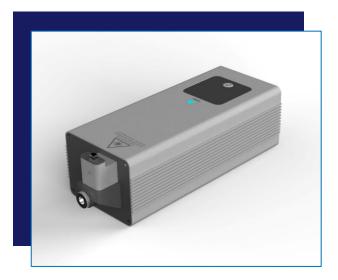# Desktop Raman Spectrometer
P/785-6UC, P/785-12UC

Product Introduction

Portable series desktop Raman spectrometers are professional Raman spectroscopy equipment for scientific research applications. It has the characteristics of small size, easy operation and excellent performance.

Technical advantages

1. Integrated optical path

P/785UC adopts an integrated optical circuit design with full free space coupling, without fiber loss, diffusion, and spectral instability caused by fiber vibration. Its spectral sensitivity is about 2 to 5 times that of traditional optical fiber optics, that is, the signal-to-noise ratio of the P/785UC spectrum under the same test conditions is significantly higher.
Another major advantage of the space optical path is its long-term stability, because it eliminates the problems of sensitivity reduction caused by fiber end face ablation and loss in principle.

2. Powerful PC software

PC software provided with P/785UC: FLAVOR is a powerful software. In addition to basic spectrum acquisition control functions, it also has characteristic functions such as wavelet smoothing and automatic CV calculation.

3. High stability

P/785UC built-in self-calibration function, one-time calibration and life-long maintenance-free
The spectral resolution remains unchanged when temperature drift within ±2cm-1 from 0~40℃

4. Simple to use

No need to configure, preheat, plug and play
Separate 5V DC power supply

Specification

Model	P/785-12UC	P/785-6UC
Waveband range	$200\sim3200cm^{-1}$	
Resolution ratio	$12cm^{-1}$ typical	$6\ cm^{-1}$
Frequency shift error	$\leq\pm2cm^{-1}$	
Temperature drift	$\leq\pm2cm^{-1}$ @ 0~40℃	
Laser wavelength	785nm±0.5nm	
Laser linewidth	< 0.1nm	
Laser power	0~500mW	
Focal length adjustment stroke	6mm,　(positioning accuracy)10um	
Operating temperature	0~40℃	
Storage temperature	-20 ~ +50℃	
Size	≤150*150*360mm	
Weight	< 3kg(with power supply)	
Power Source	5VDC 2A	
Data interface	USB-B	

Software Functions

- Device connection management, reconnect or refresh device
- Saturation automatically adjusts the integration time, and records the real integration time and laser power
- Automatic calculation of CV
- Wavelength smoothing
- Automatic peak searching
- Model library management: create, delete, modify
- Model matching

- Continuons spectral acquisition mode, or Raman acquisition mode
- Automatic calibration
- Performance monitoring/evaluation
- Add multiple spectral collection pages
- Wave number/wavelength switching
- Manually specify the X-axis value
- Manually on/off the laser refrigeration, convenient to control heat and power saving
- The laser can be controlled independently or associated with the device

Schematic