

Multispectral Lidar Drone

ATHL9626

Features

- 5 multispectral lenses & 1 rgb lens.
- 320m & 1230m pixels.
- 12-bit global & 8-bit rolling shutter.
- Dji x-port control.
- Fastest 1s synchronous imaging across all channels.
- Onboard real-time spectral inversion, video output.
- Standard downward light sensor (dls).
- Various trigger modes including timing and overlap rate.
- Customizable lenses for different aircraft configurations.

Application

- Plant growth state
- Cultural relic scanning and restoration, mural restoration
- Plant growth status, growth assessment
- Water body eutrophication detection
- Black and odorous water body monitoring
- Monitoring of discoloration of pine wood
- Scientific research institutions, colleges and universities

Description

The ATHL9626 Multispectral LiDAR Drone, introduced as Optosky's latest third-generation UAV multispectral imager, integrates a LiDAR module for advanced aerial data collection. This compact and lightweight system includes a stable hexacopter, reliable gimbal system, high-spectral imager, and large-capacity storage, GPS navigation, ground receiving workstation, and control system. Leveraging its multispectral capabilities and line-scan LiDAR, it acquires precise surface elevation data, enabling detailed orthorectification and three-dimensional object feature capture, complemented by spectral analysis for innovative research applications.

Featuring a high-resolution solid-state scanning LiDAR module and high-spectral imager, the ATHL9626 generates real-time true-color point clouds, efficiently covering over 2 km² in a single flight. This UAV is ideal for real-time spectral measurement of vegetation, water bodies, soils, and other terrain features, producing detailed spectral images. By correlating spectral data with plant physicochemical properties, it supports applications in precision agriculture, environmental monitoring, and forestry management.

Optosky's ATHL9626 Multispectral LiDAR Drone represents a breakthrough in remote sensing technology, catering to the growing demand for high-precision aerial data collection. Its integration of LiDAR and multispectral imaging capabilities positions it as a versatile tool for researchers, agronomists, and environmental scientists seeking comprehensive insights into landscape dynamics and ecosystem health.



ATHL9626 appearance



ATHL9626+ UAV

1. Order guide

Model	Feature
ATHL9626	The lens combination method is: 5 multi-spectral + 1 RGB

2. Parameter configuration

NO.	Index	ATH9626
Flight system	flying platform	Customized version of long-term high-load large-scale 6-rotor drone/DJI M300RTK
	PTZ	Three-axis brushless DC motor high stability gimbal
	Number of rotors	6 rotors
	Take-off and landing mode	vertical takeoff and landing
	Wheelbase	1500mm
	Maximum load	6kg
	maximum ceiling	5000m
	size	1650*1410*500mm
	GPS	1.5m
	Modify imaging parameters remotely	no
	Endurance flight time	>45 minutes
	Ground Station Working Distance	5km
Lidar	Radar mode of operation	TOF time-of-flight ranging
	Laser wavelength	1550nm, eye safety level 1
	Ranging speed	500,000 points/second, up to 1 million points/second (depending on distance)
	Number of scan lines	1750 line
	field of view	Horizontal 15°
	Angular resolution	Horizontal 0.009°
	scanning frequency	500HZ
	Height measurement range	1~300m, up to 600m
	laser return mode	multiple echoes
	Height measurement error	<20mm
	weight	1.5kg
Reliability	range of working temperature	-10 ~ 45°C
	storage temperature	-20 ~ 65°C

	range	
	Working Humidity Range	≤85% RH
Spectral performance	Spectral channel	450nm@30nm, 555nm@27nm, 660nm@22nm, 720nm@10nm, 840nm@30nm, RGB
	coverage width	multispectral: 109m×82m@h120m; RGB: 2.60cm@h120m
	ground resolution	multispectral: 5.28cm@h120m; RGB: 2.60cm@h120m
	Number of quantization bits	multispectral: 12bit; RGB: 8bit
Imaging lens*1	Shutter type	Multispectral: Global; RGB: Rolling
	Target size	Multispectral: 1/1.8"; RGB: 1/2.3"
	Effective Pixels	Multispectral: 3.2Mpx; RGB: 12.3Mpx
	field of view	Multispectral: 48.8°×37.5°; RGB: 47.4°×36.4°
	optical window	Sapphire optical glass window
Electrical properties	Host size	130mm×160mm×150mm
	Total Weight	780g
	Installation interface	X-Port
	powered by	X-Port
	power consumption	10w/15w
	Image Format	Multispectral: 16bit original TIFF & 8bit reflectance JPEG RGB: 8bit JPEG
	video format	MP4
	storage media	Standard configuration 128G, maximum support for 2T USB3.0 storage device
	Shooting trigger	Overlap rate trigger, timing trigger
	Shooting frequency	Photo mode: 1Hz; Video mode: 20Hz
	Working temperature	-10°C~+50°C(relative wind speed ≥1m/s)
	environment humidity	RH(%)≤85%(non-condensation)
Note: *1: Imaging lens is standard, other focal length lenses are optional; *2: This product is independently developed by Aopu Tiancheng. The parameters in the table are for reference only. Other parameters can be customized.		