532nm Portable Raman Analyzer DTR3000

Features

- NDT, Fast ID

Accurately identify materials categories and chemical components

Non-contact, glass, plastic bags, transparent or semi-transparent containers

Safe radiation free, 532 laser

High resolution can identify fine finerprint differences

Multiple modes option, fast detect, accurate detect and precision detect

Detect results can be stored and exported

Hardwar Screen

- **Probe**

When users detect, the probe aims at samples detected, it requires fine-adjusting distance between probe and different samples, in order to ensure emergent laser can focus on surface of samples detected. Keep lens surface clean, avoid accident damage of probe.

: It produces laser during detection, when laser indicator on, laser on the surface light up, it prohibits probe aiming at eyes or skins, where could be burned for high power at the moment.

: Probe shall not direct to windows or sun light during detection, which makes deviation of laboratory results.

- **Screen**

It uses 10-inch 1024x600 touch screen, simple interface and easy to operate

: Organize attachments back to places and secure before closing suitcase, and open/close suitcase in gentle, otherwise rude operation can damage screen and harm human life.

- **Indicator**

Electric quantities indicator locates in the upper right corner to monitor electric quantities used up. Power on, power indicator lights up. Laser on, laser indicator lights up. Pay attention to laser.

USB port used to export data and transfer files.

Power

Power supply uses 220V, and first to connect power chord, open suitcase, press power button till screen light on, the power LED light up.

⚠ Only use certified adaptor or connector to supply power, unsuitable adaptor or connector can bum laser and hurt human body.

⚠ **It's not allowed to dismantle/modify the instrument in order to prevent potential damage to the instrument or even harm human life.**

Parameters

DTR3000 System	
Interface	**USB 2.0 and WIFI**
Operating system	**Android**
Screen	**11.6-inch capacitive touch screen, Multi-touch**
Integration time	**4ms - 120s**
Power voltage	**DC 220V(+/-5%)**
Operating Temp	**-10へ40 °C**
Operating humidity	**< 95%**
Dimension(L*W*H)	**40x30x18 cm3**
Weight	**7.5 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 へ40。 C)	**< ±5%**
Optical parameters	
Spectral range (nm)	**540-745**
Resolution (cm-1)	**19**
SNR	**>2000:1**
Entrance slit	**50pm**
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	**-10 °C**
Detecting range	**200-1100 nm**
Effective pixels	**2048*64**
Dynamic range	**>10000：1**
Pixel size	**14pmx200pm**
Full well capacity	**300 Ke-**
Exciting Laser	
Central wavelength	**532nm (+/-lnm)**
FWHM	**0.08 nm**
Power output	**>100 mW**
Power stability	**o/p<±0.2%**
Raman probe	
Operating distance	**3 mm**
Rayleigh scattering resistance	**OD>8**
Numerical Aperture	**0.3**
Aperture	**7mm**