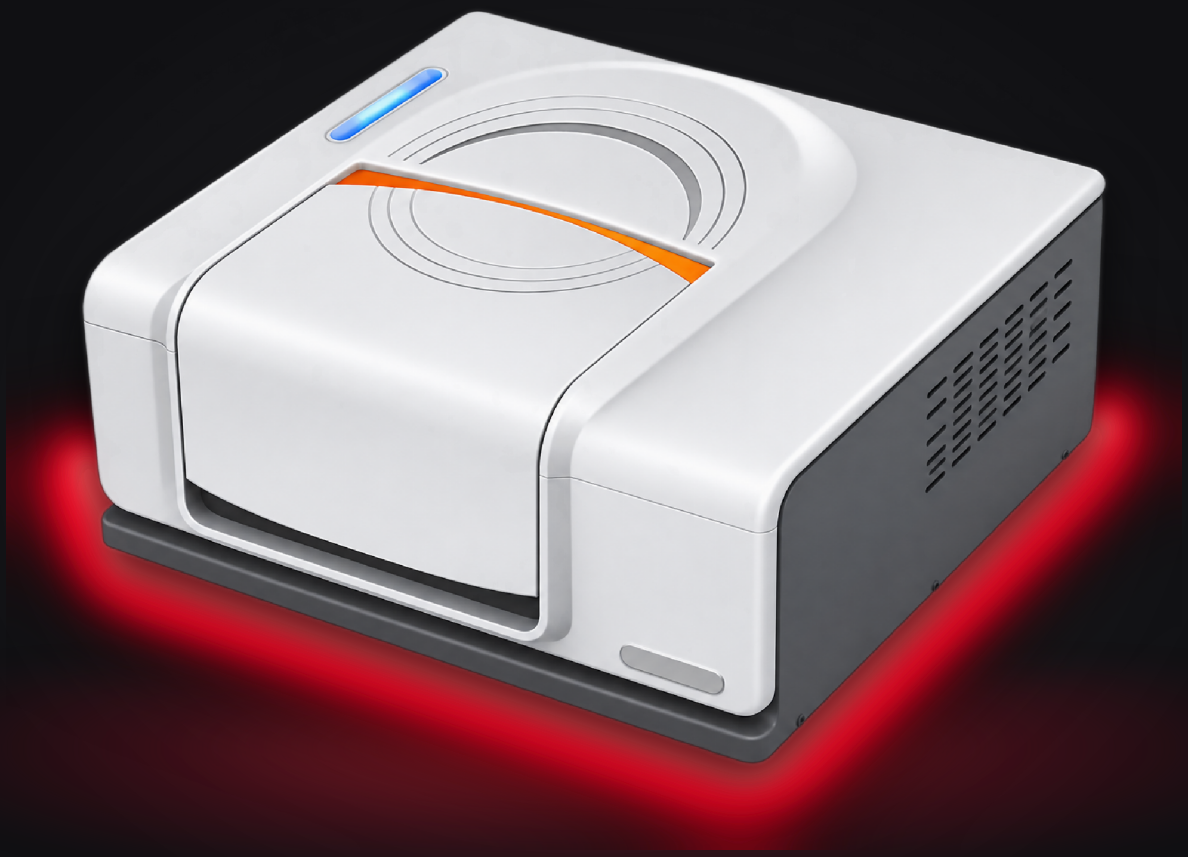
QUAKELOGIC

DATASHEET

FTIR SPECTROMETER SYSTEM

QL-SpectraIR Pro

A benchtop FTIR spectrometer with single-bounce diamond ATR for identifying liquids, solids, pastes and powders with minimal sample preparation.



SPECTRAL RANGE
7800–350 cm^{-1}
Mid-infrared

RESOLUTION
< 0.6 cm^{-1}
Better than 0.6 cm^{-1}

DETECTOR
DTGS
Fast-recovery

SAMPLING
Diamond ATR
Single-bounce, pH 1–14

CUSTOMER SATISFACTION 100% GUARANTEED

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QL-SpectraIR Pro

BENCHTOP FTIR SPECTROMETER WITH DIAMOND ATR







PRECISION FTIR ANALYSIS WITH DIAMOND ATR

The QL-SpectraIR Pro is a benchtop Fourier Transform Infrared spectrometer for molecular identification, chemical characterization and forensic laboratory work. A high-stability optical engine, fast-recovery DTGS detector and single-bounce diamond ATR accessory produce reproducible mid-infrared spectra of liquids, solids, pastes and powders. The system is supplied, installed and commissioned by QuakeLogic Inc.

