

ZOGLAB

UAV6000

Meteorological Observation UAV



- Maximum 500m flight height (electronic height restriction)
- Modular pod design
- Support measurement of meteorology and atmospheric composition
- Aerodynamically designed instrument pod
- Support programmable routes, remote control, one-key take-off and landing



UAV6000



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Meteorological Observation UAV

UAV6000 is a compact medium-low altitude meteorological observation UAV (Unmanned Aerial Vehicle), with measurement of temperature, humidity, barometric pressure, wind speed, wind direction and other elements. With the design concept of modular, solid and digital sensor, you can quickly monitor the air quality and environmental information, and improve the access to information on the speed and accuracy. The application of mature UAV is to build flight control platform with replaceable pod design, according to the different detection needs of the sensor type or camera platform. In the data analysis platform, horizontal and vertical data distribution diagram will be presented according to the GPS and terrain, and calculate and display the atmospheric 3D state.

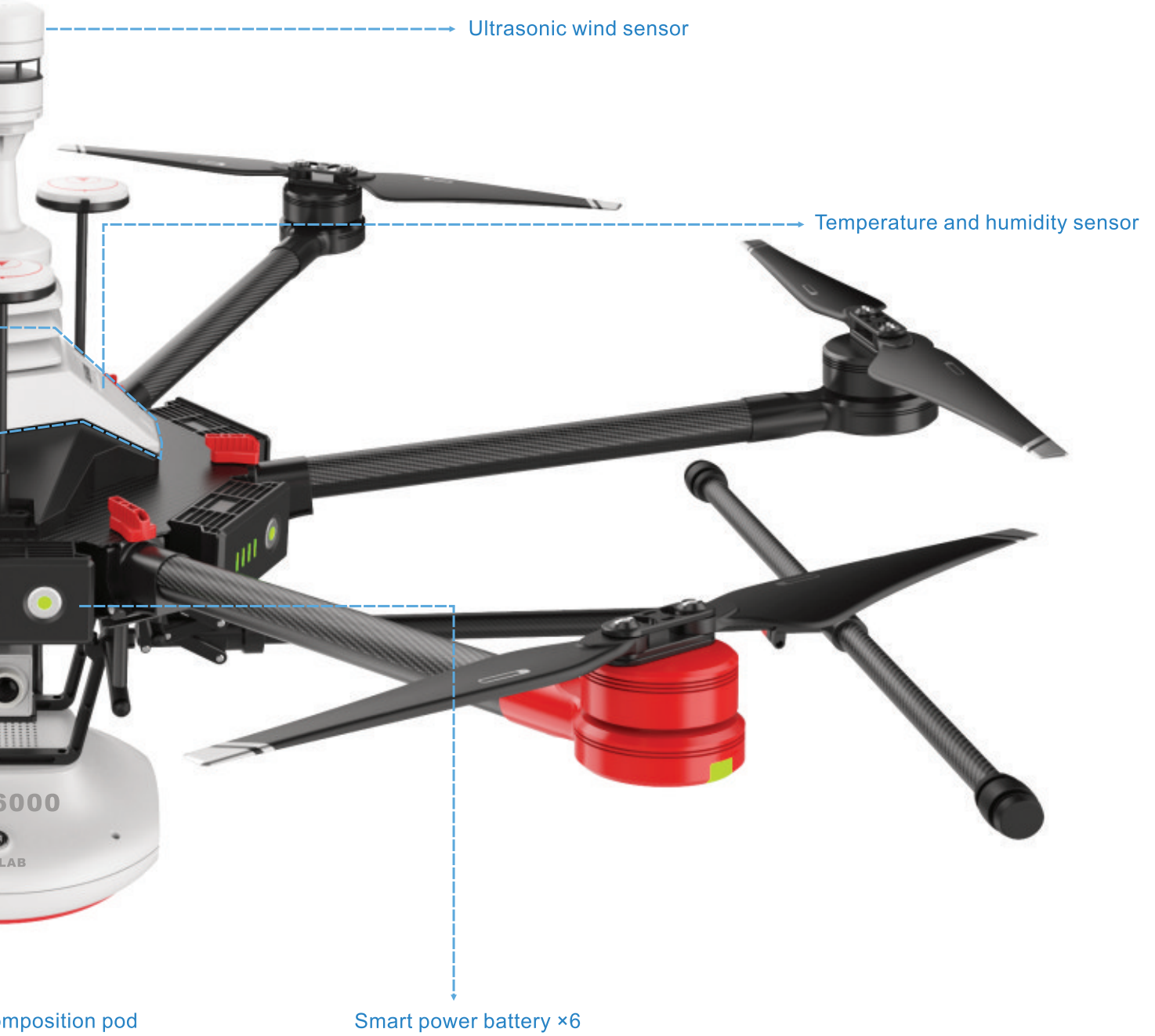
Combining meteorological observation equipment and UAV, UAV6000 are flexible and maneuverable, free from geographical restrictions, and can perform vertical and stereoscopic observation of meteorology, and are better applied to modern meteorological services, providing novel means for meteorological observation.

