

High Accuracy Centimeter Positioning Land Surveying Drone NetWork RTK UAV

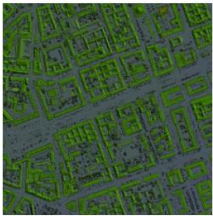
WK72



The aircraft is a small multi-rotor high-precision aerial survey drone, designed for low-altitude photogrammetry applications. It has a centimeter-level navigation and positioning system and a high-performance imaging system. It is portable and easy to use, and comprehensively improves aerial survey efficiency.

Multi-Applications

Land Surveying and Mapping



Engineering Surveying and Mapping



Spatial Planning



Geographic Information Mapping



Applications in other sectors

Transport Inspection



Oil and Gas Inspection



Police Inspection



Customs Inspection



Geographics



Power Line Inspection



Specifications

AIRCRAFT	
Symmetrical motor wheelbase	460mm
Body size	367mm*367mm*228mm
Motor	KV 650rpm/V
Electric adjustment	Continuous current 45A
Propeller size	Diameter * pitch: 11*4.5 inch
Normal takeoff weight	1.38kg(including battery and head)
Maximum takeoff weight	2.0kg
Rise Speed	Factory default 5.0m/s, (adjustable from 3 to 8m/s)
Falling Speed	Factory default 3.0m/s, (adjustable from 3 to 8m/s)
Horizontal Flight Speed	GPS mode: 5m/s
Motion mode	Factory default 10m/s (adjustable from 5 to 20m/s)
Attitude mode	15m/s (no wind environment)
Maximum tilt Angle	GPS mode: 25°
Motion mode	30° Posture mode: 30°
Maximum rotational angular velocity	150°/s
Maximum flight altitude	4,500 m
Maximum wind speed	17 m/s
Maximum endurance	About 60 minutes (without 6K camera) About 50 minutes (with 6K camera)(4)
Operating temperature	-10℃ to +40℃
Positioning accuracy: GPS	Horizontal: ±0.4 m; Vertical ± 1.5m,(1) (GNSS positioning works normally)
Coordinate with network RTK	Horizontal 1cm+1ppm, vertical 2cm+1ppm (2) (GNSS positioning works normally, network RTK connection is normal)
6K CAMERA	
Image sensor	1-inch SONY backshot CMOS
Lens	FOV85°. Equivalent 9mm focal section; F / 3.5aperture
Photo	Support 21 million pixels,
Video recording	6K (5480 x 3648) @ 25fps 4 k (3860 * 2160) @ 25 FPS / 30 FPS / 60 FPS
Zoom	25 x lossless digital zoom
Video coding	H264, H265
The supported file system format	exFAT
Video format	MP4
Image format	JPG
Supported memory card type	Micro SD card, up to 512 GB, transmission speed Micro SD cards with Class10 or above or UHS-1rating
REMOTE CONTROLLER	
Model	WKRC-H12
Operating frequency	2400MHz to 2483MHz
Maximum communication distance	12KM (open without shelter, no electromagnetic interference)
Display equipment	5.5-inch 1920*1080 1000NITS highlight screen
Charging interface	Type-c
Battery	3.7V 10000mAh LiPo 1S
Operating temperature	-10℃ to 40℃
Charging ambient temperature	5℃ to 40℃
Weight	530g
Size	190 * 152 * 94mm

Specifications

INTELLIGENT BATTERY KIT	
Voltage	22.2V
Capacity	7000 mAh
Battery type	LiPo 6S
Battery energy	155.4 Wh
Charging ambient temperature	5°C to 40°C
GIMBAL KIT	
Input voltage	12V
Stable system	3 axis (pitch, yaw, roll)
Controllable rotation range	Pitch: -90° to+30°, level: ±40°
Maximum control speed	Pitch: 50°/s; Roll: Direct angle control
Angle control accuracy	Static: ±0.01°
Dynamic	+ / - 0.02 °
Stabilization	+ / - 0.01°
Network RTK (in option)	
GPS	L1 /L2/L5 GLONASS: F1/F2
BeiDou	B1/B2/B3 Galileo:E1/E5
Positioning accuracy	Horizontal: 1cm+1ppm Vertical: 2 cm + 1 PPM 1ppm: Accuracy changes 1mm for every 1km increase. (3)
Location update rate	1000HZ
Cold start	< 45s
Hot start	< 10s
Recapture	< 1s
Initialization reliability	>99.9%
Differential data transmission format	RTCM 2.x / 3.x
Data link	4G
Communication distance	Unlimited distance (with 4G network signal)
Working environment temperature	+10°C to +45°C

*All specifications are subject to change without notice.
(1)(2)(3) Accuracy depends on the open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. (4) Battery life is subject to the particular operating temperature.

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