

GemRam™

Raman Solution

Raman Gemstone Identification System



The GemRam™ is a lightweight, portable Raman spectrometer for gemologists and researcher to conduct rapid, non-destructive verification of known gemstones as well as the identification of unknown gemstones based on mineral physics. It comes equipped with B&W Tek's GemID™ identification software that includes a spectral library of >450 genuine gemstones from the Gemexpert collection, including common and rare gems spectra and images. The GemRam can be used to identify polished stones, crystals as well as uncut stones.

The GemRam utilizes a frequency-stabilized 785nm diode laser and high resolution TE-cooled spectrometer, providing unrivaled performance and repeatability. For convenient sampling, it comes complete with a fiber optic probe and an X-Y-Z positioning stage, all in a convenient carrying case.

About GemExpert:

Professor H.A. Hänni and Professor Johannes Hunziker are world class authorities on gemology. Hänni and Hunziker are founders of GemExpert GmbH.

Powered By:
GemExpert

Specifications:

Laser	
785nm Excitation	785nm, > 320mW
Laser Power Control	0-100%
Spectrometer	
Range	150cm ⁻¹ - 2700cm ⁻¹
Resolution*	< 3.5cm ⁻¹ @ 912nm
Electronics	
Computer Interface	USB 2.0 / 1.1
Power	
DC Power Adaptor	Input: 100-240 VAC 50/60Hz Output: 5V DC @ 8 Amps
Physical	
Dimensions	6.7 x 13.4 x 9.2in (17 x 34 x 23.4cm)
Weight	10lbs (4.6kg)
Operating Temperature	10°C - 35°C
Storage Temperature	-10°C - 60°C
Humidity	10% - 85%, non-condensing

*Resolution measured using atomic emission lines. Raman resolution per ASTM Standard Guide (Testing the Resolution of a Raman Spectrometer, E2529-06) available upon request.



GemID Software GUI:

