Abstracts

The Use of a Matched Symmetrical Five-Port Junction to Make Six-Port Measurements

G.P. Riblet and E.R.B. Hansson. "The Use of a Matched Symmetrical Five-Port Junction to Make Six-Port Measurements." 1981 MTT-S International Microwave Symposium Digest 81.1 (1981 [MWSYM]): 151-153.

A new configuration for six-port measurements is proposed. It consists of a symmetrical five-port junction and a directional coupler. Assuming the components to be ideal, it is shown that the proposed six-port has optimal properties for accurate determination of complex reflection coefficients. An experimental coaxial five-port junction has been designed and used in a six-port measurement system. After calibration, using five impedance standards, measurements on precision loads indicate good measurement accuracy over the frequency band where the five-port is well matched.

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