

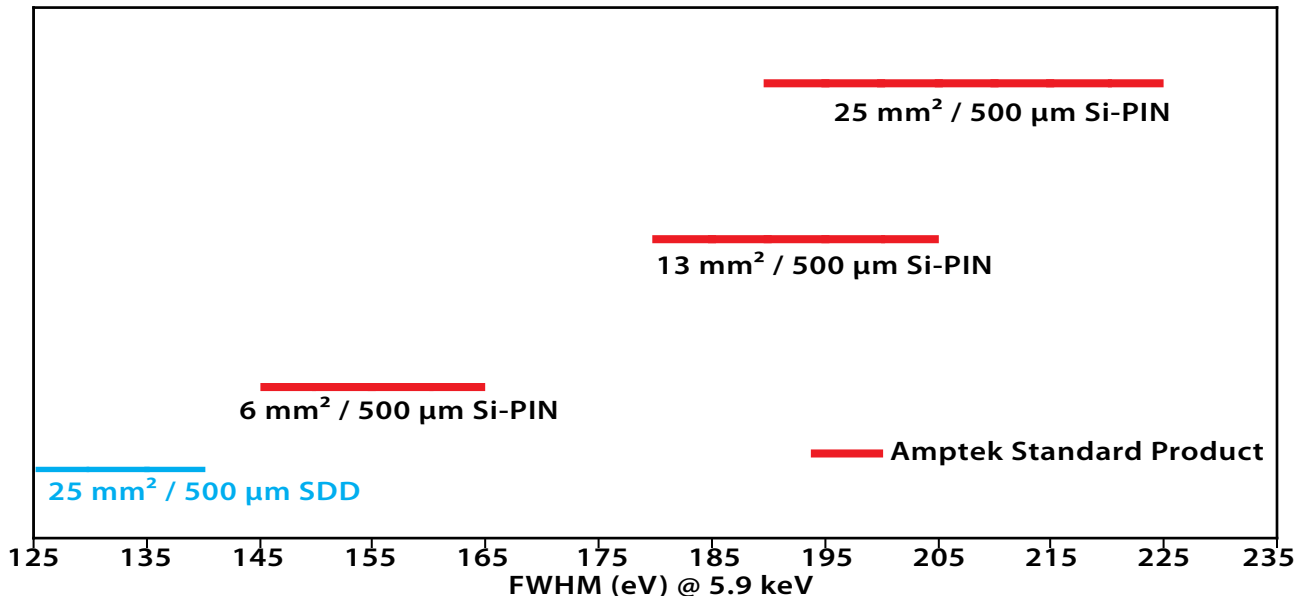
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XR-100 Selection Guide

