

Applications:

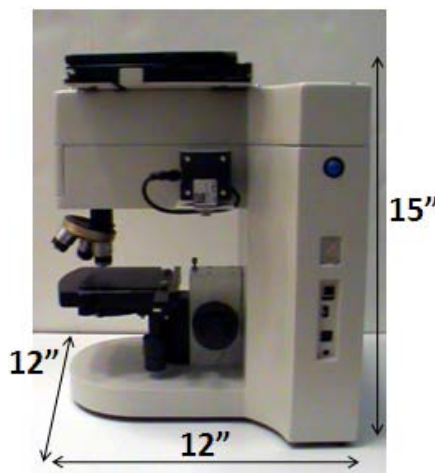
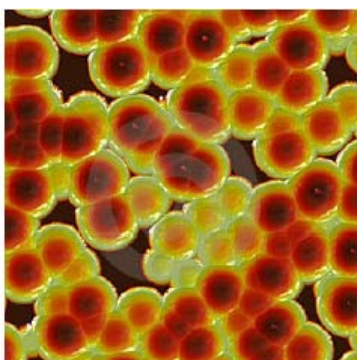
- Drug screening
- Mineralogy
- Rapid, non-invasive and non-destructive nature of analysis
- Failure Analysis
- Complement (or replace) traditional methods of analyses like Infrared, Gas Chromatography, XRD and wet chemistry
- Raw material ID
- Gemstone Analysis
- Process Control
- Didactic learning
- Forensics
- *in vivo* or *in vitro* medical applications
- Petrochemical
- Pharmaceuticals
- Semiconductor inspection
- Many more...

The latest release of BaySpec's dispersive Raman microscope family, the **MovingLab™** features best-in-class performance, long-term reliability, and compact size to meet real world challenges for liquid or solid samples. Benefiting from experience manufacturing high-volume spectral monitoring devices for the telecommunications industry, BaySpec's spectral devices utilize low-cost field proven components. For the first time in instrumentation history an affordable, accurate and ruggedized microscopic Raman spectral device is a reality.

The **MovingLab™** Series employs a highly efficient *Volume Phase Grating* (VPG®) as the spectral dispersion element and an ultra sensitive CCD or InGaAs array detector as the detection element, thereby providing high-speed parallel processing and continuous spectrum measurements. As an input, the device uses direct coupled optics arrangement for ultra-high throughput. A cost-effective microscope is enabled with easy handling of microscopic samples.

Key Features

- Real-time spectral data acquisition
- Outstanding optical throughput with VPG® and f/1.8 design
- Cost effective microscope interfaced directly to the Raman spectrometer
- Wavelength range $\leq 150\text{cm}^{-1}$ up to detector limit ($\sim 3200\text{cm}^{-1}$)
- Optional 532, 785 or 1064nm excitation wavelengths for high sensitivity and reduced fluorescence interferences from biological samples
- High power lasers with adjustable power control
- Thermoelectrically cooled detectors (to -60°C) for low light detection
- Direct coupling of lasers to spectrograph (no fiber optics)
- Built-in swivel-Notebook computer or USB2.0 output to external PC/monitor
- Powerful *Micro 2020* software integrated with mapping



MovingLab™ - Raman Microscope

Cost effective Raman microscopy on the move



BAYSPEC

Technical Specifications

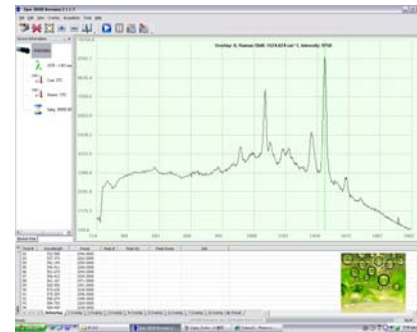
Wavelength Range*	532, 785	1064
Wave Number	≤150 to 1800 cm ⁻¹ or to 3200 cm ⁻¹	
Spectral Resolution	<2 cm ⁻¹	<4 cm ⁻¹
Spatial Resolution	1μm	
f/ number	f/1.8	
Grating	High Throughput Volume Phase Grating (VPG) [®]	
Laser Power	~50 mW @532nm ~500mW @785nm	~400mW @1064nm
Laser Control	User Settable, 0.1% - 100%	
Detector array	1024x64 or 2048x64 Pixels	512x1 Pixels
Detector	TE cooled CCD	TE cooled InGaAs array
Battery backup	2 hours	
Data Ports	USB 2.0	
Trigger Modes	Software Controlled	
Software	Windows 2000 or later	
Integration Time	20 ms to 300 seconds	
Dimensions	12 x 12 x 15 in ³ (305 x 305 x 381 mm ³)	
Weight	15 lbs. (6.8 kg)	
Power Consumption	<25 W	

* Custom wavelengths available, contact BaySpec for more information

Key design benefits:

- High throughput transmission Volume Phase Grating (VPG)[®]
- Fast f/1.8 optics
- No moving parts
- High signal/noise
- Minimal sample preparation
- Fast baseline correction
- Cost effective microscope

BaySpec "Micro 20/20" GUI Software included for ease of integration



BaySpec's "Micro 20/20" software is included with purchase at no charge, offering an intuitive, Windows-based software package with flexible data acquisition, processing and output functionalities and mapping features.

Includes DLL driver and software development kit for creation of new applications and output to leading software packages

Mobilize your Lab with Cost Effective Raman Microscopy

BaySpec's new **MovingLab™** unit extends the use and practicality of Raman measurements with greater flexibility and ease of use than ever before. Building on over 10 years of experience with over 25,000 spectral engines of all types shipped, BaySpec's newest **Nomadic™** Raman Microscope family member is on the move and ready to bring sampling out of the lab to the sample.

The **MovingLab™** is non-destructive providing real-time structural and molecular analysis without the need for sample preparation. Ideal for R&D and QC Labs.

Check out our full line of **Nomadic™** Raman Microscopes

Single, Dual or Three Wavelength Configurations (532, 785, 1064nm or custom)



Customized solutions

(shown: Nikon microscope with High Throughput Dispersive **1064nm** Raman Spectral Engine)

