Abstracts

Submillimeter Components Using Oversize Quasi-Optical Waveguide

J.J. Taub, H.J. Hindin, O.F. Hinckelmann and M.L. Wright. "Submillimeter Components Using Oversize Quasi-Optical Waveguide." 1963 Transactions on Microwave Theory and Techniques 11.5 (Sep. 1963 [T-MTT]): 338-345.

Components such as directional couplers, attenuators, introduction and phase shifters have been developed using optical techniques in oversize rectangular waveguide. These components were designed for operation in the 300- to 350-Gc range. They were scaled from a design that was successful at 27 Gc. Preliminary data taken at 330 Gc indicates the feasibility of this technique. The advantages of oversize waveguide as compared with conventional waveguide and freespace optical components are 1) lower attenuation and 2) simpler construction.

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