Abstracts

Millimeter Wave Cavity Coupling by Quarter-Wave Transformer (Correspondence)

R.J. Strain and P.D. Coleman. "Millimeter Wave Cavity Coupling by Quarter-Wave Transformer (Correspondence)." 1962 Transactions on Microwave Theory and Techniques 10.6 (Nov. 1962 [T-MTT]): 612-614.

In order to use high mode-order microwave cavities (Fabry-Perot, confocal, or biconical spherical resonators) to achieve either high field intensities or high selectivity with low transmission losses, it is necessary to couple power into the resonators efficiently. This may be accomplished if the coupling system acts as a transformer matching the lossy elements of the cavity to a source of input power, and if the coupling system has an aperture large enough to make diffraction losses negligible.

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