

## **Portable Raman Spectrometer DTR2000**

## Features

linear CCD with TEC cooling;

- Powerful embedded software;
- Peak searching and indicating;

Iow noise circuit;

Fluorescent background eliminate;

10.1" LCD;

Application

1.Biological science

2.Pharmaceutical engineering

3. Forensic analysis

Android Operation System;

Touch screen and Keyboard input;

- Battery Endurance > 5 hours;
- P67 case;



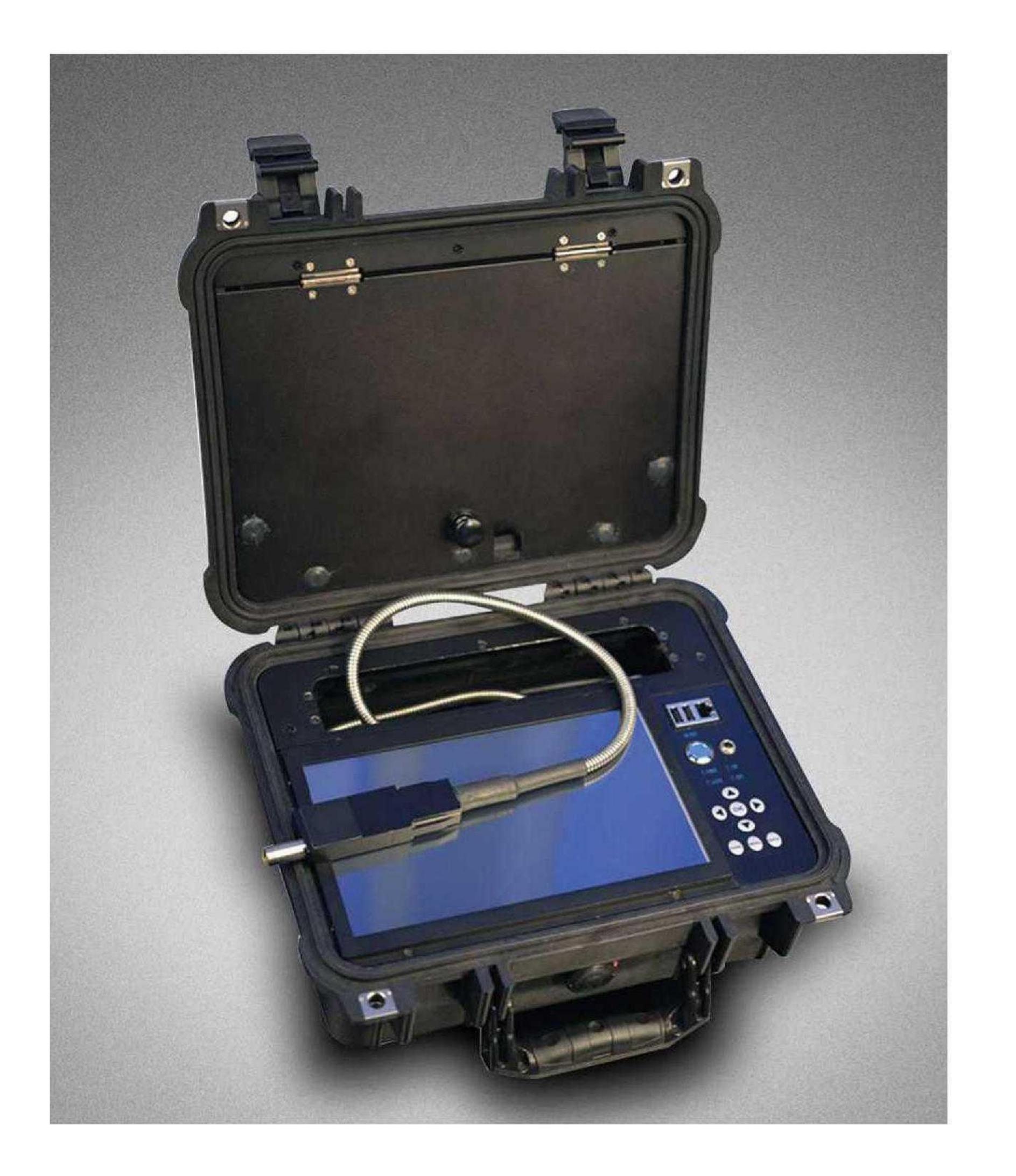
Friendly HMI;

Remote control via LAN;

4. Agriculture and food safety

5. Gemstone

6. Environmental science



## Description:

DTR2000 portable Raman spectrometer is suitable for field operation.
The outstanding reliability makes the detection result much accurate.
The excellent low stray light conditions that enable the spectrometer has a wide range of application, especially in the biochemical

analyzer, food safety, pharmaceutical engineering. The multi-function

software facilitated the spectral analysis process in application. The

remote experiment through internet access makes the bald test item much easier.



DTR2000 System	
Interface	USB 2.0/LAN
OS	Android 4.4.2
Battery endurance	>5 h
Integration time	4ms - 120s
Supply voltage	DC 19V(+/-5%)
<b>Operating temperature</b>	5~40 <sub>o</sub> C
<b>Operating humidity</b>	< 95%
Size (L*W*H)	30x22.5x13.2 cm3
Weight	<b>7 Kg</b>
Reliability	
Spectral stability	o/p < 0.5% (COT 8 hours)
<b>Temperature stability</b>	<b>Spectral shift &lt; 1 cml (10-400C)</b>
Variation of intensity in 5 ~ 40 0C	<±5%

## Artist of Science

Spectral region / cm-1	250-2700	200-3300	150-4000	
Spectral resolution / cm-1	5	6	7	
Signal-to-Noise	>400:1 (918 cml of Acetonitrile, 10s integration time, 200mW)			
Incidence slit	<b>50 pm</b>			
Optical system	f/4 Crossed Symmetrical Czerny-Turner			
Focal length	98 mm for incidence and output			
Detector				
Type	Linear Array Detector			
Detectable range	200-1100 nm			
Effective pixel	3648			
Dynamic range	1300: 1			
Pixel dimension	8pmx200pm			
Full well capacity	100 Ke-			
Sensitivity	130 Photon @ 400 nm; 60 Photon @ 600 nm			
Exciting Laser				
Center Wavelength	785nm (+/-lnm)			
FWHM	0.08 nm			
Output power	>450 mW			
Power stability	⟨r/p <±0.2%			
Raman Probe				
Working distance	<b>6 mm</b>			
<b>Rayleigh scattering resistance</b>	OD>8			
Numerical Aperture	0.3			
Aperture	<b>7mm</b>			

