Abstracts

A High-Power Dual Six-Port Automatic Network Analyzer for Determining Biological Effects of RF and Microwave Radiation

C.A. Hoer. "A High-Power Dual Six-Port Automatic Network Analyzer for Determining Biological Effects of RF and Microwave Radiation." 1981 MTT-S International Microwave Symposium Digest 81.1 (1981 [MWSYM]): 157-159.

The design, calibration and performance of a high-power (1 to 1000W) automatic network analyzer based on the six-port concept are described for the 10 to 100 MHz range. Imprecision in measuring reflection coefficient Gamma is 0.0001 in magnitude and 0.005/ |Gamma| degrees in phase. Corresponding estimated systematic errors are 0.001 and 0.1/ |Gamma| degrees. Imprecision in measuring power is 0. 01% of range (20W, 200W, or 1000W) with an estimated systematic error of 1.25% of reading.

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