Abstracts

Novel Type of Electrically-Controlled Phase Shifter for Millimeter-Wave Use: Theory and Experiment

J.W. Tao, B. Chan, H. Baudrand and J. Atechian. "Novel Type of Electrically-Controlled Phase Shifter for Millimeter-Wave Use: Theory and Experiment." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 671-674.

A novel type of electrically controlled phase shifter has been designed and realized at 35 GHz, by using a piezoelectric bimorph actuator. A figure of merit as high as 270°/0.35 dB has been obtained in the Ka band, as well as an insertion loss less than 0.5 dB including the mismatch of rectangular to dielectric waveguide transition. Good agreement has been observed between predicted and measured results.

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