HERA Hyperspectral Camera

SWIR 900-1700 nm

HERA IPERSPETTRALE is a compact and rugged hyperspectral camera that enables an innovative approach to spectral imaging.
With its unique and patented technology based on time-domain **Fourier Transform** detection, HERA provides an **exceptional spatial-spectral resolution** and a superior **sensitivity** in low-light illumination conditions.

Key Features

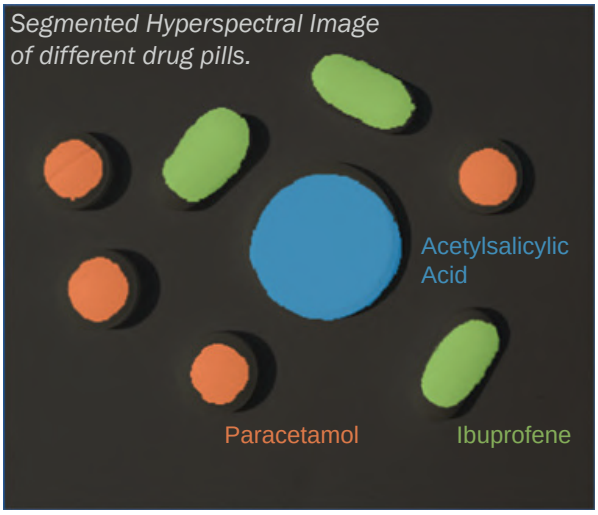
- High spatial & spectral resolution
- High sensitivity and throughput
- Compact and lightweight
- Export data in ENVI format
- User friendly software (measurement & data analysis)

Applications

- Fluorescence imaging
- Plastic Sorting
- Biology and Microbiology
- Agriculture and food quality
- Pharmaceuticals
- Art Conservation
- Forensics

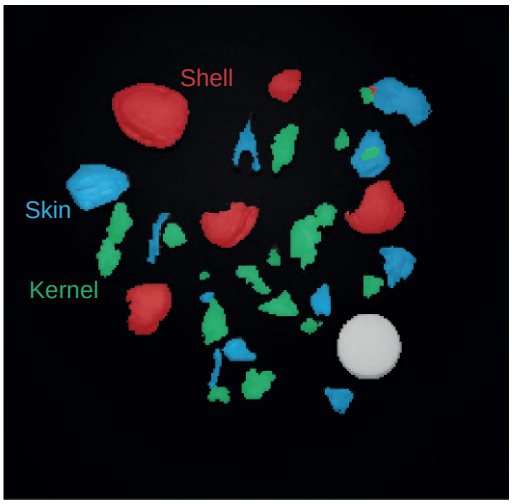
Customer Benefits

- Ease of use: place it on the tripod, **point it to the sample and measure**
- The high throughput ensures high-quality data even at the lowest light dose
- Portable, plug and play device

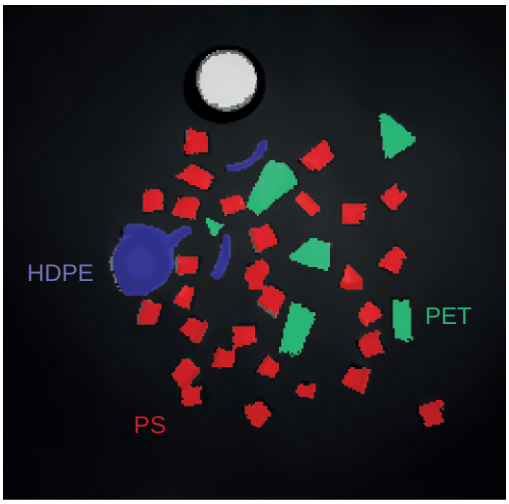


Exploit built-in statistical algorithms in the Analysis App to automatically segment the image, or export the hyperspectral image in standard formats for a further processing.





Classified image of walnuts:
the shell (in red), the internal skin (in blue) and the kernel (green). The white circle is a Spectralon reference.



Classified image of plastic parts:
HDPE (purple), PET (green) and PS (red).
The white circle is a Spectralon reference.

Technical specifications

Spectral range	900 - 1700 nm
Sensor spatial resolution	640 × 512 pixels
User adjustable spectral resolution	<5 nm @ 900 nm <16 nm @ 1700 nm
Sensor	cooled InGaAs (ΔT = 30°)
Number of bits	14 bits
Number of spectral bands	Selectable via Software*
Field of view	11 degrees**
Working distance	1 m - ∞
Dimensions	246 × 160 × 107 mm
Weight	2.85 kg
Recommended System Requirements	32 GB RAM, SSD drive suggested

* HERA is a FT spectroscopy based instrument and the number of extracted spectral bands can be chosen depending on the needs. Preset scan modes providing different spectral resolutions (and numbers of bands) are available in the Acquisition App software.
**The Field of View can be extended (up to 18 degrees) or reduced (MACRO imaging) by adding optional lenses in front of the camera.

Additional accessories:
SDK, Microscope adapter (C-mount), FOV extender lens (FOV2), Macro Lens, Illumination System, Laptop, Spectralon, Tripod.

HERA SWIR is a Dual-Use Product (Annex I of the EU Regulation 2021/821 and subsequent amendments, control code 6A003.b.4.a).