

Varian 640-IR

FT-IR SPECTROSCOPY SOLUTIONS



Outstanding Value, Excellent Performance, Easy to Use

The Varian 640-IR is an affordable, high performance spectrometer designed to make FT-IR spectroscopy easy. With a range of unique, easy to use hardware and software features, it allows even novice users to quickly become productive. It is available in mid-IR or near-IR configurations and is ideally suited to QA/QC applications and identification and verification analyses, and is a perfect educational tool.

The Varian 600-IR series FT-IR spectrometers combine Varian's 60 years of molecular spectroscopy experience with 40 years of FT-IR innovation and expertise acquired from Digilab. The result is a range of instruments that provides the world's best analytical performance under real-world conditions.

Key Benefits

- **Speed and Performance.** Fast spectral collection and superior analytical performance provides high-quality spectra in seconds, for productivity and confidence in results.
- **Intuitive and Simple Software.** Perform all common functions such as method selection, scanning, searching, predicting concentrations and reporting with a simple click of a toolbar button. Resolutions Pro™ software has the flexibility to boost your productivity by automating and simplifying common tasks, while providing access to advanced processing algorithms if needed.
- **Low Cost of Ownership.** The sealed and desiccated enclosure employs a 750 g desiccant cartridge (largest in class) to keep components, and spectra, dry. Long life, easy to change components such as sources and detectors, means less downtime, saving time and money.
- **Reliability.** Proven instrumentation, through decades of sound technology and design, backed by a dedicated technical support team, which ensures your instrument is maintained to provide the best results.
- **Intelligent, Uncomplicated Design.** Simple to operate from technician to expert level minimizes training, getting you up-and-running faster.
- **Spectral Searching.** Simple to create spectral libraries and single click search functions for both custom-built or commercial spectral libraries.
- **Create an Analyzer.** Change your FT-IR into an analyzer by using the 'scripting' feature. Scripting removes all complexity from spectral collection, data interpretation and report generation by prompting an operator when needed.
- **Confidence.** Built-in instrument performance tests provide proof of performance and confidence in your results.


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Varian 640-IR Spectrometer

Application Solutions

With its high data quality, robustness and ease-of-use, the Varian 640-IR spectrometer allows you to tackle many analytical applications, such as:

- QA/QC of raw material and final products
- Simple in-house spectral database development
- Routine synthesis verification
- Reaction monitoring
- Determination of hydrocarbon contamination in water
- Materials analysis using Varian's Easy ID QC software
- Simple defect and surface contamination analysis
- Teaching and research laboratory experiments
- Rapid characterization of samples using attenuated total reflectance (ATR) and diffuse reflection (DR)

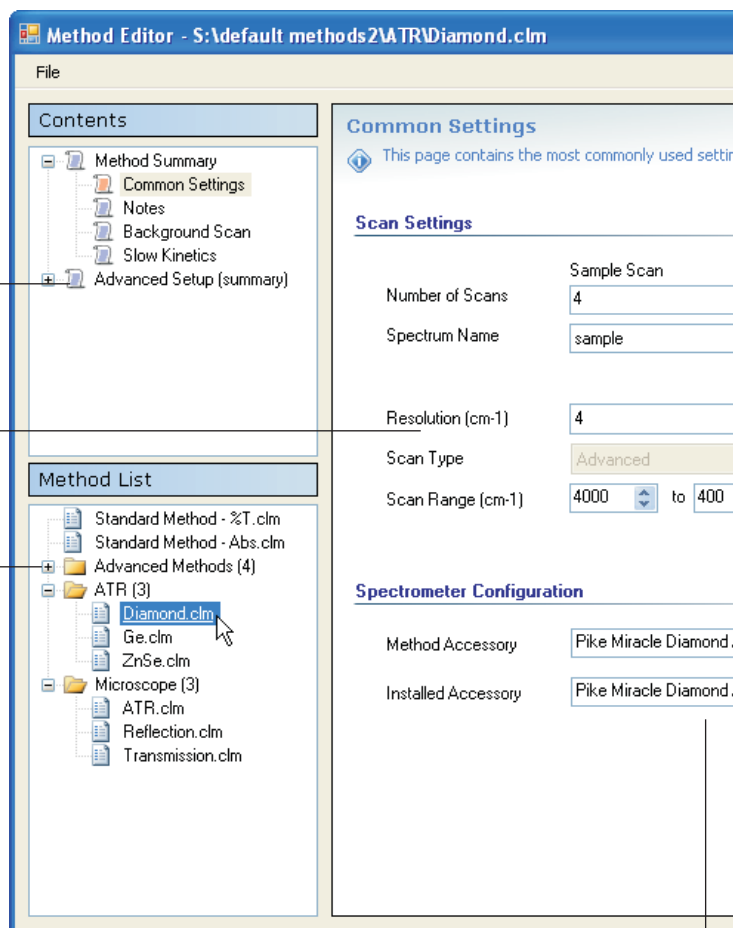
Advanced users have access to all instrument parameters through further tabs.

Optimizing your method is simple with all key parameters available on a single page.

Easy to search Method List allows you to select your most common methods.

Scripting

A scripting routine can be used to automatically perform all spectral collection and processing steps, and if desired, it can automatically print a customized report.



