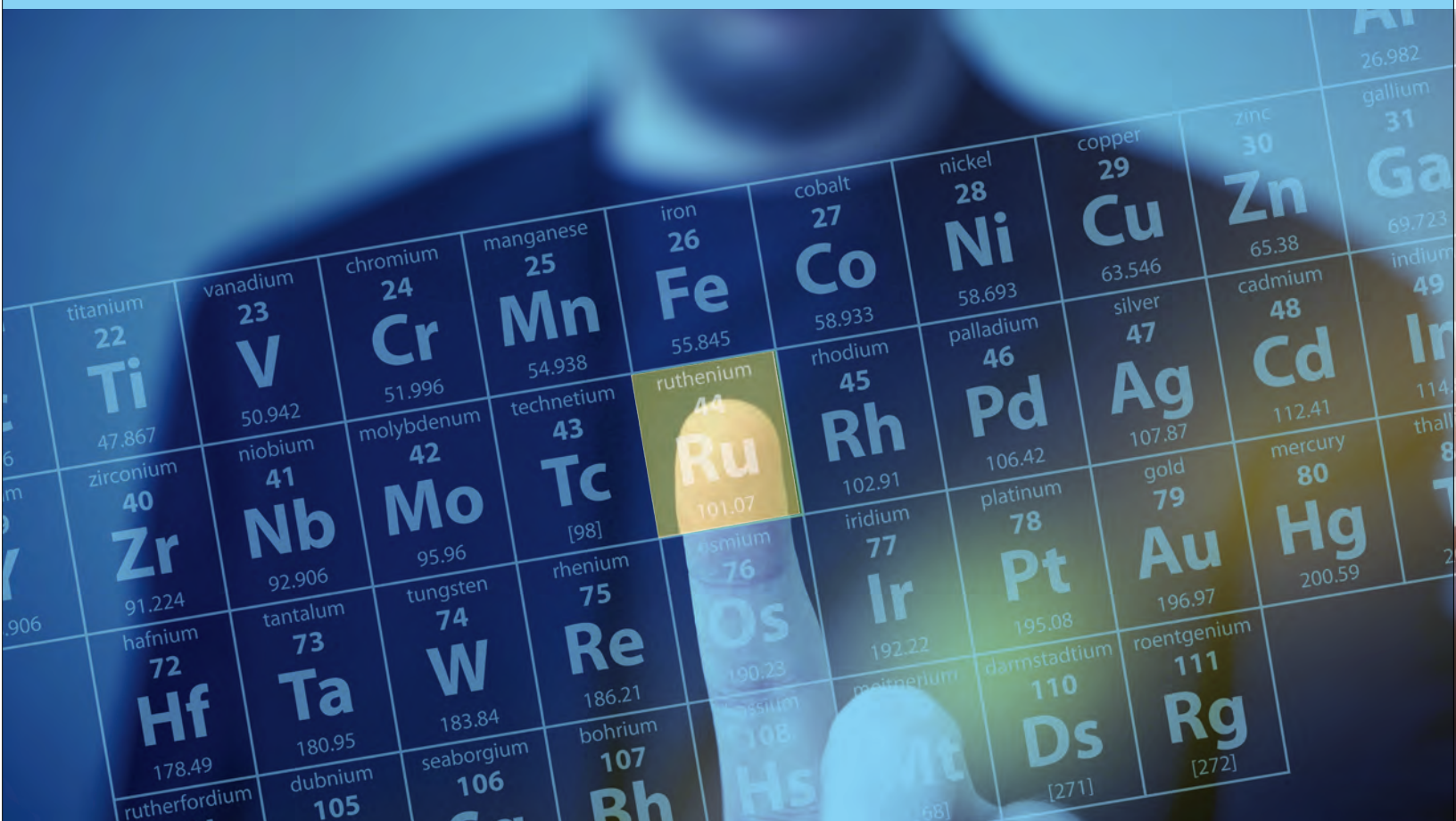
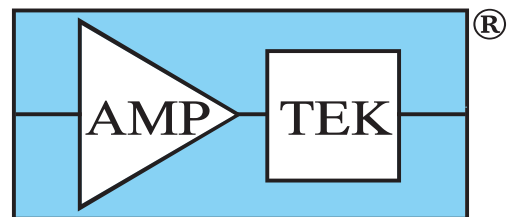


Amptek™

A RECOGNIZED WORLD LEADER IN THE DESIGN
AND MANUFACTURE OF STATE-OF-THE-ART
NUCLEAR INSTRUMENTATION



Industries served: x-ray and gamma ray
spectroscopy, laboratory, analytical, and
portable instrumentation and satellite



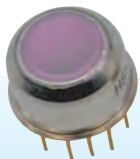
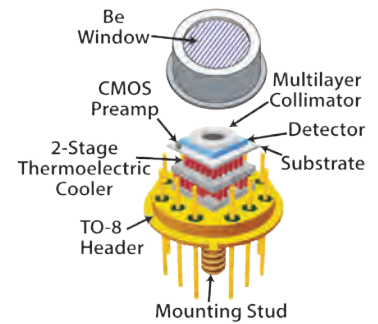
AMETEK®

XRF DETECTORS: State of the Art Performance:

The FAST SDD® represents Amptek's highest performance thermoelectrically cooled silicon drift detector (SDD), with typical resolution < 123eV FWHM, background noise better than 20,000:1 P-B, and capable of count rates over 1,000,000 CPS (counts per second).