- Maximum 500m flight height (electronic height restriction)
- Modular pod design
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UAV6000 • Host Machine





UAV6000 • Functions and Features



Atmospheric composition measurement

- Gas concentration for CO, SO₂, NO₂ and O₃ and PM_{2.5} and PM₁₀ multi-element measurement
- Modular gas sensor design



Meteorological element measurement

- Multi-element measurement of temperature, humidity, barometric pressure, wind speed, and wind direction
- Able to expand more meteorological measurement elements
- Temperature compensated barometric pressure sensor technology



HD camera

- 720 / 1080P
- Support 128G TF card image storage



Smart power battery

- 6 pieces of 4500mAh smart power battery
- Over 30min flying power



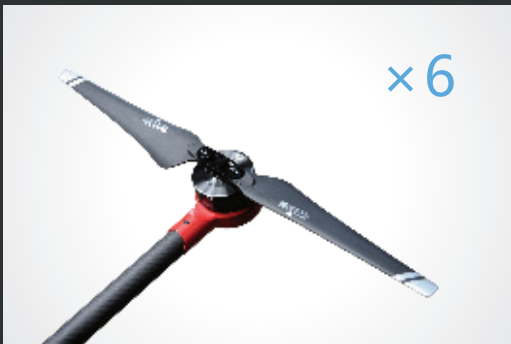
Ultrasonic wind sensor

- Super compact resonant ultrasonic wind speed and direction sensor
- Wind speed measurement range 0~50m/s
- Measurement accuracy up to $\pm 0.5\text{m/s}$



High accuracy GPS positioning

- High accuracy GPS differential positioning technology
- Support centimeter coordinate positioning



6 Rotors

- High-strength nylon fiberglass rotor
- Support quick installation



Customized software

- Professional application software to support programmable routes tasks
- APP for mobile phones and tablets
- Support data secondary development

