

# S-Mobile

PD / SDD / ULS



Bringing the Power  
of a Laboratory  
Spectrometer to the  
Field

Ideal for Mobile & Field  
Laboratories

Detector Resolution  
Down to 123eV

Detection Levels from  
sub-ppm to 100%

Fast and  
Non-Destructive  
Analytical Method

- Non-destructive Elemental analysis C(6) - Fm(100) from sub-ppm to 100% concentrations
  - 50W tube power combined with Portable robust design, providing onsite lab quality for complex field applications and excellent performance
  - Improved detection limits along the entire spectrum
  - Ease of operation is facilitated by the proprietary nEXt™ analytical package
  - Go / no go operational mode with Easy nEXt
  - Optional: Silicon Drift Detector SDD higher-count rate and resolution for improved analysis
- ULS Version:
- Ideal for ULS (Ultra Low Sulfur) applications in diesel, oils, fuels, gasoline & other distillates, with LOD below 1ppm
  - Complies with ASTM D4294-10, D7212 & others, without the need for Helium supply

# S-Mobile

The S-Mobile is a small compact analyzer that can easily be transported to the job site. When the task calls for fast, real time, high quality results, the S-Mobile spectrometers are the perfect answer for the job.

This powerful 50kV, 50 Watt portable X-ray analyzer is capable of sensitive and precise analysis, similar to laboratory class analyzers.

## Fast Silicon Drift Detector (SDD):

Optional Silicon Drift Detector (SDD) features higher-count rate and resolution, for a better analysis (down to 125eV) and a faster response, to minimize operational down time.

**Fast SDD LE:** Optional Ultra-thin detector window provides superior performance enables low Z elements (Light Element) analysis.

## ULS Version Advantages:

Enables the S-Mobile portable analyzer to be specially adapted for Ultra Low Sulfur applications. This powerful 50KV/50W EDXRF system delivers sensitive, precise and quick response performance, and complies with the latest strict international standard methods for low sulfur concentration levels analysis: D4294, ISO 20847, ISO 8754, ISO 13032 and IP 531. System also complies with levels required in ASTM D7220, ASTM D7039, ISO 20846, ISO 20884, and ISO 13032.

Oil Analysis standards compliance: ASTM D7751, ASTM D6481

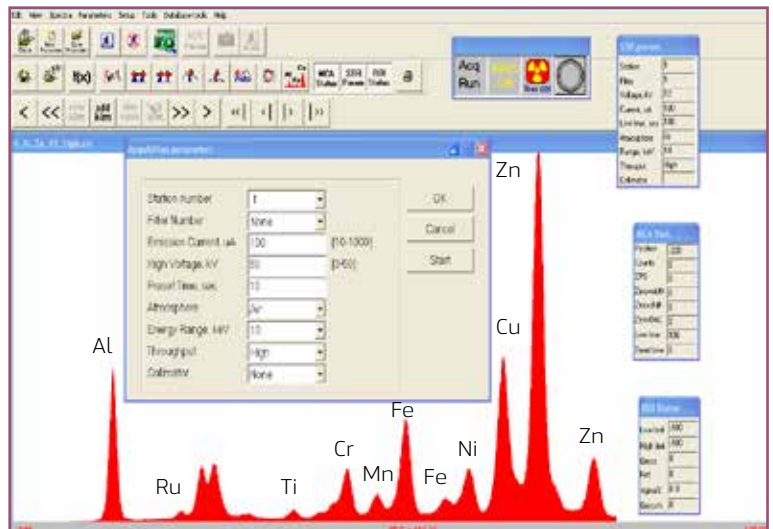
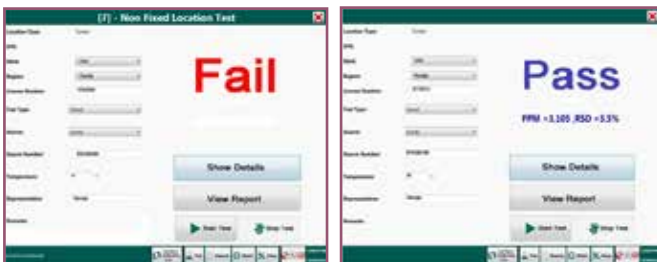
## PD (Pin Diode) Detector:

Basic and reliable electrically cooled detector can achieve  $\geq 150\text{eV}$  resolution.

