Abstracts

Equivalent Circuits of Binomial Form Nonuniform Coupled Transmission Lines

K. Kobayashi, Y. Nemoto and R. Sato. "Equivalent Circuits of Binomial Form Nonuniform Coupled Transmission Lines." 1981 Transactions on Microwave Theory and Techniques 29.8 (Aug. 1981 [T-MTT]): 817-824.

Equivalent circuits of nonuniform coupled transmission lines whose self and mutual characteristic admittance distributions obey binomial form are presented. Telegrapher's equations of these nonuniform coupled transmission lines can he solved exactly rising Bessel functions of fractional order. By decomposing the chain matrix, it is shown that equivalent circuits of these nonuniform conpled transmission lines consist of cascade connections of lumped reactance elements, uncoupled uniform transmission lines and ideal transformers.

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