



• **S1 TURBO<sup>SDR</sup>** for restriction of hazardous substances

The requirement to comply with a host of material restriction regulation like the 2006 European Union's Restriction of Hazardous Substances (RoHS) directive has driven manufacturers to find new and more efficient ways of testing components, finished goods and sub-assemblies for banned substances.

The Bruker S1 TURBO<sup>SDR</sup> uses X-Ray Fluorescence (XRF) for a quick and completely non-destructive method of testing for lead free manufacturing, RoHS compliance and the detection of heavy metals in toys and consumer products. Based on our revolutionary Silicon Drift Detector, the Bruker XFlash<sup>®</sup>, the S1 TURBO<sup>SDR</sup> provides unparalleled speed and accuracy of analysis. Materials such as lead (Pb), mercury (Hg), hexavalent chromium (Cr-VI), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), and cadmium (Cd) can all

be easily detected with the S1 TURBO<sup>SDR</sup> at part per million levels.

**Other Restricted Materials**

The S1 TURBO<sup>SDR</sup> is a multifunction analyzer. It can be used to detect and quantify restricted elements in lelectronics; lead in paint or other poisonous elements in toys; and heavy metals in any consumer products including automobiles. The analyzer also provides the ability to analyze the alloys which are used in the manufacturing of the products.

Portable or stationary; you decide. The S1 TURBO<sup>SDR</sup> may be used as either a handheld instrument capable of operating up to 6 hours on a single charge, or as an AC powered incoming component inspection instrument via the optional Bench-top test stand which provides additional radiation safety for

measurement of small and irregularly shaped samples. For even more versatility, including the ability to view live spectral data, connect the S1 TURBO<sup>SDR</sup> and Bench-top stand to a laptop PC.

**Clarity and Usability**

The best technology should be intuitive and instinctive to use. The touch screen and simple menu system means you can operate the whole machine with one finger, whether inputting a password or starting the analysis. Data transfer options include Microsoft ActivSync via USB cable or wireless Bluetooth connection, as well as using an SD card. Easily operated removable memory also makes it possible to store thousands of spectra and millions of results safely and transfer them instantly.



The optional Bench-top stand provides additional radiation safety and stability for measurement of small and irregularly shaped samples.



The intuitive user-interface is designed around an uncomplicated control panel and the touch-screen display provides simple pass/fail indication.



PXRf software provides live spectral data for observation during data acquisition as well as peak identification and quantification.

## Worldwide Service; Local Support

Bruker has been in this business for many years and we understand the critical importance of post-sales service to our clients. We are a company with global scale and presence. Our support staff is always close at hand. That's why we will provide exceptional service on your instrument from a service center close to you. When it comes to service contracts and warranties, we offer the kind of flexibility and coverage that others find hard to match. At any time during your two-year warranty period, you can decide to add extended coverage, either on an annual basis or through a discounted package of coverage for three years. Just let us know what works for you.

Module	S1 TURBO <sup>SDR</sup>
<b>Weight</b>	2 kg (4.49 lbs) with batteries, 1.77kg (3.9 lbs) base weight
<b>Dimensions</b>	30cm(L) x 10cm(W) x 28cm(H)
<b>Excitation Source</b>	X-ray tube with Rh target; max voltage 40 kV
<b>Filters</b>	Five (5) available automatic filter positions
<b>Detector</b>	Peltier cooled 10 mm <sup>2</sup> Silicon Drift Detector
<b>Power</b>	3 rechargeable Li-ion batteries; 6 hours operation per battery; AC adapter included
<b>Operating Range</b>	-10°C to 50°C
<b>Computer/Display</b>	HP iPAQ PDA with 240 x 320; 65,536 colors; back lit; touch screen
<b>Testing Modes</b>	Assay and Pass/Fail
<b>Alloy Libraries</b>	Low alloy Steel, Tool Steel, Stainless Steel, Cobalt, Nickel, Copper/Brass/Bronze, Aluminum, Titanium, Zirconium, Zinc, Gold
<b>Data Storage</b>	256 MB standard PDA memory, 512 MB Flash Card; 1 GB SD Card optional
<b>Radiation Safety</b>	Password protected, No sample (backscatter) shutoff, ten minute inactive log-in
<b>Safety Certification</b>	CE, cTÜVus, GS, IEC 61010-1:2002 by TÜV SÜD
<b>Languages Supported</b>	English, Chinese, Korean, Japanese, Russian, German, Italian, French, Dutch, Polish, Spanish, Spanish (Mexican)
<b>Warranty</b>	Two year (accessories 6 months); one and three year extended warranty optional

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