e-survey

eDrone3

UNMANNED AERIAL VEHICLE SOLUTION

Safe Flight and Warning Reminder: Impressive Reliability

No longer need to worry about the flight safety, powered by forward-looking and down-looking millimeter-wave radar and binocular visual obstacle avoidance system, and receive a warning that an aircraft is approaching, supported by the ADS-B system.

**Multi-sensor Redundancy Technology:
More Stable and Reliable Flight**

Enjoy fault management and automatic recovery and update of each node, supported by the redundancy management of key sensor modules, including 3IMU configuration, main backup GNSS, dual differential antennas and external magnetic compass direction finding.

Automated Pre-flight Inspection: Simple and Time Saving

Complete all pre-flight inspections at the ground station with one click, and no longer need to finish cumbersome traditional flying inspection, benefiting from the eDrone3 avionics system and online management of distributed avionics system networking.

Impressive Battery Life: Ultra-long Endurance

Operate your UAV to fly up to 3 hours, driven by aerodynamic optimization, power system optimization and customized high-energy density batteries (27000 mAh).

eDrone3 is a high-performance vertical takeoff and landing (VTOL) fixed-wing unmanned aerial vehicle system. It owns the following outstanding features:

- High safety from take-off to landing, powered by its obstacle avoidance system and advanced algorithm.
- Automatic and intelligent screening of the landing point during the landing phase, and avoidance of danger in real time to ensure the safe landing, driven by its binocular intelligent landing system.
- Improved system reliability, anti-interference ability and expansion ability, supported by our all-digital bus avionics technology.
- Fault management and automatic recovery and update of each node, and easy use of the aircraft, thanks to the multi-redundancy design of key sensor modules.
- One-key intelligent pre-flight inspection, wireless data download, and intelligent management.

Specification

Hardware	
Fuselage	2060 mm
Height	620 mm
Wingspan	3540 mm
Maximum takeoff weight	17 kg
Smart battery	27000 mAh
Smart battery charger	1200 W × 2
Radio link	840 - 845 M
Carrying case size	1370 mm (L) × 605 mm (W) × 525 mm (H)

Safety Performance	
Forward obstacle avoidance	240 m (millimeter wave radar)
Obstacle avoidance	240 m (millimeter wave radar)
Downward looking binocular	50 m (binocular camera)

Payload	
Mission payload	3 kg

Flight	
Flight endurance	3 hours (2 kg payload@1000m altitude)
Cruise speed	61 km/h
Wind resistance	Level 6 (10.8 - 13.8 m/s)
Water proof	Rainfall capacity ≤ 10 mm / 24h
Take-off and landing	VTOL
Maximum flight ceiling	6500 m
Maximum takeoff altitude	4500 m
Positioning accuracy	▪ Vertical: 3 cm ▪ Horizontal: 1 cm + 1 ppm
Direction finding method	▪ Double differential GPS direction finding ▪ Backup magnetic compass direction finding
Navigation lights	▪ Automatically turn on after takeoff ▪ Automatically turn off after landing

Software	
Flight Planning Software	eFlight GO Software

Payload			
	CATCH161	CATCH5120	CATCH5210
Number of CCD	1	5	5
Sensor size	35.7 mm × 23.8mm (35 mm full frame)	160 mm × 160 mm × 105 mm (without SKYPORT)	160 mm × 160 mm × 105 mm (without SKYPORT)
Effective pixels	61MP	-	-
Total pixels	-	120MP	210MP
CMOS Size (single)	-	23.5 mm × 15.6 mm	35.9 mm × 24 mm
Storage capacity	▪ Photo: 256GB × 1 (TF card) ▪ POS: 16GB × 1 (TF card)	640G × 2	
Working temperature	-20℃ - 45℃		
Weight	About 290 g (only camera)	935 g	1350 g

The actual performance may vary, due to differences in individual product configuration, software versions, application conditions and environmental factors. This datasheet is only for reference. eSurvey has the right of final interpretation.