EXOSCAN

FTIR. Out of the Lab and Into Your Hands.

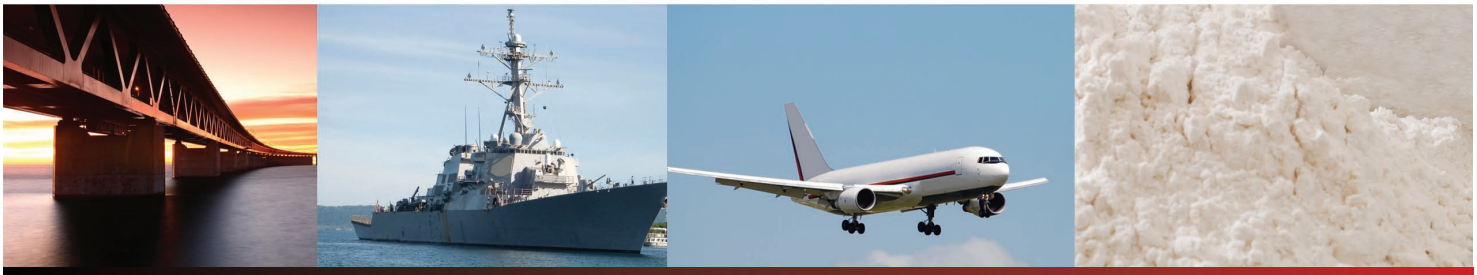
A2 TECHNOLOGIES

Actionable Answers at the Source of the Sample.

The Exoscan™ is a portable, handheld, battery operated FTIR analyzer designed to measure a wide variety of solid and liquid samples. Weighing approximately 7 pounds including the data system and batteries, Exoscan is designed for both in lab and out-of-lab use.

Exoscan Features:

- Highly rugged, miniaturized modulator with large diameter optics and very fast, short internal optical path which provides performance equal to or better than conventional laboratory FTIR spectrometers.
- Interchangeable ATR and external reflectance sample interfaces.
- PDA based control panel that wirelessly links to a laptop for upload and download of data, methods etc.
- Onboard, rechargeable lithium ion battery that permits more than 3 hrs. of continuous operation.
- Multi-level software and user interfaces, permitting personnel with different job requirements to successfully use Exoscan.
- Docking station that will allow the Exoscan to be used in a lab just like a benchtop FTIR.



Analysis of: Composites, Coatings, Paints, Polymers, Liquids, Solids and Gels

Exoscan Unlimited Applications:

In addition to the capability to measure samples on-site that are typically measured by FTIR in the lab, such as incoming raw materials or finished products, Exoscan is equally useful for the analysis of samples that previously were difficult or impossible to analyze in a lab. Exoscan is very effective at analyzing samples that are too large or inconvenient to bring to the lab for analysis as well as samples that are too valuable to be removed. It is a superb non-destructive testing tool.

Use the Exoscan to Determine if:

- A metal surface is properly cleaned in preparation for a manufacturing process such as painting or coating.
- A surface is properly prepared for a bonding process.
- The correct coating has been applied to a surface and that the thickness of that coating is accurate and precise.
- A surface has the expected homogeneity.
- Anodization and alodization processes have been carried out correctly.
- Spots, streaks, stains, or blemishes on a surface are of concern.
- High value composite material has been damaged by heat, UV, or chemical exposure.
- Polymers and composites are properly cured.
- Incoming raw materials and outgoing finished products meet specifications.
- “First article” vendor-supplied material meets specifications.
- Solids, liquids, gels and pastes meet specifications.

Exoscan System Specifications

Infrared Module:

Size	6.75 x 4.68 x 8.81 inches (171.5 x 118.9 x 223.8 mm) (excluding handle and sample tech.)
Weight	7 lbs (3.18 kg)
Sampling Technology	Interchangeable External Reflectance and Single-Reflection Diamond ATR sampling heads
Interferometer	Michelson interferometer, 4 cm-1 max. resolution
Frequency range	4000 – 650 cm-1
Beam splitter	ZnSe
Detector	Temperature stabilized DTGS
Buttons	Power on/off, handle mounted “Tab” and “Enter”
Power Supply Input:	100 – 250 VAC 47 – 63 Hz, Output: 15VDC Battery 10.8V 4400 mAh Lithium Ion rechargeable (estimated 3.2 hour run time)

PDA

Size	5.00 x 2.94 x 0.81 inches (127 x 74.60 x 20.6 mm)
Weight	6.3 oz (178.60 g)
Processor	Intel PXA270 @ 624 MHz
Operating System	Microsoft® Windows Mobile® 5.0 Premium Edition
Memory	128MB SDRAM, 256MB NAND FLASH
Display	65K colors TFT LCD, 3.5”, 240 (w) x 320 (L) resolution
Touch Panel	Glass analog resistive touch
Power Supply Input:	100 - 240 VAC 47 – 63 Hz, Output: 5 VDC Battery 3.7v 1200 mAh Lithium Ion rechargeable (>8 hour estimated run time)
Expansion Slots	CompactFlash and SDIO Slots
Wireless LAN	IEEE® 802.11 b/g Antenna: Internal
Bluetooth	v2.0 + EDR Class 2 Supported

Durability

Operating Temperature	0° to 50° C (32° to 120° F)
Storage Temperature	-25° to 75° C (-13° to 167° F)
Humidity	95% non-condensing
Water Resistance	Completely sealed spectrometer compartment
Shock	Withstands 40G on each axis (in shipping case)
Vibration	Withstands 60 hz for 30 minutes

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Polytec

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