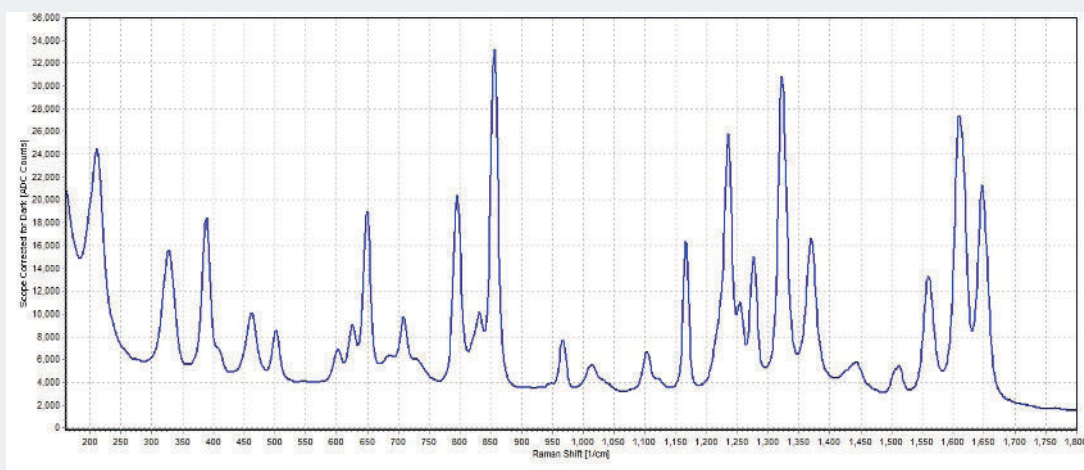


## DATASHEET

Raman spectroscopy is a technique used to characterize the inelastic scattering of photons in covalently bound molecules, providing molecular fingerprints and details about a material's composition and other properties. Avantes supports Raman spectroscopy with high-sensitivity thermo-electrically cooled AvaSpec spectrometers. Avantes instruments are optimized for sensitivity and resolution so as to support this demanding application. On combination with lasers (532 & 785 nm available), fiber optics, probes and sample accessories, the Avaspec Raman kits form a convenient affordable solution for Raman spectroscopy in the laboratory. Avantes also offers AvaSoft software for system control and Panorama© software for advanced spectroscopic data analysis, including mathematical baseline adjustments and reaction monitoring.

We are pleased to offer two easy-to-order Raman spectroscopy configurations designed to cater to various research needs. Our setups are user-friendly and come with the option to enhance your system with other accessories such as an XYZ stage to allow for precise positioning and movement of samples for accurate data collection.

## Raman Spectra of Acetaminophen



### KEY FEATURES

2048 pixel ultra high sensitivity, TE cooled back-thinned detector

Resolution: 7-10 cm<sup>-1</sup>

Integration Time Range: 9.7 ms-2 minutes

User Replaceable Slit

Raman probe with replaceable tip for cuvette/solids or direct immersion

532 (100 mW) & 785 (500 mW) laser options

### APPLICATIONS IN RAMAN

Cancer Detection

Identification of Blood Disorders

Silicon Wafer Stress Monitoring

Incoming Material Inspection



Biomonitoring

Pharmaceuticals



Chemical Reaction Monitoring

Characterization of polymers

## STANDARD AVA-RAMAN SPECTROSCOPY SETUP

PART NUMBER	DESCRIPTION
<p><b>AVA-Raman-KIT-532</b></p> 	<p><b>Spectrometer:</b> AvaSpec-ULS2048x64TEC-EVO Slit 25-RS-FCPC, OSF-600, Grating NC (532-1050 nm, 100-5400 cm<sup>-1</sup>; 10 cm<sup>-1</sup> Resolution (user replaceable slit can provide higher resolution))</p> <p><b>Laser:</b> 532 nm 100 mW single mode, FCPC entrance</p> <p><b>Probe tip:</b> 785 nm Raman probe with 3/8" removable tip</p> <p><b>Fibers:</b> FC-UVIR600-2-BX-PCPC, (1 unit) FC-UVIR400-2-BX-FCPC (1 unit)</p> <p><b>Sample holder:</b> Raman cuvette Cell holder for 1 cm cuvette</p> <p><b>Software:</b> Avasoft-Full and Raman, Panorama Pro Lite</p> <p><b>Durable carrying case</b></p>
<p><b>AVA-Raman-KIT-785</b></p> 	<p><b>Spectrometer:</b> AvaSpec-ULS2048x64TEC-EVO Slit 25-RS-FCPC, OSF-600, Grating SI (785-1050 nm, 100-3500 cm<sup>-1</sup>; 7 cm<sup>-1</sup> Resolution (user replaceable slit can provide higher resolution))</p> <p><b>Laser:</b> 785 nm 500 mW multimode, FCPC entrance</p> <p><b>Probe tip:</b> 785 nm Raman probe with 3/8" diameter X 50 mm removable tip</p> <p><b>Fibers:</b> FC-UVIR600-2-BX-PCPC, (1 units) FC-UVIR400-2-BX-FCPC (1 unit)</p> <p><b>Sample holder:</b> Raman cuvette Cell holder for 1 cm cuvette</p> <p><b>Software:</b> Avasoft-Full and Raman, Panorama Pro Lite</p> <p><b>Durable carrying case</b></p>

## OPTIONAL ADD ON ACCESSORIES

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
<p><b>X-Y-Z Stage</b></p> 	<p>Manual XYZ translation stage for mounting probe normal to solid or film samples.</p>	<p><b>Immersion Probe</b></p> 	<p>Stainless steel Immersion probe tip (3/8" diameter X 163 mm length) replaces standard 50 mm tip.</p>

Discover all our empowering spectroscopy solutions on our website [www.avantesusa.com](http://www.avantesusa.com)  
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