# Software Environment (GUI)

Simple, Straight Forward, User Friendly nEXt™ Platform.

Implementing Easy nEXt software package allows the system to operate either in a "stand alone" mode or in a "client-server" configuration, providing Pass/Fail indication for each element being measured.



# System Specifications

System Specifications	PD Version	SDD Version
Measurement Capability		
Detectable Range	Na(11) - Fm (100)	F(9)-Fm(100) or C(6)-Fm(100)
Detectable Concentration	ppm - 100%	Sub-ppm - 100%
X-Ray Generation		
X-Ray Source	50kV, 50W	
Excitation Type	Direct with 3 manually selectable filters	
Stability	Precision 0.1% at ambient temperature	
X-Ray Detection		
Detector	Thermoelectrically cooled PIN diode	Fast Silicon Drift Detector
Resolution (FWHM)	155 eV $\pm$ 10eV at 5.9 keV	125eV $\pm$ 5eV
Window Type	Be	Be/ Thin window detector LE optimized
General Features		
Sampler	1 position	
Work Environment	Air/Helium	
Power Supply	110-230VAC 50/60Hz	
Pulse Processing	Digital multi-channel Analyzer(DPP)	
System Dimensions (L x W x H, cm)	Unpacked: 46 x 44 x 34, Packed: 75 x 75 x 65	
System Weight	25kg (net), 60kg (gross)	
Chamber Dimensions	121x112x45 mm, H=3cm	
Computer	Integrated PC	
Software		
Operating Software	nEXt™ analysis package, running under Microsoft Windows™ OS including basic fundamental parameters software	
Control	Automatic control of excitation, detection and data processing	
Spectrum Processing	Automatic escape peak and background removal. Automatic peak deconvolution. Graphical statistics	
Quantitative Analysis Algorithms	Multi-element regression with inter-element corrections (six models available). Gross, net, fit and digital filter intensity methods	
Reporting	User-customizable data print out and transfer to data sheet	
Easy nEXt	Operational software shelf, for easy Pass/Fail Method for non technical operators	
Mobile Operation		
Powering	Optional inverter for operation from car 12V connection	
Mobile Laboratory	Shock absorber (optional)	
Options at Additional Cost	Professional Fundamental Parameters. Helium purge. Mobile cart. External batteries and charger	
Helium	Optional detachable Helium cylinder	

# Key applications

- **Petrochemical:** Sulfur and ULS in fuels, lube oils monitoring, additives, wear metals and others
- **Mining & Minerals:** cement, limestone, sand, clays, bauxite, phosphate rock, gypsum and others
- **Metallurgical:** research and quality control of the various metal industry processes of stainless steels, cast irons, metal sorting and others
- **Environmental:** wastewater, RoHS compliance, air pollution, soils & grounds, emission control and others
- **Polymers:** plastic raw material analysis, PVC, additives, traces and others
- **Coating Thickness & Thin Films:** analysis of multilayer coatings, steel coating, impurities and others
- **Forensics:** evidence analysis, materials matching, explosives and others



## Xenemetrix

**Worldwide Distributions:**

North America, Latin America, Europe, Asia, Australia, Africa & Middle East

Xenemetrix is a leading designer, manufacturer and marketer of Energy-Dispersive X-Ray Fluorescence (EDXRF) systems. With more than 30 years experience, Xenemetrix continues to develop highly innovative technologies and solutions suitable for

today's ever-growing analytical challenges. Xenemetrix combines the latest technological developments with innovative engineering, to provide cost-effective solutions to a wide range of industries and applications.

