Abstracts

A New Reciprocal Phaser for Use at Millimeter Wavelengths (Correspondence)

L.R. Whicker and C.R. Boyd, Jr.. "A New Reciprocal Phaser for Use at Millimeter Wavelengths (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.12 (Dec. 1971 [T-MTT] (1971 Symposium Issue)): 944-945.

A new reciprocal dual-mode phaser for use at millimeter wavelengths is described. The new phaser is economical to fabricate and is geometrically well suited for use in phased array antennas. A 35-GHz model is described which exhibits a 2-GHz bandwidth. The model phaser may be utilized either as a 360° latching device by using flux transfer switching, or can provide up to 800° of differential phase shift with holding current bias. The nominal insertion loss of the phaser is 2 dB with a VSWR <1.3 across its bandwidth. The measured characteristics of the phaser show good agreement with computational values.

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