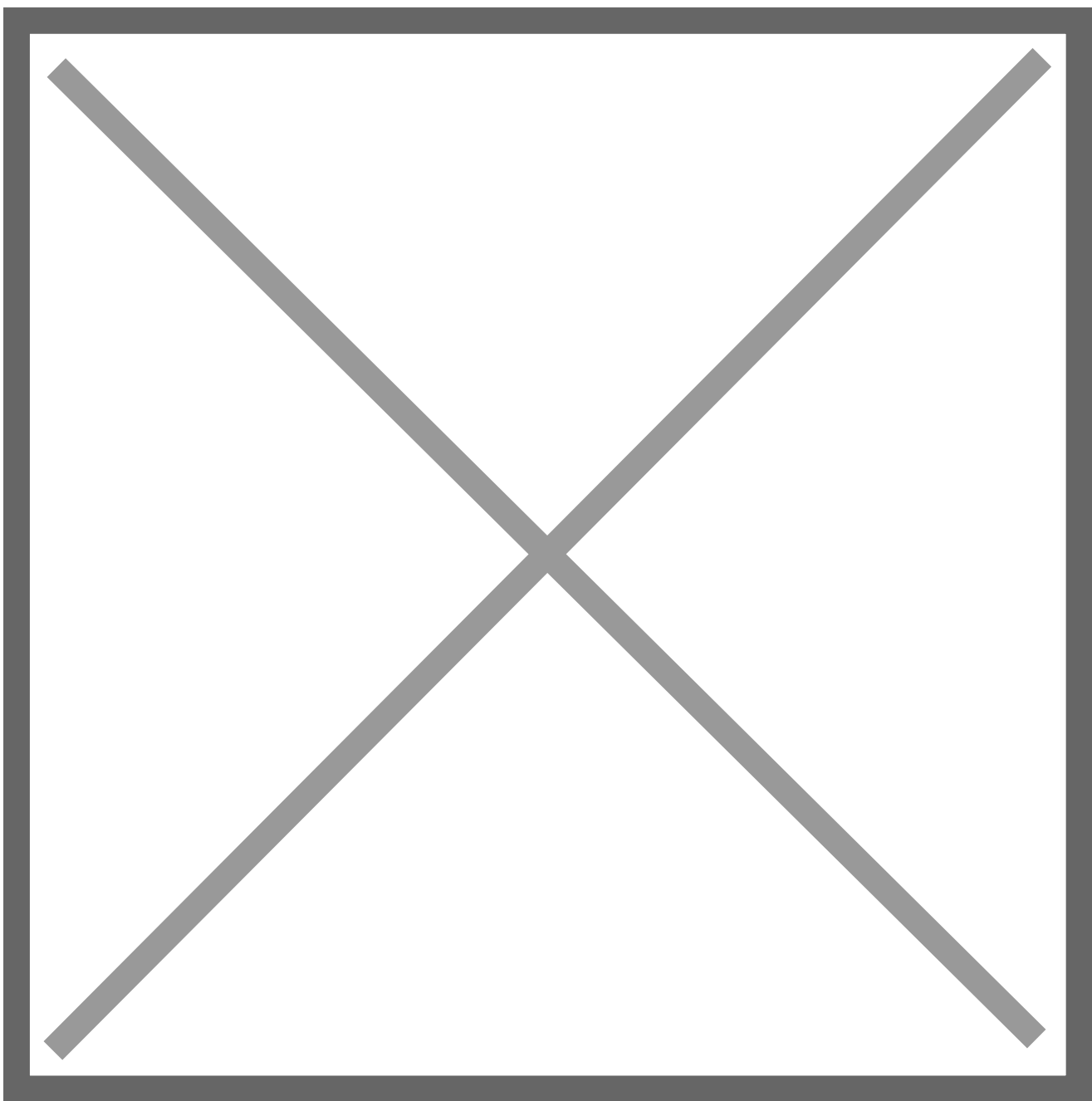




FS-50 SERIES MULTISPECTRAL CAMERA

FS-50 Series Multispectral Camera, designed for compatibility with the DJI M350/M300RTK flight platform, this series features 30 to 180 spectral channels and offers 2K resolution.