UAV6000 • Flight Control Interface

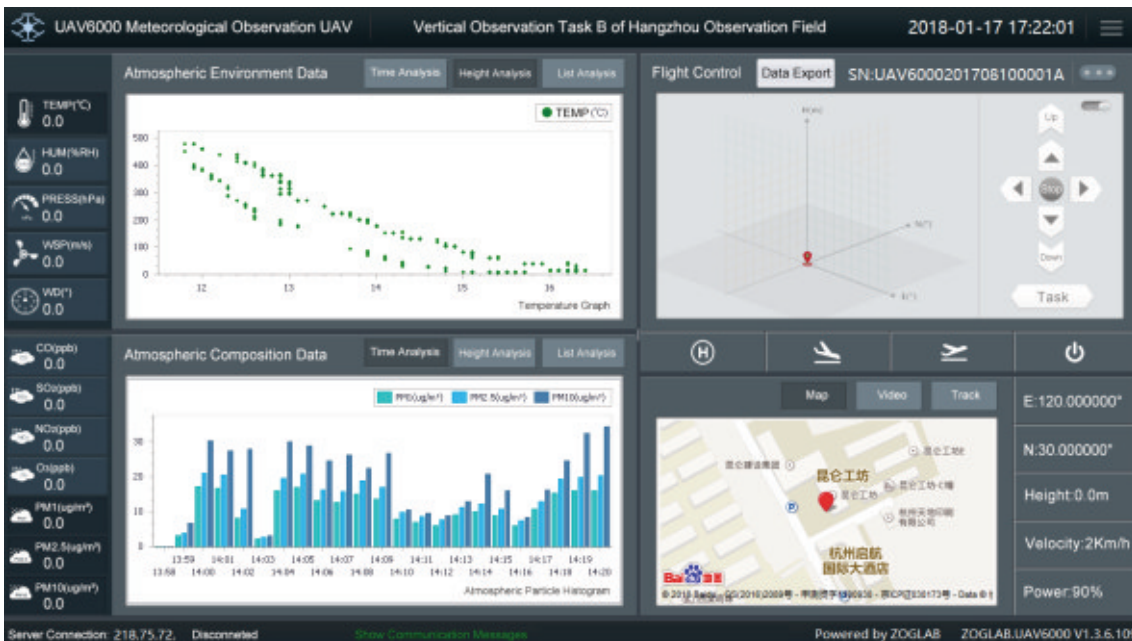
Flight control interface

Real-time display drone flight status and returned pictures.



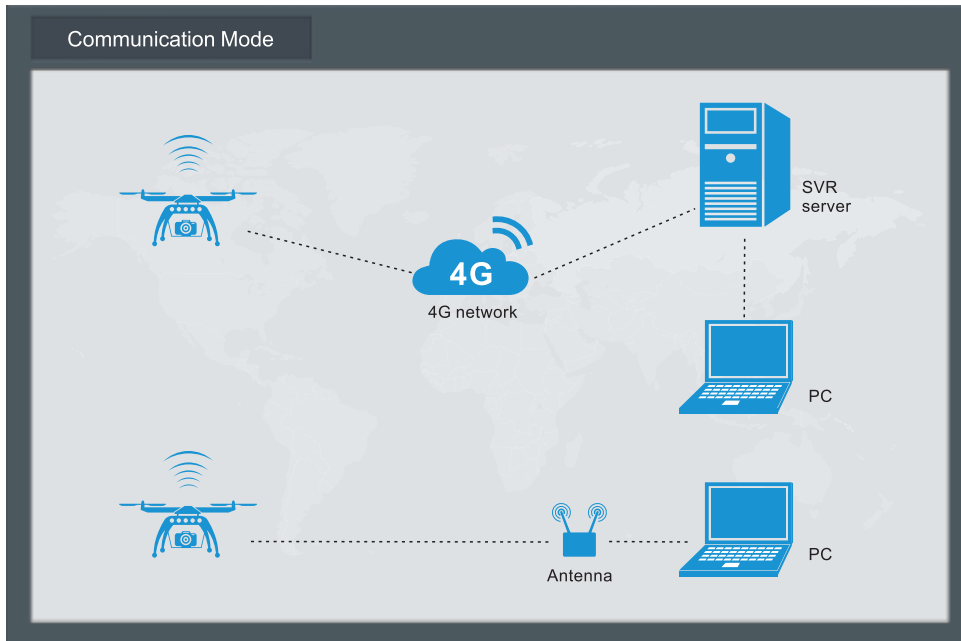
PC interface

The PC software, which integrates flight control, data acquisition and display, can complete flight and data collection tasks with simple operations.



