# Abstracts

## A New Optoelectronic Technique for Microwave Passive Structures Tuning

*J. Haidar, M. Bouthinon and A. Vilcot. "A New Optoelectronic Technique for Microwave Passive Structures Tuning." 1996 MTT-S International Microwave Symposium Digest 96.3 (1996 Vol. III [MWSYM]): 1437-1440.*

An optoelectronic technique useful for microwave passive structures tuning is reported. It is based on the biasing of a photoinduced plasma loading an open terminated microstrip line. Experimental results for a tapped half-wave resonator are presented. Sharp notch characteristics with a few dB insertion loss and a tunable resonant frequency with a matching better than 45 dB are obtained by varying both the optical power and the DC bias. The observed frequency shift is more than 30% below the dark resonant frequency and is carried out without altering the Q-factor. Moreover an experimental investigation on the realisation of an optoelectronically tunable bandstop filter seems to give promising results.

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