unispectral

Neptune

Portable hyperspectral imaging system

Description

Neptune-Unispectral's standalone imaging system is a versatile and user-friendly camera with advanced imaging features like real-time visualization of algorithms, built-in models, and tagging tools. It's perfect for POC, suitable for a wide range of applications in fields like food quality, agriculture, biomedical,etc.al. With its portable design, data processing application, internal battery and a built-in illumination, it can be used in both indoor and outdoor.

Key Features

- Portable multi/hyperspectral near-infrared camera
- Broadband near-infrared fill light illumination
- Easy to collect data: automatic exposure, ROI, insufficient light source/light source oversaturation automatic indication
- Real-time visualization of algorithms
- Application Development Toolbox, including tagging tools and model imports
- Touch screen operation
- Built-in lithium battery
- Portable and fast detection in and out

Applications

- Food quality
- Smart Agriculture
- Biopharmaceuticals
- Industrial sorting
- Art appraisal

Specifications

Optics	
F/#	4.7
EFL	4.98 mm
H -FOV,V-FOV, D-FOV	31.5°,25.5°,39.8°
Image Resolution	1280x 1024
Preview Mode	120 FPS
Gain	X1-X10
Exposure Time	1-500 ms

Spectral	
FWHM	25nm±5@image center
Spectral Response	500-930nm
Spectral Band Range	510-920nm
Spectral Accuracy	±5nm
Spectral Channel Numbers	208

Replenishing	
LED	650-960nm
Power Consumption	<4W(Peak)

System	
Input Voltage	12 VDC
Power Consumption	<35W(Peak)
Touchscreen	5.5inch
Lithium Battery	6600 mAH
CPU	RK3588
RAM	8G
Flash	64G(SD extension)
Wireless	Wifi6,4G(Opional)
Operating System	Linux
Data Interface	USB-C
Working Mode	Spectral Cube/Single frame
Data Format	ENWI(Raw)&PNG

Working Environment	
Temperature	0 ° -70 ° C
Humidity	<90%
Size	239x109x107mm

System Development	
Develop Tools	Python/C API

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