

“A novel RF MEMS switch compatible with CMOS technology”, pp.17-29

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Abstract – A novel RF MEMS series switch with metal-to-metal contact has been developed to operate from 2 to 40 GHz. Parylene is used as the structure material and photoresist as the sacrificial layer. The mechanical structure is of a bridge type. The measured insertion loss is from -0.1 dB to -0.28 dB where the frequency varies from 2 to 40 GHz, when the switch is on. The isolation ranges from -65 dB at 2 GHz to -35 dB at 40 GHz, when the switch is off. The whole process can be done at room temperature. Detailed material property characterizations of parylene and switch design are presented.