- Single-bounce diamond ATR analyzes samples directly, cutting preparation time in routine laboratory work.
- Resolution better than 0.6 cm^{-1} across 7800–350 cm^{-1} separates closely spaced molecular features.
- A single-point infrared source with a non-migrating hotspot gives repeatable measurements run after run.
- Compact benchtop footprint and English-language operation suit research, QC and forensic laboratories.

STANDARD FEATURES »

- Spectral range 7800–350 cm^{-1}
- Resolution better than 0.6 cm^{-1}
- Fast-recovery DTGS detector
- Non-migrating IR source hotspot
- KBr/Ge mid-IR beam splitter
- Single-bounce diamond ATR
- AR-coated diamond crystal
- 1.7 mm sampling diameter
- pH 1–14 crystal compatibility
- Pre-aligned all-reflective ATR optics
- English-language operation
- 100–240 VAC, 47–63 Hz input
- 110 W power consumption
- On-site installation included

KEY FEATURES

- Fast-recovery DTGS detector gives high-sensitivity mid-infrared response for reliable qualitative identification across a broad spectral range.
- Single-point infrared source with a non-migrating hotspot keeps signal and data reproducible across repeated measurements.
- KBr/Ge beam splitter is optimized for mid-infrared work, maximizing throughput across the measurement range.
- Single-bounce diamond ATR crystal analyzes liquids, solids, pastes and powders directly with minimal preparation.
- Anti-reflective-coated diamond crystal with pH 1–14 compatibility handles aggressive and reactive samples.
- Pinned-in-place, pre-aligned all-reflective ATR optics hold performance without field realignment.
- High spectral stability and repeatable optical performance support quality-critical workflows.
- Universal 100–240 VAC input with 110 W consumption fits any standard laboratory supply.

PRODUCT FEATURES

Optical Engine
High-stability engine with infrared source, laser, interferometer and detector · Single-point source with non-migrating hotspot · KBr/Ge beam splitter optimized for mid-infrared

Detector
Fast-recovery Deuterated Triglycine Sulfate (DTGS) · High-sensitivity mid-infrared response

Diamond ATR Crystal
Diamond with anti-reflective coating · 0.067 in (1.7 mm) sampling diameter · pH 1–14 · ATR range 7800–400 cm^{-1}

ATR Optical Base
Single-bounce configuration · Pinned-in-place, pre-aligned all-reflective optics · Integrated with spectrometer and crystal

Performance
Spectral range 7800–350 cm^{-1} · Resolution better than 0.6 cm^{-1} · High spectral stability, repeatable measurement

Electrical
100–240 VAC, 47–63 Hz · 110 W · 8.20 ft (2.5 m) North American power cord, 120 V / 10 A

For more information about the features, specifications and available configurations of the QL-SpectraIR Pro, please contact QuakeLogic.

SYSTEM CONFIGURATION

COMPONENT	CONFIGURATION
FTIR Spectrometer	QL-SpectralR Pro benchtop unit
Diamond ATR Crystal	AR-coated diamond, 0.067 in (1.7 mm) sampling diameter
ATR Optical Base	Single-bounce, pre-aligned all-reflective optics
Detector	Fast-recovery DTGS
Beam Splitter	KBr/Ge, mid-infrared optimized
Power Accessories	8.20 ft (2.5 m) cord, North American standard

MEASUREMENT CAPABILITY

SPECIFICATION	VALUE
Spectral Range	7800–350 cm^{-1}
ATR Spectral Range	7800–400 cm^{-1}
Spectral Resolution	Better than 0.6 cm^{-1}
Measurement Principle	Attenuated Total Reflectance
Sample Types	Liquids, solids, pastes, powders
Sample Preparation	Minimal
Sample Analysis	Qualitative identification and characterization

INCLUDED SERVICES

DELIVERY & INSTALLATION

Delivered, installed and commissioned on site by QuakeLogic Inc., ready to run with crystal, optical base and power accessories.

OPERATOR FAMILIARIZATION

Hands-on walkthrough of sample loading, measurement and routine care for laboratory staff at installation.

WARRANTY

Written warranty issued by QuakeLogic Inc. Term and coverage are stated in the QuakeLogic quotation.

