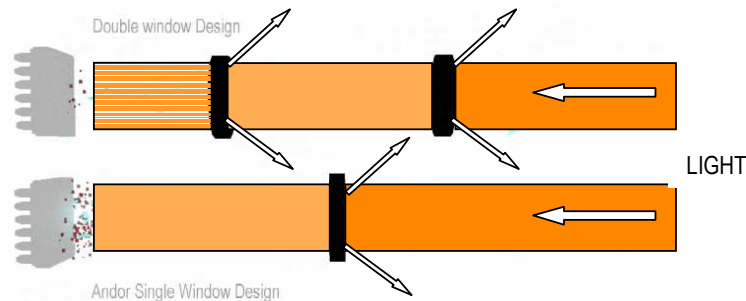


ANDOR TECH NOTE – CORPORATE (Spring 2004)

How Does a One-Window Design Enhance Performance?

One of the many benefits arising from Andor's all-solid hermetic vacuum seal technology, is the ability to incorporate only a single window (with optional anti-reflection (AR) coating) in the path of the incoming photons. Other designs are obliged to use at least one extra non-AR coated window, in order to afford at least some protection to the sensor against corrosive outgassed condensates and moisture.

Fig1 – Andor's single window (with optional AR Coated) design enables higher QE



The implications of a single window design are:

- ✓ Photon collection performance reflective of that described in the QE curve. For systems with an extra window, reduce all QE by 8% (4% reflection per surface).
- ✓ A design suited to high-end CCD cameras that can operate under extreme photon-starved conditions.
- ✓ In low light imaging applications, it enables the use of a C-mount magnifying lens without image curvature. An extra window close to the sensor results in such aberrations. Enables a much more flexible microscopy camera.

No other camera manufacturers have the length and depth of experience on Vacuum Sealing than Andor. We have been promoting and educating the market on this technology for longer than anyone else, and have sold more cameras and been selling such cameras for longer than anyone else.