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Small Metamaterial Inspired Antenna for Wimax and Wlan Applications

Seeking parties interested in licensing and commercializing of technology.

Applications:

- This invention is capable achieving good results for the Wi-Max and WLAN applications with lower return loss value and miniaturized size.

Technology Description:

This invention relates to a coplanar waveguide (CPW) fed meta-material inspired antenna with a geometrical configuration which can be printed on only one side of an FR4 substrate with substrate thickness of 0.8mm and the dielectric constant of 4.4. The main structure of the antenna comprises of three folded strips. Of the two strips, one is a 50 (ohm) CPW feeding line with a fixed single strip thickness of 'W2' and a gap distance of 'W4' between the signal strip and ground is used for centrally feeding the antenna from its bottom edge. Others are two equal finite ground planes, each with dimensions of width 'W1' and 'W3' and length 'L4', are situated symmetrically on each side of the CPW feeding line. The Azimuth pattern of this antenna shows a unidirectional radiation pattern.

Advantages of the Technology:

- Better absorptivity and bending of EM waves.
- The size of the antenna can become compact and easy to implement for Wi-Max and WLAN applications.

Development Status:

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Technology Transfer from the institute:

For more details

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