

Features

- **Robust sampling:** Universal compatibility with common solid, liquid, film, and gas accessories
- **Low maintenance design:** Sealed optical components with humidity & temperature monitoring
- **IRIS Software:** Integrated search features & automatic spectra comparison, compatible with industry standard libraries such as Bruker
- **Compliance:** GMP and 21 CFR part 11 compliant software, CE certified

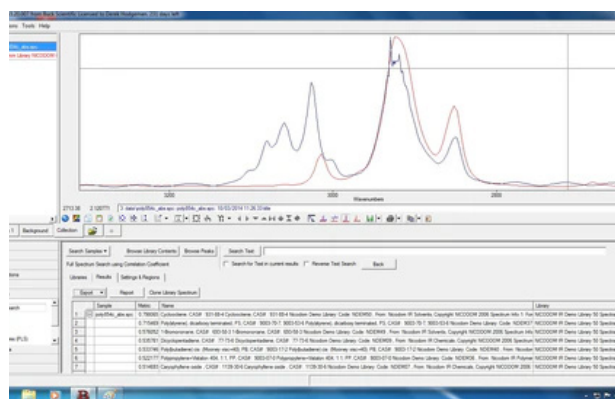


Fast. Stable. Connected.

The Buck FTIR delivers results in 5 seconds with reliable, sealed optics and built-in Wi-Fi.

Description

The Buck FTIR offers the unparalleled reliability, ease of use and affordability that you have come to expect from Buck. Our IRIS software offers a simple set of search and comparison tools for a wide array of analysis. In regulated settings, built-in controls keep records organized and make audits straightforward. With accessories for every type of sample, it is a powerful tool for qualification and quantification of solids, liquids, gasses, and films.



IRIS Software - (InfraRed Information System)
Search and analysis window

Buck FTIR

Fourier Transform Infrared Spectroscopy

Specifications

Spec	SpectraMax FTIR
Spectral Range	7,800–350 cm^{-1}
Resolution	$\leq 1 \text{ cm}^{-1}$
Signal-to-Noise Ratio	22,000:1 / 33,000:1 / 45,000:1 (1-min, 4 cm^{-1} , peak-to-peak)
Wavenumber Accuracy	$\leq 0.01 \text{ cm}^{-1}$
Wavenumber Precision	$< 0.1 \text{ cm}^{-1}$
Typical Analysis Time	$\leq 5 \text{ s}$
Beam Splitter	Humidity resistant ZnSe
Detector	MCT thermoelectric cooling infrared detector
IR Source	High precision HeNe source with chiller option
Compatible Sampling Accessories	Diamond ATR, Germanium ATR, single-bounce ATR, multi-bounce ATR, specular reflection, diffuse reflection, UPIR diffuse reflection, gold-plated diffuse reflection, multi-bounce transmission, gas cells, in-situ reaction-cell ATR, microscopy
Power	AC 110–250 V, 50/60 Hz; Auto Sensing
Connectivity	USB 3.0, Ethernet, Wi-Fi
Operating System	Windows 10/11
Software	Database workflows, AI-assisted search, quantitative tools, auto removal of ambient $\text{H}_2\text{O}/\text{CO}_2$
Compliance	GMP & 21 CFR Part 11–ready features
User Display	Front-panel LCD shows live operating parameters
Libraries	Robust compatibility for importing vendor libraries (Bruker)
Optical Path System	Fully sealed, optical design with constant temperature/humidity monitoring to protect components.

Typical Applications

Environmental

water & soil screening; and more

Manufacturing & QA/QC

raw material ID; lot release testing

Academia & Education

teaching spectra; research projects

Optics & Electronics

glass/plastic films; contamination checks

Food & Agriculture

oils/fats profiling; adulteration screening

Energy & Petrochemical

lubricants/fuels analysis; contamination checks

Pharma & Chemical R&D

reaction monitoring; raw material ID

Automotive & Aerospace

paints/coatings on parts; incoming QA