# Abstracts

## Design of a Broad-Band 4-Bit Loaded Switched-Line Phase Shifter

*G.D. Lynes, G.E. Johnson, B.E. Huckleberry and N.H. Forrest. "Design of a Broad-Band 4-Bit Loaded Switched-Line Phase Shifter." 1974 Transactions on Microwave Theory and Techniques 22.6 (Jun. 1974 [T-MTT] (Special Issue on Microwave Control Devices for Array Antenna Systems)): 693-697.*

A 4-bit p-i-n diode switched-line phase shifter was fabricated for use in the 2.0- to 4.0-GHZ frequency range. Extremely good phase characteristics were easily obtained over two octaves by employing a resistive loading technique to eliminate resonance problems. A single bit was modeled and analyzed on a computer from 1.5 to 6.0 GHz. Test results of a microstrip realization of this bit, which correlates well with the computer model, are presented. A unique compatible driver used with the phase shifter, and the microstrip fabrication process used in constructing the phase shifter are also presented.

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