

XRF technology has taken a giant leap forward with the next generation of portable analyzers – the handheld Thermo Scientific NITON XL3p. Building on the success of the award-winning NITON XLp platform, the NITON XL3p Infiniton™ (²⁴¹Am radioisotope) based XRF analyzer continues to lead the market through excellence in innovation.

Thermo Scientific NITON® XL3p



History of Innovation

In 1999, we pioneered the use of lab-quality isotope-based handheld x-ray fluorescence (XRF) analyzers. Since then, the capabilities and performance of these instruments have improved dramatically, resulting in the groundbreaking Thermo Scientific NITON XL3p. Featuring the patented Infiniton source with a half-life of 432 years, the NITON XL3p is the result of a multi-year platform development initiative, improved source geometry, and the latest in advanced analog and digital electronics design. With a high-performance, thermoelectrically cooled detector, 80 MHz real-time digital signal processing, and dual state-of-the-art embedded processors for computation, data storage, communication, and other functions, the XL3p incorporates a host of new features directly benefiting the customer. From the integrated VIP™ tilting color touch-screen display to the customizable menus for ease of use, the ergonomic new XL3p Series analyzers are both the lightest weight and most ruggedly constructed handheld XRF analyzers worldwide.

Because of their durability and sources that never need replacement, XL3p Series instruments have the lowest ownership costs of any handheld XRF analyzer. NITON XL3p 800 Series analyzers are capable of the nondestructive analysis of virtually all metal alloys for scrap metal recycling, casting and fabrication, manufacturing, and positive material identification (PMI). Alloy grade ID and pass/fail analysis is common in 1 to 2 seconds, with accurate chemistry in as little as 3 to 5 seconds.

Simply Superior XRF Analysis

The XL3p's analytical power alone puts it in a field by itself. With its many standard features and available options, the XL3p stands far above the competition. Integrated USB and Bluetooth™ communications provide direct data transfer to the user's PC or networked storage device, eliminating cumbersome data syncing procedures required by PDA-based devices. A clip-on weld mask and folding test stand help users safely analyze difficult to measure samples, while the optional heat shield extends the hot-surface testing capability from 600 °F (315 °C) to 1000 °F (538 °C), protecting both the XL3p and the operator's hand from

NITON XL3p Series analyzers provide many distinct advantages:

- Very easy to use – even by non-technical personnel
- Lowest long-term cost of ownership of any handheld XRF analyzer
- Improved cycle time for high sample throughput



Analyze all forms and types of samples quickly and accurately



NITON XL3p Specifications

Weight	< 2.5 lbs (< 1.13 kgs)
Dimensions	9.60 x 9.05 x 3.75 in (244 x 230 x 95.5 mm)
Source	30 mCi sealed ²⁴¹ Am Infiniton radioisotope source
Detector	High-performance Si PIN diode
System Electronics	533 MHz ARM 11 CPU 300 MHz dedicated DSP 80 MHz ASICS DSP for signal processing 4096 channel MCA 32Mb internal system memory/ 128Mb internal user storage
Batteries	Two 4-cell lithium-ion battery packs
Display	Adjustable angle VIP color touch-screen display
Standard Analytical Range	>25 elements from Ti to U
Data Storage	Internal >10,000 readings with spectra
Data Transfer	USB, Bluetooth and RS-232 serial communication
Security	Password-protected user security
Mode (Varies by Application)	Empirical calibration and combined FP plus empirical calibration analysis Pass/Fail testing Signature Match analysis and SuperChem™ Analysis
Data Entry	Touch-screen keyboard User-programmable pick lists Optional wireless remote barcode reader
Standard Accessories	Locking shielded carrying case RFID reader/encoder Shielded belt holster Spare battery pack 110/220 VAC battery charger / AC adaptor PC connection cables (USB and RS-232) NDT PC software Safety lanyard Check samples/standards
Optional Accessories	Portable test stand, stationary test stand with tripod stand Extension pole Welding mask HotFoot™ hot surface adapter Soil testing guard
Licensing/Registration	Varies by region. Contact your local distributor.
Compliance	CE, RoHS

Take the lab with you, anywhere, anytime!

these elevated temperatures. Each of two standard lithium-ion battery packs provide the power to work up to 18 continuous hours in the field, and the holster provides safe storage and transport around the job site. Use the standard Thermo Scientific NITON Data Transfer (NDT©) software suite to customize the instrument, set user permissions, and print certificates of analysis and reports, or to remotely monitor and operate the instrument hands-free.

Whether you need an analyzer for metal alloy analysis, ore grade control, or environmental compliance testing, the Thermo Scientific NITON XL3p combines the analytical performance of lab-grade instrumentation using the only handheld XRF that never requires source replacement with the high-speed performance, ease of use, and cutting-edge technology that customers have come to expect from their NITON analyzers.

Thermo Scientific NITON XL3p analyzers are just one of our handheld NITON analyzer solutions that include analysis tools for metal alloy identification, lead-based paint testing, RCRA metals in soil, toy and consumer goods screening, RoHS and WEEE compliance screening and many other analysis needs.

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