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CHARACTERISTICS OF BOW-TIE SLOT ANTENNA WITH TAPERED TUNING STUBS FOR WIDEBAND OPERATION

By A. A. Eldek, A. Z. Elsherbeni, and C. E. Smith

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Abstract:

The characteristics of a bow-tie slot antenna with tapered tuning stubs fed by a coplanar waveguide (CPW) are investigated. The effects of the antenna dimensional parameters are studied through simulation results and design procedure is developed and verified for different frequency bands. The antenna shows wideband characteristics for radar and wireless communication applications. Numerical simulations and measurements indicate that 73% bandwidth can be obtained using the developed design procedure.

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