Abstracts

Delay-Line Based Techniques for Microwave and Millimeter-Wave Transmission/Reflection Test Sets

A. Boulouard. "Delay-Line Based Techniques for Microwave and Millimeter-Wave Transmission/Reflection Test Sets." 1982 Transactions on Microwave Theory and Techniques 30.8 (Aug. 1982 [T-MTT]): 1174-1183.

A technique for filtering hardware-related errors and obtaining amplitude/phase information, with the aid of precision delay lines and swept-frequency source is investigated theoretically for microwave and millimeter-wave transmission/reflection test sets. A computer simulation is carried out on a p-pole, Butterworth-type model to obtain a measure of the filtering technique in this particular case. A quasi-exact solution is found for the swept-frequency vector reflectometer equation and a closed-form solution is obtained for the swept-frequency amplitude/delay transmission/ reflection parameters.

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