Abstracts

MEMS devices for high isolation switching and tunable filtering

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This paper presents resonant capacitive microelectromechanical switches and their possible applications in tunable filtering. Single switches with a down capacitance of 2.9 pF and inductive sections of 3 to 50 pH are demonstrated, resulting in resonant frequencies from 13 to 54 GHz. Designs of resonant switches connected in parallel are also implemented with major advantages in isolation and bandwidth. Finally, tunable filters using these switches are discussed.

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