

# Miniature X-Ray Source

# Mini-X

Mini-X is a self-contained, miniature X-ray tube system, which includes the X-ray tube, high voltage power supply and USB controller. Designed for X-ray fluorescence analysis applications - XRF.

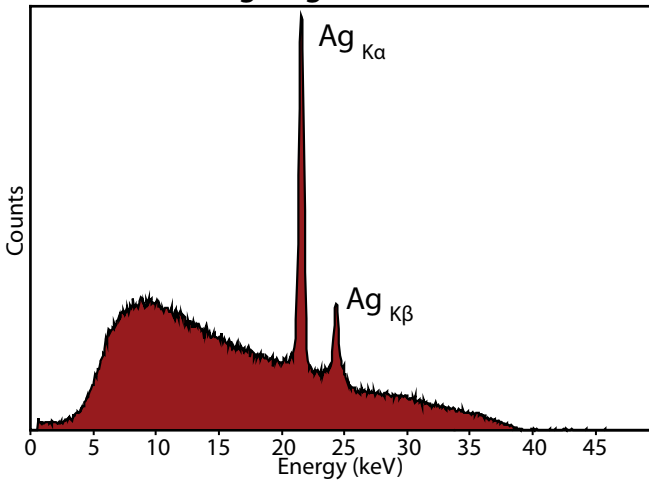


### Features

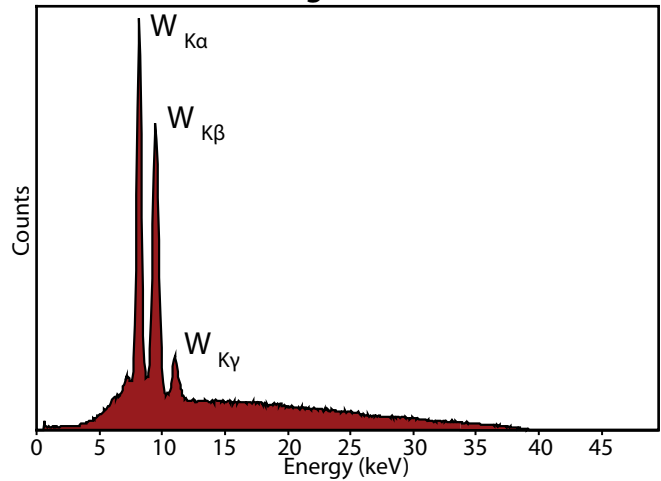
- USB controlled
- Stable output
- Fast
- Low power
- Small
- Ag or W target

### Mini-X Output X-Ray Spectra

Ag Target @ 40 kV



W Target @ 40 kV



The Mini-X shown with the Amptek XR-100CR X-Ray Detector and PX4 Digital Pulse Processor. The Mini-X is based on the Comet EDiX miniature X-ray source.

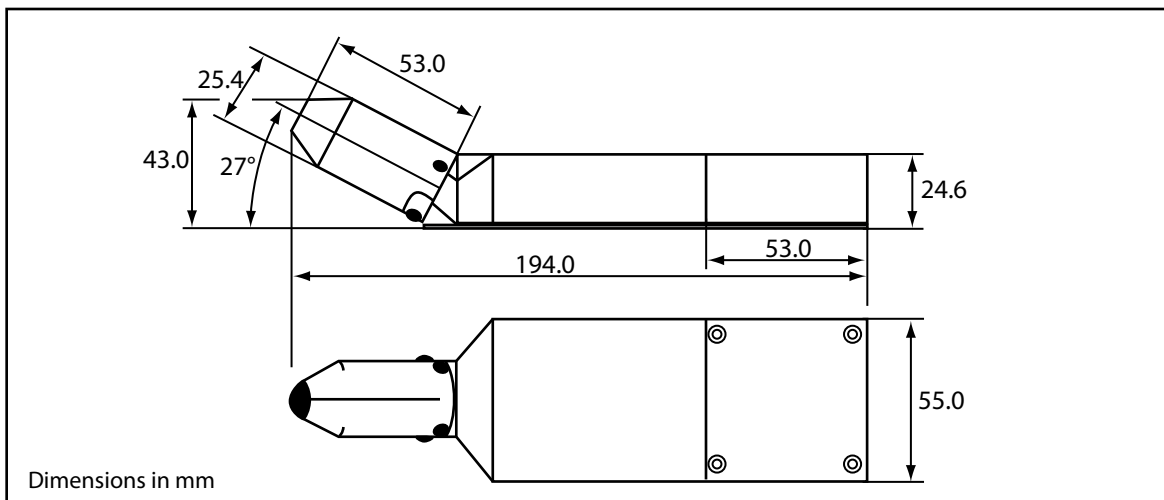
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## Mini-X Specifications

Target material	Silver (Ag) or Tungsten (W)
Tube voltage	5 kV min. / 40 kV max.
Tube current	5 $\mu$ A min. / 200 $\mu$ A max.
Continuous power	4 W max. 100% duty cycle
Window material	Beryllium (window at ground)
Window thickness	500 $\mu$ m
Focal spot size	Approximately 2 mm
Cooling	Air Conduction
Typical dose rate	800 $\mu$ Gy/s at 40 kV, 50 $\mu$ A (Tungsten target)
High voltage stability	< 0.03% RSD
Leakage radiation, max.	< 100 nSv/h
Power consumption	8.4 W at 40 kV and 100 $\mu$ A (12 V DC input voltage)
Input voltage	15 Volts AC Adapter Provided
Control	USB
Setting time	Typical < 1 second
Operation temperature	-10° C - +50° C
Storage temperature	-25° C - +60° C
Humidity	30 - 90% (noncondensing)
Weight	< 280 g
Warranty	One year or 2000 hours, whichever comes first

## Mini-X Mechanical Dimensions

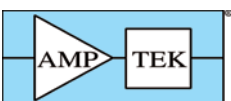


### Radiation Precautions

The Mini-X is intended to generate x-ray radiation during normal operation. The Mini-X has been designed to focus radiation in the designated output direction, however radiation in other directions is possible and should be addressed with shielding and/or monitoring in the final application.

### Caution

**This device produces X-Rays when energized. To be operated only by qualified personnel.**



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