

# OCI™-F Series Hyperspectral Cameras

Ultra-compact and fast-covering the VIS-NIR and SWIR ranges

The *OCI™("All Seeing Eye")*-F *Series* camera is a miniaturized push-broom hyperspectral camera covering the full VIS-NIR (400-1000nm) wavelength range, with a SuperSpeed USB 3.0 interface. It features ultra-compactness (~ 16 cm x 5 cm x 7 cm) and light weight (~ 490 g) with fast data transfer rates (up to 50 fps). As an innovative "true push-broom" imager: one can simply move the imager by hand or move the sample to finish the scan. Independent on a constant scanning speed, the OCI-F Series offers versatility on various platforms such as UAVs with perfect hyperspectral image stitching. Compactness, fast imaging, simple operation, and intuitive software make the OCI-F, the choice for first-time practitioners and old-pros alike. They're Ideal for applications such as precision agriculture, remote sensing, conveyor sorting, forensics and other airborne applications.







OCI-F hyperspectral camera with standard lens.
Easy mounting on UAV's, tripods, pan/tilt's
and gimbals. Total weight ~ 490 g

#### **KEY FEATURES:**

- Full VIS-NIR coverage (400-1000 nm) and SWIR (900-1700nm)
- Real-time sample preview
- Extremely compact and light-weight
- No moving parts, high reliability
- "True push-broom" scanning with random speed
- Easy integration on a variety of platforms
- Eliminates costly GPS/INS orthorectification post processing
- Yields distortion-free hyperspectral band images
- Multiple models to fit your budget.

## **Applications:**

- Precision Agriculture
- Food Quality
- Sorting
- Airborne Mini UAV
- Remote Sensing
- Process Control
- Anti-Counterfeiting
- Biomedical Diagnostics
- Forensics
- Pharmaceuticals
- Security/Defense
- Counterfeit Detection
- Oceanography
- Forestry

### About BaySpec, Inc.

BaySpec, Inc., founded in 2000 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-NIR spectrometers, fiber sensing interrogators, bench-top and portable NIR and Raman analyzers, Hyperspectral imagers to portable Mass Spec for the biomedical, pharmaceuticals, chemical, food, semiconductor, homeland security/defense, and optical telecommunication industries.



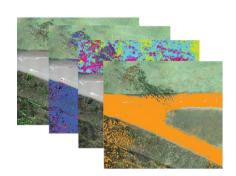
# OCI™-F Series Hyperspectral Cameras

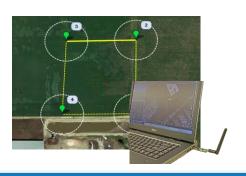
Ultra-compact and fast-covering the VIS-NIR and SWIR ranges

	Specifications	
Operation Mode	Push-broom	
Number of Spectral Bands	OCI-FL: 400-1000 nm, 60 bands	
	OCI-F: 400-1000 nm, 120 bands	
	OCI-F-HR: 400-1000 nm, 240 bands	
	OCI-F-SWIR: 900-1700 nm, 80 bands	
Spectral Range	400 - 1000 nm	900 - 1700 nm
Spectral Resolution	OCI-FL: ~ 10-12 nm FWHM	OCI-F-SWIR: ~ 10 nm FWHM
	OCI-F: ~ 5-7 nm FWHM	
	OCI-F-HR: ~ 3 nm FWHM	
Spatial Pixels	800 px X scan-length	250 px X scan-length
Standard Lens <sup>1</sup>	16 mm (21° FOV)	16 mm (28° 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	3 Module Suite - SpecGrabber, CubeCreator & CubeStitcher	
Data Format	Hyperspectral cube (ENVI-BSQ), Color image (BMP), Band image (BMP), ROI spectra (CSV format) and RAW (pixel data only)	
Operating Temperature	0°C to 50°C	
Power Consumption	< 3 W (USB 3.0 power)	
Weight	~ 490 g (including standard lens)	
Size	~16 cm x 5 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.







**BaySpec, Inc.** 1101 McKay Drive San Jose, CA 95131 USA Tel: +1 (408) 512-5928 Fax: +1 (408) 512-5929 Web: www.bayspec.com Email: sales@bayspec.com