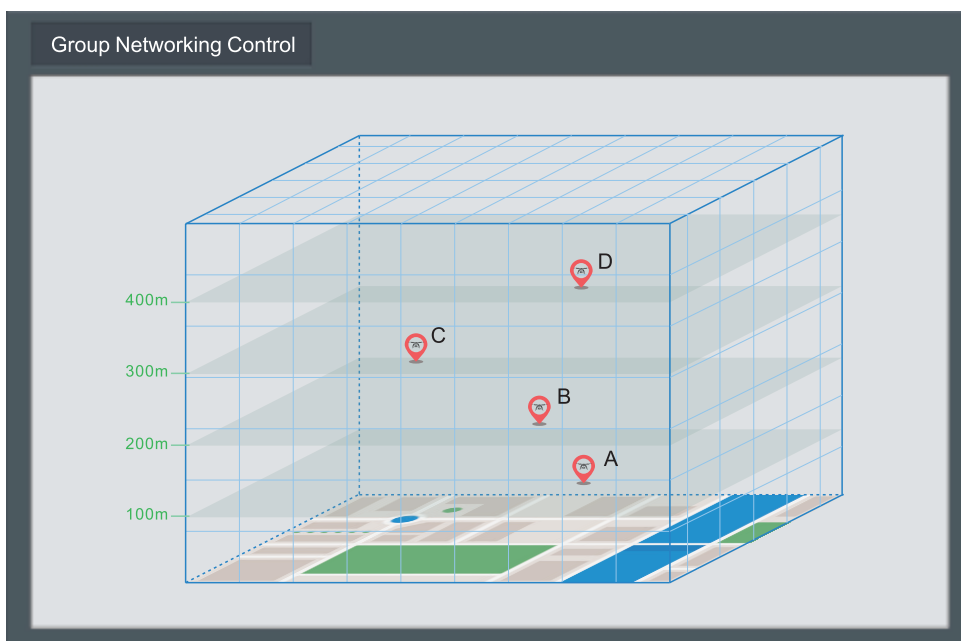
Control and data transmission mode interface

A variety of control and data transmission modes, flexible response to stand-alone and multi-unit network applications. Data can be uploaded to the server for centralized management and analysis.



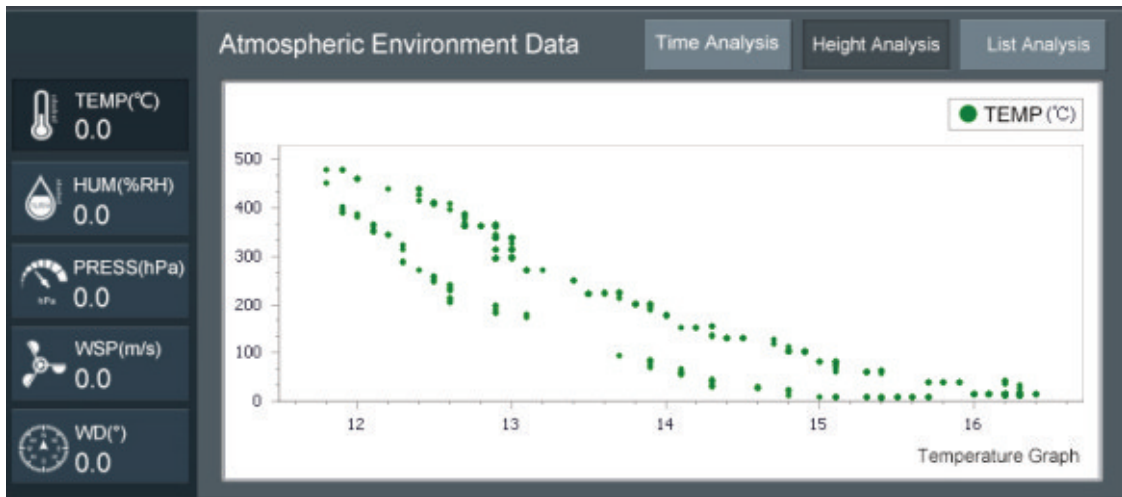
Group networking control interface

Multi-unit network function can control the real-time position of multiple drones and achieve efficient distributed measurement.



