

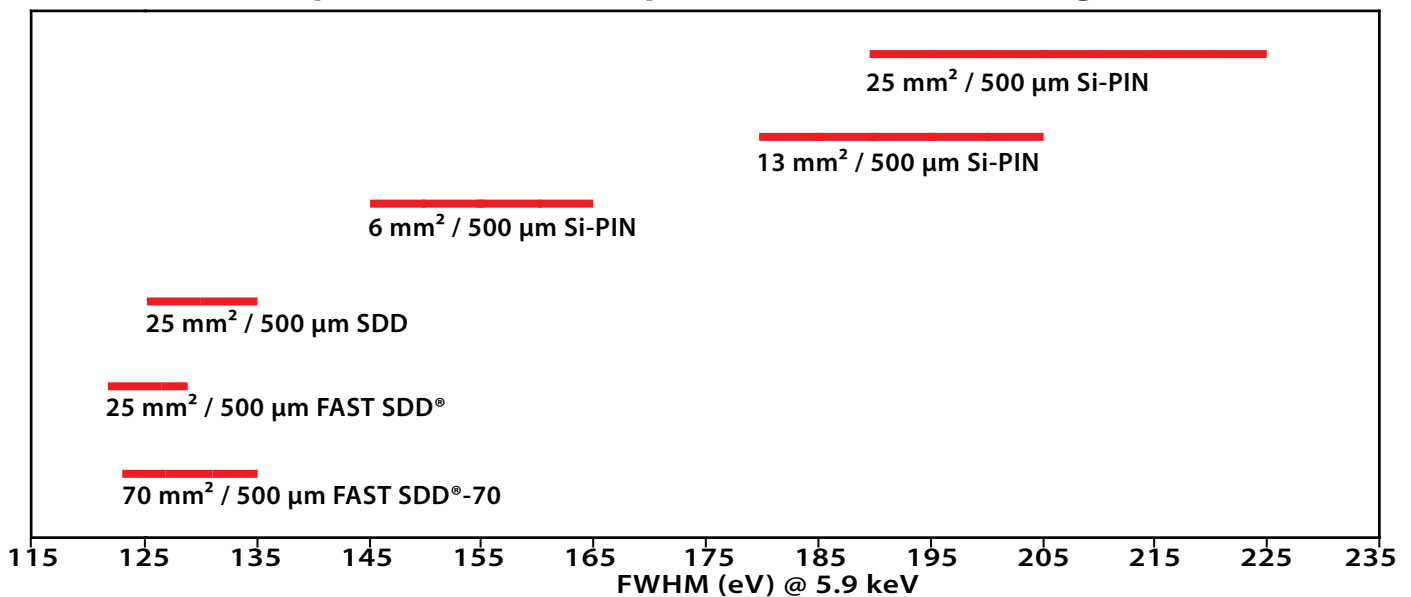
X-Ray Detector Selection Guide

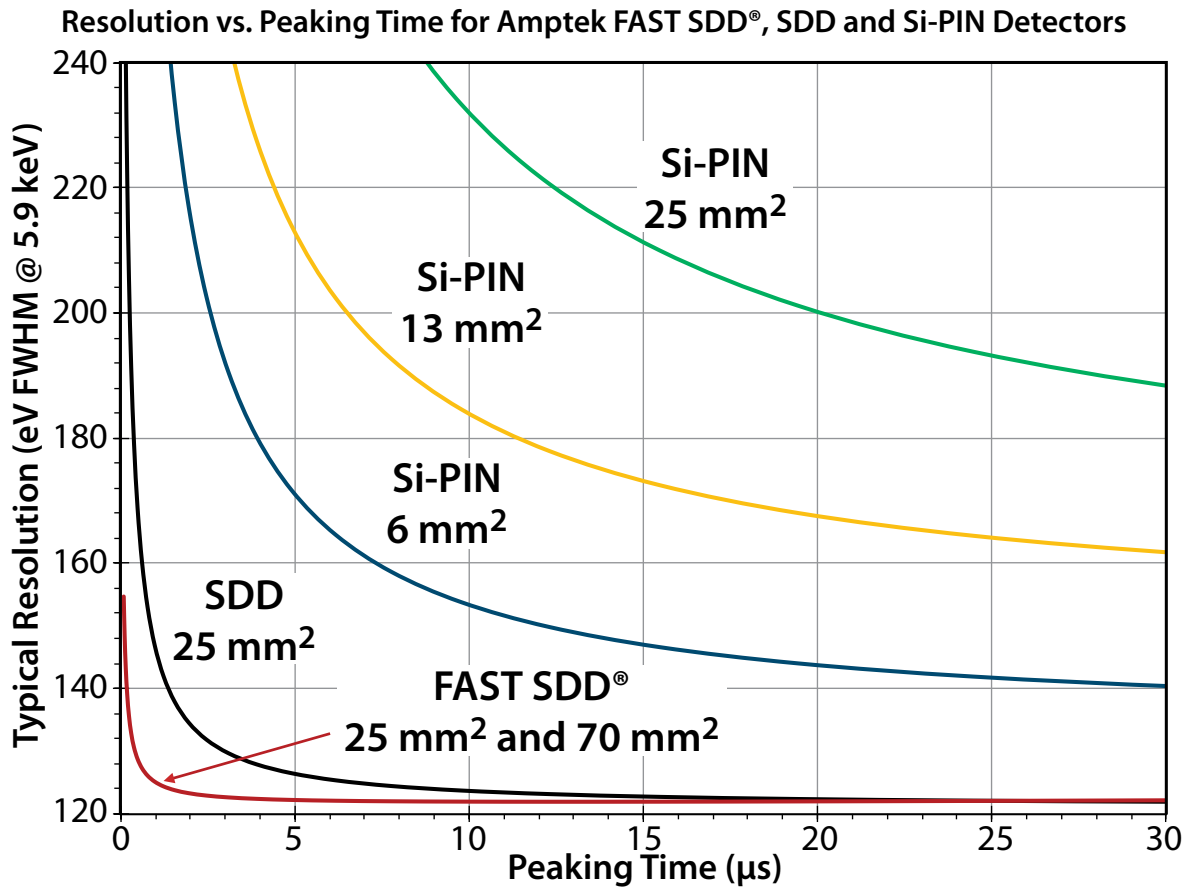
In selecting a detector, the user should consider resolution, area, thickness, and peak to background.

