

## FTIR/FT-NIR Accessories

The **Analect RefinIR and RefinIR 100t™** lab automated sampling accessories are designed to operate with the Analect Diamond 20™ FTIR lab analyzer. The systems are used for routine analysis of refinery and petrochemical samples. Determination of physical properties and chemical composition can be achieved with the touch of a button. These systems automate calibration data collection to support the FTIR and FT-NIR on-line process analyzers.

### Analect RefinIR 100t System

- Semi-automatic sampling oven for data acquisition for twelve 40ml liquid samples at temperatures up to 100°C.
- Oven controllers and intrinsically safe sensors enable the sampling of flammable products.
- Heavy hydrocarbons analyzed include crude oil, heavy naphthas, cat feed, lube oils and lube oil additives.



RefinIR 100t

### Analect RefinIR System

- Delivers automated data acquisition of multiple liquid samples of light hydrocarbons at ambient temperatures.
- Holds twenty-seven 40ml vials and automatically transfers the sample to a flow-through transmission cell installed in the Diamond 20 lab system.
- Light hydrocarbons include gasoline, diesel, reformate.

For both the sampling accessories, wash and validation functionality eliminates cross-contamination of samples and provides quick assurance of spectral performance.



RefinIR with Diamond 20

**PQ 80™ Software**

Sample information • spreadsheet for up to 27 vials

Program controls •

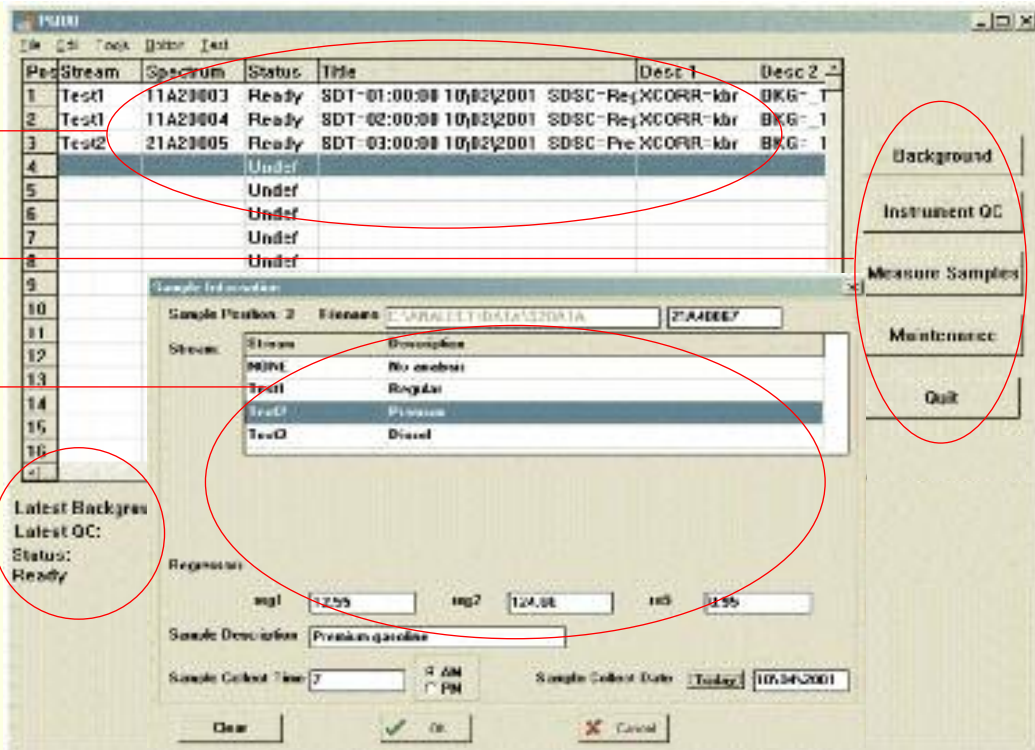
Sample definition form •

Measurement status •

**Software Features**

- Simplified data entry for automated spectral capture and analysis
- Intuitive GUI—requires no technical training to use
- Built-in hints for ready assistance
- Extensive ASTM protocols to ensure data validity
- Easy setup with ability to define modeling and QC limits by sample type
- Starter models available
- FTIR data station included with Diamond 20 analyzer

AIT provides extensive applications, modeling and engineering support. After market service includes field service as well as hardware and software maintenance contracts.



**Specifications**

**RefinIR and RefinIR 100i hardware features**

- Single-cell system for analyzing similar components
- 0.5 mm pathlength liquid transmission cell
- Maximum vial-to-vial cross contamination : 0.1%
- Optibus™ optical transfer components integrate with the Diamond 20™ analyzer
- Thermo-electrically stabilized DTGS detector
- 115 VAC/60 Hz or 230 VAC 50/60 Hz

**RefinIR 100i (specific features)**

- Optional dual-cell system for additional applications
- Semi-automatic sampling system inside an oven including a carousel for twelve (12) 40ml vials
- Oven controllers and intrinsically safe sensors to enable the sampling of flammable and non-flammable samples over the range of 40°C +/- 1°C to 100°C +/- 1°C
- Analog input card for the host computer to read cell temperature
- Dimensions: 74 x 71 x 43 cm (29 x 28 x 17 inches) Weight: 73 kg (160 lb)

**RefinIR (specific features)**

- Automated sampling system including carousel for twenty-seven (27) 40ml vials
- Two (2) one-gallon vessels for wash and validation components
- Dimensions: 54 x 54 x 62 cm (21 x 21 x 25 inches) Weight: 37 kg (80 lb)

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