

UAV 6-Band Multispectral Imager

ATH9606

Features

- Channels: 6 multispectral
- FOV: $48^{\circ} \times 36.8^{\circ}$
- Resolution: 4096 x 3000
- Filter: Strip
- Altitude: 50~1000m (recommended 100m)
- Computer: I7, up to 2TB storage, 100 hours data
- Drone: 1.5m wheelbase, high payload, expandable
- Flight Time: ~45 minutes

Application

- Soil monitoring
- Agriculture
- Coastline and marine environment monitoring
- Remote sensing teaching and scientific research, meteorological research, disaster prevention and control
- Lake and watershed environmental monitoring, water quality testing
- Quality inspection of agricultural and livestock products
- Military, Defense and Homeland Security

Description

The ATH9606 UAV 6-band multispectral imager, developed by Optosky, represents the latest third-generation technology in compact, lightweight drone-mounted imaging systems. This advanced system integrates a high-stability hexacopter drone, precision gimbal, hyperspectral imager, large-capacity storage, wireless imaging, GPS navigation, ground receiving workstation, and control system.

This UAV 6-band multispectral imager excels in real-time spectral measurement of vegetation, water bodies, soil, and other land features. By capturing detailed spectral images, it enables in-depth analysis to correlate with the physical and chemical properties of plants and other objects. This capability is crucial for plant classification, growth monitoring, and environmental research. With its compact design and high imaging accuracy, the ATH9606 offers versatile applications. It can function independently with outdoor rotating platforms and indoor linear scanning setups, or be mounted on a drone for aerial remote sensing. This flexibility makes it ideal for industries such as agriculture, environmental monitoring, and land management. The ATH9606 UAV 6-band multispectral imager is at the forefront of technical trends, providing high-performance solutions for precise spectral analysis and enhanced remote sensing capabilities.



1. Ordering Guide

Model	Feature
ATHL9606	Standard configuration
Can be customized according to needs	

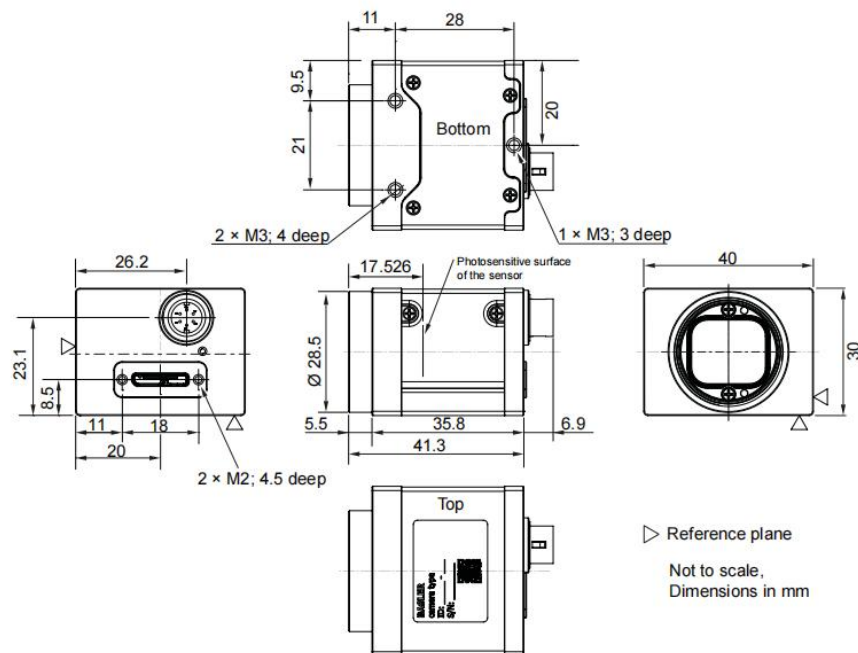
2. Parameter

ATH9606	
Flight system	
Flying platform	Customized version for long time and high load capacity 6rotor drone
PTZ	Three-axis brushless DC motor high stability gimbal
Number of rotors	6
Take-off and landing mode	vertical takeoff and landing
Wheelbase	1500mm
Maximum load	6kg
Maximum ceiling	5000m
Drone size	1650 x 1410 x 500mm
GPS positioning accuracy	1.5m
Modify imaging parameters remotely	no
Endurance flight time	>45minute
Ground station working distance	5 km
6-band Multispectral Imager	
Aisle	6
Resolution	4096×3000
Detector native resolution	4096 x 3000

Detector original pixel size	3.45 μm x 3.45 μm
Field of view	48°×36.8°
Bit depth	12 bit
Center wavelength of each channel	blue:450nm (bandwidth:35nm)
	green:555nm(bandwidth:27nm)
	red:660nm (bandwidth:22nm)
	red:720nm (bandwidth:10nm)
	Red edge:750nm (bandwidth:10nm)
	Near infrared:840nm (bandwidth:30nm)
Frame rate	31 fps
Data output interface	USB 3.0,
Detector power supply	USBpowered by3.6 W
Volume	8.2 x 6.7 x 6.45cm
Weight	<580g
Operating temperature	-20~50°C
Storage temperature	-20~50°C
Reliability	
Range of working temperature	-10~45°C
Storage temperature range	-20~65°C
Working humidity range	≤85%RH

3. Parts list

		Quantity
1	6-band multispectral imager	1
2	Hexacopter UAV	1
3	Three-axis DC brushless Motorized high stability gimbal	1
4	Airborne Data Acquisition and Large Capacity Data Storage System	1
5	Battery pack and charger	1
6	6-band multispectral acquisition software and data preprocessing software	1
7	95% calibration whiteboard (50cm×50cm)	1
8	Mounting screws and mounting tools	1
9	HD display	1



ATH1606 structural diagram