Available sizes: 25mm² (0.5mm thick and 1mm thick)
70mm² (0.5mm thick and 1mm thick)
160mm² (0.5mm thick only)

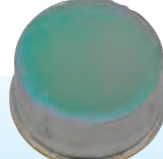
Available windows: .5mil (12μm) Beryllium (Be)
Our Patent Pending "Be free" 3.5μm Boron Carbide (B4C)
Our Patented C-Series (Si3N4) low energy windows for soft x-ray analysis.



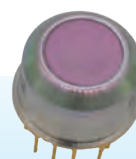
25mm²
0.5mm thick



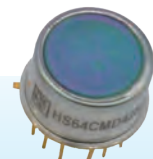
70mm²
0.5mm thick



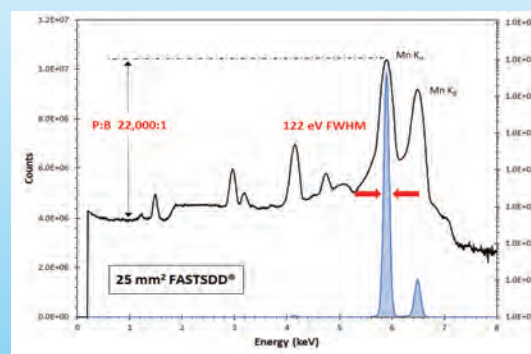
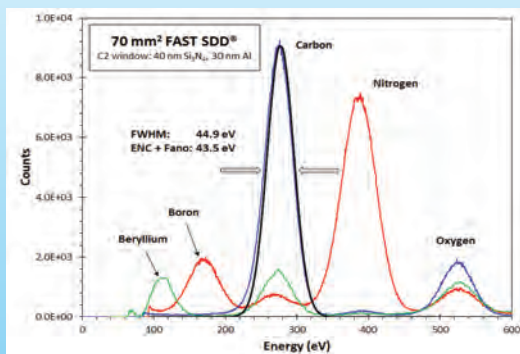
160mm²
0.5mm thick



25mm²
1mm thick



70mm²
1mm thick



Lower performance for lower price:

The Si-PIN is a high performance thermoelectrically cooled X-ray detector and can be combined with several preamplifier and digital pulse processor configurations. Resolution from 139eV (6mm²) to 190eV (25mm²).

Available sizes: 6mm², 13mm² and 25mm²

Available windows: 1 mil (25μm) Beryllium (Be)
0.5mil (12μm) : 6mm² only

Higher Energy Efficiency:

Our CdTe detectors have excellent detection efficiency from 5keV to >150keV. Count rates are limited to 50,000 cps and non-gaussian resolution.

Available sizes: 25mm²

Available windows: 4mil Be

DIGITAL PULSE PROCESSORS

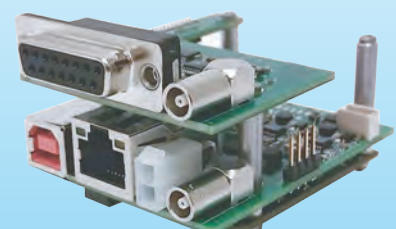
Our DP5 based Digital Pulse Processors are high performance DPPs optimized for use with our Detectors.



PX5



DP5/PC5 Stack



DP5G Stack

CONFIGURATIONS AVAILABLE

Amptek has many different configurations of Detectors and Digital Pulse Processors available, designed to meet the broadest range of customer needs. Some of the most common are shown below, but talk to our sales team if you have any specific needs.



