

Handling Precautions for AXUV, SXUV, and UVG Detectors (EUV Photodiodes)

Protection

Always leave the protective cover in place on windowless devices until the photodiode has been assembled into the next level of integration. Doing so will prevent contamination, damage to the photodiode and prevent bond wire breakage.

Cleaning

For EUV windowless photodiodes precaution should be taken to not breathe, sneeze or touch the active area of the device. If by accident the active area is contaminated, the surface may be cleaned by a clean room swab dipped in electronic grade acetone or alcohol. CAUTION: *EUV photodiodes have a very shallow junction and aggressive swabbing may damage the device. Use a gentle swabbing action only.* All the filtered diodes with carbon and silicon passivating coating can also be cleaned in the same method. For other filtered diodes please contact the factory before attempting to clean.

Bond Wire Damage

Care must be taken to avoid disturbing the delicate wire bonds which connect the photodiode die to the package pins. If the wire gets pushed down to the die it may result in a short. It may be possible to gently lift the bond off of the die using a fine wire or needle. *Warranty is voided if the wire is broken by the user.*

Soldering

Photodiodes may only be connected per the instructions on the individual data sheets. Most devices may be directly soldered to the pins while following the stated temperature limit and duration. Flux will contaminate the photodiode so it is important to leave the protective window on during the soldering and cleaning process. All flux should be cleaned from the package before use by utilizing D.I. water, alcohol or acetone as appropriate.