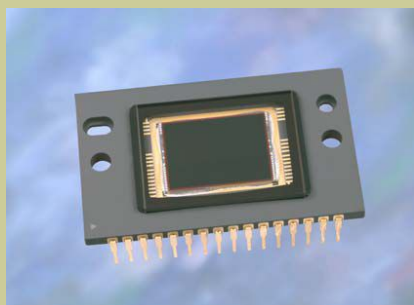


## Laue X-ray CCD cameras

PSL has supplied Laue X-ray CCD cameras for the last 5 years to end users and OEMs.

A selection of high responsivity CCDs, combined with low noise characteristics, enables optimum photonic collection with best possible signal to noise ratio. Special read whilst expose mode allows 100% shutterless duty cycle and high sensitivity operation in low light level conditions.



## Applications:

- X-ray crystal alignment
- X-ray back scattered diffraction
- X-ray microdiffraction

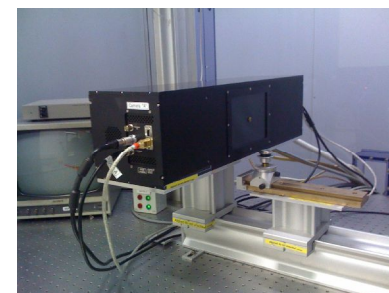
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sales : +33 (0)4 76 93 57 20  
info@photonic-science.co.uk

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*Information /  
products and  
services*



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Scientific detector  
systems

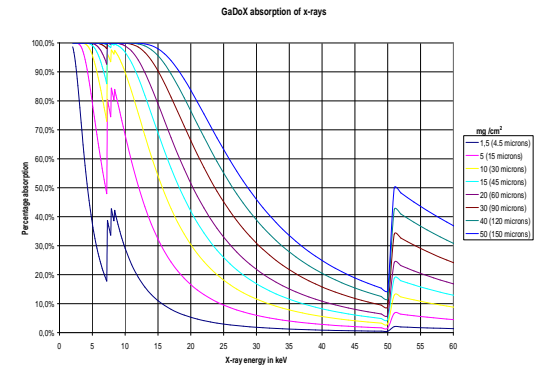
## *Laue X-ray CCD cameras*

Photonic Science Ltd selects premium grade CCD sensors and fibre optic bundles :

- Small pixel size less < 75 microns pixel size at the detector input
- 2x10 MHz scanning frequencies
- 6x4 inch image format matching that of high sensitivity Polaroid films
- Low readout noise
- Ultra low dark current allowing long on chip exposures up to 30 minutes
- Gating time from milliseconds to few seconds
- Simultaneous integration / readout enabling 100% duty cycle acquisition
- GdOS polycrystalline or single crystal scintillators
- On chip binning with increased acquisition frame rate
- Firewire, Camera link digital interface
- Low profile electronics

## **X-ray alignment megapixel CCD camera**

- 1872 (h) x 1252 (v) CCD array
- Input pixel size : 75 x 75 microns
- Input size : 140.43 x 93.9 mm
- 2.5 fps at full resolution @ 2x10 MHz
- Readout noise: 4 to 5 electrons @ 10 MHz with noise interpolation noise reduction
- Full well capacity : 13,000 electrons in binning 1x1; > 200,000 electrons in extended dynamic range mode
- On chip binning up to 8x8 increasing sensitivity 64 times compared to high resolution mode
- 12-bit digitisation
- Extended dynamic range mode up to 16-bit digitisation
- GdOS:Tb scintillator for operation from 5-35 keV
- Firewire / Camera link
- Synchronisation / control : via TTL pulse



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