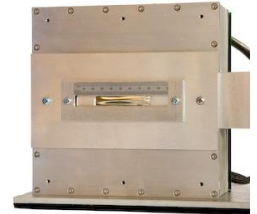


XH is a germanium micro strip based ultra high frame rate, integrating system for x-rays.

Benefits

High frame rate for dynamic experiments
High sensitivity



Sensor

Material	1000µm thick Ge
Strip Pitch	1024 Diodes, 50mm long, arranged in one dimensional array with 50µm strip pitch.
Dark current performance	~30pA / pixel
Energy Range of Use	5 – 40 KeV

System performance

Exposure time range	700ns – 10ms (limited by dark current)
Integration Depth	10 pC/pixel/readout (~18k X-rays @ 10keV)
Linearity	Measured integral non-linearity <±0.1%
Signal to Noise Ratio	Dominated by experimental photon statistics
Sustained Readout Rate	100,000 readouts per second continuous (of 1024 pixels)
Frame storage at full frame rate	1700 individual frames (Up to 10 ⁶ readouts can be combined into each frame to allow increased photon statistics)

System Control

Software	Comprehensive and versatile Windows [®] based interface with Ethernet connectivity.
Hardware Interface	Flexible triggers including: start, pause, wait, run then wait. Trigger uncertainty <20ns
Sync capability	Low jitter synchronisation to 2G and 3G synchrotron orbit clock

