FigSpec®

Portable Imaging Spectrometer

FigSpec® series portable imaging spectrometers use high diffraction efficiency transmission grating beam splitting module and high sensitivity area array camera, combined with built-in scanning imaging, automatic focusing and auxiliary camera technology, to solve the problem that traditional hyperspectral cameras need an external push-broom imaging mechanism and Problems that are difficult to operate, such as complex focusing. It can be directly integrated with standard C-mount imaging lenses or microscopes to achieve rapid acquisition of spectral images.

Features

- One key to achieve automatic exposure, automatic focusing, automatic scanning speed matching, automatic data acquisition and saving
- Auxiliary framing camera to monitor the shooting area
- Built-in battery
- Data preview and correction functions: irradiance correction, reflectivity correction, area correction, lens calibration, uniformity calibration
- Interchangeable lens
- Perfect compatibility with multiple data formats

Application field

Spectral analysis, mineral screening, material sorting, fruit and vegetable analysis, geological exploration, agricultural remote sensing, industrial inspection, unmanned aerial vehicle hyperspectral imaging analysis, portable hyperspectral imaging analysis, visible light hyperspectral imaging analysis, infrared hyperspectral imaging analysis, thermal Infrared hyperspectral imaging analysis, black plastic sorting, metal fabrication, color sorting, gas detection, flame analysis, identification of agricultural vegetation types, garbage recycling, fruit quality analysis, microscopic hyperspectral analysis, agricultural hyperspectral, remote sensing hyperspectral, spectroscopy Imaging Analysis, Vegetation Hyperspectral, Aviation Hyperspectral, Hyperspectral Anomaly Detection, Fluorescence Hyperspectral Analysis, Microscopic Hyperspectral Imaging, Ground Object Hyperspectral Analysis, Indoor Hyperspectral Analysis, Forensic Hyperspectral Analysis, Soil Hyperspectral Analysis, Environmental Monitoring.

Technical parameter

Model	FS-20	FS-22	FS-23
Lighting method	Passive lighting (without light source)	Passive lighting (without light source)	Passive lighting (without light source)
Spectroscopic method	Grating	Grating	Grating
Spectral range	400-1000nm	400-1000nm	400-1000nm
Spectral band	300	300	300
Spectral resolution	2.5nm	2.5nm	2.5nm
Slit width	25μm	25μm	25μm
Detector raw pixel count	1920*1200	1920*1200	1920*1200
Sensor target size	11.3mm*7.1mm	11.3mm*7.1mm	11.3mm*7.1mm
Imaging speed*	60s(x1),30s(x2),15s(x4)	20s(x1),10s(x2),5s(x4)	48s(x1),24s(x2),12s(x4)
Detector	CMOS	CMOS	CMOS
Field of view(FOV)**	25.4°（f=25mm）	25.4°（f=25mm）	12.8°（f=50mm）
Instantaneous field of view	1.0mrad（f=25mm lens）	1.0mrad（f=25mm lens）	0.5mrad（f=50mm lens）
Scan range	> 30°	> 30°	> 32°
Image Resolution	1920*2400	1920*2400	1920*6000
Camera output bit depth	12 bits	12 bits	12 bits
ROI	Support for a single region	Support for multiple regions	Support for multiple regions
Interface	GIGE(Gigabit network)	USB3.0	USB3.0
Focus method	Manual focus	Manual focus	Auto focus
Overall size	263*178*120mm	263*178*120mm	263*178*120mm
Total Weight	Less than 4.5KG	Less than 4.5KG	Less than 4.5KG

* x1:1920，x2:960，x4:480　　** Different focal length lenses can be customized