

Abstracts

Yagi-Uda Array as a Surface-Wave Launcher for Dielectric Image Lines

W.K. McRitchie and J.C. Beal. "Yagi-Uda Array as a Surface-Wave Launcher for Dielectric Image Lines." 1972 Transactions on Microwave Theory and Techniques 20.8 (Aug. 1972 [T-MTT]): 493-496.

A Yagi-Uda array of monopoles is embedded in the dielectric of a dielectric image line, with the driven element fed from coaxial cable below the metallic ground plane, in order to launch the dipole-mode surface wave. The launching efficiency is a function of the array length and is relatively independent of the transverse dimension. With a six-element array, a launching efficiency of 62 percent has been achieved over an 18-percent bandwidth at 2.2 GHz. A design procedure for such arrays is described and experimental verification is given.

 [Return to main document.](#)