Abstracts

Ferroelectric thin-film based electrically tunable Ku-band coplanar waveguide components

G. Subramanyam, N. Mohsina, A. Al Zaman, F. Miranda, F. Van Keuls, R. Romanofsky and J. Warner. "Ferroelectric thin-film based electrically tunable Ku-band coplanar waveguide components." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. I [MWSYM]): 471-474 vol.1.

Barium strontium titanate Ba/sub 0.6/Sr/sub 0.4/TiO/sub 3/ thin-film based tunable coplanar waveguide (CPW) components were studied in this research. The CPW components modeled and experimentally verified include CPW transmission lines, resonators and 2-pole filters. The resonators and filters fabricated and tested exhibited a frequency tunability of approximately 3% for a bipolar bias voltage of /spl plusmn/100 V, corresponding to a peak biasing field of 40 kV/cm.

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