Abstracts

A Novel Split-Waveguide Mount Design for Millimeter- and Submillimeter-Wave Frequency Multipliers and Harmonic Mixers

A.V. Raisanen, D. Choudhury, R.J. Dengler, J.E. Oswald and P.H. Siegel. "A Novel Split-Waveguide Mount Design for Millimeter- and Submillimeter-Wave Frequency Multipliers and Harmonic Mixers." 1993 Microwave and Guided Wave Letters 3.10 (Oct. 1993 [MGWL]): 369-371.

A novel split-waveguide mount for millimeter and submillimeter wave frequency multipliers and harmonic mixers is presented. It consists of only two pieces, block halves, which are mirror images of each other. The mount provides parallel and series impedance tuning with two sliding backshorts at both the input and output frequencies while utilizing E-plane arms to provide an in-line waveguide input and output. Its fabrication is much easier than that of a traditional multifrequency waveguide mount. Waveguide losses are minimized by a very compact design with very short input and output waveguides. This mount is especially well suited for planar diodes used with microstrip or suspended stripline RF filters.

❑ Return to main document.