

Supporting Information

A Design Approach to Reducing Stress and Distortion Caused by Adhesive Assembly in Micromachined Deformable Mirrors

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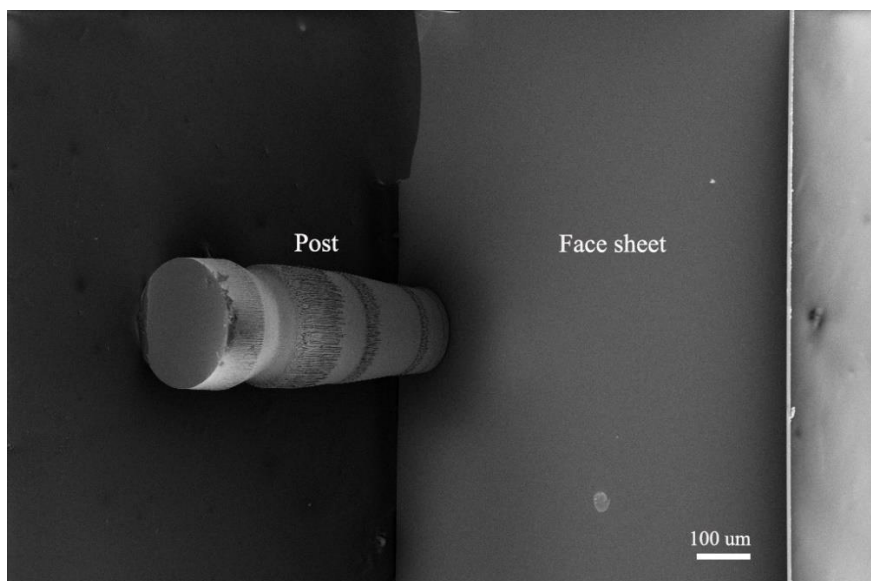


Figure S1. SEM image of single etched silicon post integrated on face sheet.

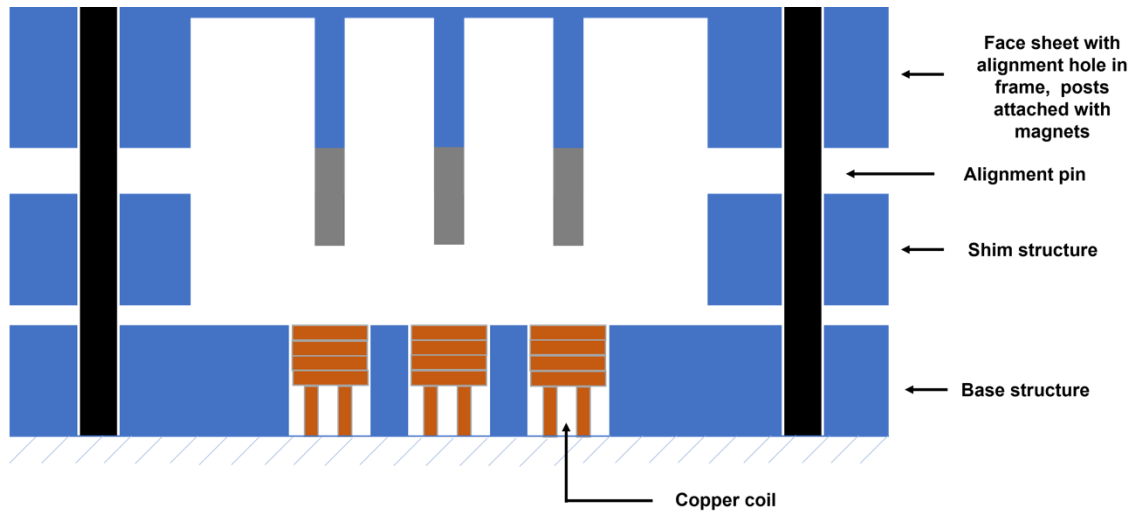


Figure S2. Cross-sectional schematic of the assembly setup for electromagnetic actuation tests. The setup includes three main components layered from top to bottom: A circular face sheet fixed at its edges by a rigid frame, supporting an array of posts (three shown) that have magnets adhesively bonded to their distal ends; a shim material to control the gap between magnets and actuation coils; and a base structure holding the individually addressable copper coils. These three structures are aligned using several pins that connect alignment holes integrated into each layer.

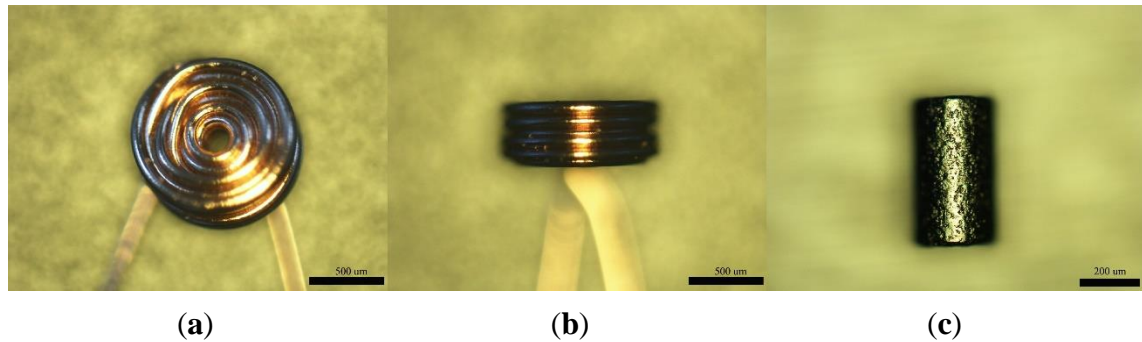


Figure S3. Microscope photographs of copper coil and magnet used for electromagnetic actuation tests. (a) Top view of copper coil; (b) Side view of copper coil; (c) side view of magnet.