

## High-Performance Photodetectors for Advanced Microscopy



### KEY FEATURES

- Fast Response Time
- Low Noise for High Precision Measurements
- Compact Form Factor

### APPLICATIONS

- Electron Microscopy (SEM/TEM)
- Synchrotron & Beamline Instrumentation
- Surface Science & Materials Research

Opto Diode's AXUV series photodetectors are specifically engineered for direct detection of high-energy particles, including electrons and X-rays. These detectors offer excellent linearity, low dark current, and superior sensitivity from soft X-rays to Vacuum Ultra Violet (VUV) wavelengths (5 – 200nm), making them ideal for demanding scientific and industrial environments.

In electron microscopy, AXUV photodiodes are used for backscatter electron detection, and beam alignment. Their thin entrance windows and fully depleted silicon design allow for efficient charge collection with minimal signal loss, enabling highly accurate signal monitoring for enhanced image contrast. Designed for harsh vacuum environments, models are available in compact windowless packaging to maximize transmission.

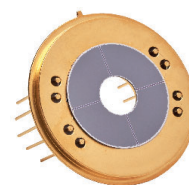
These characteristics suit integration into electron spectrometers, synchrotron beamlines, and scientific tools for surface measurements. Available in a range of active areas, including segmented versions for spatial sensitivity, AXUV detectors support both standard and custom configurations. Built in the USA and tested for high reliability, they offer a dependable solution for researchers and engineers at the forefront of materials science, microscopy, and vacuum instrumentation.

## Featured Products

### Opto Diode Products for Advanced Microscopy

Model Number	Active Area Size mm <sup>2</sup>	Detection Range (nm)	Typ. Responsivity (A/W)
AXUV63HS1-CH	63	0.0124 to 190	0.26 @ 10nm
AXUV20HS1	20	0.0124 to 190	0.26 @ 10nm
AXUV100G	100	0.0124 to 190	0.26 @ 10nm
AXUV100TF030	100	1 to 12	0.16 @ 3nm

Customizable photodiode configurations available, including unique segmented layouts, circular apertures, and specialized packaging for integration into advanced electron detection systems.



These tailored solutions ensure optimal performance in high-vacuum, high-energy environments where precision and reliability are critical.

### Typical EUV-UV Photon Response

