A DESIGN ANALYSIS OF MICROMIRRORS IN STACKED CONFIGURATIONS WITH MOVING ELECTRODES

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Abstract- Micromirrors fabricated by MEMS technology have demonstrated to be important sensing or actuating components in many industrial and biomedical applications such as laser scanning displays, optical switch matrices, and biomedical imaging systems. In this paper, various actuation mechanisms for micromirrors are described. A new geometric configuration of a stacked micromirror that is actuated by electrostatic force is proposed and analyzed to show its superior performance in terms of deflection angle, actuation voltage, and frequency response.