

A Tapered CPW-Fed UWB Disc Antenna and the Embedded Meander Slot Band-Notch Design

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Abstract

A planar UWB circular disk monopole antenna fed by a non-uniform coplanar waveguide for a better impedance matching is presented in this paper. The non-uniform CPW is implemented by tapering the central strip or beveling the bilateral grounds in the feeding CPW to enhance the impedance matching at the lower region of the passband. A 5-6 GHz band-notch design accomplished by an embedded meander slot is incorporated in the antenna design to avoid the signal interference at the ISM and WLAN band. Experiments have been conducted to verify the antenna performance.

Key words : Tapered CPW;Disc monopole;Band notch;Meander slot