Abstracts

A Ferrite Serrodyne for Microwave Frequency Translation

F.J. O'Hara and H. Scharfman. "A Ferrite Serrodyne for Microwave Frequency Translation." 1959 Transactions on Microwave Theory and Techniques 7.1 (Jan. 1959 [T-MTT]): 32-37.

A ferrite serrodyne has been developed to produce a frequency translation of X-band microwave signals over ranges from zero to 50 kc. The device consists of an efficient longitudinal field ferrite phase shifter and an associated electronic driver for generating the modulating sawtooth. Transmission or reflection operation is possible. A conversion loss of 1 to 2 db is obtained. Suppression of spurious output spectral components is 33 db or more for a 10-kc translation and 21 db for a 50-kc translation.

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