Abstracts

Study of Insertion-Phase Variation in a Class of Ferrite Phasers

C.R. Boyd, Jr., L.R. Whicker and R.W. Jansen. "Study of Insertion-Phase Variation in a Class of Ferrite Phasers." 1970 Transactions on Microwave Theory and Techniques 18.12 (Dec. 1970 [T-MTT] (1970 Symposium Issue)): 1084-1089.

Insertion-phase variations for dual-mode reciprocal ferrite phasers are investigated in this paper. Expressions for variation in insertion phase as a function of ambient temperature are derived, as well as equations predicting insertion-phase changes resulting from high-average-power heating effects. Experimental data for an S-band phaser designed to operate at high-peak and high-average-power levels are presented. A total change in insertion phase of 6.4 degrees for 1000-watt average input power is computed and measured within experimental accuracy. The merits of this class of phaser for high-power application are considered.

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