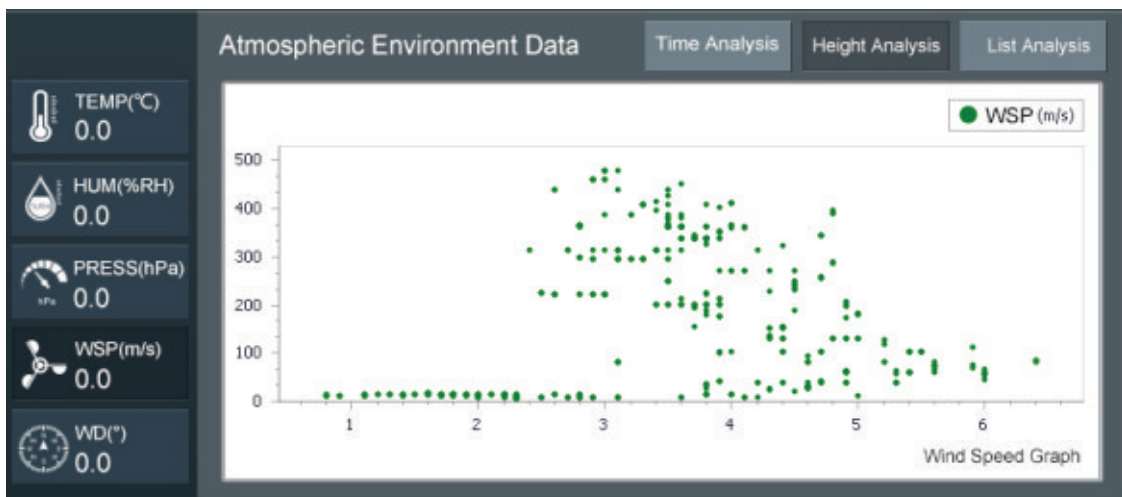
Temperature graph

Able to check the real-time temperature trend of the acquired data over height, providing users with basic acquisition data display.



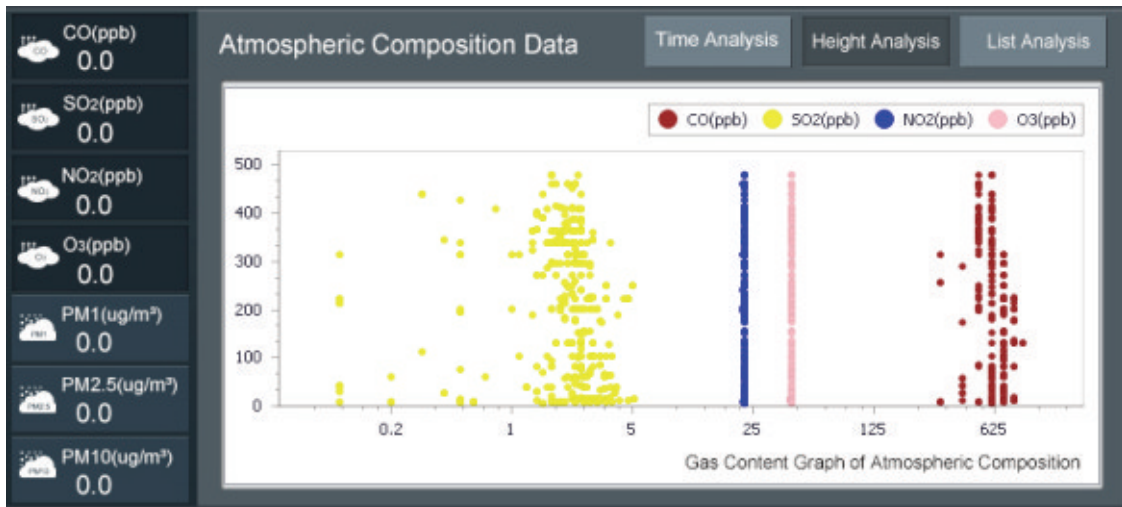
Wind speed graph

In the process of flying detection, the value change of wind speed with height can be displayed in real time, providing the user with basic collection data display.



