

## REMOVING THE COVER GLASS

PixeLINK offers numerous customization options for customers looking to enhance the performance of their system including expertly removing the camera or sensor glass.

### Camera Glass (Top Surface)

As part of the camera construction, camera makers install a piece of camera glass above the actual sensor as part of the optical system. PixeLINK installs an IR Filter for a color camera and a clear glass for a monochrome camera.

### Micro Lens Glass/Sensor Glass (Bottom Surface)

As part of the sensor construction, sensor makers bond a protective cover over the sensor that helps to focus the light properly into the well of each pixel in the sensor. Ambient light is assumed to be coming from all directions and the microlens glass acts as a focus element above each pixel.

### Why Remove Top or Bottom Cover Glass from Sensor?

Customers looking to remove anything “extra” from the optical path may opt to remove the camera IR filter or clear glass. This is often the case when customers are using custom designed lenses in their optical system. They have carefully modeled the optical path from the rear element of the camera lens to the sensor and therefore do not want another piece of optical glass to interfere in the optical path.

Customers using collimated light (like in a laser system) rather than ambient light may opt to remove the micro lens glass (also known as sensor glass) to avoid any possible distortion of the light going into the pixel well.

### Concerns with Removing Sensor Glass

The micro lens/sensor cover is bonded over the sensor while being packaged as a way to protect the sensor from dirt, dust, or contamination of any kind. Once removed, there is no way to keep the sensor clean unless possibly adding a thin protective pellicle membrane or finding another way to seal their complete optical assembly that includes the sensor. Dust, dirt and other contaminants can impact camera performance and reliability.

Contact your PixeLINK representative for more information.

