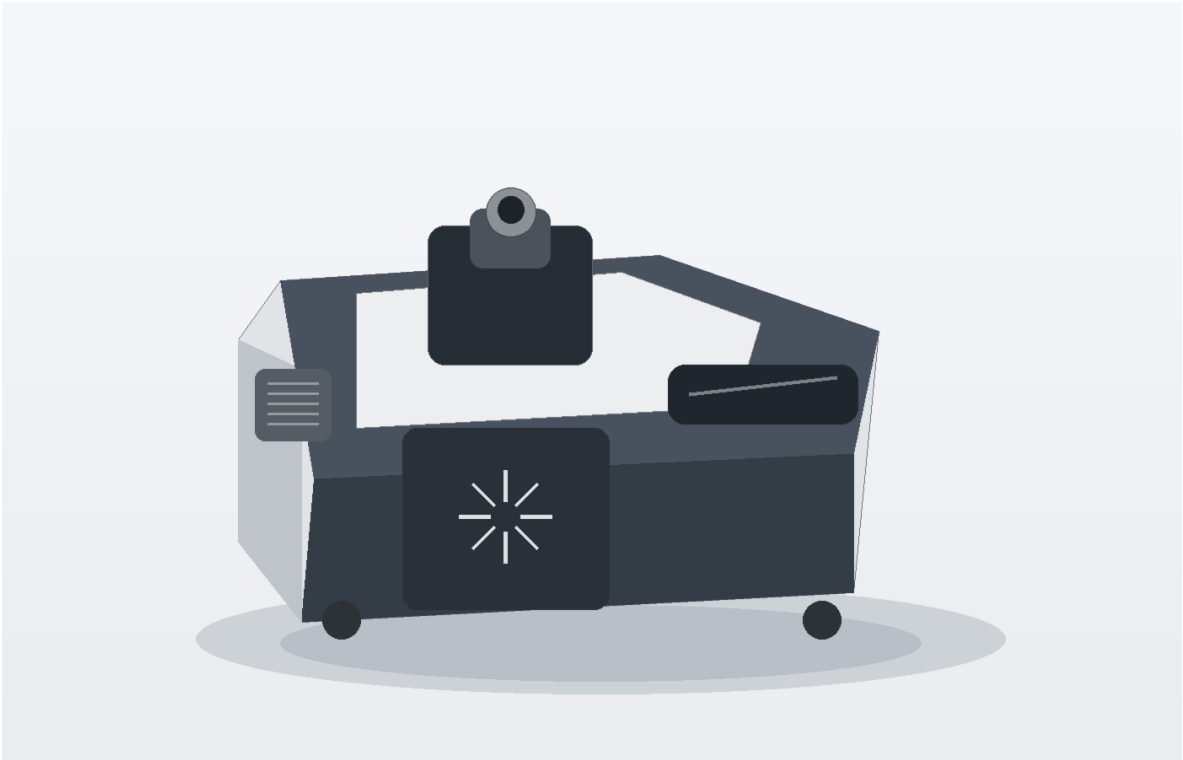


Agilent Cary 630 FTIR Spectrometer

Cary 630 FTIR + MicroLab Software | Specialized Technical Catalog



Technical product illustration of the Cary 630 FTIR configuration with an ATR sampling interface.

Instrument	Agilent Cary 630 FTIR Spectrometer
Software	Agilent MicroLab / MicroLab Expert
Technology	Fourier Transform Infrared Spectroscopy (FTIR)
Instrument type	Benchtop FTIR Spectrometer

Product status: Agilent states that the Cary 630 FTIR was discontinued effective September 1, 2026, with the Cary 635 FTIR introduced as its successor. This catalog is therefore intended for technical documentation and product-reference purposes.

1. System Overview

The Agilent Cary 630 FTIR is a compact benchtop Fourier Transform Infrared spectrometer designed around a modular sampling architecture. The instrument can be configured with different sampling interfaces according to the physical form and analytical requirements of the sample. This architecture supports routine identification, qualitative analysis and selected quantitative FTIR workflows.

MicroLab is the software environment associated with the Cary 630 system. It provides guided, method-driven workflows for instrument operation, spectral acquisition, processing and reporting. The software can recognize the connected instrument and installed sampling module and guide the operator through the defined analytical procedure.

