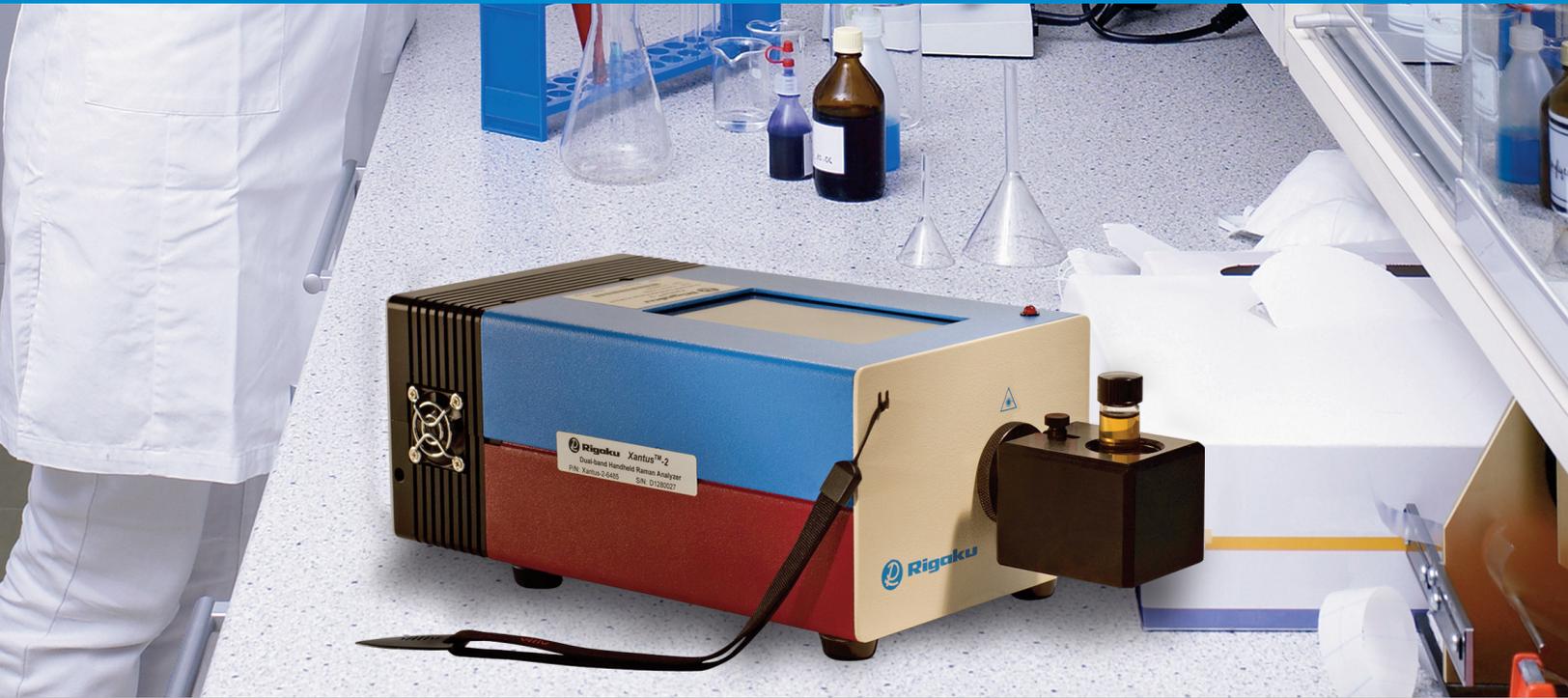


LEADING WITH INNOVATION.



## Xantus-2 Dual wavelength options for enhanced application support



### SETTING NEW BENCHMARKS IN:

- User empowerment features
- Lab-style data management
- Customized portable solutions
- Low cost of ownership
- Ease of use



## Truly portable Raman meets the needs of today's laboratories and classrooms

Rigaku Raman's Xantus-2™ is the world's first dual wavelength Raman analyzer designed to provide customers with application specific solutions for quality data analysis. It is equipped with options of 785 and 1064nm or 532 and 1064nm lasers stabilized for Raman spectroscopy, providing a unique combination of high sensitivity and minimized fluorescence.

Lightweight, portable and battery operated the Xantus-2 supports an integrated academic lab-lecture approach to education enabling hands-on lab analysis in the class room. The analyzer also empowers scientists to transport the instrument throughout the laboratory

and across multiple laboratories for a more collaborative environment.

