

Abstracts

Equivalent Circuit of a Series Gap in the Center Conductor of a Coaxial Transmission Line (Correspondence)

H.N. Dawirs. "Equivalent Circuit of a Series Gap in the Center Conductor of a Coaxial Transmission Line (Correspondence)." 1969 Transactions on Microwave Theory and Techniques 17.2 (Feb. 1969 [T-MTT]): 127-129.

When in 1963 I had occasion to make use of series gaps in the center conductor of a coaxial transmission line (Fig. 1) as a circuit element in some filters, I found that the common practice of considering the circuit equivalent of the gap as a capacitance in series with the center conductor would not give accurate results even with the latest refinements available for accurately calculating the value of the series capacitance. As a result, the location of cutoff frequencies, and hence of the passband and rejection band, could not be predicted as closely as desired, and the design procedure evolved into a cut-and-try procedure.

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