# Abstracts

## A novel wide-band tunable RF phase shifter using a variable optical directional coupler

*K. Ghorbani, A. Mitchell, R.B. Waterhouse and M.W. Austin. "A novel wide-band tunable RF phase shifter using a variable optical directional coupler." 1999 Transactions on Microwave Theory and Techniques 47.5 (May 1999 [T-MTT]): 645-648.*

We present a novel RF phase-shifter design with a usable bandwidth of 80:1. The design is verified through demonstration of a proof of concept device, consisting of a readily available voltage variable optical coupler fabricated from LiNbO/sub 3/, combined with an fiber-optic delay line. The design is analyzed theoretically and measurement of the device confirms the predicted range of operation. Methods of extension of this range of operation are discussed.

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