Abstracts

A Planar Broadband MIC Balanced Varactor Doubler Using a Novel Grounded-CPW to Slotline Transition

D.F. Filipovic, R.F. Bradley and G.M. Rebeiz. "A Planar Broadband MIC Balanced Varactor Doubler Using a Novel Grounded-CPW to Slotline Transition." 1994 MTT-S International Microwave Symposium Digest 94.3 (1994 Vol. III [MWSYM]): 1633-1636.

We report on the design and measurement of a broad-band MIC balanced varactor frequency doubler. The design can be easily scaled to millimeter-wave frequencies using a monolithic approach. The design incorporates a novel balun to achieve a grounded-CPW to slotline transition. The balanced structure offers inherent isolation in the output port from all odd harmonics including the fundamental frequency. Measurements show a port-to-port conversion loss between 8 and 10dB over an output frequency range of 6-10GHz.

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