DOCUMENTATION

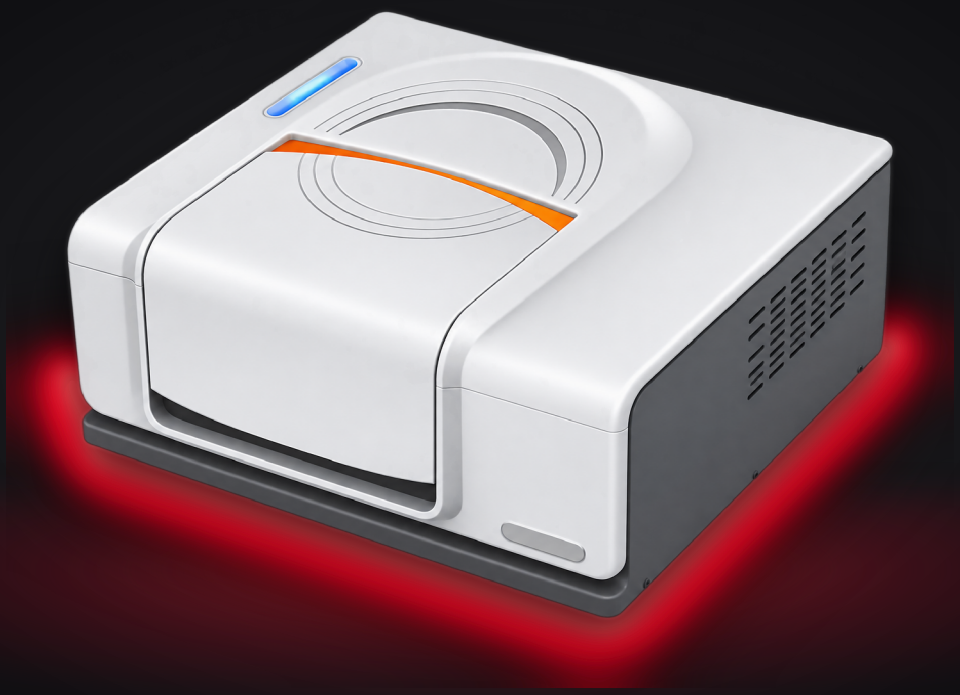
English-language operating documentation supplied with the system.

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Technology	Fourier Transform Infrared (FTIR) spectroscopy
Configuration	Benchtop FTIR spectrometer with diamond ATR
Operating Language	English
Spectral Range	7800–350 cm^{-1}
Spectral Resolution	Better than 0.6 cm^{-1}
Beam Splitter	KBr/Ge, optimized for mid-infrared
Optical Engine	Infrared source, laser, interferometer, detector
Detector Type	Fast-recovery DTGS
Infrared Source	Single-point, non-migrating hotspot
Optical Performance	High spectral stability, repeatable measurement
Sample Analysis	Qualitative identification and characterization
Electrical Requirements	100–240 VAC, 47–63 Hz
Power Consumption	110 W
Dimensions (D × W × H)	15.75 × 15.75 × 9.45 in (40 × 40 × 24 cm)
ATR Accessory Type	Diamond Attenuated Total Reflectance

SPECIFICATION	DESCRIPTION
Crystal Material	Diamond
Crystal Coating	Anti-reflective (AR)
Sampling Diameter	0.067 in (1.7 mm)
pH Compatibility	1–14
ATR Spectral Range	7800–400 cm^{-1}
Measurement Principle	Attenuated Total Reflectance
Sample Compatibility	Liquids, solids, pastes, powders
Sample Preparation	Minimal preparation required
ATR Optical Design	Single-bounce ATR
Optical Configuration	Pinned-in-place, pre-aligned, all-reflective
Power Cord Length	8.20 ft (2.5 m)
Power Cord Voltage Rating	120 V
Current Rating	10 A
Power Connection	North American standard
Installation	On-site installation included

Images are representative. Specifications describe the standard QL-SpectraIR Pro configuration.



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VIEW PRODUCT

COMPANY CERTIFICATIONS

ISO 9001:2015 Quality Management **Cert. No. AQUS-10006**	**ISO 14001:2015** Environmental Management **Cert. No. AQUS-20002**	**ISO 45001:2018** Occupational Health & Safety **Cert. No. AQUS-30002**	**ISO/IEC 27001:2022** Information Security **Cert. No. ICB.90238.ISO.56838**

QuakeLogic Inc. is a California-based engineering and technology company, certified at company level to the standards above. The QL-SpectraIR Pro is supplied, installed and commissioned by QuakeLogic Inc.

CUSTOMER SATISFACTION 100% GUARANTEED