2. Key Technical Specifications

Specification	Cary 630
Instrument type	Benchtop FTIR spectrometer
Brand	Agilent
Model	Cary 630 FTIR
Technology	Fourier Transform Infrared Spectroscopy
Spectral resolution	$\leq 2 \text{ cm}^{-1}$
Spectral range with KBr	7000 to 350 cm^{-1}
Spectral range with ZnSe	5100 to 600 cm^{-1}
Width	14 cm
Depth	26 cm
Height	16 cm
Weight	3.5 kg
Power	100–240 VAC, 50/60 Hz
Sample types	Solids, pellets, liquids, pastes, powders, gels and gases

3. Modular Sampling Architecture

Sampling configuration is a key part of the Cary 630 system. Agilent provides multiple interfaces for ATR, transmission, reflection and gas analysis. The appropriate module should be selected according to sample composition, physical form, required optical configuration and analytical method.

Sampling module	Typical role
Diamond ATR	Broad routine analysis of solids, powders, liquids and semi-solid samples.
Ge ATR	ATR configuration with a shallower effective penetration depth for selected high-absorbance samples.
ZnSe ATR	ATR analysis for a range of solid and liquid samples.
Multireflection ZnSe ATR	Extended effective path length for selected liquid applications.
Transmission	Transmission measurements for suitable solid, liquid and gas-cell configurations.
DialPath	Transmission analysis of liquids using selectable optical path lengths.
TumblIR	Transmission measurements for applications including liquids and polymer films.
Diffuse Reflectance	Diffuse-reflectance measurements, particularly for suitable solid and powdered samples.
Specular Reflectance 10°	Specular-reflectance measurements at a 10-degree geometry.
Specular Reflectance 45°	Specular-reflectance measurements at a 45-degree geometry.
Gas Cell	FTIR analysis of gaseous samples using a gas-cell interface.

4. MicroLab Software

MicroLab uses a method-driven approach to simplify routine FTIR operation. Guided workflows can cover instrument setup, sampling, spectral acquisition, processing and result presentation. The software environment is designed to reduce unnecessary manual steps and provide a consistent workflow for routine analytical methods.

Reported MicroLab capabilities include instrument and sampling-module recognition, guided measurement workflows, spectral library searching, spectral processing, quantitative calculations and result reporting. The exact software functions available depend on the installed MicroLab package and configuration.

5. MicroLab Software Options

Software	Functional scope
MicroLab	Core software environment for guided FTIR acquisition and routine analytical workflows.
MicroLab Quant	Software environment for development and use of quantitative FTIR models.
MicroLab Expert	Advanced spectral processing and visualization functions, including baseline correction, derivatives, normalization, smoothing and peak picking.
MicroLab Pharma	Software option intended for pharmaceutical workflows and environments requiring additional compliance-oriented capabilities.
MicroLab OQ	Software support for operational qualification workflows.

6. Analytical Applications

The Cary 630 platform has been used for material identification, functional-group characterization, raw-material and product testing, polymer analysis, chemical quality control, pharmaceutical and food-related analysis, research and development, and qualitative or quantitative FTIR methods.

Spectral library searching can be used to compare acquired spectra against reference data for material identification. For quantitative workflows, suitable MicroLab software configurations can support multicomponent calculations from FTIR measurements.

7. Recommended Product Naming for Website Use

Recommended product title: Agilent Cary 630 FTIR Spectrometer with MicroLab Software

Cary 630 should be presented as the instrument, while MicroLab should be described as the associated control and analytical software. The phrase “Cary 630 + MicroLab” can be used to describe a complete instrument-and-software configuration, rather than a second independent instrument.

8. Product Status and Documentation Note

Agilent currently identifies the Cary 630 FTIR as discontinued effective September 1, 2026, and identifies the Cary 635 FTIR as its successor. Accordingly, a current website listing should clearly distinguish the Cary 630 from Agilent's current-generation FTIR offerings.

The Cary 630 remains relevant as a technical reference for existing instruments, installed laboratory systems, legacy configurations and available equipment. Sampling-module compatibility and software configuration should be verified against the specific instrument and application before procurement or method transfer.

9. Technical Sources

- Agilent — Cary 630 FTIR Spectrometer product documentation
- Agilent — MicroLab FTIR Software documentation
- Agilent — Cary 630 FTIR Spectrometer User's Guide
- Agilent — Cary FTIR Sampling Accessories / Sampling Modules
- Agilent — FTIR software and application documentation

Catalog classification: Specialized technical product reference. This document is not an official Agilent publication.

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