

FTIR Analyzers

The **Analect™ RovIR** transportable process FTIR analyzer is specifically designed for real-time dynamic monitoring of pilot scale reaction chemistries and continuous process streams.

- Allows measurements at multiple probe tap locations utilizing just one analyzer.
- Utilizes process-proven Analect Diamond 20™ Transept™ IV optical head.
- Interchangeable sampling options to meet a wide range of operating conditions:
 - Choice of Diamond, Zinc Selenide, and Silicon probes
 - Flow-through ATR and transmission accessories
 - High throughput light pipes and fiber-optic configurations
- With sealed NEMA 4 enclosure and vortex cooling, the RovIR analyzer can be installed in general purpose and hazardous areas.
- FX 90™ software—qualitative, semi-quantitative, and full chemometric tools and PC 80™ process software for batch and continuous stream monitoring.
- THE RovIR analyzers versatility demonstrated by its range of applications:
 - End Point determinations
 - Reaction kinetics
 - Grignard formations
 - Organic synthesis
 - Fermentation
 - Polymer reactions
 - Urethanes
 - Isocyanates
 - Acrylates



Benefits of Optimizing Your Process with The Analect RovIR

- Portability avoids costly permanent installations
- Calibration models transferable to all other Analect FTIR systems
- One instrument for batch reaction development in the lab and scale-up
- Proven performance of the Transept IV interferometer in harsh conditions

Specifications

Spectrometer

- Interferometer: Transept IV hermetically-sealed module with refractive scanned design
- Spectral range: Extended Mid-IR 7,400 to 450 cm⁻¹; Near-IR 12,000 to 1,200 cm⁻¹
- Resolution: 1.5 cm⁻¹ (unapodized)
- Detector: DTGS pyroelectric (standard) and full line of external Optibus detectors, including DTGS, liquid nitrogen cooled MCT (12 and 24 hour dewars), thermoelectrically controlled DTGS, MCT, InAs, and InGaAs.

Ambient Environmental Conditions

- Temperature range: 0-95°F
- Relative humidity range (RH) 95% non-condensing
- Area Classification: General purpose & hazardous area
- Electrical Safety Purge: NFPA 496 Z-purge system

Utility Information

- Rated voltage: 115 Vac ± 10%
- Rated load: 6A @ 115Vac
- Rated frequency: 60Hz
- Nitrogen (N₂): Optical purge 3-5 psi, 0.25-1 SCFM
- Instrument air or N₂: Z-purge/enclosure vortex cooler 60-100 psi, 5-25 SCFM

Physical Dimensions

- Dimensions (cart lowered): 37"H x 33"D x 29"W
- Dimensions (cart raised): 56"H x 33"D x 29"W
- Probe height (cart lowered): 29.9"H
- Probe height (cart raised): 48.9"H
- Weight (with cart): 330 lb.

Sample Probes

- Sample probe: standard: Diamond ATR probe, optional: ATR probes with other IR crystals including ZnSe, ZnS, Ge, AMTIR, and Si
- Probe operation condition: 250°C and 500 psi (280°C and 1450 psi optional)

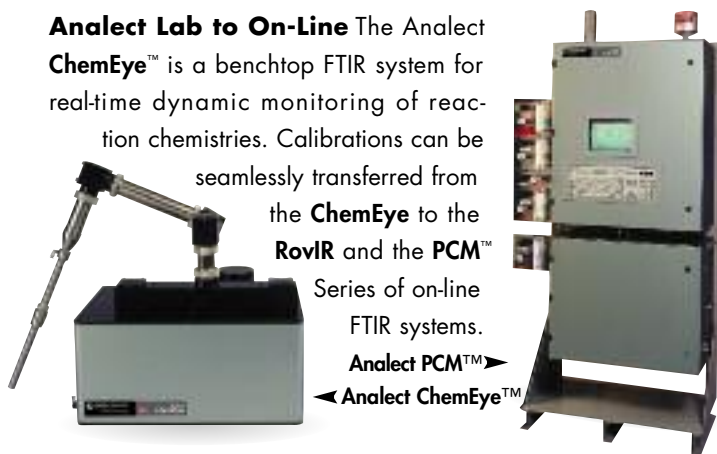
Analect Lab to On-Line The Analect ChemEye™ is a benchtop FTIR system for real-time dynamic monitoring of reaction chemistries. Calibrations can be

seamlessly transferred from the ChemEye to the RovIR and the PCM™

Series of on-line FTIR systems.

Analect PCM™

Analect ChemEye™



PC 80 & FX 90 Software to Drive Your Applications

PC 80 automates many aspects of your process

- Control I/O to switch valves and monitor a variety of sample system conditions
- Transmit product properties, instrument QC data, and alarms via versatile communications protocols
- Collect spectra and apply quantitative analysis routines
- Implement calibration tools and programming flexibility
 - Apply a wide variety of quantitative analysis routines including: CPSA™ – Constrained Principal Component Spectral Analysis, Matlab® and Pirouette®
 - Utilize ASL-Basic Language to achieve total programming flexibility
 - Operate the system remotely by using pcANYWHERE™ or Timbuktu software
 - Multi-level password access
- Validate and diagnose your system with **PC 80**
 - Implement on-line validation methods, such as ASTM D6122
 - Automatically monitor and trend the system's "health" with RemoteRX™ software for preventive maintenance scheduling
 - Access the on-line help system for quick reference

FX 90 advanced spectroscopy platform

- FX 90 features exceptional workstation graphics flexibility
- Customized for reaction monitoring
- Provides the user advanced capabilities to quantitatively and qualitatively characterize the reaction
- Built-in wizard for autopilot guidance of setups and reaction run
- Built-in "simulator mode" allows you to replay your previously acquired data "off line"
- Built-in chemometric tools – PLS, MLR
- Up to 50 different windows on your process reaction

FTIR Datastation included

Experience – Our staff of applications experts provides feasibility and calibration services that set the worldwide standard. We also provide the systems integration and post-installation support to ensure your success.



Contact our Marketing Dept. **AIT Applied Instrument Technologies** 2121 Aviation Drive, Upland, CA 91786

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