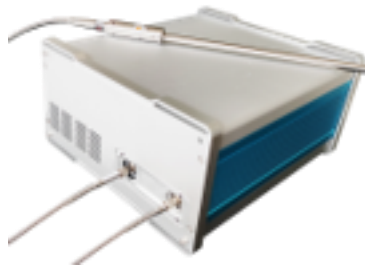# Portable Raman Systems(RMT)

2023 V1
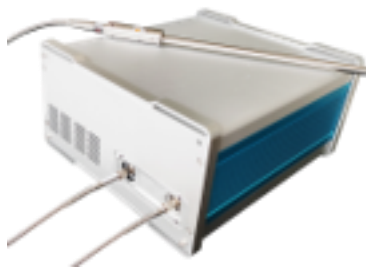For customized projects please Contact us:
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RMT series portable Raman spectrometers are professional Raman spectrometers for scientific research, industry, food and drug applications. It has the characteristics of convenient carrying, matching application scenario, easy operation and excellent performance.

The series is divided into research RMT KY type, industrial RMT GY type and food and drug RMT SY type, among which RMT KY and RMT GY type optical fiber probes are external, and the use is more flexible.

Food and Drug Edition—RMT SY   Industrial Edition—RMT GY   Research Edition—RMT KY

Technical Advantages

1.Integrated space optical path
RMT series portable Raman spectrometer adopts full free space coupling integrated optical path design, without fiber loss, diffusion, and spectral instability caused by free fiber vibration. Its spectral sensitivity is about 2 to 5 times that of the traditional fiber optical path, that is, the spectral signal-to-noise ratio of this series of products is significantly higher under the same test conditions.
The industrial RMT GY has a built-in HiNA high-sensitivity spectrometer to detect 1% concentration changes.

2. Powerful software functions
Scientific version RMT KY, industrial version RMT GY and spectrometer with the PC software: FLAVOR is a powerful software, in addition to the basic spectral acquisition control function, but also has wavelet smoothing, automatic calculation of CV and other characteristic functions.

RMT SY type with screen and operating software, built-in database and matching algorithm, and support wireless record upload, print test report.

3. High stability
Built-in self-calibration function, a calibration lifetime maintenance-free 0~40°C temperature drift within $\pm2cm$-1.7*24 continuous work, spectral frequency shift is less than 2cm-1 / month.

4. Easy to use
No configuration, preheating, plug and play.Separate 5V DC power supply or battery configuration is optional

Specifications

Application Field	Food and Drug Edition	Industrial Edition	Research Edition		
Model	RMT785 SY	RMT785 GY	RMT785 KY	RMT532 KY	RMT1064 KY
Wavelength Range	200~3200cm^{-1}	200~3000cm^{-1}	200~3000cm^{-1} or 200~3200cm^{-1}	200~3000cm^{-1} or 200~3200cm^{-1}	200~2500cm^{-1}
Optical Resolution	6-8cm^{-1}	6-8cm^{-1}	8cm^{-1}	8cm^{-1}	10cm^{-1}
Frequency Shift Error	≤±2cm^{-1}	≤±2cm^{-1}	≤±2cm^{-1}	≤±2cm^{-1}	≤±2cm^{-1}
Temperature Drift	≤±2cm^{-1} @0~40℃	≤±2cm^{-1} @0~40℃	≤±2cm^{-1} @0~40℃	≤±2cm^{-1} @0~40℃	≤±2cm^{-1} @0~40℃
Laser Wavelength	785nm±0.5nm	785nm±0.5nm	785nm±0.5nm	532nm±0.5nm	1064nm±0.5nm
Laser Linewidth	< 0.1nm	< 0.1nm	< 0.1nm	< 0.1nm	< 0.1nm
Laser Power	0~500mW	0~500mW	0~500mW	0~100mW	0~500mW
Probe Operating Distance	7.5mm	1mm	7.5mm		
Dimension	415*336*120mm3	312*275*151mm3	484*375*178mm3		
Weight	3kg	7.5kg	5kg		
Software	Raman Software Includes Database	PATRaman Software	Raman Software		
Raman Probe	Built-In	Extraposition	Extraposition		
Battery	Standard Configuration	/	Assorting		
Data Interface	/	USB2.0，USB-B	USB2.0，USB-B		
Power Interface	DC2.1				
Power Supply	12V DC				

Software Function

- Manage device connections, reconnect or refresh devices

- Saturation automatically adjusts the integration time, and records the real integration time and laser power

- Wavelet smoothing

- Automatic peaking

- Model base management: create, delete, modify

- Model matching

- The laser can be controlled independently or associated with the device

- Continuous spectral acquisition mode, or Raman acquisition mode

- Automatic calibration

- Performance monitoring/evaluation

- Overlay/Delete spectrum, select spectrum first

- Add multiple collection pages

- Wavenumber/wavelength switching

- Manually specify the X-axis translation value

- Manually on/off laser cooling, easy to control heat and save electricity

- RMT SY software includes database and matching algorithm

- RMT SY software supports wireless data upload and print test reports

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