DRAWELL
Artist of Science

High-sensitivity High-resolution Portable Raman Spectrometer DTR3130

Features!

- Ultra-high sensitivity FFT-CCD TE-cooled;
- low noise circuit;
- Powerful embedded software;
- Fluorescent background eliminates;
- Peak finding and display;
- Win 10 operation system;
- USB 2.0;
- User friendly human-machine interface;
- Remote control via LAN;

Application

- Biological science
- Pharmaceutical engineering
- Forensic analysis
- Agriculture and food safety
- Gemstone
- Environmental science

Description

- It employs ultra-high sensitivity FFT-CCD, high-efficient Raman probe, power reach up to 600mW ultra narrow line width laser, combined by high reliable optical design, circuit design, and measure result, high SNR, and fit well to field work. The obvious reliability ensures detect result, excellent low stray condition can apply Raman instrument to wider industries, especially biochemical analyzer, food safety, pharmaceutical engineering etc. This multi-function software support Raman analysis process.

DTR3130 employs 110/220V power supply, DC supply via 5V adaptor.

Parameters

Operating system	**Windows**
Integration time	**lms - 120s**
Power voltage	**DC 5V(+/-5%)**
Operating Temp	**-10 - 40°C**
Operating humidity	< 95%
Dimension(L*W*H)	**30x22.5x13.2 cm3**
Weight	5.5 Kg
Reliability	
Spectral stability	**o/p < 0.5% (COT 8 hours)**
Temp stability	**Spectral shift < 1 cm-1 (10-40°C)**
Variation of intensity(in 5 ~ 40°C)	**<±5%**

Optical parameters	
Spectral range (cm)	100-3000
Resolution (cm)	4-5
SNR	>3000:1 (918 cm-1 of Acetonitrile, 10s accumulation, 200mW)
Entrance slit	50 pm
Optical system	f/4 C-T crossed optical path
Focusing	98 mm for incidence and output
Detector	
Item	Ultra-high sensitivity, quick cooling CCD
Detector cooled down to	-20°C
Detecting range	200-1100 nm
Effective pixels	2048*64
Dynamic range	50000: 1
Pixel size	14pmX200pm
Exciting Laser	
Central wavelength	785nm (+/-lnm)
FWHM	0.08 nm
Power output	≥500 mW
Power stability	o/p <±0.2%
Raman probe	
Operating distance	6 mm
Rayleigh scattering resistance	OD>8
Numerical Aperture	0.3
Aperture	7mm

Immersion Probe