

BaySpec's Handheld **OCI-2000™** Snapshot Hyperspectral Imager (OCI is a phonetic spelling of "All Seeing Eye") brings for the first time high performance Hyperspectral imaging in a handheld form factor weighing only approximately 1.0 lbs. (450 g). The **OCI-2000™** Imager acquires full, continuous visible-near infrared (VNIR) Hyperspectral/Multispectral data with simple point-and-shoot operation.

Snapshot (non-scanning) hyperspectral imaging is a method of capturing spectral images during a single snapshot (typical integration time is less than 30 ms), so that no scanning is involved. One of the major advantages of snapshot imaging is that it avoids motion artifacts, thereby simplifying the data processing and improving the image processing time. With the availability of large-format, low cost optical dispensing elements and detector arrays, and in ultra-miniaturized form, it is now possible for the first time to bring the promise of hyperspectral imaging to the wider public.

KEY FEATURES:

- Point-and-shoot hyperspectral imager; extremely easy to use
- Self-contained system with touchscreen computer integrated in a handheld form
- Choice of objective lenses for different field of view
- Ideal for handheld, field based imaging requiring fast acquisition speeds



OCI-2000™ Handheld Snapshot Imager

Applications:

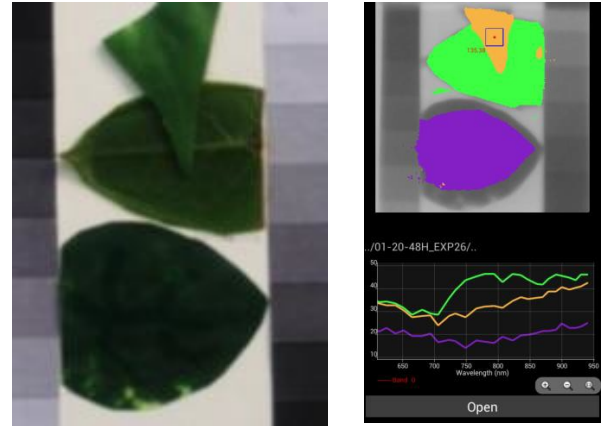
- ↗ Food Quality Sorting
- ↗ Airborne Mini UAV
- ↗ Agriculture
- ↗ Remote Sensing
- ↗ Anti-Counterfeiting
- ↗ Handheld Spectroscopy
- ↗ Medical Diagnostics
- ↗ Forensics
- ↗ Pharmaceuticals
- ↗ Security
- ↗ Counterfeit detection
- ↗ Tissue diagnostics
- ↗ OEM Systems

About BaySpec, Inc.

BaySpec, Inc., founded in 1999 with 100% manufacturing in the USA (San Jose, California), is a vertically integrated spectral sensing company. The company designs, manufactures and markets advanced spectral instruments, from UV-VIS spectrometers, bench-top and portable NIR and Raman analyzers, Hyperspectral imagers to confocal Raman microscopes, for the biomedical, pharmaceuticals, chemical, food, semiconductor, homeland security, and the optical telecommunications industries.

Specifications:

	Specifications
Model	OCI-2000™
OPTICAL	
Spectral Range	600-1000 nm approx.
Number of Spectral Bands	~20-25
Spectral Resolution (FWHM)	< 12 nm
Pixels	200 x 400
Calibration	Factory calibrated
Objective Lens Interface	C-mount
Frame rate	Up to 8 frames/sec.
Data Format	RAW (pixel data only), BMP band images, and ENVI-BSQ for hyper-cube file
ENVIRONMENTAL	
Operating Temperature	-20°C to +60°C
COMPUTER	
Embedded PC	Android™ operating system with touch screen
Memory	64GB RAM
Battery	Rechargeable lithium ion
Power	USB data/charging port
Weight	1.0 lbs. (450 g) approx.
Size (W x H x L)	3.0 x 5.6 x 1.4 inches ³ (77 x 142 x 36) mm ^{3**}



A comparison of a snapshot image from an RGB camera vs. from **OCI-2000™**

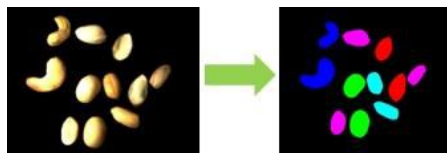
Hyperspectral cameras, compared to traditional cameras, divide the light spectrum into many small wavelength bands. Therefore, a Hyperspectral camera can capture the spectral fingerprints as spectral signatures from an object. These spectral signatures give very detailed information about the material constitutions of the imaged object

Hyperspectral imaging considerably improves the identification and classification of objects and is today recognized as a key enabling technology for next-generation industrial inspection, medical diagnosis and security applications.

Mini-UAV Sensing



Food Safety/Quality



Agriculture

