

The **OCI™-F-1000HR** (OCI is a phonetic spelling of "All Seeing Eye") camera is a miniaturized push-broom hyperspectral camera covering the full VNIR (400-1000 nm) wavelength range with high spectral resolution. It features ultra-compactness (14 cm x 7 cm x 7 cm) and light weight (~ 570 g) with super-fast data transfer rates (up to 50 fps) using SuperSpeed USB 3.0 interface. As an innovative "true push-broom" imager: one can simply use a hand to move the imager or sample to finish the scan. Not depending on a constant scanning speed has enabled OCI-F-1000 versatility on vast platforms such as UAVs with perfect hyperspectral imaging stitching. Compactness, fast imaging, simple operation, and intuitive software make the OCI-F-1000HR very straightforward for applications such as precision agriculture, remote sensing, forensics, and airborne applications.



OCI-F-1000HR hyperspectral camera with a standard lens. The package is easy to be mounted on tripods or gimbals. Total weight < 570 g

KEY FEATURES:

- Full VNIR coverage (400-1000 nm)
- Real-time sample preview
- Extreme compact and light-weight
- No moving parts, high reliability
- "True push-broom": scanning with random speed
- Easy integration on different platforms

Applications:

- Precision Agriculture
- Food Quality
- Sorting
- Airborne Mini UAV
- Remote Sensing
- Anti-Counterfeiting
- Biomedical Diagnostics
- Forensics
- Pharmaceuticals
- Security
- Counterfeit Detection

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 ¹
Operation Mode	Push-broom
Spectral Range	400-1000 nm
Number of Spectral Bands	Up to 220
Spectral Resolution	3-4 nm FWHM
Spatial Pixels	800 px X scan-length
Standard Lens ²	16 mm (21° FOV)
Exposure Time	20 μs - 1 s
Wavelength Calibration	Factory calibrated (calibration fixed permanently)
Objective Lens Interface	C-mount
Frame Rate	Up to 50 frames/sec
Software	Included with BaySpec's SpecGrabber for camera control and data acquisition, and CubeCreator for hyperspectral data processing
Data Format	Hyperspectral cube (ENVI-BSQ), Color image (BMP), Band image (BMP), ROI spectra (CSV format)
Operating Temperature	0°C to 50°C
Power Consumption	< 3 W (USB 3.0 power)
Weight	~ 570 g (including standard lens)
Size	14 cm x 7 cm x 7 cm (including standard lens)
Camera Interface	USB 3.0

1. Specifications subject to change without notice.
2. Other lenses available, please inquire.

