OCI™-F Series Hyperspectral Cameras

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

The ***OCI™-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.

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

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**

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.

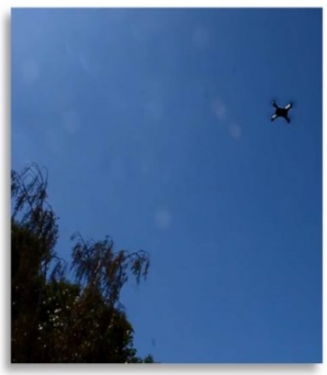
BaySpec, Inc.
1101 McKay Drive
San Jose, CA 95131
Tel: +1 (408) 512-5928
Fax: +1 (408) 512-5929
Web: www.bayspec.com

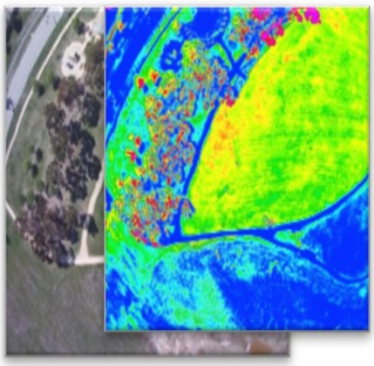
OCI™-F Series Hyperspectral Cameras

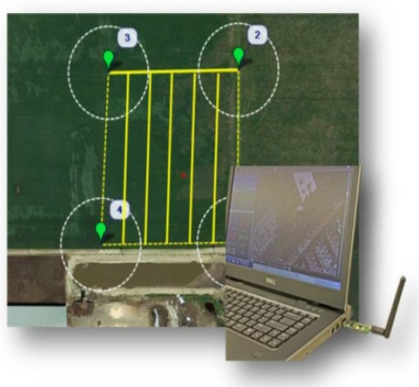
Ultra-compact and fast - covering the VIS-NIR range

	Specifications
Operation Mode	Push-broom
Spectral Range	400-1000 nm
Number of Spectral Bands	**OCI-FL** 60 bands **OCI-F** 120 bands **OCI-F-HR** 240 bands
Spectral Resolution	**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[1]	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

1. Other lenses available, please inquire.







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OCI™-F-SWIR Hyperspectral Camera

Ultra-compact and affordable SWIR hyperspectral camera

As light in the shortwave infrared region (SWIR, 900-1700 nm) penetrates deeper and is not interfered by visible light, SWIR hyperspectral imaging offers a number of advantages compared to visible light when used for remote sensing, inspection, sorting, surveillance, quality control, and a host of other applications.

The ***OCI™-F-SWIR*** (OCI is a phonetic spelling of "All Seeing Eye") camera is a miniaturized push-broom hyperspectral camera covering the full SWIR (900-1700 nm) wavelength range. It features ultra-compactness (17 cm x 7 cm x 9 cm) and light weight (~820 g) with fast data transfer rates (up to 50 fps). 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-SWIR versatility on vast platforms such as UAVs, with perfect hyperspectral image stitching. Compactness, fast imaging, simple operation, and intuitive software make the OCI-F-SWIR very straightforward for varieties of applications.

OCI-F-SWIR hyperspectral camera with a standard lens. The package is easy to mount on tripods or gimbals. Total weight ~820 g

KEY FEATURES:

- Real-time sample preview
- Extremely compact and light-weight
- No moving parts, high reliability
- "True push-broom": scanning with random speed
- Easy integration on different platforms

Applications:

- Remote Sensing
- Chemical Detection
- Pharmaceuticals
- Airborne/UAV
- Security
- Precision Agriculture
- Food Quality
- Sorting
- Anti-Counterfeiting
- Biomedical Diagnostics
- Forensics
- Counterfeit Detection
- Mineral Discovery

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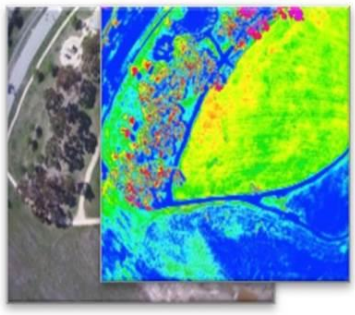
Fax: +1 (408) 512-5929
Web: www.bayspec.com
Email: sales@bayspec.co

OCI™-F-SWIR Hyperspectral Camera

Ultra-compact and fast hyperspectral imaging engine

Performance Specifications:

	Specifications[1]
Operation Mode	Push-broom
Spectral Range	900-1700 nm
Number of Spectral Bands	Up to 80
Spectral Resolution	< 10 nm FWHM
Spatial Pixels	250 pixels X scan-length
Standard Lens	16 mm (28° FOV), SWIR optimized
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	ENVI-BSQ hyperspectral cube, Band Image (BMP format), ROI spectra (CSV format)
Operating Temperature	0°C to 50°C
Power Consumption	< 5 W (USB 2.0 power)
Weight	~ 820 g (including standard lens)
Size	17 cm x 7 cm x 9 cm (including standard lens)
Camera Interface	USB 2.0
Trigger	External trigger signal, software time delayed start



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