lambda 750K

Large Area **Medipix3** Based Detector Array

X-Spectrum

a DESY spinoff company

Designed for high-end X-ray imaging, LAMBDA cameras are the fastest large format detectors using the Medipix3 chip.

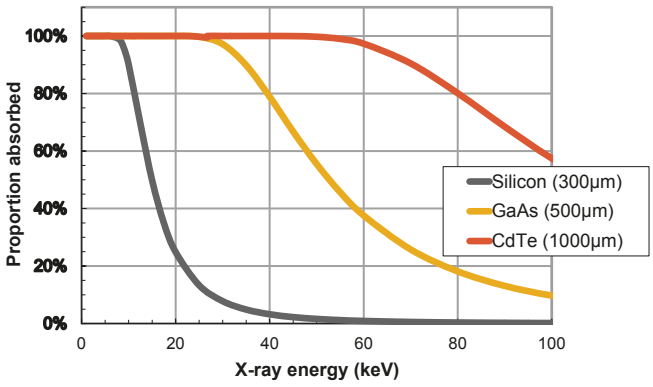
Pioneered by one of the leading research institutes of the world LAMBDA cameras provide the speed and resolution for even the most demanding tasks.

LAMBDA 750K specifications

Sensor	Silicon	GaAs	CdTe
Sensor thickness	300 µm	500 µm	1000 µm
Pixel size	55 µm x 55 µm		
Detector layout (3 modules)	1 sensor	2 sensors	2 sensors
No of Pixels	512 x 1536	512 x 1528	512 x 1528
Dynamic range	24 bits maximum (dependent on mode)		
Energy range	6 – 25 keV	8 – 75 keV	8 – 150 keV
Adjustable threshold range	4 – 40 keV	5 – 50 keV	5 – 75 keV
Frame rate	Up to 2000 Hz (12-bit mode)		
Readout time	No readout time in 12-bit mode, 1 ms in 24-bit mode		
Point spread function	1 pixel FWHM		
External trigger / gate	3.3V TTL		
Software interface	Tango server or open-source hardware library available		
Cooling	Air cooling		
Dimensions (L*H*W)	405 x 100 x 120 mm³		
Weight	5 kg		
max countrate with correction (10% dev)	2.5 x 10^8 counts/mm²/s		

Specifications are subject to change without notice

LAMBDA sensors: Photoelectric absorption



The LAMBDA pixel detector is available with different sensor layers for different X-ray energy ranges. For hard X-ray detection, the GaAs and CdTe LAMBDA systems replace the standard silicon sensor layer in LAMBDA. This provides high quantum efficiency at high X-ray energies (75% at 40keV for GaAs, and 75% at 80keV for CdTe), while retaining all other specifications.

Contact us any time at info@x-spectrum.de or visit us at www.x-spectrum.de

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