

X-ray detection optical module



Overview

Sensors and modules for radiation and x-ray detection. Detectors comprised of a silicon photodiode array mounted. Best-in-class sensing solutions enable x-ray equipment to render more accurate images with better contrast while limiting noise and distortion. We design and manufacture imaging sensing solutions which offer outstanding. LAMBDA is a next-generation pixel detector for X-rays, based on Medipix3 technology. It is a photon-counting detector, making it effectively noise free, and it offers a high frame rate of up to 24,000 frames per second (with no readout deadtime) and a small pixel size of 55 μm . It is available in a. Flat and curved multilayer X-ray optics can be used as monochromators, collimators or focussing optics in X-ray diffraction, X-ray reflectometry, X-ray fluorescence analysis and for synchrotron applications.



Article Content

Hot

PerkinElmer | Science with Purpose

We believe in the power of science to transform our world. Together with scientists and operators worldwide, we empower progress by providing trusted insights and

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XEye – Radiation-stable X-ray detectors

The consistently high image quality and long service life of the XEye digital X-ray detector developed at the Fraunhofer Development Center for X-ray Technology

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X-ray non-destructive inspection products

High performance X-ray sources and detectors (sensors/cameras) are the fundamental components for non-destructive X-ray inspection systems. These sources and detectors enable the acquisition of

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X-ray Detectors

Scintillation Detectors Scintillators work by converting X-ray energy into visible light. The energy of the incoming X-ray is completely absorbed by the

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X-ray Optics

Flat and curved multilayer X-ray optics can be used as monochromators, collimators or focussing optics in X-ray diffraction, X-ray reflectometry, X-ray fluorescence

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X-ray Detectors

Varex Imaging is a leading manufacturer and developer of X-ray imaging components. Explore our extensive line of X-ray detectors.

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MOXTEK Optical and X-ray Components Manufacturer

X-ray products: detectors, tubes, Beryllium/Polymer xray windows, Optics: PBS, ultraviolet/infrared polarizers

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Development of position sensitive detector module using scintillator ...

We explore the use of scintillation detectors coupled with silicon photomultipliers (SiPMs) as position sensitive hard x-ray spectroscopic detectors for potential applications in the field of high-energy

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Multidisciplinary evaluation of X-ray optical fiber sensors

We report the complex evaluation of an extrinsic optical fiber sensor for X-ray detection, consisting of different phosphor materials (ZnS:Ag, Gd₂O₂S:

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X-ray Detectors

They are applied to photodiode surfaces and convert incident X-ray beams into visible light (565 nm) that can be detected by a Si photodiode. A typical example

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Technical note / X-ray detectors

In the low energy X-ray region called the soft X-ray region from a few hundred eV to about 20 keV, direct detectors such as Si PIN photodiodes, Si APDs, and CCD area image sensors are utilized. These

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X-ray sensors

New generations of detector solutions from ams OSRAM are enabling equipment makers to achieve both these goals simultaneously, allowing reductions in x-ray doses while reducing noise and

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Detector Packaging for Medical X-Ray Imaging and X-Ray

Hybrid pixel detector modules are state of the art components in X-ray cameras used in synchrotron radiation experiments and for X-ray imaging applications. In synchrotrons these photon-counting

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HG-Detectors-2019-WEB

2-Dimensional X-ray Detectors Workhorses at synchrotron sources è make the best use of the available photons. Counting or Integrating Direct detection or Indirect detections

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Characterization of Scintillating X-ray Optical Fiber Sensors

The paper presents a set of tests carried out in order to evaluate the design characteristics and the operating performance of a set of six X-ray

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Viscom X-ray Inspection

Viscom's manual and fully automated 3D X-ray systems inspect complex and highly demanding electronics with maximum inspection accuracy and a full inspection

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Technical note / X-ray detectors

These detectors provide high detection efficiency and high energy resolution, and so are used in X-ray analysis, X-ray astronomical observation, physics experiments, etc.

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Quantum Dots Microstructured Optical Fiber for X-ray Detection

Microstructured optical fiber end SEM image of 138 inclusions, or holes, which extend the length of the fiber taken at 30 keV. Quantum dots scintillation materials are placed in these inclusions to form an x

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Lambda - X-Spectrum

LAMBDA is a next-generation pixel detector for X-rays, based on Medipix3 technology. It is a photon-counting detector, making it effectively noise free, and it offers a high frame rate of up to 24,000

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A new generation of direct X-ray detectors for medical and ...

Indirect and direct X-ray detection principles are the mechanisms by which the X-rays absorbed in the detector are converted to an electrical signal for data processing.

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Design of a next-generation conventional scintillator x-ray detector ...

We discuss three implementation options: individual detector modules may be tilted, with gaps between modules that are seamless from the perspective of the x-ray source; the whole

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Radiation Detection Modules | X-Z LAB

X-Z LAB offers radiation detection modules to partners and distributors interested in putting our technology to work inside your products.

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X-ray non-destructive inspection products

These sources and detectors enable the acquisition of sharp and clear X-ray images so system manufacturers can meet the increasingly demanding requirements of non-destructive X-ray inspection.

Jun 04, 2026 Hot

X-Ray Detector Boards-NORTH OPTICS-Laser Components, IR

Shanghai North Optics offers a series of custom-tailored Detector Boards for X-Ray Imaging Systems. The products are line-scan x-ray Si photodiode detectors based on scintillators, integrated on data

Sep 17, 2025

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