

EZRAM

RAMAN SPECTROMETER

(EZRAM 拉曼光谱仪)



Feature Highlights (突出的性能)

- Customer defined High/Low resolution laser.
(用户定制使用正常线宽或者窄线宽激光器)
- Super precision laser module
(超级精密激光模块)
- High Resolution Spectrometer cooled down to -30C
(高精度光谱仪，制冷到-30摄氏度)
- Wide Raman Shift Range
(宽拉曼光谱探测范围)
- Waterproof and ruggedized Enclosure
(坚固的外壳兼具防水)
- Software with complete control and process functions
(软件具备完全仪器控制和数据处理功能)
- Low cost, Low maintenance
(低成本，低维护)
- Size: 14 x 12 ½ x 7 in
(外壳尺寸14X12.5X7英寸)
- Weight: 10.5 lbs.
(重量 4.73 千克)

SMART SENSING INSTRUMENTS

(智能传感仪器)

Product Brochure (English)

(产品宣传册 (中文))

The EZRAM Raman spectrometer is a light weight bench top spectrometer for applications such as unknown liquid or solid molecules identification. Smart Sensing Instruments developed EZRAM to meet low cost yet high performance molecular detection needs in the field or lab.

User can use EZRAM to do the sampling and search within 30 seconds. There is minimum requirement for sample preparation. EZRAM integrated a high resolution detector cooled spectrometer. User can select either a regular line width laser or a narrow line width laser to achieve satisfied results.

The regular line width laser produces medium to low resolution of Raman spectra. Thanks for the high resolution spectrometer with cooled detector, for most Raman spectra, the regular line width laser produce very similar spectrum which can meet most application requirements.

The narrow line width laser produces high resolution spectra and presents more details in spectra.

Customer can select based on their own needs. In this brochure all spectra were produced by regular line width laser EZRAM.

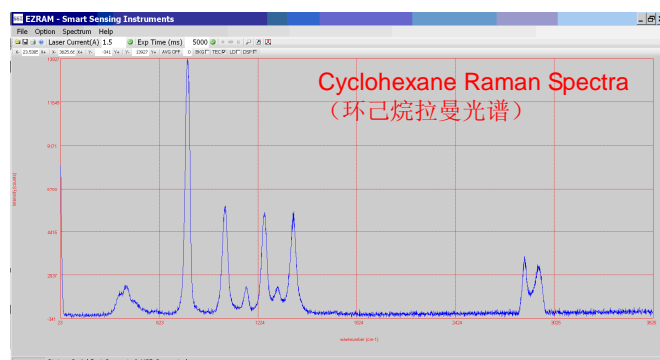
EZRAM 拉曼光谱仪是一种轻巧便携的台式拉曼光谱仪。作用范围在于未知固体、液体的分子定性检测。智能传感仪器针对市场要求开发了低成本高性能的EZRAM来满足现场和实验室应用需要。

用户可以使用EZRAM在30秒时间内来进行扫描和搜索未知物质。EZRAM内含高分辨率带制冷的高端光谱仪。用户可以根据满足需要的前提选用普通线宽激光或者窄线宽激光。

普通线宽激光可以产生中低分辨率的拉曼光谱。得益于高分辨率带制冷的高端光谱仪，普通线宽激光产生的光谱和高端拉曼光谱仪产生的光谱非常相近，可以满足绝大多数场合应用需要。

窄线宽激光可以产生高分辨率光谱仪，提供更多光谱细节。

用户可以根据自身需要选择激光器类型。本手册中所有光谱都是利用普通线宽激光器EZRAM取得。



Technical Specification EZRAM

(EZRAM技术参数)

SPECIFICATIONS	
Operating Temperature (使用温度)	0C to 35C (摄氏度)
Humidity (湿度)	10%-85% non condensation (非结露)
Spectral Range (光谱范围)	150-3625 cm-1 (波数)
Excitation Wavelength (激发波长)	785nm+/-0.5nm FWHM 2nm or narrower (2nm 或 窄线宽)
Excitation Power (激发功率)	Adjustable, 0-350 mW Max (可调)
Spectral Resolution (分辨率)	25 cm-1, Optional: high resolution w/ narrow line width laser (普通激光 25 波数, 窄线宽激光可定制)
Exposure time (曝光时间)	1 sec – 10 sec or Multiple Exposure to unlimited (可多次曝光延长至无限长时间)
Storage Temperature (贮存温度)	-20C to 45C
Collection Optics (探头光学参数)	NA = 0.22, 8mm focal length (焦距), 0.02-1.5mm spot size (曝光点尺寸)
Probe Length (探头长度)	75 – 100cm
Detector Cooling (探测器制冷温度)	TEC Cooled to -30 C (电制冷 -30 摄氏度)
Dynamic Range (动态范围)	1300:1 at least (最差值)
Power Supply (Battery Charger Supply) (电源 (可充电))	+12VDC, 5A
Battery (电池)	LiPoly, Optional (选配)
Battery Charger (充电电源)	On board, Optional (选配)
Library (数据库)	Optional (选配)
Data Export Format (数据格式)	*.BIN, *.CSV, *.SPC
Interface (界面)	Windows Tablet or PC (Windows 平板或者普通电脑)
Language (语言)	English (英语)
Weight (重量)	10.5lb (4.73 千克)
Size (尺寸)	14in x 12.5in x 7in (英寸)
* probe shape, probe color, enclosure's handle color might vary (探头形状、颜色, 外壳颜色可变)	

Legal Liability: The EZRAM is intended to provide initial determination and not for absolute or conclusive identification. Smart Sensing Instruments does not commit any liability for how the results or data to be used.
(法律免责: EZRAM 的检测结果只是用来做初步判断, 不是绝对正确的, 不是用来做最终决定的。智能传感仪器对于用户使用导致的任何结果都不负任何责任)

Class 3B Laser Product. Avoid direct exposure to laser beam.
(3B级激光产品, 避免激光束直射伤害)



Laser Engraved Labeling
(激光刻蚀面板标识)



Rugged Enclosure Design
(耐操型外壳设计)



Smart Sensing Instruments
(智能传感仪器)

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