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Design a compact CPW monopole antenna on rubber substrate for ISM band application
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Abstract

One of the most challenging works on compact antenna design is to maintain the flexibility orientation. This paper demonstrates a coplanar waveguide (CPW) fed monopole antenna with rubber substrate at 2.45 GHz center frequency for ISM band application. The proposed antenna attained the realized gain at 4.06 dB with the radiation efficiency around 90% at peak value and the bandwidth of 541.5 MHz. The antenna was designed using the CPW structure. CST microwave studio applied to design the proposed antenna simulation. The main purposed of this study is to improve the antenna performances specially the bandwidth, gain, and radiation efficiency. Moreover, another aim of that antenna design is to reduce the antenna size and thickness upon the existing related design with rubber substrate. © 2021. All Rights Reserved.

Author Keywords

CPW-fed monopole antenna; CST microwave studio; ISM ban Rubber substrate

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