

## 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. 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	1280x1024
Preview Mode	60 FPS
Gain	X1-X10
Exposure Time	1-500 ms

#### Spectral

FWHM	25nm±5@image center
Spectral Response	700-930nm
Spectral Band Range	713-920nm
Spectral Accuracy	±5nm
Spectral Channel Numbers	208

#### Replenishing

LED	650-960nm
Power Consumption	<16W(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(Optional)
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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