# Abstracts

## Monolithic Ka-band phase shifter using voltage tunable BaSrTiO/sub 3/ parallel plate capacitors

*E.G. Erker, A.S. Nagra, Yu Liu, P. Periaswamy, T.R. Taylor, J. Speck and R.A. York. "Monolithic Ka-band phase shifter using voltage tunable BaSrTiO/sub 3/ parallel plate capacitors." 2000 Microwave and Guided Wave Letters 10.1 (Jan. 2000 [MGWL]): 10-12.*

Monolithic Ka-band phase shifter circuit that employs voltage tunable BaSrTiO/sub 3/ (BST) parallel plate capacitors is presented here. The circuit is capable of continuous 0/spl deg/-157/spl deg/ phase shift at 30 GHz with an insertion loss of only 5.8 dB and return loss better than 12 dB. In addition to promising loss performance (27.1/spl deg//dB) at 30 GHz, the circuit reported here has several advantages over previously reported BST phase shifters such as moderate control voltages (20 V), room temperature operation, and compatibility with monolithic fabrication techniques.

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