

## IRD 3 Vapor Phase GC-IR

### Datasheet



### Product Overview

The IRD 3 is designed from the chromatographer's point-of-view and is the only analytical infrared instrument that seamlessly combines the separating power of the Gas Chromatography with the molecular identification of FTIR.

- Dedicated FTIR for use with GC
- Low maintenance and easy to use
- Small footprint
- Software interfaces with GC control software
- Seamless integration with MS

The IRD 3 is the perfect tool for the chromatographer looking to obtain more information about unknown samples. Using a heater light pipe flow cell, the sample is kept in a vapor state while interacting with IR. This allows the molecules to freely rotate in a low energy environment. Keeping the molecular geometry in tack during analysis provides unique and highly reproducible spectra.

### General

Wavelength Range:	4000-500cm <sup>-1</sup> Standard
Source Type:	Pseudo Black Body
Wavenumber Resolution:	4, 8, 16 cm <sup>-1</sup>
Laser:	HeNe
Laser Wavelength:	632.8nm
Detector:	High Sensitivity MCT
Flow Cell Interface:	100µl Gold lined light pipe 120mm L x 1mm id
Flow Cell Heaters:	300°C Maximum
Flow Cell Window Options:	ZnSe or KBr
Scan Rates:	4 scans/second at 4cm <sup>-1</sup> 6 scans/second at 8cm <sup>-1</sup> 8 scans/second at 16cm <sup>-1</sup>

### Gas Chromatographs/Mass Specs

Agilent GC:	6890N, 7890A, 7890B
Agilent MSD:	5973, 5975, 5977

## Data System

Software	ASIC for acquisition and Essential FTIR for data analysis
GC Control Software	Agilent GC and MSD ChemStation, Open Lab and Mass Hunter
Sequences Tables	Edited in ASIC and only requires one start button and no import/export

## Optional Vapor Phase Libraries

General Purpose	Aldrich Vapor Phase Library, NIST Vapor Phase Library and Bio-Rad Know-it-All VP Library
Forensic	FDM Forensic
Food/Flavor	ASAP Food and Flavor
Dimensions	
IRD 3 Size:	H 19.3" x W 8.3" x D 26"
With Agilent GC:	H 19.6" x W 31.3" x D 26"
With Agilent GC-MS:	H 19.6" x W 42.9" x D 26"

## Checkout Specifications

Standard      5ppm dodecane, 1µl splitless, 30:1 signal to noise.

## Gases

Carrier Gas:	Compatible with hydrogen, nitrogen and helium
Flow Cell Sweep Gas:	Nitrogen
Detector Cooling:	Liquid Nitrogen, 1L every 8 hours
Optical Purge:	Dry nitrogen and dry air 0.5-2L/min
Electrical	
Line Voltage:	100,120, 220, 24 Vac (+5%/-10%)
Frequency:	47.5 to 66 Hz
Power:	250 Watts (856 Bru/hr maximum)

For more information

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