

Rigaku Raman Technologies Product Guide

Real World Sample Analysis Where You Need It!

Portable and Handheld Raman Analyzers



Mineral & Gemstone Authentication

Non-destructive identification
Authentication & anti-counterfeiting
of gemstones

Origin identification of minerals &
gemstones & alteration mineralogy



Narcotics & Explosives Identification

Non-destructive & safe identification

Preservation of evidence

Identification of explosives
& illicit narcotics

Semiconductor/Thin Films

Wafer defect inspection

Thin film coatings

In-line process

QA/QC



Food Safety & Agriculture

Detection of foreign contaminants

Port of entry inspections

Pesticides & herbicides



Threat Screening

IED/HME explosives detection

Unknown substance ID

Forensics analysis

Border Patrol/TSA screening



Raw Material & Chemical Verification

Materials inspection & certification

Online/at-line detector for PAT

Polymers: correlation of physical/
chemical properties with Raman spectra

Identification of resins, petro-chemicals
& commodity material

Anti-Counterfeit Validation

Eliminate & identify counterfeit
or substandard product

Enforce brand-owner's rights

Port of entry inspections



Pharmaceutical

Drug polymorphs/solvates
identification & classification

Identification of drug crystals

Content analysis of tablets,
gel caps, and liquids

QA/QC of API, additives,
& excipients

Fast analytical tool for
high throughput screening



RIGAKU RAMAN TECHNOLOGIES PRODUCT GUIDE



Specifications

Model	Xantus-Mini™	Xantus-1™	Xantus-2™	Xantus-2™	FirstGuard™
Single or Dual Laser Wavelength (Source)	Single	Single	Dual 1064nm + 785nm	Dual 532nm + 1064nm	Single
Dimensions (mm) W x D x H	61 x 176 x 82	125 x 233 x 85	138 x 274 x 98	138 x 274 x 98	122 x 311 x 314
Weight	1.0 kg (2.2 lbs.)	2.2 kg (4.7 lbs.)	3.7 kg (8.1 lbs.)	3.7 kg (8.1 lbs.)	2.7 kg (5 lbs.)
Grating	Transmission Volume Phase Grating (VPG™)				
532nm Wavelength					
Spectral Range (cm ⁻¹)	200-3000	200-3000	—	200-3000	200-3000
Spectral Resolution (cm ⁻¹)	10-15	10-15	—	10-15	10-15
Laser Output Power (mW)	30, 45, 60	10-60	—	10-60	10-60
Detector	TE Cooled CCD	TE Cooled CCD	—	TE Cooled CCD	TE Cooled CCD
785nm Wavelength					
Spectral Range (cm ⁻¹)	200-2000	200-2000	200-2000	—	200-2000
Spectral Resolution (cm ⁻¹)	7-10	7-10	7-10	—	7-10
Laser Output Power (mW)	100, 250, 480	30-490	30-490	—	30-490
Detector	TE Cooled CCD	TE Cooled CCD	TE Cooled CCD	—	TE Cooled CCD
1064nm Wavelength					
Spectral Range (cm ⁻¹)	200-2000	200-2000	200-2000	200-2000	200-2000
Spectral Resolution (cm ⁻¹)	15-18	15-18	15-18	15-18	15-18
Laser Output Power (mW)	100, 250, 480	30-490	30-490	30-490	30-490
Detector	TE Cooled InGaAs	TE Cooled InGaAs	TE Cooled InGaAs	TE Cooled InGaAs	TE Cooled InGaAs
Operation and Analysis Software	Micro 2020 for Mobile	Micro2020, WindowsXP/Vista/Win7			
Spectral Library	User Library Only	Standard (266), User Library, and 3rd Party Library (optional)			
IQ/OQ/PQ & 21 CFR Part 11 Compliance			●	●	●
Data Transfer	USB2.0 / WiFi				
Power	100-240VAC/+24VDC				
Interchangeable Battery					●
Barcode Reader					Optional
Battery Life*	3 hrs	1hr	1hr	1hr	4hrs
Ambient Temperature (C°)	-10 to 30	-10 to 30	-10 to 30	-10 to 30	-10 to 30
Standard Accessories**	Focus Adjustable Probe Tip, Battery Charger, Calibration Standard, Stylus, 2ml Vial (5 pieces), Operation Manual, Copy of Software, Laser Card (only for 1064nm), Sample Vial Holder				

* Max. battery life dependent upon environmental conditions and usage. ** Xantus-Mini is available for iPod touch, but has no focus adjustable probe tip and stylus.

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