

عنوان مقاله:

Design and Simulation of a Low Actuation Voltage Capacitive MEMS Switch

محل انتشار:

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خلاصه مقاله:

In this paper we have proposed a new switch or structure for reducing actuation voltage. This switch is compared with four conventional structures considering the force range of $1\mu\text{N}$ to $3\mu\text{N}$. We have used the ANSYS software for design and simulation for the switch parameters such as actuation voltage, collapse voltage, spring constant and resonant frequency. Small size (half the size of other proposed materials), which can reduce the manufacturing cost, and also low-valued spring constant, which results inactuation voltage reduction, are among more noticeable features of the proposed switch.

کلمات کلیدی:

MEMS, en, Switches, Collapse Voltage, Sensitivity, Fixed-Fixed Beam

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