

All-Auto & High Throughput Portable Raman Analyzer DTR8000

Features

Test 100 samples at the same time;

All-auto Detection;

High sensitivity;

Wave length customized I 532nm, 633nm, 785nm, 1064nm;

Double wavelengths customized: 785 + 1064nm, 532 + 1064nm, 532 + 633nm, 633 + 1064nm;

Bar codes & QR codes recognition, it is easy for management;

High reliability;

It can auto-identify, and auto-skip without s ample;

Smart & intuitive software supports operation.

Application

University lab, scientific research institution

Nanoparticles & New materials

Biological science

Forensic Tdentificaiton

Material science

Medical analysis of immunology

Agriculture & Food of identification

Water pollution analysis

Gem & Inorganic mineral of immunology

Environment science



Figurel DTR8000 A | -auto & High Throughput
Portable Raman Analyze

Description

DTR8000 full-auto & high throughput Portable Raman Analyzer is a all-auto detection instrument for improving detection throughput, reducing workload & protecting the health of testing personnel.

DTR8000's software uses two-dimensional platform of high-precision & all-auto scanning technique. And it runs automatically at original manual operation with the step of Raman test, calculating the result, judgment, display & printing results, etc.

DTR8000 set to test 100 (maximum number)) samples at once. The sample tray can be changed and customized. It supports Raman probe illuminating laser beam from above which direct detection of SRES with Raman, and from the bottom to the top. DTR8000 uses the customized Android with high security. It has thermal printer, bar code scanner, USB interface, WIFI & 4G

The advantage of DTR8000 full-auto & high throughput Portable Raman analyze:

with customized which can directly print or submit to competent

The Raman testing for one sample usually costs 10s or more time. Some experiments perform multiple experiments in order to obtain a higher signal-to-noise ratio, and the experiment time is longer. It takes longer time for the 1064nm Raman spectrometer to scan samples, because of weak excitation efficiency, and low response rate of infrared sensors etc. In this way, researchers consume a lot of time and effort to repeat test labors if they want to measure 100 samples, it may be take hours or even a whole day.

DTR8000 combines high-sensitivity Raman spectroscopy, precision motion control, and smart sensing, to deal with the problem of repetitive work for researchers. It come true the Raman determination of automation and high throughput. ATR8000 can test 100 samples at the same time, and automatic light and sound alarmed will warn experimenter upon the end of the test, as a result of reducing experimenter work load.



