Abstracts

MMIC-Calibrated Probing by CW Electrooptic Modulation

D. Le Quang, D. Erasme and B. Huyart. "MMIC-Calibrated Probing by CW Electrooptic Modulation." 1995 Transactions on Microwave Theory and Techniques 43.5 (May 1995 [T-MTT]): 1031-1036.

This paper describes an electrooptic probing technique using a cw semiconductor-laser beam associated with a fast photodetector. Besides its simplicity, this technique presents some advantages over the sampling one thanks to the presence of a Fabry-Perot effect, namely an enhancement of the electrooptic interaction and a simple solution to the calibration problem. The good validity of the calibration method allows the application of this technique to S-parameter measurements. The S-parameter determination, in modulus and in phase, of an industrial MMIC by the electrooptic method is reported and compared with direct network analyzer measurements.

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