

Abstracts

A novel waveguide-to-microstrip transition for low-cost millimeter-wave and MMIC applications

F.J. Villegas, D.I. Stones and H.A. Hung. "A novel waveguide-to-microstrip transition for low-cost millimeter-wave and MMIC applications." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 739-742.

A novel waveguide (w/g)-to-microstrip transition has been developed using a new design methodology based on iris coupling. The current design exhibits reduced sensitivity to w/g backshort position and yields a low-cost, hermetically-sealed transition. A 44 GHz-band design on alumina and a 94 GHz-band design on z-cut quartz were implemented, both exhibiting better than 22 dB return loss at their center frequencies with less than 0.3 dB insertion loss, with a greater than 10% bandwidth.

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