

The **OCI™-M** (OCI is a phonetic spelling of "All Seeing Eye") camera is an 8-band push-broom multispectral camera with SuperSpeed USB 3.0 interface. It features ultra-compactness (8 cm x 6 cm x 6 cm) and light weight (~ 180 g) with high spatial resolution. These cameras acquire VIS-NIR imaging data with multiple spectral bands. It is "true push-broom": one can simply use a hand to move the imager or sample to scan. Fast imaging and innovations in hardware and algorithms enable the OCI™-M finishing a scan in 5 seconds and producing a hyperspectral data cube in 10 seconds. Compactness, simple operation, and intuitive software make the OCI-M very straightforward for applications such as precision agriculture, remote sensing, forensics, and airborne applications.



OCI™-M hyperspectral camera with a standard f=35 mm lens. The package is easy to be mounted on tripods or gimbals. Total weight 0.5 lb. 220 g)

KEY FEATURES:

- Extreme compact and light-weight
- No moving parts, high reliability
- Scanning with random speed for "true push-broom"
- Innovative non-slit design significantly reduces system complexity, featuring with real-time preview
- Effortless system integration

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 ²	8 (470 nm, 560 nm, 670 nm, 720 nm, 780 nm, 840 nm, 900 nm, 970 nm)
Spectral Bandwidth	~5 nm FWHM
Spatial Pixels	Up to 1000 X scan-length
Standard Lens	35 mm (18° FOV)
Exposure Time	20 μs - 1 s
Wavelength Calibration	Factory calibrated (calibration fixed permanently)
Objective Lens Interface	C-mount
Frame Rate	Up to 120 frames/sec
Data Format	ENVI-BSQ for hyper-cube, BMP band image, ROI spectra, and RAW (pixel data),
Operating Temperature	-20°C to +60°C
Power Consumption	< 2 W (USB 3.0 power)
Weight	220 g (including standard lens)
Size	8 cm x 6 cm x 6 cm (including standard lens)
Computer Interface	USB 3.0
Trigger	External trigger signal, WiFi remote control, or time delayed start
Site requirements	0 to 45 °C; 0 to 95% RH

¹ Specifications subject to change without notice.

² BaySpec offers a custom solution band selection. We have 61 bandpass filters that range from 400-1000 nm at a 10 nm interval with a FWHM of 5-7 nm

