Abstracts

Ferroelectric-ferrite tunable phase shifters

S.W. Kirchoefer, J.M. Pond, H.S. Newman, Won-Jeong Kim and J.S. Horwitz. "Ferroelectric-ferrite tunable phase shifters." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1359-1362.

Coplanar waveguide transmission lines fabricated on tunable substrates are being developed for use as true time delay phase shifters. We have fabricated such devices on substrates composed of ferroelectric thin films as well as ferroelectric thin films overlaying ferrite films. These ferroelectric thin film CPW transmission lines have exhibited good tuning properties as evidenced by the differential phase shift while maintaining reasonable losses. The ferroelectric-ferrite structures exhibit tuning which is equally dependent on magnetic and electric field biasing.

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