Abstracts

An Adjustable Microwave Delay Equalizer

K. Woo. "An Adjustable Microwave Delay Equalizer." 1965 Transactions on Microwave Theory and Techniques 13.2 (Mar. 1965 [T-MTT]): 224-232.

An adjustable microwave delay equalizer is described and the feasibility of using it to provide large amounts of delay over a wide band around 11.2 Gc/s is demonstrated. The equalizer is composed of a metallic rod slanted in a circular waveguide which is fed at one end with a shunt tee connection to incoming rectangular waveguide. An experimental model 1.5 m long provides a linear delay of the order of 45 ns over the 680-Mc/s band from 10.80 to 11.48 Gc/s. The bandwidth, center frequency, and shape of delay characteristic are all adjustable. A similar model can be used for equalization at other frequencies. Theoretical estimation shows that at 6 Gc/s a total delay of 24 ns over a band of 1.2 Gc/s may be achieved with a structure 1 m long.

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