

Specific Absorption Rate Distribution in a Full-Scale Model of Man at 350 MHz

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A computer-controlled scanning system and an implantable triaxial electric-field probe have been used to obtain maps of the specific absorption rate (SAR) in various cross sections of a full-scale model of man. The model was exposed to a 350-MHz plane wave that provided various orientations of the electric-field vector with respect to the body. The results obtained are in general agreement with previously published theoretical and experimental data. The SAR distributions in the torso and head were in relatively good agreement with cylindrical and spherical models, respectively. Enhanced absorption in the neck and the limbs, as previously found by the thermographic method, was observed. This study provides much more detailed information than previously available, with an absolute accuracy of ± 1 db.

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