The FS-50 Series meets the diverse needs of various sectors, including precision agriculture, military defense, homeland security, disaster prevention, forestry monitoring, and river and lake ecology. Additionally, it excels in target identification and other industry applications, ensuring high performance and reliability in a wide range of environments.



APPLICATIONS

Typical application

FS-50 Series Multispectral Camera

Crop Growth Assessment

FigSpec Studio software integrates NDVI and other vegetation indices to accurately quantify the state of vegetation canopy at various spatial scales. It quantitatively assesses the health, stress, and growth of crops and vegetation, providing data support for crop growth assessment, yield prediction, and disease and pest detection.

FS-50 Series Multispectral Camera

Coverage Evaluation

Based on the spectral fingerprint information of plants, this technology enables accurate classification of regional plants and crop area statistics. It provides quantitative vegetation canopy data to support scientific research and production in the agriculture and forestry ecological industries.

FS-50 Series Multispectral Camera

Water Quality Analysis and Monitoring

Using spectral data and chemical analysis results, an analysis model is constructed to classify and determine water quality parameters of polluted water bodies. Combined with spatial information, it monitors the impact of domestic sewage and industrial wastewater on surrounding water bodies, aiding in pollution source investigation and water environment assessment.

FS-50 Series Multispectral Camera

Water Eutrophication Monitoring

Spectral data are utilized to create a classification index for monitoring water eutrophication and conducting spatial information statistics. By following water eutrophication evaluation standards, it helps analyze pollution sources such as farmland, aquaculture, and fisheries, providing data and powerful tools for pollution source investigation and water environment assessment.

FEATURES

- Ultra-high spectral channels: 30-180 spectral channels (varies by model)
- 2K spatial resolution
- Global shutter with 12-bit high precision sampling data
- Real-time data acquisition and preview via ground station
- DJI X-Port for control and power supply, with 512GB SSD mass storage
- Customizable for DJI M350/M300 RTK UAV, plug and play functionality
- Equipped with FIGSPEC UAV real-time flight control software, FIGSPEC Merge puzzle software, and FIGSPEC Studio image analysis software

TECHNICAL SPECIFICATIONS

Model number	FS-50/30	FS-50/60	FS-50/90	FS-50/120	FS-50/150	FS-50/180
Number of spectral channels	30	60	90	120	150	180
Spectral channel wavelength	400-1000nm Per 20nm Output a wavelength	400-1000nm Per 10nm Output a wavelength	400-1000nm Per 6.6nm Output a wavelength	400-1000nm Per 5nm Output a wavelength	400-1000nm Per 4nm Output a wavelength	400-1000nm Per 3.3nm Output a wavelength
Spectral resolution/half 2.5nmwave width	3.5nm			2.5nm		
Spatial resolution	1920					
Sampling rate	128 line/S					
Image sensor	1/1.1 inch CMOS					
Effective pixel	1920					
Shutter type	Global shutter					
Quantization number	12bit					
Visual field	25.36 °					
Ground resolution	2.8 cm @ h120m					
Covering width	54m@h120m					
Optical window	High transmittance optical glass window					
Main engine size	≤155*95*119mm					
Main engine weight	≤840g					

Installation/power supply port	X-Port
Work loss	45w
Picture format	12bit.SPE (compatible with third party analysis software such as envi)
Data storage space	512SSD
Application software	FIGSPEC UAV real-time flight control software, FIGSPEC Merge puzzle software, FIGSPEC Studio image analysis software
Shooting method	Real-time acquisition

Optional Accessories		
Parts Material Code	Name	Applicable instrument type
3.06.10.1007-0	Hyperspectral camera stand with whiteboard	FS-1X/2X series
5.19.01.0021-0	Hyperspectral camera bench (translation table with light source)	FS-1X/2X series
5.20.01.0015-0	Hyperspectral camera technology service fee	Full range of hyperspectral products
3.01.18.1020-0	Hyperspectral tripod with crossbar	FS-2X series
3.05.12.0090-0	Reflectance calibration cloth 18%	FS-60C,60,62,62C
3.05.12.0068-0	Reflectance calibration cloth 80%	FS-60C,60,62,62C



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