

Abstracts

A Dual Six-Port Automatic Network Analyzer Incorporating a Biphase-Bimodulation Element

S.R. Judah and A.S. Wright. "A Dual Six-Port Automatic Network Analyzer Incorporating a Biphase-Bimodulation Element." 1990 *Transactions on Microwave Theory and Techniques* 38.3 (Mar. 1990 [T-MTT]): 238-244.

Current state-of-the-art dual six-port automatic network analyzers (ANA's) are dependent upon mechanical phase shifters and attenuators. Slow measurement and calibration are among the factors that have prevented six-port ANA's from more general use outside standards and research laboratories. This paper introduces biphase bimodulation, a new technique which removes the requirement for mechanical phase shifters or attenuators. A significant increase in measurement speed is achieved, allowing quasi-real-time evacuation of scattering parameters.

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