

Abstracts

Coaxial-Slot Surface Wave Launchers

W.J. Dewar and J.C. Beal. "Coaxial-Slot Surface Wave Launchers." 1970 Transactions on Microwave Theory and Techniques 18.8 (Aug. 1970 [T-MTT]): 449-455.

The radiation characteristics of 360° circumferential slots in rigid dielectric-coated coaxial cable are studied both theoretically and experimentally. The ultimate aim of this work is to use an array of such slots to launch a surface wave on the Goubau line formed by the outer conductor of the coaxial cable and the concentric dielectric coating. The possible advantage of this method over that of the flared horn is that the launching efficiency is controlled by the length of the launching section and is relatively independent its cross-sectional area.

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