



SciAps X-555 for Environmental Applications

Packing the world's only 55 kV X-ray tube, the X-555 delivers the industry's best limits of detection (LODs) for the EPA's RCRA and Priority Pollutant metals – especially for Cd, Ag, Sn, Sb and Ba, where the higher voltage X-ray tube delivers the most benefit.

The most powerful handheld XRF ever made

- Superior LODs on Ag, Cd, Sn, Sb, Ba
- Great for other critical environmental metals: As, Cr, Co, Cu, Pb, Hg, Ni, Se, Tl and more
- Outstanding thermal dissipation



Now measure beryllium in the field!
SciAps One Box measures ALL 13 Priority Pollutant Metals.

Fast, precise testing

The 55 kV X-ray tube yields extra low detection limits on key elements like Ag, Cd, Sn, Sb and Ba, making it especially well suited for RCRA applications and EPA Method 6200. Up to three automated beam settings provide optimal performance across the entire periodic table from Mg to U.

2x better cadmium LODs
than any other handheld XRF

And introducing the Environmental One Box

Combine the performance-leading X-555 (X-ray) with Z-901 Be (LIBS) dedicated beryllium analyzer, and get all 13 Priority Pollutant Metals. Packaged together with shared accessories in the SciAps One Box, this pair provides optimal performance at a fraction of the cost of laboratory testing.

Connectivity and Android

The X Series is built on the Android platform for real-time data exporting and intuitive user interface easily viewed on a vibrant display, with reversible light/dark for all lighting conditions. Built-in Wifi and Bluetooth and GPS capability to print, email, and connect to virtually any information management system for efficient test data and reporting.





SciAps X-555 Specifications

**The most powerful
handheld XRF
ever made**



SciAps Test Station

A compact, robust, portable platform for analysis of samples in bags, liquids or prepared soils or sediments in XRF cups. When coupled with the optional test stand operates as a fully inter-locked closed-beam system.



Optional **X-500 Series Kickstand.** Available in the SciAps web store under accessories.

Weight	2.98 lbs. with battery
Dimensions	7.25" x 10.5" x 4.5"
Excitation Source	5 W X-ray Tube. Max 55 kV, 200 uA. Au anode
Detector	20 mm ² silicon drift detector (active area), 140 eV resolution FWHM at 5.95 Mn K-alpha line
Available Apps	Soils, RoHS/WEEE, REE, Mining. New apps are added regularly, please check with SciAps for updates.
X-ray Filtering	Six position filter wheel
Environmental Temperature Range	10F to 130F at 50% duty cycle
Analytical Range	32 elements standard, specific elements vary by app. Additional elements may be added upon user request.
Processing Electronics and Host Processing	1.2GHz Quad ARM Cortex A53 64/32-bit, RAM 2GB LP-DDR3, Storage: 16 GB eMMC (storage)
Pulse Processor	12 bit with digitization rate of 80 MSPS 8K channel MCA USB 2.0 for highspeed data transfer to host processor. Digital filtering implemented in FPGA for high throughput pulse processing 20 nS - 24 uS peaking time.
Power	On-board rechargeable Li-ion battery, rechargeable inside device or with external charger, AC power, hot-swap capability (60 s max swap time).
Display	2.7-inch color capacitive touchscreen — 400 MHz Qualcomm Adreno 306 2D/3D graphics accelerator
Comms/Data Transfer	Wifi, Bluetooth, USB connectivity to most devices, including SciAps ProfileBuilder PC software
Calibration	Fundamental parameters. For Geochem and Environmental Soil apps, users may also choose "Compton Normalization" method and/or use empirically derived calibrations.
Calibration Check	External 316 stainless check standard for calibration verification and energy scale validation
Security	Password protected usage (user level) and internal settings (admin)
Regulatory	CE, RoHS, USFDA registered, Canada RED Act

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