

## **Circularly polarized curl antenna for 5.8 GHz band**

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### **Abstract**

A broadband circularly (CP) polarized curl antenna with a simple single feed is presented. The antenna consists of a curled metal strip of about 1.4 wavelengths in length wound into about one turn and mounted above a ground plane with a thick air layer. By using a 50- $\Omega$  probe feed along with a vertical feeding metal strip for exciting the curled radiating element, good CP radiation over a wide operating band (with a bandwidth of larger than 6.6%) is achieved, which makes the proposed antenna well-suited for application in the 5.8GHz band. Details of the proposed antenna design and the experimental results obtained for a constructed prototype are presented.

**Key words :** Broadband; Circular polarization; Curl antenna