SIMTRUM

Handheld Raman Spectrometer

RM-series

Inspection Material

Including drugs, precursor chemicals, narcotics, psychoactive substances, explosives and precursor chemicals, other flammable and explosive chemicals, highly toxic substances, prohibited additives, jewelry and jade, etc.

Application Scenarios

Use handheld Raman alone to directly test a macroscopic amount (with an area of 1mm²) and a relatively high-purity substance directly on the spot to obtain the composition information of the substance.
Advantages: easy to use (one-key detection), no pre-processing, fast, results can be obtained within 10s. In situ, without damage.

With enhanced reagents, micro-content samples can be measured.
Advantages: Micro-content of contraband can be detected, and the minimum detection limit can be as low as ppm.

Product Specifications*

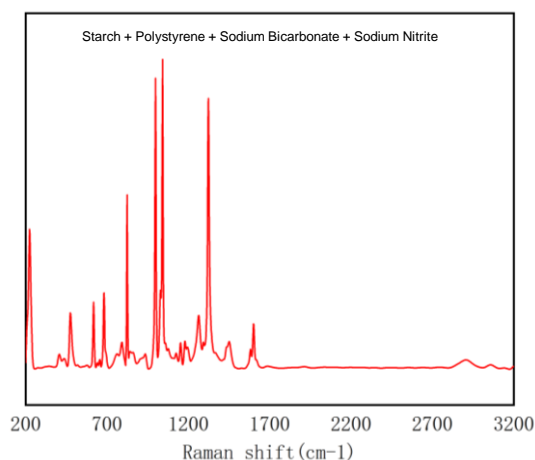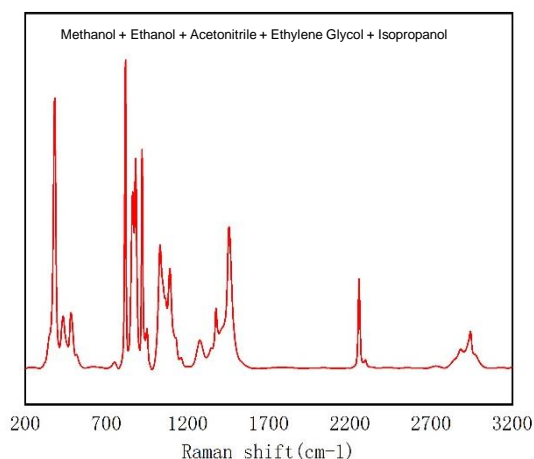| Model	RM785	RM1064
Size	182*88*30mm	197*90*45mm
Weight	~ 500g	~ 800g
Battery Life	> 12 hours	> 12 hours
Excitation Wavelength	785nm	1064nm
Laser Power	0~500mW tunable	0~500mW tunable
Band Range	200~3200cm^{-1}	200~2500cm^{-1}
Resolution	6 ~ 8cm^{-1}	~ 10cm^{-1}
Operating Temperature	-20 ~ 50℃	0 ~ 40℃
Laser Life	10000hrs	
Spot Size	~100um	
Working Distance	Continuously tunable	
Connection Method	WiFi , 4G	
Software Function	Model matching, generating reports, uploading records, etc.	
Photograph	support, 12 million pixels	
Database	> 1K	

*Due to ongoing continuous product improvement, specifications are subject to change without notice.

Technical Advantages

- Support 4 or more mixture recognition with high accuracy. Customizable mixture recognition depth
- Integrated reflective space optical path, high sensitivity, small aberration, long service life
- Easy to replace the battery and long battery life (24 hours battery life)
- Use safe, long-life industrial 18650 batteries
- Has a complete cloud background
- Wide band range, more accurate detection, more types of measurable substances

Mixture Identification

- Support up to 5 kinds of mixture composition analysis, and ratio reference
- Calculation time <10s, efficient and fast inspection
- High accuracy, false positive rate <10%

Methanol + Ethanol + Acetonitrile + Ethylene Glycol + Isopropanol

Starch + Polystyrene + Sodium Bicarbonate + Sodium Nitrite

High Fluorescent Substance Recognition

- With high-sensitivity hardware, the algorithm extracts the substance signal hidden in the fluorescence and can accurately identify high-fluorescence substances such as heroin, ketamine, xanthan gum, and cellulose.

Heroin

Chlorophyll