Abstracts

Accurate CAD for dual mode filters in circular waveguide including tuning elements

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Dual mode filters in circular waveguide are very extensively used in multiplexers for modern communication satellites. Their industrial manufacture requires the use of tuning screws to be manually adjusted as well as significant experimental effort. In this paper we present an accurate CAD tool for dual mode filters in circular waveguide that can take into account the effect of tuning elements. The CAD tool is based on a multimode admittance matrix formulation and can effectively be used to reduce the filter development effort. In addition to theoretical results, measured results are also presented thus fully validating the CAD tool discussed.

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