Abstracts

A DC-contact MEMS shunt switch

Guan-Leng Tan and G.M. Rebeiz. "A DC-contact MEMS shunt switch." 2002 Microwave and Wireless Components Letters 12.6 (Jun. 2002 [MWCL]): 212-214.

This paper presents the design, fabrication, and performance of a metal-to-metal contact micro-electro-mechanical (MEMS) shunt switch. The switch is composed of a fixed-fixed metal beam with two pull-down electrodes and a central DC-contact area. The switch is placed in an in-line configuration in a coplanar waveguide transmission line. This topology results in a compact DC-contact shunt switch and high isolation at 0.1-18 GHz. The isolation at MM-wave frequencies is limited by the inductance to ground and is -20 dB at 18 GHz. The application areas are in wireless communications and high-isolation switching networks for satellite systems.

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