Product Specifications

Thermo Scientific Niton DXL Precious Metal Analyzer

The Thermo Scientific Niton DXL desktop x-ray lab delivers fast and accurate XRF-based precious metal analysis results in an elegantly designed system. Whether you are a retail jeweler, pawn shop, jewelry manufacturer, or otherwise involved in the business of buying and recycling scrap jewelry, you can take advantage of superior performance in a compact footprint – confident that your operations are backed by the world leader in serving science and pioneer in portable XRF technology.



Thermo Scientific Niton DXL precious metal analyzers provide you with many distinct advantages:

- Easier, faster, more accurate than nitric acid test methods
- Faster, more comprehensive analysis than fire assay, with comparable accuracy
- Simultaneous analysis of all precious metals as well as many other common alloying elements





Laboratory-quality Analysis with the Push of a Button

Throughout the precious metal life cycle – from refining to recycling – the goal is always to ensure quality, control costs, and achieve accurate purity analysis. With the high price of gold and other precious metals, even a small variation in composition accuracy can be costly.

Designed specifically for countertop use in retail environments, yet portable and rugged for use in remote testing locations, the Thermo Scientific Niton DXL x-ray fluorescence (XRF) precious metal analyzer delivers fast, reliable results…and unlike more traditional testing methods, it is completely nondestructive. These analyzers provide you with the ideal method to test the purity and chemistry of all precious metals, with unmatched simplicity, performance, features, and portability. And with our patent-pending Thermo Scientific Au/gold Detection & Identification Technology (AuDIT™), it can provide instant detection of gold plating with the simple push of a button.

Its compact design and AC or battery-powered operation allow easy movement within the shop or to remote locations. It's your personal field laboratory for dependable elemental analysis that delivers a real competitive edge.

The Instrument of Choice

Just a few seconds – that's all it takes to measure the exact precious metal content in jewelry, coins, and other valuable products using the Niton® DXL precious metal analyzer. Give up the harsh acids and take advantage of the following benefits:

- **Exceptionally fast, easy to use** – Just close the lid and push a button. See results in seconds on a bright, touch-screen color display. No need to use any harsh chemicals or acids that can burn your fingers, ruin clothing, and damage countertops. Further, an optional small-spot focus allows isolation and testing of small components, while the built-in CCD camera makes precise sample positioning effortless.
- **Accurate and precise** – Its fire assay comparable results help prevent losses due to the purchase of under-karated and counterfeit material.
- **Fit, form, function** – Engineered with retail environments in mind, Niton DXL precious metal analyzers ship from the factory fully calibrated and ready to use upon arrival at your site. The closed-beam design prevents x-ray exposure to customers and operators, and the front and rear windows reveal an LED-illuminated sample chamber, which ensures that items undergoing analysis never leave the customer's sight.
- **Gold-plate detection** – AuDIT, a proprietary technology developed for, and only available on Thermo Scientific portable XRF analyzers, helps you meet the challenge of identifying gold-plated items…vermeil (gold-plated silver), gold-plated copper, steel, tungsten, and any other non-gold substrate.
- **Nondestructive** – Unlike destructive testing methods, such as acid and fire assay, tested samples remain intact and undamaged.



The Niton DXL's patent-pending AuDIT feature instantly warns you of the probability of gold plated material

Thermo Scientific portable XRF analyzers make use of the most advanced electronics and detectors available today. All of our instruments use either silicon PIN (Si-PIN) or silicon drift detectors (SDD), which are also found in large and expensive laboratory equipment.

Minimal training is required and our built-in system check helps ensure that your instrument continues to run as well as it did the day it arrived.

Niton DXL XRF Analyzers

When you achieve accuracy and reliability in an elegant instrument designed for a retail environment, the result is the Niton DXL precious metal analyzer. You get cost-effective high-speed performance, push-of-the-button simplicity, and the cutting-edge technology that you have come to expect from industry-leading Thermo Scientific portable XRF analyzers. For more information on the Niton DXL analyzer or any of the other portable XRF instruments in our product family, please contact your local Thermo Scientific portable XRF analyzer representative or visit www.thermoscientific.com/niton.

Thermo Scientific Niton DXL analyzers represent just one of our portable analyzer solutions, which include XRF tools for metal alloy identification, lead paint inspection, RCRA metals in soil, toy and consumer goods testing, RoHS and WEEE compliance screening, and many other analysis needs.

Thermo Scientific Niton DXL Precious Metal Analyzer Specifications

Weight	17 lbs (7.7kg)
Outside Dimensions	15.6 d x 8.1 w x 10.4 h in. (396 x 206 x 265 mm)
Test Chamber Dimensions	6.9 d x 7.2 w x 5.2 h in. (172 x 184 x 133 mm)
Tube	Ag anode 45 kV maximum, 80 µA maximum
Detector	High-performance Si-PIN semiconductor
System Electronics	400 MHz ARM 11 CPU 300 MHz dedicated DSP 80 MHz ASICS DSP for signal processing 4096 channel MCA 64 MB internal system memory/ 128 MB internal user storage
Display	Color touch-screen display
Standard Analytical Range	21 elements including all precious metals
Data Storage	Internal >10,000 readings with spectra
Data Transfer	USB
Security	Password-protected user security
Data Entry	Touch-screen keyboard User-programmable pick lists
Standard Features and Accessories	One 7.2V 4-cell lithium-ion battery pack (charges in the instrument while on external power) 110/220V AC adapter USB PC connection cable Niton Data Transfer (NDT™) PC software 8 mm measurement area Internal CCD camera for precise sample positioning Adhesive Tack for stabilization of samples Spare puncture-resistant x-ray windows
Optional Features and Accessories	3 mm small-spot focus feature Additional battery pack External battery charger Locking shielded carrying case
Licensing/Registration	Varies by region. Contact your local distributor.
Compliance	CE, RoHS

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XRF Analyzers

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