Abstracts

A micromachined RF microswitch applicable to phased-array antennas

K. Suzuki, S. Chen, T. Marumoto, Y. Ara and R. Iwata. "A micromachined RF microswitch applicable to phased-array antennas." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1923-1926 vol.4.

A mechanical microswitch has been fabricated by single crystal silicon bulk micromachining on a glass substrate. The mechanical part of the device has superior mechanical reliability and can be applied to a phased-array antenna, since the glass substrate can be easily extended to a large area, accommodating a large number of elements on it. A fabricated device was measured to have less than 0.2 dB of on-state insertion loss and higher than 13 dB of off-state isolation at 30 GHz.

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