

Abstracts

Whispering-Gallery Modes of Dielectric Structures: Applications to Millimeter-Wave Bandstop Filters (Dec. 1987 [T-MTT])

X.H. Jiao, P. Guillon, L.A. Bermudez and P. Auxemery. "Whispering-Gallery Modes of Dielectric Structures: Applications to Millimeter-Wave Bandstop Filters (Dec. 1987 [T-MTT])." 1987 *Transactions on Microwave Theory and Techniques* 35.12 (Dec. 1987 [T-MTT] (1987 Symposium Issue)): 1169-1175.

The purpose of this paper is to show the feasibility of millimeter-wave resonators utilizing whispering-gallery (WG) modes excited in planar and cylindrical dielectric structures. Measured resonant frequencies and quality factors in Ka- and W-bands are reported. Their applications to millimeter-wave integrated circuits are also dealt with. For this, a bandstop filter obtained by coupling two WG-mode dielectric resonators to a dielectric image guide is presented at about 35 GHz.

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