Abstracts

Magnetostatic Surface-Wave Transducers

J.C. Sethares. "Magnetostatic Surface-Wave Transducers." 1979 Transactions on Microwave Theory and Techniques 27.11 (Nov. 1979 [T-MTT]): 902-909.

Magnetostatic surface-wave (MSSW) transducer theory is extended and generalized. A Fourier transform relation is established between MSSW field amplitudes and transducer spatial current distribution. Expressions are developed for the radiation resistance of periodic meander and grating transducers, spatial harmonic amplitudes, and radiation resistance for uniform and nonuniform current distribution models. An expression is given for the radiation resistance of apodized transducers. The results enable one to predict transducer frequency response for a specified weighting of transducer element width, length and spacing.

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