Abstracts

A Note on Loaded Line Synthesis (Correspondence)

The purpose of this note is to present an alternate derivation of a formula for the synthesis of a loaded line. The problem is to determine the values of the normalized susceptances a and c mounted an exact quarter-wavelength apart along a uniform line. These are arranged in the order a, c, c,. . .c, a to achieve a loaded line with a given phase shift and perfect match. In order to analyze a particular line design for standing-wave ratio and phase shift over a band of frequencies on a digital computer, it is worthwhile to know the values of the susceptances to many more decimal places than one would achieve from a simple graph.

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