

Simulation and experimental SAR and efficiency study for a dual-band PIFA handset antenna (GSM 900 / DCS 1800) at varied distances from a phantom head

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Abstract

This paper reports a simulation and measurement study on SAR (specific absorption rate) using a dual-band PIFA (planar inverted-F antenna) handset antenna (GSM900/DCS1800). The study investigates the effect of separation distance between the antenna and the user head, in addition to the relationship between the SAR and the antenna efficiency. The SAR was experimentally measured using the DASY4 system and compared to the simulations.