The Analect RovIR™ is a transportable process FTIR system 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® optical head.
- Interchangeable sampling options to meet a wide range of operating conditions:
  - Choice of Diamond, ZnSe, and Silicon Probes
  - Flow-through ATR and transmission accessories
  - High throughput light pipes and fiber-optic configurations
- With NEMA 4 enclosure and vortex cooling, the RovIR meets area classifications up to Class 1, Division II.
- FX 90 Software—qualitative, semi-quantitative, and full chemometric tools and PC 80 process software for batch and continuous stream monitoring.
- RovIR’s 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 transfer able 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, thermo-electrically controlled DTGS, MCT, InAs, and InGaAs.
- Dewer: 12-hour (standard) and 24-hour (optional)

Ambient Environmental Conditions
- Temperature range: 0-95°F
- Relative humidity range (RH): 95% non-condensing
- Area Classification: NEC Class 1, Division 2
- 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 (cart): 330lbs.

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.

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
- Collect spectra and apply quantitative analysis routine
- Transmit product properties, instrument QC data, and alarms via versatile communications protocols

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 Remote Rx software for preventative maintenance scheduling
- Access the on-line help system for quick reference

FX90 advanced spectroscopy platform
- FX90 features exceptional work-station graphics flexibility
- Customized for reaction monitoring
- Provides the user advanced capabilities to quantitatively and qualitatively characterize the reaction
- Built-in wizard for auto-pilot 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 provide feasibility and calibration services that set the worldwide standard. We also provide the systems integration and post-installation support to ensure your success.