Abstracts

MEMS microswitches for reconfigurable microwave circuitry

S. Duffy, C. Bozler, S. Rabe, J. Knecht, L. Travis, P. Wyatt, C. Keast and M. Gouker. "MEMS microswitches for reconfigurable microwave circuitry." 2001 Microwave and Wireless Components Letters 11.3 (Mar. 2001 [MWCL]): 106-108.

The performance is reported for a new microelectromechanical structure (MEMS) cantilever microswitch. We report on both dc- and capacitively-contacted microswitches. The dc-contacted microswitches have contact resistance of less than 1 /spl Omega/, and the RF loss of the switch up to 40 GHz in the closed position is 0.1-0.2 dB. Capacitively-contacted switches have an impedance ratio of 141:1 from the open to closed state and in the closed position have a series capacitance of 1.2 pF. The capacitively-contacted switches have been measured up to 40 GHz with S/sub 22/ less than -0.7 dB across the 5-40 GHz band.

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