Detector Type Area / Thickness Window Options	Guaranteed Energy Resolution eV FWHM @ 5.9 keV* Peak to Background Ratio*	XR-100 Part Number	X-123 Part Number
Si-PIN 6 mm ² / 500 μm 0.5 or 1.0 mil Be	145 - 165 eV 32 μs Peaking Time P/B Ratio: 6200/1 (typical)	XY-FSG32MD-G3SP (1 mil Be) XY-FSG32MD-G2SP (0.5 mil Be)	ZY-FSG32MD-G3SP (1 mil Be) ZY-FSG32MD-G2SP (0.5 mil Be)
Si-PIN 13 mm ² / 500 μm 1.0 mil Be	180 - 205 eV 32 μs Peaking Time P/B Ratio: 4100/1 (typical)	XY-FS432MD-G3SP (1 mil Be)	ZY-FS432MD-G3SP (1 mil Be)
Si-PIN 25 mm ² / 500 μm 1.0 mil Be	190 - 225 eV 32 μs Peaking Time P/B Ratio: 2000/1 (typical)	XY-FSJ32MD-G3SP (1 mil Be)	ZY-FSJ32MD-G3SP (1 mil Be)
SDD 25 mm ² / 500 μm 0.3 or 0.5 mil Be	125 - 135 eV 11.2 μs Peaking Time P/B Ratio: >20000/1 (typical)	XY-GSH3AMD-G2SP (0.5 mil Be) XY-GSH3AMD-G1SP (0.3 mil Be)	ZY-GSH3AMD-G2SP (0.5 mil Be) ZY-GSH3AMD-G1SP (0.3 mil Be)
FAST SDD [®] 25 mm ² / 500 μm 0.3 or 0.5 mil Be, C1, or C2 Si3N4	122 - 129 eV 4 μs Peaking Time P/B Ratio: >20000/1 (typical)	XY-HSH3AMD-G2SP (0.5 mil Be) XY-HSH3AMD-G1SP (0.3 mil Be) XY-HSH3AMD-U0EA (C1) XY-HSH3AMD-E6EA (C2)	ZY-HSH3AMD-G2SP (0.5 mil Be) ZY-HSH3AMD-G1SP (0.3 mil Be) ZY-HSH3AMD-U0EA (C1) ZY-HSH3AMD-E6EA (C2)
FAST SDD [®] -70 70 mm ² / 500 μm 0.5 mil Be or C2 Si3N4	123 - 135 eV 4 μs Peaking Time P/B Ratio: >20000/1 (typical)	XY-HS63AMD-Y2SP (0.5 mil Be) XY-HS63AMD-W6EA (C2)	ZY-HS63AMD-Y2SP (0.5 mil Be) ZY-HS63AMD-W6EA (C2)

*All results are under full detector cooling; please Contact Us to discuss guaranteed performance under different operating conditions. The Peak to Background (P/B) Ratio is the ratio of counts from 5.9 keV to 2 keV for Si-PIN and 5.9 keV to 1 keV for SDD.

Amptek Detector Comparison: Resolution Range (FWHM)





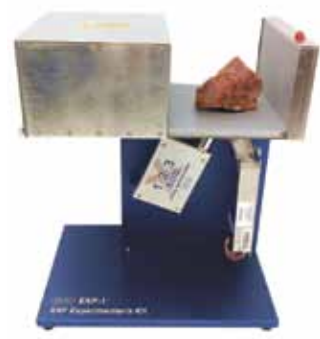
XR-100CR and PX5 Digital Pulse Processor



X-123SDD X-Ray Spectrometer



A sample of OEM configurations



XRF Experimenter's Kit