Abstracts

A New Type of Fast-Switching Dual-Mode Ferrite Phase Shifter

W.E. Hord, C.R. Boyd, Jr. and D. Diaz. "A New Type of Fast-Switching Dual-Mode Ferrite Phase Shifter." 1987 Transactions on Microwave Theory and Techniques 35.12 (Dec. 1987 [T-MTT] (1987 Symposium Issue)): 1219-1225.

A new type of dual-mode phase shifter which uses a transversely magnetized variable field section is described. The device retains the features of the conventional dual-mode phase shifter--low insertion loss, moderate amplitude modulation, adequate frequency bandwidth, simple physical geometry-- which allow it to be considered for use in two-dimensional scanning arrays. However, because of the transverse magnetizing field, the shorted-turn resistance is increased, which results in either reduced switching time or reduced switching energy when compared with the conventional dual-mode unit which utilizes a longitudinal magnetizing field.

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