

Scattering Parameters of Binary Power Dividers (Correspondence)

H.J. Hindin. "Scattering Parameters of Binary Power Dividers (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.8 (Aug. 1968 [T-MTT]): 568-569.

This correspondence determines, by means of the scattering matrix, the scattering parameters of the unisolated "binary" power divider at midband for a lossless structure. The input VSWR at all frequencies for this device has been analyzed and its advantages and disadvantages compared to the hybrid divider have been discussed. It is of interest to know the inherent output port isolation and VSWR's of the binary power divider without output isolation resistors, as this is an often-used device. A calculation of these quantities for the N-way power divider has been made by Kagen. With the continued use of "binary" structures in conventional TEM lines and its reintroduction into microstrip miniature and/or integrated circuits, it has been found necessary to make these calculations, which are also of theoretical interest.

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