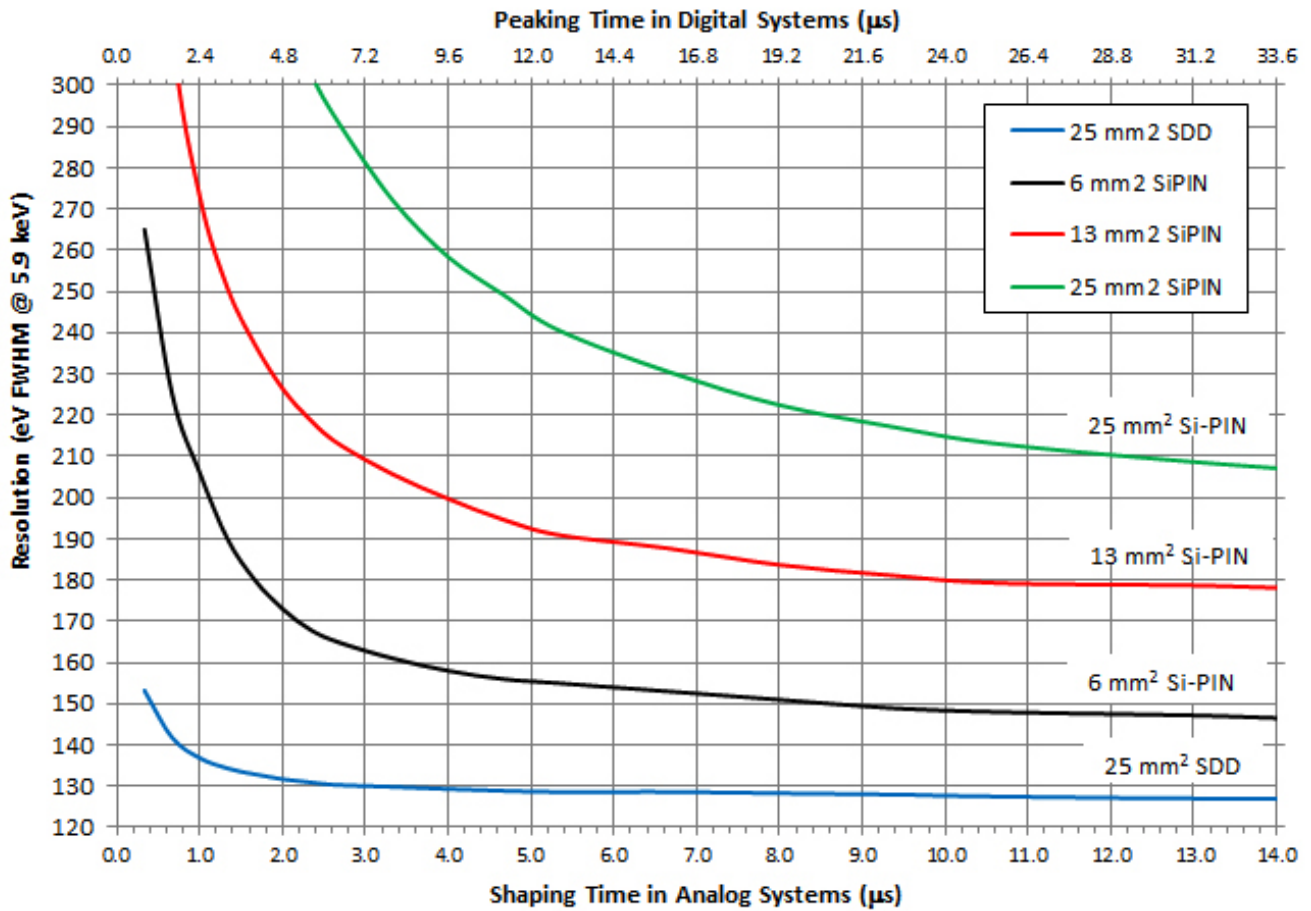
In selecting a detector, the user should consider resolution, area, thickness, and peak to background.

Detector Type Detector Area / Thickness Be Window Thickness	Guaranteed Energy Resolution eV FWHM @ 5.9 keV* Peak to Background Ratio**	XR-100 Part Number (must also order PX5 to be complete system)	X-123 Part Number (complete system)
<i>The following detectors are fully depleted and contain a Multi-layer (ML) Internal Collimator.</i>			
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	XY-FSG32MD-G3SP (1 mil Be) XY-FSG32MD-E2SP (0.5 mil Be)	ZY-FSG32MD-G3SP (1 mil Be) ZY-FSG32MD-E2SP (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	XY-FS432MD-G3SP	ZY-FS432MD-G3SP
Si-PIN 25 mm ² / 500 μm 1.0 mil Be	190 - 225 eV 32 μs Peaking Time P/B Ratio: 2000/1	XY-FSJ32MD-G3SP	ZY-FSJ32MD-G3SP
Super SDD 25 mm ² / 500 μm 0.5 mil Be	125 - 140 eV 11.2 μs Peaking Time P/B Ratio: 8000/1	XY-GSJ3AMD-G2SP	ZY-GSJ32AMD-G2SP
*Peaking Time is approximately 2.4x shaping time. **The Peak to Background (P/B) Ratio is the ratio of the counts from 5.9 keV to 2 keV.			

Amptek Detector Comparison: Resolution Range (FWHM)



Resolution vs. Peaking/Shaping Time for Si-PIN and SDD Detectors



XR-100CR and PX5 Digital Pulse Processor



X-123SDD X-Ray Spectrometer