

Abstracts

Transmission-Line Transformation Between Arbitrary Impedances (Comments)

M.H.N. Potok. "Transmission-Line Transformation Between Arbitrary Impedances (Comments)." 1977 Transactions on Microwave Theory and Techniques 25.1 (Jan. 1977 [T-MTT]): 77-77.

The solution given by the author of the above letter, for the characteristic impedance of the line transformer, has been given before (see H. Jasik, Antenna Engineering Handbook, McGraw-Hill, 1961, paragraph 31.3, p. 9). Jasik also gives the correct length of the transformer whereas Milligan and also apparently Day (IEEE Trans. Microwave Theory Tech., vol. MTT-23, p. 772, 1975) give the distance between load and source impedance along the impedance circle, which is not the length of the desired transformer since the transformer should produce at the source the conjugate of the source impedance if matching, which presumably means power matching is desired. Thus in the expression given by Milligan for length, $X_{\text{sub } 2}$ should be given as $-X_{\text{sub } 2}$, which will now agree with Jasik's expression.

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