

Abstracts

A Quasi-Optical Single Sideband Filter Employing a Semiconfocal Resonator (Short Papers)

P.F. Goldsmith and H. Schlossberg. "A Quasi-Optical Single Sideband Filter Employing a Semiconfocal Resonator (Short Papers)." 1980 Transactions on Microwave Theory and Techniques 28.10 (Oct. 1980 [T-MTT]): 1136-1139.

We describe a single sideband filter designed to have low insertion loss when used with microwave radiometer systems incorporating a feedhorn of relatively large beam divergence angle. The device we discuss is a type of Fabry-Perot interferometer employing one plane and one spherical mirror which form a near semiconfocal resonant cavity. Measurements on a prototype device operating at $\nu \sim 100$ GHz with a $f/D \sim 4$ feedhorn and a 1.4-GHz IF frequency are presented,

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