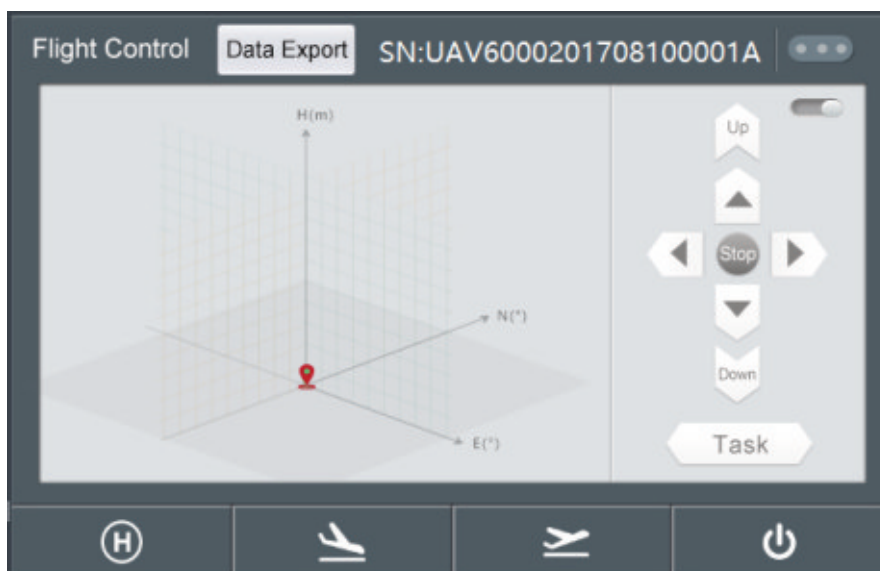
Gas content graph of atmospheric composition

The collected atmospheric gas data is displayed through the distribution change of the collected values and height in the two-dimensional map.

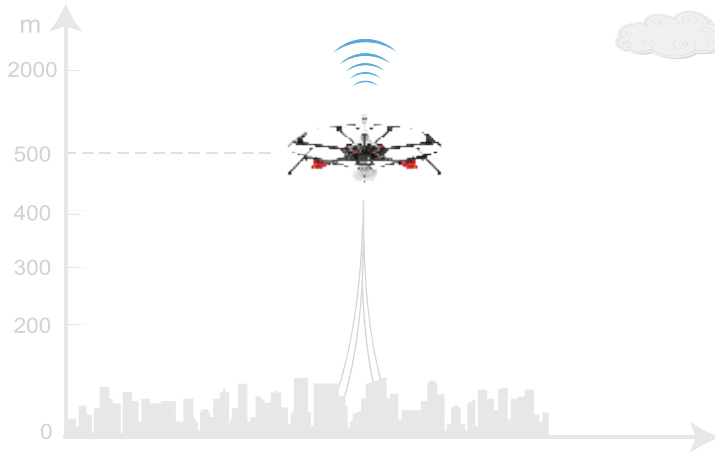


Flight control graph

In the flight control section, you can select the specified UAV6000 device according to the Bluetooth pairing. Can lock the flight control operation button to prevent misoperation; Realize the basic control function of the meteorological drone: take off, landing, one-key back home, left, right, forward, backward, up, down and other basic functions; can display the deviation between the departure origin and the actual position through the three-dimensional coordinates in real time, providing the user with a convenient and intuitive position reminder.

