

## Octagon Shaped Wearable Antenna for Band at 4GHz

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**Abstract :** In this paper, octagon antenna ultra wideband (UWB) low band wearable antenna designs have been proposed for in-body to on-body communication channel of wireless. Single element antenna, dual elements, are designed and compared in free space and in body proximity. Conformal design has been focused. Liquid crystal polymer (LCP) is a material that has gained attention as a potential high-performance microwave substrate and packaging material. This investigation uses several methods to determine the electrical properties of LCP for millimeter-wave frequencies.

**Keywords :** ultra wideband, wearable antenna, slot antenna, liquid crystal polymer (LCP), CST studio

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