Xantus-2 utilizes integrated software combining open architecture with customizable, user-defined settings for optimized sampling parameters that result in comprehensive and actionable data analysis. Equipped with sampling accessories for solids, liquids and powders, the Xantus-2 can perform analysis directly through sample containers without altering or destroying the sample. Users are able to perform rapid quantitative and qualitative analysis and monitor reactions like oxidation and reduction directly through clear/amber-colored glass vessels.

## CUSTOMIZED SOLUTIONS

Rigaku Raman Technologies offers users advanced analytical instruments tailored to meet unique application requirements. Users can optimize sampling sensitivity with their choice of laser configuration best suited for material analysis; 785nm for non-fluorescent samples that require high sensitivity, 1064nm for highly fluorescent samples often found in the pharmaceutical and biopharmaceutical industries, and 532nm for semi-quantitative applications, where fluorescence is not an issue, and analytical sensitivity is paramount.

## THE DUAL WAVELENGTH ADVANTAGE

Xantus-2 is the world's first portable dual wavelength Raman analyzer designed specifically to provide customers with application specific solutions for quality data analysis. Combining two different excitation wavelengths and detector array options in a single device, Xantus-2 greatly reduces intrinsic fluorescence issues and offers an extensive range of materials analysis capabilities.

### Xantus-2™ Specifications

Laser wavelength source	Dual 1064nm & 785nm or 532nm & 1064nm
Dimensions (mm)	138W x 274D x 98H
Weight	3.7 kg (8.1lbs.)
Grating	Transmission volume phase (VPG™)

#### 532nm Wavelength

Spectral Range (cm <sup>-1</sup> )	200 - 3000
Spectral Resolution (cm <sup>-1</sup> )	10 - 15
Laser Output Power (mW)	10 - 60
Detector	CCD

#### 785nm Wavelength

Spectral Range (cm <sup>-1</sup> )	200 - 2000
Spectral Resolution (cm <sup>-1</sup> )	7 - 10
Laser Output Power (mW)	30 - 490
Detector	TE cooled CCD

#### 1064nm Wavelength

Spectral Range (cm <sup>-1</sup> )	200 - 2000
Spectral Resolution (cm <sup>-1</sup> )	15 - 18
Laser Output Power (mW)	30 - 490
Detector	TE cooled InGaAs

#### Operation and Analysis

Software	Micro 2020, Windows XP/Vista/Win7
Log-In Process	Multi-user level expiring passwords
Analysis Speed	Exposure (automatic or user adjustable) 532 and 785: 20ms - 30s 1064: 20ms - 10s
Analysis Display	Simplified pass-fail, spectra (overlay possible), or full analysis display
Results Display	Pass-fail, or identification (with HQI)
Calibration Frequency	Recommended daily, or more frequently as prompted by software
Data Transfer	USB2.0/WiFi
Export File Format	spc, csv, and pdf
Data Storage Capacity	14.9 GB
Battery Type/Life*	Li ION rechargeable/>1hr
Sample States	Powders, liquids, solids

#### Spectral Library

Standard (260), user library, and 3rd party library (optional)

#### Miscellaneous

Compliances	IQ/OQ/PQ & 21 CFR part 11
Safety Compliance	CE
Compliance Standards	ASTM
Power	100-240VAC/+24VDC
Ambient Temperature (C°)	-10 to 30

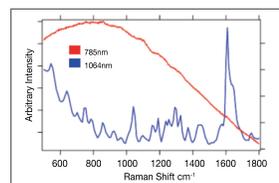
## BATTERY OPERATED, LIGHTWEIGHT, PORTABLE DESIGN

Unlike traditional benchtop instruments, the Xantus-2 is extremely portable, supporting a collaborative and interdisciplinary approach to data collection and analysis. It weighs in at just 8.1lbs (3.7kg) and can be operated on a Li ION rechargeable battery - providing ease of movement across laboratories, classrooms and the new laboratories being built today.

## FEATURES

- Patented volume phase transmission grating with 95% spectral efficiency
- Cooled detectors – CCD and InGaAs
- High Power – 490mW power variable in 1mW increments
- Variable focal point adjustment
- Integrated vial holder
- 21 CFR Part 11 compliant software

*This image shows the spectra collected from a single sample at both 1064nm and 785nm excitation. With the 785nm excitation a large fluorescence band is seen which obscures all but the strongest Raman bands in the sample. However, when the 1064nm excitation was used, very clear Raman bands are seen, allowing for definitive identification of the sample.*



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