

Abstracts

Vizualisation of portable phone-user interactions via near field mapping on mannequins and volunteers

L. Ahlonsoy, D. Picard and J.C. Bolomey. "Vizualisation of portable phone-user interactions via near field mapping on mannequins and volunteers." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1825-1828.

The characterization of the interaction between portable telephone and user is one of the key of a better power budget predictions in cellular links. A lot of works consider the problem under numerical modelling and only a few have a complete experimental approach. This paper describes a near field (NF) technique which allows, from measurements, to visualize the field distribution almost anywhere outside a cylinder enclosing the system made up by a full scale user (volunteers or mannequin phantoms) and a portable telephone. Tests are conducted in the 800-1050 MHz operating frequency range, which corresponds to actual GSM equipment. A mapping of the field provides a unique assistance in identifying the effective part of the user contributing to the radiation and can help in developing an equivalent antenna model for validating computer codes base only on head-hand modelling.

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