

Finding Initial Estimates Needed for the Engen Method of Calibrating Single Six-Port Reflectometers (Short Papers)

U. Stumper. "Finding Initial Estimates Needed for the Engen Method of Calibrating Single Six-Port Reflectometers (Short Papers)." 1990 Transactions on Microwave Theory and Techniques 38.7 (Jul. 1990 [T-MTT]): 946-949.

In this paper it is shown how the initial estimates of the six-port to four-port reduction parameters needed for the Engen six-port calibration method can be found with a minimum of reflective terminations, by using six-port parameters obtained either by a calibration method developed at the Physikalisch-Technische Bundesanstalt (Braunschweig, West Germany) or by a new method developed by Neumeyer. With these methods, only five reflection values are needed, which can easily be realized by waveguide offset short-circuit reflection standards of different lengths, in the range of millimeter waves, where good low-reflectivity terminations or sliding loads may become difficult to manufacture.

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