

BAC151C

Raman Accessory

Raman Video Microsampling System



The BAC151C is a compact Raman microscope compatible with B&W Tek portable Raman systems. It is designed to offer the highest level of flexibility in facilitating Raman microsampling for a variety of applications. The BAC151C can be configured to fulfill the exact requirements of your application. The unique dual-laser-wavelength port provides the flexibility for one microscope to be coupled with two different laser wavelength Raman systems. The integrated camera allows for precision Raman sampling through camera monitoring of the laser beam and imaging details. Coupled with B&W Tek's research-grade portable Raman spectrometers, it provides Raman microscopy capabilities in a small form factor at a fraction of the cost of most research instruments. The video head can easily be mounted to a tripod, facilitating use in field applications.

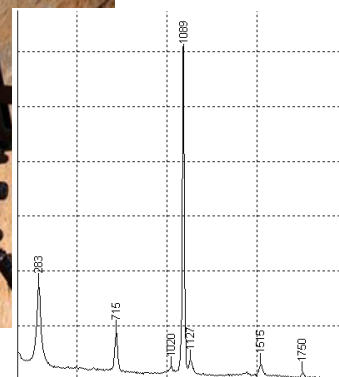
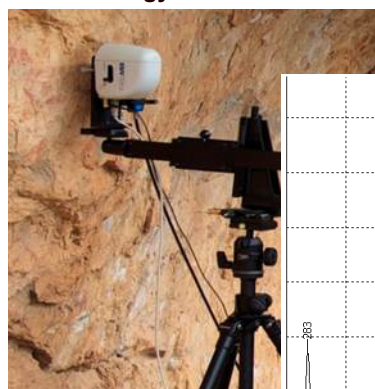
Flexibility:

The BAC151C is designed to perform Raman spectroscopic analysis at specific points in a sample, collecting the sample image and Raman spectrum. The configuration flexibility provides convenience for applications such as SERS, forensics, art and archeology, thin film, and defect analysis.

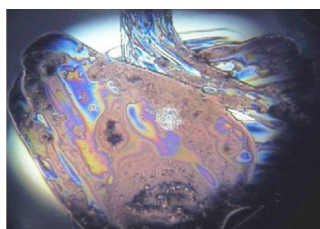
Features:

- Dual laser wavelength port
- Coarse and fine XYZ adjustments
- Video camera for sample viewing
- Accepts standard microscope objectives
- Tripod mounting accessories with 1D, 2D, and 3D adjustment

Art / Archeology:

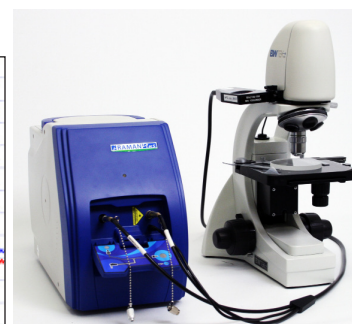
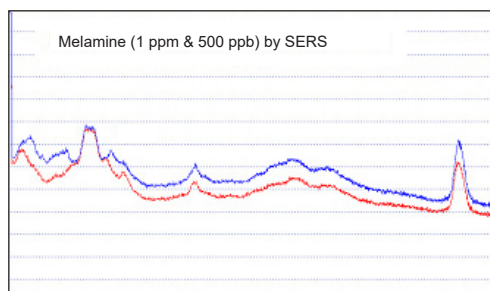


Defect Analysis:



20X Magnification of Contamination on Silicon (True Color)

SERS:



Specifications:

SYSTEM		
Wavelength	Standard	Optional
	532nm, 785nm, 1064nm	Dual wavelengths (532/785)
Raman Probe Interface	Ø3/8"	
Power Input	5VDC, 300mA	
Operating Temperature	0 - 35°C	
Humidity	<85 %, non-condensing	
Dimensions	9.6" x 8.2" x 14.8" (243mm x 208mm x 376mm)	
Weight	10.6 lb (~4.8 kg)	
MICROSCOPE		
Nosepiece and Turret	Quadruple Nosepiece	
Illumination	Epi-illuminator, LED with Condenser	
Objective Lens	Long Working Distance, Infinity-corrected, Plan Achromatic	
Objective Lens Magnification	Working Distance (mm)	Laser Beam Spot Size (µm)
10x	16	210
20x	12	105
50x	9.15	42
100x	3.2	21
Focusing	Coaxial fine and coarse adjustment with lock	
Travel in Z Direction	24 mm	
XY Stage	Double-layer mechanical stage	
XY Stage Size	150mm x 140mm	
Travel in X/Y Direction	75 mm (X), 50 mm (Y)	
CAMERA		
Sensor	1/3" CMOS	
Active Pixels	756 x 504	
Interface	USB 2.0	
Gain Control	Automatic	
Video Image Display	Via BWSpec® Software	
Power Consumption	<1W through USB	
TRIPOD MOUNTING ACCESSORY OPTIONS		
Tripod	Tripod with 1/4"-20 Thread	
1D Adjustment with Mounting Platform	1/2" (13mm) Travel	
2D Adjustment with Mounting Platform	1/2" (13mm) Travel	
3D Adjustment with Mounting Platform	1/2" (13mm) Travel	