

A comparative study on the effect of quasi-block hand model specific absorption rate measurement

Abstract

A candy bar mobile phone with Planar Inverted-F Antenna (PIFA) operating at 900 MHz and 1800 MHz is simulated with two models of quasi-block hand homogeneous and inhomogeneous. Maximum Specific Absorption Rate (SAR) is investigated by using Standard Anthropomorphic Model (SAM) hand phantom properties in comparison with the properties of human skin and bone towards the models. Dimension of the quasi-block hand is based on a typical Malaysian hand, while the solid hand properties is as approved by CTIA standards. The simulation results of peak SAR for two conditions are observed and compared between both hands.

Keywords — Comparative studies, hand model, specific absorption rate, anthropomorphic models