

AVA-Raman-KIT



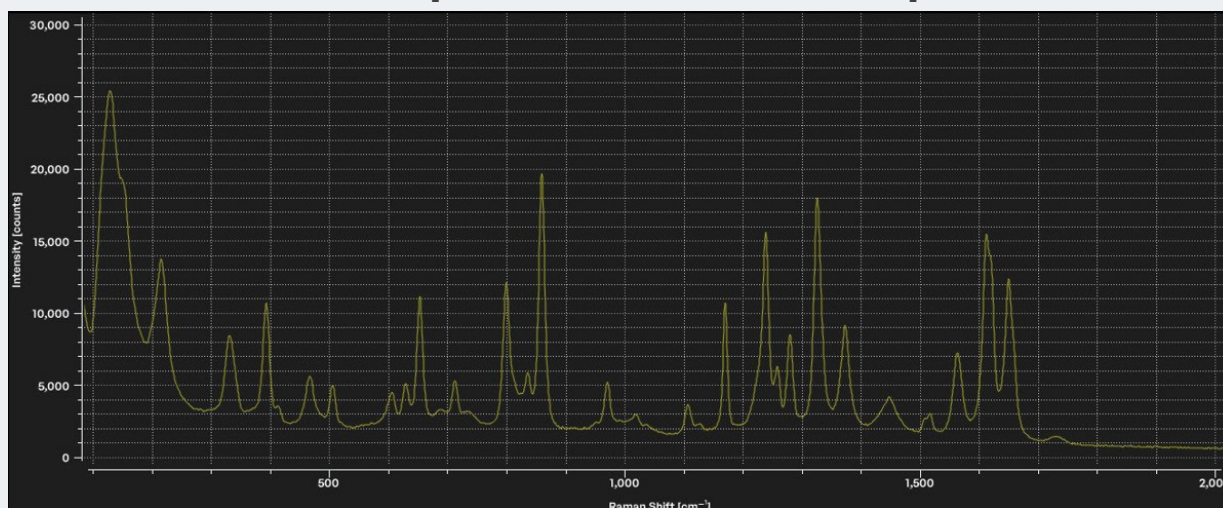
DATASHEET

Raman spectroscopy characterizes molecular composition through inelastic photon scattering, creating a unique fingerprint for a material. Avantes supports Raman applications with high-sensitivity, thermo-electrically cooled AvaSpec spectrometers designed for strong sensitivity and resolution. Paired with lasers (532 & 785 nm available), fiber optics, probes, and sample accessories, AvaSpec Raman kits provide a convenient, affordable laboratory solution, while AvaSoft and Panorama software support system control and advanced data analysis.

We 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^{-1}

Integration Time Range: 9.7 ms-2 minutes

User Replaceable Slit

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

532 (200 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
AVA-Raman-KIT-532 	Spectrometer: AvaSpec-ULS2048x64TEC-EVO Slit 25-RS-FCPC, OSF-515, Grating NC (525-759 nm, 100-5400 cm⁻¹; 10 cm⁻¹ Resolution (user replaceable slit can provide higher resolution)) Laser: 532 nm, 200 mW, SMA entrance Probe tip: 532 nm Raman probe with 3/8" removable tip Fibers: FC-UVIR600-2-BX-PCPC, (1 unit) FC-UVIR400-2-BX-FC/SMA (1 unit) Sample holder: Raman cuvette cell holder for 1 cm cuvettes and round scintillation vials; Optional XYZ stage for tablets, films sold separately Software: Avasoft-Full and Raman, Panorama Pro Lite Durable carrying case
AVA-Raman-KIT-785 	Spectrometer: AvaSpec-ULS2048x64TEC-EVO Slit 25-RS-FCPC, OSF-600, Grating SI (785-1050 nm, 100-3500 cm⁻¹; 7 cm⁻¹ Resolution (user replaceable slit can provide higher resolution)) Laser: 785 nm 500 mW multimode, FCPC entrance Probe tip: 785 nm Raman probe with 3/8" diameter X 50 mm removable tip Fibers: FC-UVIR600-2-BX-PCPC, (1 units) FC-UVIR400-2-BX-FCPC (1 unit) Sample holder: Raman cuvette cell holder for 1 cm cuvettes and round scintillation vials; Optional XYZ stage for tablets, films sold separately Software: Avasoft-Full and Raman, Panorama Pro Lite Durable carrying case

OPTIONAL ADD ON ACCESSORIES

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

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