



Elemental analysis

Niton Handheld XRF Analyzers

Rapid, precise material analysis for maximum performance and productivity

In your business, experience matters.

Since 1994, Thermo Scientific™ Niton™ Handheld XRF analyzers have been the trusted analyzer of choice for lab-quality elemental analysis in the field. Purpose-built for the most rugged conditions, these easy-to-use handheld analyzers offer superior detection limits and exceptionally fast measurement times to ensure confident decisions onsite.

Analyze nearly every element of interest in virtually all types of materials including industrial metal and alloys, precious metals, coatings, automotive catalysts, soils, ores, ceramics and plastics. With point-and-shoot simplicity, you can view the alloy grade and chemistry on the built-in, color, touch-screen display.

USB and/or WiFi communication enhances data transfer and lets you print certificates of analysis to document results and/or operate the analyzer remotely from your PC.

Our unique Thermo Scientific™ ProGuard™ protection grid, on select handheld XRF analyzers, protects the detector from punctures that can cause damage and result in costly repairs.



*Niton handheld XRF analyzers
are built to provide reliable results
in the toughest environments*



Scrap metal recycling

Identify and sort recycled metals quickly and with accuracy

Incorrect material sorting can result in financial losses and damage a company's reputation. Niton handheld XRF analyzers are engineered to provide the industry with faster sorting and more accurate results. Testing time is almost instantaneous for routine scrap, and just a few seconds longer to obtain lab-quality chemistry. Our smart and ever-evolving alloy grade library sorts alloys with improved accuracy. Rugged with sealed construction, analyzers are dust- and splashproof for worry-free use virtually anywhere. Niton handheld XRF analyzers are the perfect fit for metal recycling companies.



Power generation/Oil & Gas (PMI)

Verify the integrity of your process systems

For oil and gas refineries, petrochemical plants, and power generation industries, the emphasis on safety and accident prevention is critical. Positive material identification (PMI) ensures the specification compliance and thus the integrity of your materials and systems throughout your enterprise:

- Pipes
- Valves and flanges
- Finished welds and weld beads
- Complete reaction vessels
- Bolts, rivets, and other fasteners

Rely on Niton handheld XRF analyzers to ensure operational safety and maintain regulatory compliance.



Automotive catalysts

Determine the value of spent automotive catalysts before trading to avoid fraudulently blended converters. Accurately measure the composition of platinum, palladium and rhodium in spent catalytic converters.



A pioneer in handheld XRF analysis: More than 75,000 Niton analyzers have been placed with industrial users since 1994.

Manufacturing & metal fabrication

Take control of material verification and accuracy

The verification of metal alloys for manufacturing quality assurance and quality control (QA/QC) has never been more important to satisfy product reliability and safety standards. From metal production to service centers and distributors, component fabrication to final product assembly, the potential for material mix-ups is very real, and the need for traceability is a top priority. Niton handheld XRF analyzers deliver fast, accurate elemental analysis and alloy grade identification for manufacturing requirements:

- Components
- Finished welds
- Wire strands as fine as 1 mm
- Bolts, rivets, and other fasteners
- Rods
- Complete fabricated assemblies



Mining and geochemistry

Perform fast, accurate geochemical analysis

With substantial capital investments at stake, it is crucial for mining operations to quickly identify and recover the most economically viable resources. Niton handheld XRF analyzers help users perform rapid, qualitative screening directly in the field to optimize drill locations by delineating ore from waste boundaries, guide extraction, determine ore grade, analyze soil for remediation and minimize the number of samples sent to external testing labs.

- Hard rock mining
- Industrial minerals
- Rare earth elements (REE)
- Oil & gas exploration
- Soil analysis







Precious metals

With daily changes in the prices of precious metals, small inaccuracies in testing can significantly impact the bottom line. Assure each transaction is profitable by accurately measuring gold and precious metal content in jewelry and scrap gold.



Which analyzer for your application?

Niton handheld XRF analyzers are built for rugged use and deliver rapid, lab-quality results

Analyzers	Niton XL2 100G	Niton XL2 Plus	Niton XL3t GOLDD+	Niton XL5 Plus
				
Features				
Description	<ul style="list-style-type: none"> • Robust, reliable value analyzer • For analysis of metal & alloys (Ti to Bi) 	<ul style="list-style-type: none"> • Standard analyzer with some light element capabilities (Mg-Bi) • Wide-ranging analytical capability for metals & alloys, precious metals, mining, soil and plastics 	<ul style="list-style-type: none"> • Versatile analyzer well-suited for analysis of both heavy and light elements 	<ul style="list-style-type: none"> • Elite, state-of-the art handheld XRF analyzer • Best in class limits of detection for light and heavy elements
	<ul style="list-style-type: none"> • Basic alloy ID • Sorting stainless steel and non-ferrous scrap metals 	<ul style="list-style-type: none"> • Enhanced scrap metal sorting including lightweight alloys • Basic PMI (API RP-578) • Alloy QA/QC 	<ul style="list-style-type: none"> • Most metal and alloy analysis • Automotive catalyst analysis • Mining grade control and environmental analysis • Regulatory analysis 	<ul style="list-style-type: none"> • Advanced PMI (API RP-571, API RP-939-C, flow accelerated corrosion) • Aluminum sorting • Coating thickness measurements • Mining exploration and detection of trace metals in ores
Weight	3.5 lb (1.6 kg)	3.5 lb (1.6 kg)	3.5 lb (1.6 kg)	2.8 lb (1.3 kg)
X-ray tube power Heavy element detection (Sb, Pb, Sn, Cd)	38kV – 2W	45kV – 2W	50kV – 2W	50kV – 5W
Detector technology Light element analysis (Mg-S) / overall performance	Si-PIN	SDD with graphene window	SDD	Large SDD with graphene window
ProGuard detector protection		✓		✓
Communication	BT, USB	BT, USB	BT, USB	BT, USB WiFi
Added features			Tilt screen, GPS	Tilt screen, GPS, Hot swap battery
Camera/display Micro camera for precise positioning; macro camera for full sample imagery		Micro	Micro	Micro + Macro
Small spot sample positioning Isolate welds and very small samples	Weld mask	Weld mask	3mm collimator	3mm collimator

Outstanding service and support

Service solutions to enhance instrument productivity and reliability

Partner with us for the care of your HHXRF instrument. We provide flexible service solutions to fit your needs, from setup and training to annual calibration services. We can work with you to help ensure complete verification of system performance and extend instrument longevity.

Our service programs include key components to maintain the reliability of your HHXRF instrument and enhance productivity:

- **Unlimited** technical phone support
- **Remote** troubleshooting and diagnostics
- **Proactive** instrument maintenance programs
- **Quality** repairs utilizing OEM parts
- **Dedicated** training programs
- **Targeted** analytical application support
- **Advanced** calibration services
- **Minimal** downtime with loaner units*
- **Optimized** performance via software updates

*Terms and conditions apply

Trust our worldwide service team for an unmatched service experience



*Leading the way in
handheld XRF since 1994.*

Learn more at thermofisher.com/niton

thermo scientific