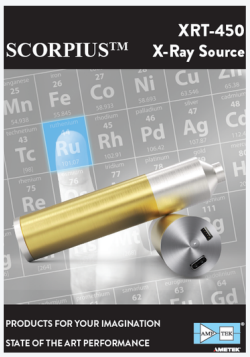
AMPTEK

SCORPIUS

X-ray source for XRF

Miniature X-ray source (XRT-450) for XRF with an optically excited cathode instead of a heated filament – 5–50 kV, up to 6 W and a spot size below 150 µm. Gas-insulated and therefore repairable.



Application	Tube voltage	Maximum tube power
X-ray fluorescence (XRF) [1]	**5–50 kV** [1]	**Up to 6 W** [1]

Specifications

DETECTOR

Window	Beryllium, 125 µm (5 mil)	[1]
Radiation shielding	Meets IEC 62495	[1]

ELECTRONICS & SIGNAL

Tube voltage	5–50 kV	[1]
Maximum tube current	Up to 250 µA, within the 6 W power envelope	[1]

CONNECTIVITY & INTERFACE

Communication	USB-C (control/signal); Molex (power/lockout)	[1]

POWER & BATTERY

Maximum tube power	Up to 6 W	[1]
Supply voltage	20 V DC	[1]

MECHANICAL

Target material	Ag (others on demand)	[1]

GENERAL

Application	X-ray fluorescence (XRF)	[1]
Focal spot	<150 µm FWHM	[1]
HV polarity	Grounded anode	[1]

Sources

[1] **SCORPIUS XRT-450 – A Revolutionary X-Ray Source (brochure)**
Amptek · brochure · p. 2; p. 3, Hardware specifications; p. 3 · checked 2026-10-16
https://www.amptek.com/-/media/ametekamptek/documents/resources/products/scorpius-brochure.pdf

Every value is taken from the manufacturer’s own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.