

BaySpec Introduces New Handheld OCI™ Hyperspectral Imager Family

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SAN JOSE, CA --- BaySpec, Inc., a leading supplier of spectral engines, spectrographs and spectrometers, announces the revolutionary OCI™-series Compact Hyperspectral Imager product family. For the first time in hyperspectral instrumentation history, BaySpec's Hyperspectral Imager brings two features together: high performance hyperspectral imaging and full package in a light-weight handheld form factor for ultimate portability. These features enable untethered operation on platforms such as robots (ROV), drones (UAV) and production lines, and effortless adoption for applications ranging from geospatial imaging to in vivo biomedical imaging, wherever and whenever portability and hyperspectral imaging are needed.

The OCI-1000™ and OCI-2000™ imagers acquire full, continuous VNIR hyperspectral data with high spectral resolution and excellent sensitivity, enabling new point of sample measurements. The on-board computer runs BaySpec's powerful Android-based *SpecPhone* app for image collection, analysis, and classification.

The Push-Broom OCI-1000™ features:

- 560-1000 nm wavelength range
- < 5nm spectral resolution
- ~ 100 bands
- <0.5 lbs (227 g)

The Snapshot OCI-2000™ features:

- Snapshot hyperspectral cube acquisition (no motion scan needed)
- 600-1000 nm wavelength range
- < 10 nm spectral resolution
- ~ 32 bands
- < 0.8 lbs (363 g)

The OCI™-series of hyperspectral imagers are designed to be high performance, easy to use and financially accessible. Cost reduction and improvements in performance have been achieved by eliminating bulky glass lenses, spectrometers and mechanical moving parts. BaySpec has developed a highly-integrated spectral imager that provides a detailed view of the spectrum for each and every point in an image. By integrating spectral capability on an image sensor, at the level of the chip itself, we remove the need for expensive, bulky and complex optics that are used as scientific instruments today. The result is a spectral imager with on-board computer and display that is battery operated weighing less than one pound. It can be easily installed on miniature UAV drones or conveyor belts in production lines. "Eventually, small handheld devices can be adapted for use in outpatient medical clinics, for a quick example, such as to check for melanoma or other illnesses." says Eric Bergles, VP of Sales and Marketing.

Hyperspectral imaging is well recognized for its potential, but widespread adoption has been limited by both bulk and cost. With BaySpec's miniaturized Hyperspectral OCI™-series handheld device based on low-cost semiconductor manufacturing processes, the cost of generating Hyperspectral images will drop significantly, enabling them to be used more frequently and at more sampling platforms. William Wang, CEO and founder says, "The large scale integration of typical spectrometer and imaging components on the imager, and improvements in computing power have made the power of hyperspectral imaging accessible to the mainstream."

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, to confocal Raman microscopes, for the biomedical, pharmaceuticals, chemical, food, semiconductor, homeland security, and the optical telecommunications industries.