

Abstracts

A Continuously Variable Dielectric Phase Shifter (Correspondence)

W.T. Joines. "A Continuously Variable Dielectric Phase Shifter (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.8 (Aug. 1971 [T-MTT]): 729-732.

A stripline phase shifter is described which yields a linear variable phase shift versus frequency. The phase shift is accomplished by varying the dielectric constant of the medium through which the signal propagates. Characteristic impedance is kept constant at all phase shift settings; hence, in theory, no reflections are produced. Measurements made over the 1 to 2 GHz band show the maximum voltage standing-wave ratio (VSWR) to be 1.15. Measured values of insertion phase shift over the same frequency band show good agreement with theory (maximum difference about 2.5 percent).

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