# Implementation of Textile Antenna with SAR Measurements for Wearable Communication in Medical Applications

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## Abstract

This paper introduces a new multi band meander patch antenna designed for optimal performance in medical applications. The antenna structure is in meander shape to achieve multi band functionality as well as low frequency as it is used close to the human skin in order to monitor the brain function. The proposed antenna has compact dimensions of 48 x 58 x 2 $mm^3$. For multi band function, the antenna operates in various frequency bands, enabling us to have various application but we choose 2.2 GHZ for better functionality. This antenna is multi band, has more applications, it is compact, and it has low SAR (Specific Absorption Rate), the low the SAR values the less the health risk as it is the amount of radio frequency absorbed by human body.

## Keywords

Multi-band, Meander shaped, SAR.