

Abstracts

Multi-Octave Phase Modulators

T. Morawski, J. Zborowska and P. Miazga. "Multi-Octave Phase Modulators." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 378-380.

A new type of reflection circuit for microwave phase modulators is presented. The circuit, which consists of two semi-conductor diodes and two stubs, provides extremely broad-band of modulators. A binary circuit with p-i-n diodes exhibits an over octave frequency band with phase shift error less than 5% and 3-octave band with 10% error. For analog modulator the reflection circuit with varactor diodes gives frequency band 0.8-1.2 GHz with the phase shift $90^\circ \pm 5^\circ$ and nonlinearity of 5.5%. Experimental results for binary reflection circuits and modulators are presented.

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