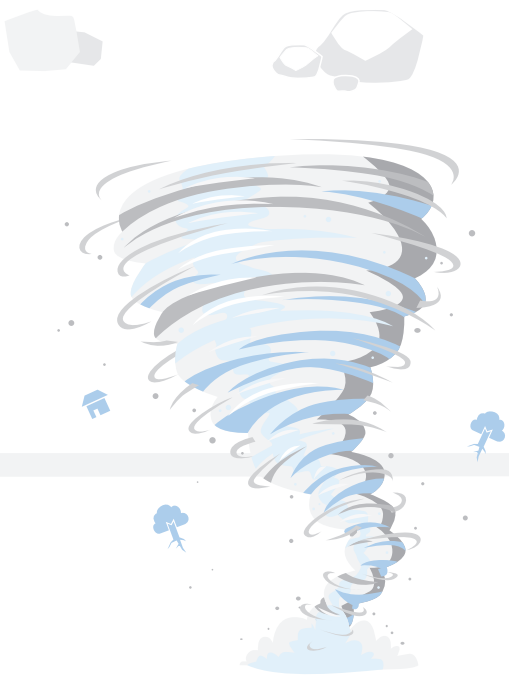


UAV6000 • Applications



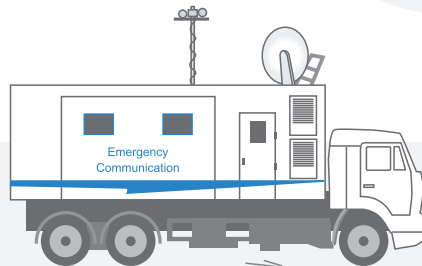
Vertical observation

The maximum flight height of UAV6000 is up to 500m (electronic height restriction). It supports measurement of multi-element conventional meteorology with high accuracy, and can be used as an auxiliary observation method besides the national meteorological stations and regional stations.



Emergency protection

UAV6000 provides a one-stop weather observation solution. It can be applied to on-the-spot monitoring and temporary network deployment of sudden severe weather, and conduct the environment sampling to ensure the safety of rescue work when the meteorological emergency vehicles can not enter the area. In addition, the UAV6000 can monitor the conditions of the affected areas in real time to prevent secondary disasters.





Nuclear-chemical monitoring

The meteorological monitoring for nuclear power plants and various chemical bases has a significant role in emergency evacuation. UAV6000 is not limited by region and can provide powerful and effective meteorological observation methods on site, providing judgment data for safe production and crisis management.



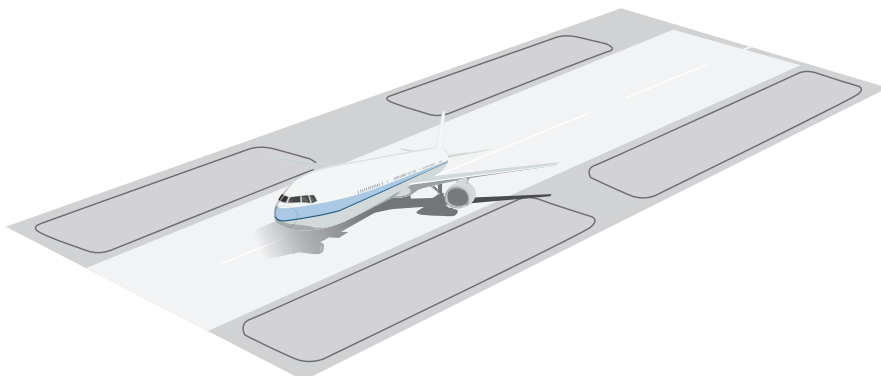
Environmental monitoring

The prominent contradiction between environmental protection and economic development will have a direct impact on China's sustainable development. The air quality reflects the concentration of pollutants in the air. UAV6000 can accurately detect the emission of harmful gases CO, SO₂, NO₂, O₃ and PM_{2.5}, PM₁₀ content, to provide judgment data for the treatment of air pollution and prevention.



Airport location selection

UAV6000 can provide continuous stereoscopic meteorological data collection for airport location selection; equipped with high-definition camera system, it can conduct the obstacles and building identification for the areas of the airport to be selected, and it can greatly improve the working efficiency of airport location selection with a customized location selection data analysis system.



