

MiniRam - Miniature NIR Raman Spectrometer



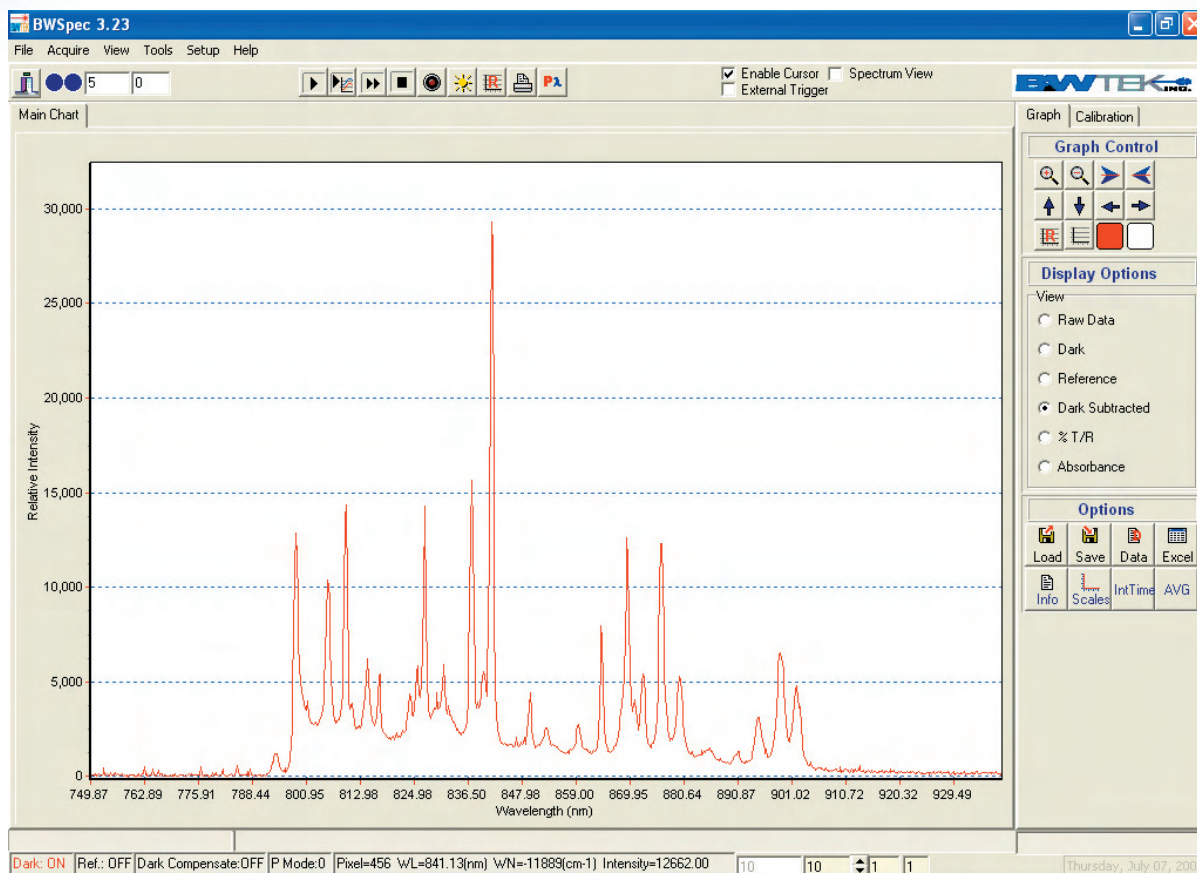
- ✱ The smallest frame size
- ✱ A powerful tool
- ✱ Lightweight and portable
- ✱ Fast, reliable and easy to use

Features

- 200 – 2800 cm^{-1} high sensitive response range
- 16 bit digitizer
- USB 2.0/1.1 plug-and-play interface
- No moving parts
- TE cooled 2048 pixel CCD
- Pure 785nm narrow linewidth laser based on CleanLaze™ technology
- Fiber light coupling capability
- Portable and light weight
- Interface with GRAMS/AI

Applications

- Enables advanced analytical analysis of biological, chemical, pharmaceutical, and polymeric materials.
- Analysis powders, liquids and solids in cuvettes, bottles, tubes and open samples. No sample preparation
- High resolution facilitates analysis of complex spectra.
- High sensitivity for rapid spectral acquisition needed in time critical and multi-sample applications.
- Fluorescence spectroscopy
- High Performance Liquid Chromatography (HPLC)
- Water pollution monitoring
- Surface contamination



Example uses in the Pharmaceutical Industry

- Polymorph Identification
- Coatings
- Polymers
- PDT Studies
- Component Mapping
- Molecular Characterization
- Phase determination
- Raw Material screening

Specifications

Spectrometer

Power Input:	5 V DC @ < 3 A
Detector:	TE cooled 2048 CCD array
Spectral Coverage:	150 – 3000 cm^{-1} maximum (Best in 200 – 2500 cm^{-1})
Slit:	25 μm width dependent on resolution
Optical Resolution:	~6 to 10 cm^{-1} FWHM
Digitizer Resolution:	16 bit, 250 kHz
Dark Noise:	<80 RMS at 9 ms, 1scan

System

Integration Time:	9 ms (minimum) – 60x16 s (maximum)
Computer Interface:	USB 1.1/2.0
Operating Software:	Windows Me, 2000 and XP compatible
Dimensions:	8.9" x 6.4" x 3.25"
Weight:	about 7 lbs
Data Transfer Speed:	3 ms per spectrum in fast acquisition mode
Software Included:	BWSpec for Windows Me, 2000, and XP and ActiveX OCX Control for GRAMS/AI

Laser

Center Wavelength:	785 nm +/- 1 nm (473 nm, 488 nm, 632 nm, and Custom Available)
FWHM Bandwidth:	0.2 nm (typ.), 0.3 nm (Max.)
Output Power:	350 mW
Fiber Connector:	SMA 905