Parameters

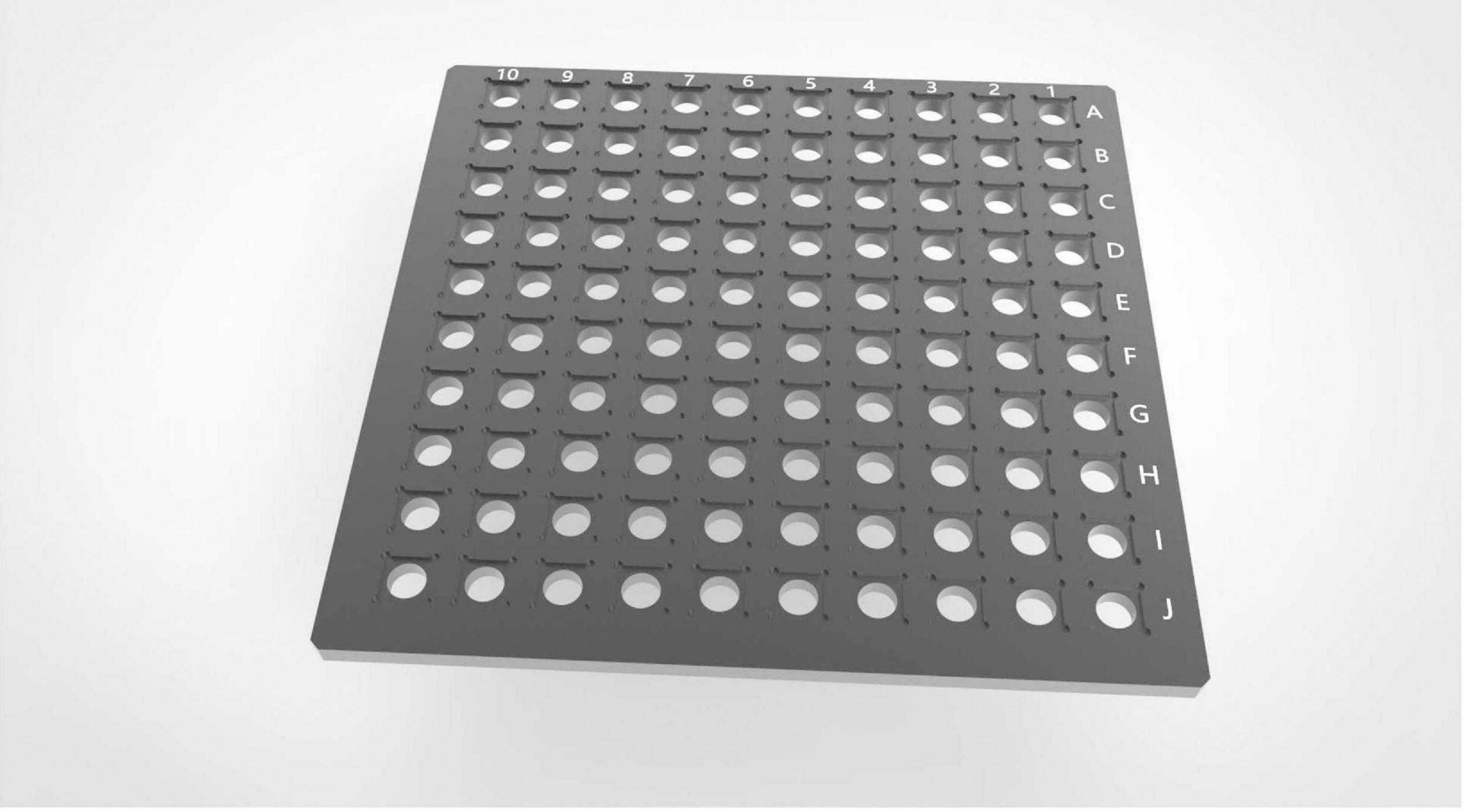
Model	DTR8000-532nm	DTR8000-633nm	DTR8000-785nm	DTR8000-830nm	DTR8000-1064nm			
Interface	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0			
Integral time	lms - 120s	1 ms -64s	4ms - 120s	4ms - 120s	4ms - 120s			
Voltage	AC 220V(+/-5%)	AC 220V(+/-5%)	AC 220V(+/-5%)	AC 220V(+/-5%)	AC 220V(+/-5%)			
Working temp	-10~40°C	-10~40°C	-10~40°C	-25~50°C	-10~40°C			
Working humidity	< 95%	< 95%	< 95%	< 95%	< 95%			
Size (L*W*H)(mm)	800*500*300	800*500*300	800*500*300	800*500*300	800*500*300			
Channels	100	100	100	100	100			
Precision guide	0.625pm	0.625pm	0.625pm	0.625pm	0.625pm			
Weight	27 Kg	26 Kg	25Kg	25Kg	27Kg			
Reliability								
Optical stability	a/p < 0.5% (COT 8 hours)	a/p < 0.5% (COT 8 hours)	a/p < 0.5% (COT 8 hours)	a/p < 0.5% (COT 8 hours)	a/p < 0.5% (COT 8 hours)			
Temperature stability	shift < 1 cm-1 (10-40°C)	shift < 1 cm-1 (10-40°C)	shift < 1 cm-1 (10-40°C)	shift < 1 cm-1 (10-40°C)	shift < 1 cm-1 (10-40°C)			
Intensity variation (in 5 ~ 40°C)	<±5%	<±5%	<±5%	<±5%	<±5%			
Optical								
Wavelength(cm-1)	200-3700	200-2700	250-2700 _s 200-3500 _s 200-4200 Customized	200-2700	200-2600			
Resolution (cm-1)	8	10	6, 8, 10	6	13			
SNR	>1500:1	>3000:1	>3000:1	>3000:1	>3000:1			
Detector								
Model	TE-Cooled CCD	TE-Cooled CCD	TE-Cooled CCD	TE-Cooled CCD	High sensitivity 512 pixels InGaAs CC			
The Cooled	-10°C	-10°C	-10°C	-10°C	-20°C			
Detection range	200-1100 nm	200-1100 nm	200-1100 nm	200-1180 nm	900-1700 nm			
Dynamic range	50001 1	10000: 1	50000: 1	30000: 1	80000: 1			
Light								
Central wavelength	532nm±0.5nm	633nm±0.5nm	785nm±0.5nm	830 nm±0.5nm	1064±0.5nm			
HBW	≤ 0.1 nm	≤ 0.1 nm	0.08 nm	0.1 nm	0.1 nm			
Maximum power	≥100 mW	≥100 mW	≥500 mW	≥500 mW	≥500 mW			
Power stability	$a/p < \pm 0.5\%$	$a/p < \pm 0.5\%$	$a/p < \pm 0.2\%$	$a/p < \pm 0.2\%$	$a/p < \pm 0.2\%$			
Microprobe								
Working distance	6 mm	6 mm	6 mm	6 mm	6 mm			
Resistance	OD>8	OD>8	OD>8	OD>8	OD>8			
NA	0.3	0.3	0.3	0.3	0.3			
Aperture	7mm	7mm	7mm	7mm	7mm			
Platform	Android							
	WIFE 4G (Customized)							



Form 1 Product Selection Table of DTR8000

	Model	Excitation Wavelength /nm	Laser Power /mW	Wavelength Range	Resolutio n/cm-1
Single	DTR8000-633	633	50	200 ~ 3500	3—6
	DTR8000-785	785	500	200 ~ 3500	3 - 8
Wavelength	DTR8000-1064	1064	500	200-2600	7—12
	DTR8000-830	830	500	200-3500	3 - 8
Double	DTR8000-785 + 1064	785+1064	500	200-3500	3 - 8
			500	200-2600	7—12
	DTR8000-532+633	532+633	100	200 —3700	5—7
Wavelength			50	200-3500	3—6
	DTR8000-532+1064	532+1064	100	200 —3700	5—7
			500	200-2600	7—12
	DTR8000-532+785	532+785	100	200 —3700	5—7
			500	200-3500	3 - 8
	DTR8000-633 + 1064	633+1064	50	200-3500	3—6
			500	200-2600	7—12





It is DTR8000's sample tray, can be taken with integral, and put in sample Cabinet with sample.