Waypoints: 1000+
- Internal Data Logger: 32 MB
- Aerial POS Quantity: 8000+
- Integrated Data Link: 902 - 928 MHz 1 W > 30 K

Software (optional)

- Pix4D Aerial Mapping Data Processing System (Point Cloud processing, DOM, DSM, DEM, aerial triangulation)
- Context Capture Aerial Tilt photography System (Tilt photography data processing, 3D Modeling)

(1) Accuracy and reliability specifications may be affected by multipath, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices.

Specifications are subject to change without notice.

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