ABSTRACT OF THE DISCLOSURE

DEVICE AND METHOD FOR DISPLAY MEMORY USING MANIPULATION OF MECHANICAL RESPONSE

Embodiments of an exemplary MEMS interferometric modulator comprise a movable layer and a fixed layer separated by an air gap. A driving scheme employs row/column actuation protocols which maintain voltages to the MEMS interferometric modulator that are above or below the voltage range necessary to place the MEMS interferometric modulator within a "hysteresis window" or "stability window." Stable operation of the MEMS interferometric modulator is achieved by selecting mechanical design features that optimize the actuation and release times of the interferometric modulator. Some of the features affecting the release and actuation times include altering post spacing, altering internal stress or tension of the movable layer, altering the thickness or composition of the movable layer, altering the bulkiness of the tethers, perforating the movable layer and providing vias in the fixed layer.