



## Portable FTIR Spectrometer Interspect 308



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## General

The Interspec 308 series of FTIR portable spectrometers represent a cost effective Fourier transform infrared portable spectrometers and employ a number of unique features that ensure high performance from a compact instrument.

The Interspec 308 measures just 49 X 39 X 20 cm and is regarded as one of compact and versatile infrared FTIR spectrophotometers. The design of the 308 is unique both in terms of optical design and the software and firmware designed specifically to significantly reduce overall analytical times.

The interferometer geometry is employing a new compact pendulum type roof mirrors optical system that eliminates many of the optical alignment problems found in conventional type optical interferometers.

The Interspec 308 design avoids the use of conventional corner cube optics and dynamic alignment. In practice this means that the instrument can be used in the research laboratory, in any university or college environment and if required, can also be used outside laboratory or in remote locations.

## Interferometer Performance

The Interspec 308 series of instruments employ a sealed and desiccated pendulum type roof mirror interferometer, ensuring high spectral integrity with low levels of water vapour within the interferometer.

We also offer a version (308Z) that employs a ZnSe non-hygroscopic optics (beamsplitter and compensator) to be impervious to humidity. Resolution in the infrared is available up to  $2\text{ cm}^{-1}$ . The overall wavelength range is  $7000\text{ to }400\text{ cm}^{-1}$  (KBr) or  $5000\text{ to }600\text{ cm}^{-1}$  (ZnSe).

## The Sample Compartment

There is no sample compartment in classical sense. Sample compartment is integrated inside the instrument allowing to carry out one or three bounce ATR , transmission or reflection measurements.



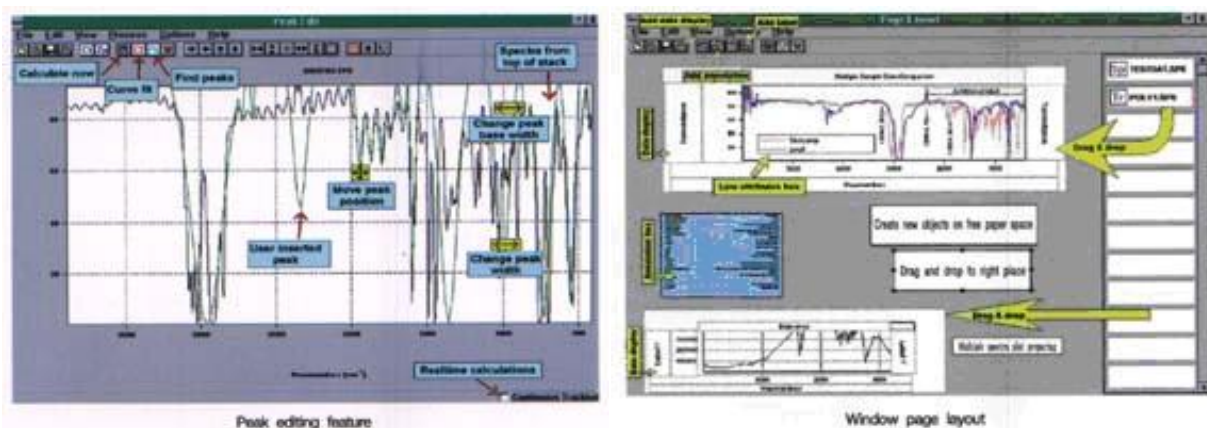
## Software

Interspec for Windows software is supplied on CD and provided with each system shipped. The software includes features for all standard analytical requirements including manipulation of spectral data, instrument control, plot with preview on the screen plus many others.

Also included are several facilities for analytical modelling of interferogrammes or spectra, with smoothing, and baseline correction, interactive editing and data manipulation.

Also spectral subtraction, mixture subtraction, smoothing derivatives, plot with preview etc. Data input and output is possible in ASCII or JCAMP. Other commercial programmes can be used including Thermo/Galactic GRAMS for features such as Library Search.

The Interspec for Windows programme is written in 32 bit protected mode. Our unique software has been designed specifically for multi function applications, it is easy to use and it is provided free of charge. The utility of the Interspec for Windows programme can be extended by adding other commercial programmes such as search, component identification, Kramers Kronig Transform, Chemometrics, etc. to suit individual requirements.



## Models

**Interspec 308** – Standard portable FTIR spectrometer with KBr optics.

**Interspec 308Z** – Non-hygroscopic portable FTIR spectrometer with ZnSe optics



## Specifications

Specifications	
Wavelength range, IR	7000 to 400 $\text{cm}^{-1}$
Wavelength range, ZnSe	5000 to 600 $\text{cm}^{-1}$
Resolution	2 $\text{cm}^{-1}$
Interferometer	Pendulum type with roof mirrors
Beamsplitter, standard IR	Multicoated KBr
Beamsplitter, option IR	Multicoated ZnSe
Sample handling	ATR (1 or 3 bounce), transmission, reflection
Frequency reference	VCSEL laser
IR source	ceramic
Dessiccant possibility	Yes
Interface	USB
Data acquisition system	18 bit
Power	12 VDC, 30W
Dimensions	W49xD39xH20 cm
Weight	12 kg
Temp. environment	15 – 28 $^{\circ}\text{C}$
Humidity environment	Best below 65%