

Abstracts

A Novel High-Power Harmonic Suppressor (Nov. 1962 [T-MTT])

E. Wantuch and R. Maines. "A Novel High-Power Harmonic Suppressor (Nov. 1962 [T-MTT])." 1962 Transactions on Microwave Theory and Techniques 10.6 (Nov. 1962 [T-MTT]): 428-431.

The use of high-power harmonic suppressors, or low-pass filters, is becoming an accepted technique in the microwave state-of-the-art. The filter to be described is a novel version of the "leaky wall" type. A C-band fundamental frequency harmonic suppressor has been designed with attenuation characteristics verified through the fourth harmonic (K band). This filter exhibited attenuation of greater than 40 db for several harmonic modes, fundamental frequency insertion loss of less than 0.15 db, an input VSWR of less than 1.15 in the pass band and an input VSWR of less than 2:1 in the stop band. The over-all length of this device is 18 in with a cross section of approximately 7 in x 7 in. Data on a similar X-band low-pass filter are also presented.

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