UAV6000 • Technical Specification

Meteorological pod measurement specification	
Temperature measuring range	-30°C~70°C
Temperature measuring accuracy	± 0.3°C, ± 0.2°C(5°C~35°C)
Temperature resolution	0.1°C
Humidity measuring range	0~100%RH
Humidity measuring accuracy	± 3%RH(10%RH~90%RH) ± 5%(90%RH~100%RH)
Humidity resolution	0.1%RH
Pressure measuring range	500hPa~1100hPa
Pressure measuring accuracy	± 0.3hPa(0°C~50°C) ± 0.5hPa(other range)
Pressure resolution	0.1hPa
Wind speed measuring range	0~50m/s
Wind speed measuring accuracy	± 0.5m/s(0~15m/s)
Wind speed resolution	0.1m/s
Wind direction measuring range	0°~360°
Wind direction measuring accuracy	± 2°(Deviation ≤ ± 10°) ± 4°(deviation > ± 10°)
Wind direction resolution	1°

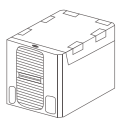
Atmospheric composition measurement specification	
SO ₂ measuring range	0~100ppm
SO ₂ linearity	0~10ppm linear; 0~2ppb FS
NO ₂ measuring range	0~20ppm
NO ₂ linearity	0~5ppm linear; ± 0.5ppb FS
CO measuring range	0~1000ppm
CO linearity	0~5ppm linear; 20~35ppb FS
O ₃ measuring range	0~20ppm
O ₃ linearity	< ± 0.5ppm FS
Particle size measuring range	0.38~17um(10 channels, laser multi-wavelength)
The maximum particle count rate	10000 particles / second

General specification of the aircraft	
Maximum flight height	500m(electronic height restriction)
Maximum ascent speed	5m/s
Maximum descent speed	8m/s
Hover time	No load >30min; Max. Take-off weight >15min
Control distance	5km
Control height	2km
Frequency	2.4GHz
Maximum flying weight	15kg
Empty weight	10kg
Camera	1080P
Memory size	32G TF standard
Communication Interface	BT/ Wi-Fi*/ GPRS/ 2.4G SDK
Working environment	-30°C~50°C, 10%~80%RH
Dimensions	1214×980×857mm
Certification	CE, FCC

UAV6000 • Accessories

Standard Accessories

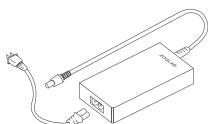
Smart power battery × 6 Six-channel power charger Remote control Power cable Remote control charging cable



Micro USB charging cable



Pod power adaptor



User's manual



Warranty card



Qualification



Maintenance manual



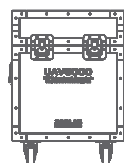
WEEE card



USB flash disk



Carrying case



Field operation manual



Optional Accessories

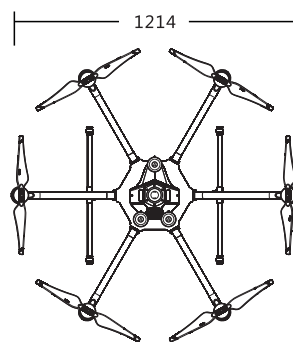
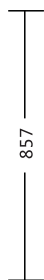
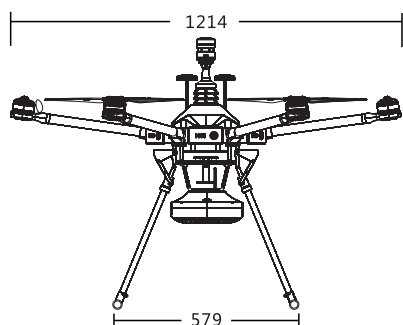
Smart power battery



Calibration certificate



Dimensions(mm)



Ordering Information

Ordering model	Features
UAV6000	Standard model with camera

International Free Call

+86-400-8878-571



Website



Weibo



WeChat



Youku



Facebook



Twitter



LinkedIn



Google+

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