

Standard CGH Mounting and Positioning

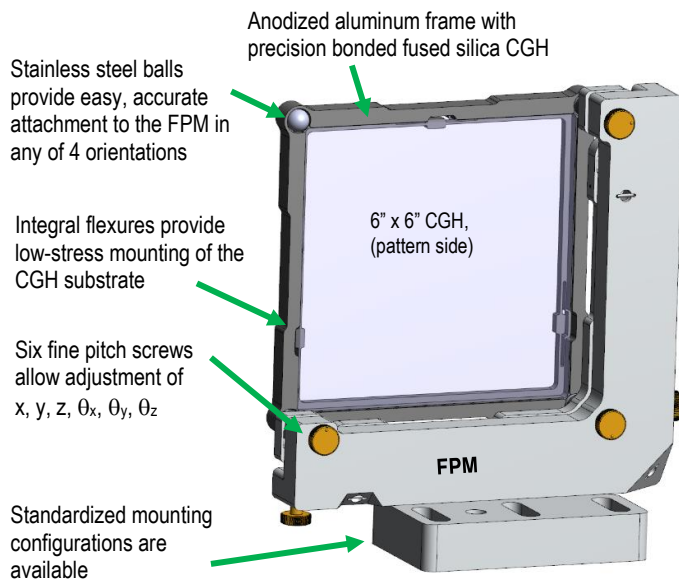
Standard size CGHs (6"x6", 6"x3", and 3"x3") are mounted into frames with the following features:

- The frames have four 12-mm diameter hardened stainless steel balls at the corners, made to snap into the AOM 6 degree-of-freedom Fine Positioner Mount (FPM).
- Each CGH is precision-bonded into its frame using AOM flexures for stress-free support with sub-micron stability.

The balls on the CGH frames snap into the AOM Fine Positioner Mount using magnetic coupling, relying on flexures in the FPM to provide a precise repeatable interface. Fine pitch screws allow adjustment of all 6 degrees of freedom with sub-micron resolution.

The CGH and balls are precision bonded into the frame, controlling the pattern with within 5 μm (next generation tooling will achieve 1 μm) so the CGH can be rotated multiples of 90° or interchanged with a different one, maintaining position to microns.

Assembly with CGH frame and FPM



Fine Positioner Mount

