# Abstracts

## Analysis of a Magnetically-Shielded Cellular Phone Antenna Using Finite-Difference Time-Domain Method

*B.S. Yildirim and E.A. El-Sharawy. "Analysis of a Magnetically-Shielded Cellular Phone Antenna Using Finite-Difference Time-Domain Method." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 979-982.*

The characteristics of an antenna used in a transcevier system are studied by several researchers in detail. These characteristics are mainly the radiation pattern, input impedance and the gain of the antenna. This paper proposes a new antenna suitable for cellular phone applications to reduce hazardous electromagnetic radiation toward humans. The antenna is shielded with PEC and shield is coated by a lossy magnetic material. When magnetically shielded antenna is used, it is shown that near electric field toward user drops significantly.

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