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Система Дистанционного Зондирования Загрязнения Нефтью БПЛА АТЕ5000

UAV Fluorescence Imaging Oil Pollution Remote Sensing System ATE5000



What are the advantages of choosing the UAV Fluorescence Imaging Oil Pollution Remote Sensing System ATE5000 ?

The significant impact of oil spills on Marine ecosystems has attracted worldwide attention. Offshore drilling platforms and ship accidents are the main source of oil spills.

ATE5000 UAV fluorescence imaging oil pollution remote sensing system is a new generation of oil pollution remote sensing detector launched by Optosky. ATE5000 using the world's most advanced high-frequency modulation Laser-Induced Fluorescence high-speed imaging remote technology. It provides a new and more powerful technique for environmental monitoring to study water pollution by studying the fluorescence characteristics of algae and oil spills. Laser-induced fluorescence method uses specific spectral characteristics to provide identification of different types of release effects of oil and weathering.

The ATE5000 has fast scanning speed and long flight time.

• Principle of remote sensing detection

ATE5000 adopts the ultraviolet fluorescence oil measurement method, which is one of the standard methods of oil measurement in the environmental protection field. It uses ultraviolet light of a specific wavelength to irradiate oils on the water surface, and polycyclic aromatic hydrocarbons in the oils absorb them. After being excited, the fluorescence of a specific wavelength is generated, and the intensity of the fluorescence is directly proportional to the intensity of excitation light and the amount of substance to be measured. Therefore, according to the fluorescent effect of this oil substance, it is possible to detect oil pollution on the surface. This method is especially applicable to mineral oils, which are heavier components. Oil, for example, works better; it is sensitive enough to detect sub-ppm level (ppm: the solute mass accounts for one million parts of the total solution mass), it is one of the most common methods to detect oil on water surface because of less interference factors.

ATE5000 UAV fluorescence imaging oil pollution remote sensing system, the laser and spectral analysis system are loaded into the UAV, and the laser is fired from the air to illuminate the oil pollution on the water surface (sea surface, river surface). After absorbing ultraviolet light, the oil pollution on the water surface will emit fluorescence of specific wavelength. The fluorescence signal collected by the UAV can be analyzed to obtain oil pollution on the water surface.

OPTOSKY PHYSICAL PARAMETERS

Dimension	152mm*143mm*115mm
MEASURING HOST	
Measurement Object	petroleum, motor oil, diesel oil, gasoline, kerosene, etc
Measure Oil Film Thickness	The thickness of 1 um can be measured
Max Endurance Flight	1.5 hours
Scanning Area	1-20km ²
Single Measurement Area	Round, 10 mm in diameter
GPS Positioning Accuracy	1m
Working Time	Work day and night
Remote Control Distance	10 Km
Data Transfer Download Distance	1 Km
Environmental Requirements	-5—45°C ; Relative humidity < 90%, No condensation
Data Transfer Download Speed	1Mbps/s
The UAV's Own Weight	6 Kg

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