Abstracts

Input VSWR and Output Isolation of Lossy N-Way Hybrid Power Dividers (Correspondence)

H.J. Hindin. "Input VSWR and Output Isolation of Lossy N-Way Hybrid Power Dividers (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.3 (Mar. 1968 [T-MTT]): 199-201.

This correspondence presents analytic and graphical information on the input VSWR and output isolation of lossy N-way hybrid power dividers as a function of frequency and loss. The particular device considered was described by Wilkinson and then by Peterson. The input VSWR and output isolation were derived and presented in graphical form by Taub and Fitzgerald for lossless devices using an extension of the even- and odd-modes technique of Reed and Wheeler. This technique, in which the transmission lines are considered to be lossy, is now used. The effect of loss has become of importance recently due to the increased use of miniature and/or integrated circuit techniques. This loss puts bounds on the best VSWR and isolation that can be achieved. These bounds are of both theoretical and practical interest.

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