Abstract

The performance of two internal antennas namely Planar Inverted F Antenna (PIFA) and Inverted F Antenna (IFA) is evaluated in this paper. The effects of radio frequency on human exposure to these antennas are analyzed. Human phantom is designed with dielectric properties and the levels of absorption in terms of 1g SAR (Specific Absorption Rate) values are calculated. Results show that PIFA outperforms IFA in terms of SAR, efficiency, gain, backward radiation, return loss characteristics. All numerical modelling are performed using FEKO Suite 5.5 software which uses MOM for computation.

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Index Terms

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Keywords
PIFA  IFA  SAR  Gain  Efficiency