# Abstracts

## RF-MEMS switches for reconfigurable integrated circuits

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This paper deals with a relatively new area of radio-frequency (RF) technology based on microelectro-mechanical systems (MEMS). RF MEMS provides a class of new devices and components which display superior high-frequency performance relative to conventional (usually semiconductor) devices, and which enable new system capabilities. In addition, MEMS devices are designed and fabricated by techniques similar to those of very large-scale integration, and can be manufactured by traditional batch-processing methods. In this paper, the only device addressed is the electrostatic microswitch - perhaps the paradigm RF-MEMS device. Through its superior performance characteristics, the microswitch is being developed in a number of existing circuits and systems, including radio front-ends, capacitor banks, and time-delay networks. The superior performance combined with ultra-low-power dissipation and large-scale integration should enable new system functionality as well. Two possibilities addressed here are quasi-optical beam steering and electrically reconfigurable antennas.

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