1 Insert the accessory into the sample compartment.

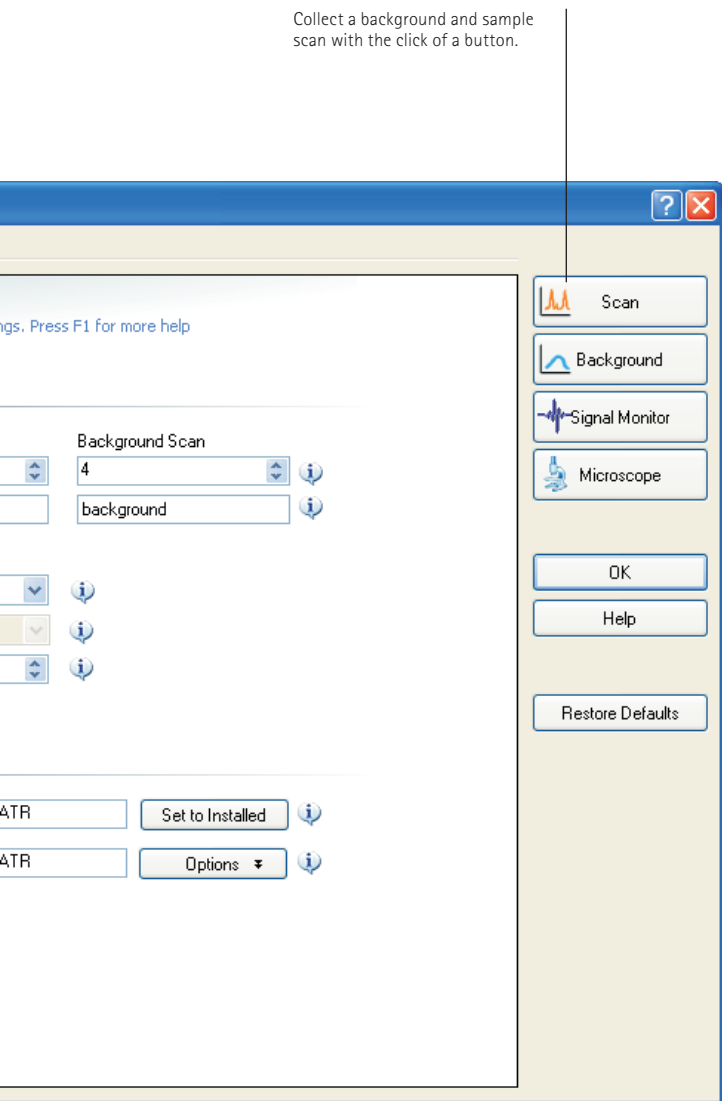


2 Position the accessory over the mounting holes.



3 Slide the lever to lock the accessory in place.

Automatic accessory recognition identifies the accessory being used and displays relevant methods in the Method List, enabling you to run samples in seconds.



Compound Identification by Spectral Searching

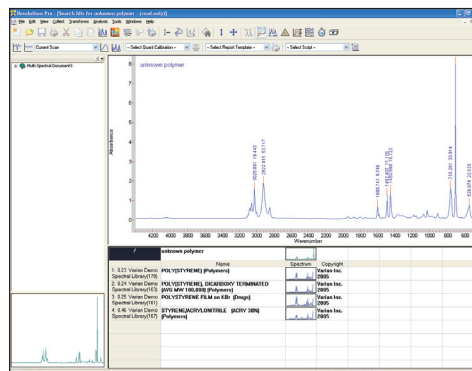


Figure 1. An unknown polymer sample is identified as polystyrene using the spectral search library. Create, edit and manage your own libraries, or use commercially available libraries for maximum flexibility.

Quantitative Analysis

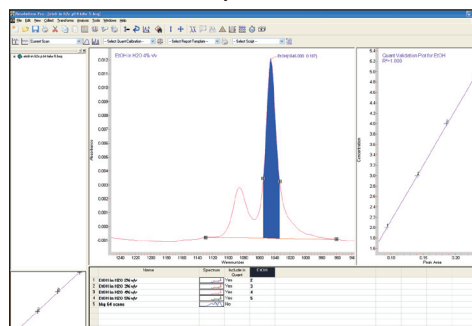


Figure 2. A quantitative calibration plot of ethanol in water. A single click can determine the unknown concentration of a sample.

Intuitive Post-Processing and Customizable Print Reports



Figure 3. A report created from a print composition template. Customizable templates can be conveniently stored and retrieved, to quickly and easily produce reports.

Varian 640-IR Spectrometer

The Complete Solution

Satisfy your immediate needs and be prepared for tomorrow's challenges with Varian's complete range of FT-IR accessories, including:

- Attenuated total reflectance (ATR)
- Diffuse reflectance (DR)
- Specular reflectance
- Grazing angle reflectance
- Microscopy and imaging (micro and macro)
- Patented* ATR chemical imaging (micro and macro)
- Fiber optics (near-IR)
- TGA-FT-IR



Extend the capabilities of your FT-IR spectrometer with a Varian 610/620-IR microscope and gain new insight into areas as diverse as polymer chemistry, drug discovery, biomedical research and much more.

Ordering Information

Description	Configuration	Part Number
Varian 640-IR Mid-IR bundle	Duraglow™ mid-IR source KBr beamsplitter Peltier-cooled DLaTGS detector	0010091000
Varian 640-IR Mid-IR MCT bundle	Duraglow mid-IR source KBr beamsplitter MCT detector	0010091100
Varian 640-IR Tropical bundle	Duraglow mid-IR source KBr beamsplitter KRS5 windows Ambient DLaTGS detector	0010091200
Varian 640-IR NIR bundle	Tungsten near-IR source Quartz beamsplitter PbSe detector	0010091300

* United States Patent 6,661,573



GC • LC • MS • GPC/SEC • AA • ICP • ICP-MS • UV-Vis-NIR • FT-IR • Fluorescence • Dissolution • NMR • MRI • FTMS • Consumables • Data Systems

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