

Abstracts

Broad-Banding Circular Polarizing Transducers

D.L. Margerum. "Broad-Banding Circular Polarizing Transducers." 1953 Transactions on Microwave Theory and Techniques 1.2 (Nov. 1953 [T-MTT]): 24-29.

A problem frequently encountered in microwave and antenna work is that of obtaining elliptically polarized waves of low axial ratio over extremely broad frequency bands. In an effort to reach a more satisfactory solution to this problem than is possible with present techniques a theoretical study was conducted on several elliptically polarizing transducer configurations in circular waveguide. The results of this study indicated that the bandwidth obtainable with dielectric slab type transducers could be broadened considerably by using shielded dielectric rod type transducers.

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