Abstracts

Polyimide film based RF MEMS capacitive switches

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A new type of RF MEMS capacitive switch using polyimide film as the structural membrane layer has been developed. The dimensions of these switches range from a few hundred microns to a few millimeters and are convenient for integration with printed antennas. Fabrication and assembly of the polyimide film based switches are discussed. Electromechanical switch designs with actuation voltages as low as 73 V are presented. RF performance of the shunt-mounted switches on a CPW line has been demonstrated in the L-band with an insertion loss of less than 0.32 dB.

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