Abstracts

Reflection Measurements with Broadband Frequency Modulation Using Long Transmission Lines (Correspondence)

C. Mahle and G. Epprecht. "Reflection Measurements with Broadband Frequency Modulation Using Long Transmission Lines (Correspondence)." 1966 Transactions on Microwave Theory and Techniques 14.10 (Oct. 1966 [T-MTT]): 496-497.

This correspondence describes some applications of broadband frequency modulation for measuring reflections on moderately long transmission lines. As known from earlier publications on this subject, and from FM-radar techniques, a frequency modulated wave train from a sweep generator is fed into a transmission line. A part of the energy is scattered back by reflections produced on the line or at the end of it. A detector conveniently coupled to the line near the generator provides for mixing of transmitted and scattered wave amplitudes, thus generating an intermediate frequency signal (generally 0.1...15 kHz) which can be processed by audio frequency techniques.

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