

Broadband loop antenna for DCS-1800/IMT-2000 mobile phone handsets

R.L. Li, E.M. Tentzeris, J. Laskar, V.F. Fusco and R. Cahill. "Broadband loop antenna for DCS-1800/IMT-2000 mobile phone handsets." 2002 Microwave and Wireless Components Letters 12.8 (Aug. 2002 [MWCL]): 305-307.

A rectangular loop antenna is proposed for DCS-1800 and IMT-2000 mobile phone handsets. By introducing a small gap in the wire loop, an impedance bandwidth of 24% can be achieved. The antenna mounted on a metal box is simulated using the FDTD method. It is found that the introduction of a small gap also results in a radiation pattern with desirable polarization independence and a reduced gain in the direction of the user's head. The simulated and measured results are presented.

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