

## Performance of PCS handset antennas in mobile environments

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*M.G. Douglas, M. Okoniewski and M.A. Stuchly. "Performance of PCS handset antennas in mobile environments." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1759-1762.*

FDTD modeling of two handset-mounted antennas in the proximity of the user was performed to investigate the effects of some aspects of the communications environment on antenna performance. We have shown that: (i) the antenna mean effective gain (MEG) is strongly influenced by the type of the environment; (ii) much less power is absorbed in the user's head when the polarization diversity antenna is used instead of the monopole antenna; and (iii) antenna performance is underestimated if ground reflections are not taken into account.

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