X123 Complete Spectrometer



XR100 with PX5



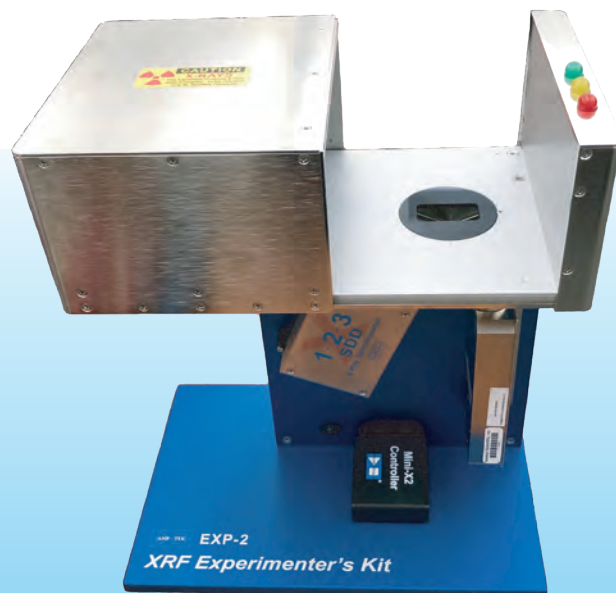
X123 with Flex Cable



Detector, Preamp and Housing

EXPERIMENTERS KIT

Amptek's EXP-2 Complete Experimenter's Kit is a package designed to help a user quickly begin doing elemental analysis via X-ray fluorescence (XRF). It includes hardware and software supplied by Amptek. Once this kit is assembled and the software configured and calibrated, one can begin doing simple analyses. This kit is general purpose, so is not tailored to a particular application, but can be the starting point for a customized system.



X-RAY TUBES

The Mini-X2 is a miniature X-ray tube system which includes the X-ray tube, the power supply, the control electronics, and the USB communications to the computer. It is optimized for compact XRF applications.

Several different options are available:

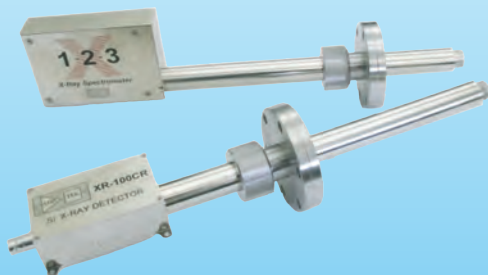
Max HV	50kV		70kV
Max Power	4W	10W	10W
Anode	Ag, Au, Rh, or W	Ag, Au, Rh, or W	Au, Rh, or W



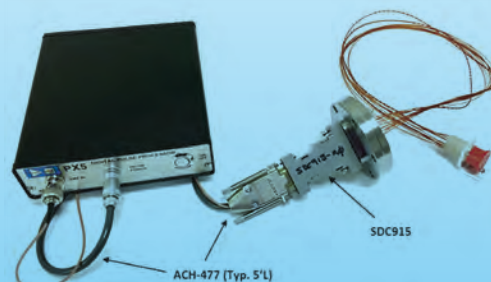
VACUUM APPLICATIONS

Amptek has different configurations available for installation in a wide range of High Vacuum (HV) and Ultra-High Vacuum (UHV) chambers with industry standard flanges. Talk to our sales team to discuss your specific needs:

Standard High Vacuum (down to 10^{-7} Torr / 1.3×10^{-7} mbar)
(all detector types)



Ultra-High Vacuum (below 10^{-7} Torr / 1.3×10^{-7} mbar)
(FAST-SDD® only)



MULTICHANNEL ANALYZERS

Amptek's MCA-8000D is a state-of-the-art, compact, high performance, digital MultiChannel Analyzer (MCA).

MCA-8000D Option PA for Airborne and Suspended Particle Applications

The Option PA package is calibrated and certified to NIST standards for particle counting in airborne (Size Calibration) and liquid suspended (Number Calibration) particle applications



MCA8000D Pocket MCA

SOFTWARE

Amptek's offers different software packages to meet your different needs:

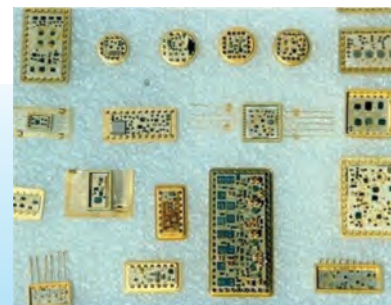
DPPMCA is Amptek's (free to use) Windows software application that provides data acquisition, display, and control for Amptek signal processors.

XRS-FP2 is the next generation quantitative analysis software package for materials analysis using X-Ray Fluorescence (XRF). The single, integrated software package can be used in 3 different modes for different applications: *XRS-FP2 BULK*; *XRS-FP2 MTF*; *XRS-FP2 EPXA*.

HYBRIDS

Get the best performance with solid state detectors, proportional counters, photodiodes, PM tubes, CEMs, or MCPs by using Amptek Charge Sensitive Preamplifiers:

Model	Description
A101	Charge Sensitive Preamplifier & Discriminator
A111 A111F	Charge Sensitive Preamplifier & Discriminator
A121	12MHz Preamplifier Discriminator
A203	Charge Sensitive Preamplifier & Shaper
A206	Pulse Amplifier & Discriminator
A225 A225F	Charge Sensitive Preamplifier & Shaper
A250 A250F A250F/NF	Charge Sensitive Preamplifier "State-Of-The-Art"
A275 A275FC A275FN	Pulse Amplifier
BLR1	Baseline Restorer



talk to our sales team about our extensive spaceflight heritage on some of the most demanding missions.