

## OCI™-F Series Hyperspectral Cameras

Ultra-compact and fast – covering the VIS-NIR range

The *OCI*<sup>m</sup>-F *Series* ("All Seeing Eye") camera is a miniaturized push-broom hyperspectral camera covering the full VIS-NIR (400-1000 nm) wavelength range, with a SuperSpeed USB 3.0 interface. It features ultra-compactness (14 cm x 7 cm x 7 cm) and light weight (~ 570 g) with fast data transfer rates (up to 60 fps). As an innovative "true push-broom" imager: one can simply move the imager by hand or move the sample to finish the scan. Not dependent 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's 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 all airborne applications.



OCI-F hyperspectral camera with standard lens. Easy mounting on UAV's, tripods, pan/tilt's and gimbals. Total weight < 570 g

#### **KEY FEATURES:**

- Full VIS-NIR coverage (400-1000 nm)
- 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
- Three models to fit your budget select from 60, 120 or 240 bands

#### **Applications:**

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

#### 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-NIR spectrometers, fiber sensing interrogators, 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.



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	Specifications
Operation Mode	Push-broom
Spectral Range	400-1000 nm
	OCI-FL 60 bands
Number of Spectral Bands  Spectral Resolution	OCI-F 120 bands
	OCI-F-HR 240 bands
	OCI-FL ~ 10-12 nm FWHM
	OCI-F ~ 5-7 nm FWHM
	OCI-F-HR ~ 3 nm FWHM
Spatial Pixels	800 px X scan-length
Standard Lens <sup>1</sup>	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 60 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	~ 570 g (including standard lens)
Size	14 cm x 7 cm x 7 cm (including standard lens)
Camera Interface	USB 3.0

<sup>1.</sup> Other lenses available, please inquire.





