Abstracts

Low-loss distributed MEMS phase shifter

A. Borgioli, Yu Liu, A.S. Nagra and R.A. York. "Low-loss distributed MEMS phase shifter." 2000 Microwave and Guided Wave Letters 10.1 (Jan. 2000 [MGWL]): 7-9.

This letter presents a one-bit low-loss K/K/sub a/-band phase shifter circuit that employs microelectromechanical systems (MEMS) capacitors. The measured results demonstrate a delay line with a 180/spl deg/ phase shift/1.l7 dB loss phase shift at 25 GHz, 270/spl deg/ phase shift/1.69 dB loss at 35 GHz, and a return loss better than 11 dB over a 0-35-GHz band. The state-of-the-art insertion loss performance, 154/spl deg//dB at 25 GHz and 160/spl deg//dB at 35 GHz, demonstrates the potential for the implementation of a very low-loss multibit digital MEMS phase shifter.

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