

Title (en)
SELF-RESONANT ELECTRICALLY SMALL ANTENNA

Title (de)
EIGENRESONANTE ELEKTRISCHE KLEINE ANTENNE

Title (fr)
PETITE ANTENNE ÉLECTRIQUEMENT AUTO-RÉSONANTE

Publication
EP 2118965 B1 20110504 (EN)

Application
EP 07702735 A 20070112

Priority
EP 2007000262 W 20070112

Abstract (en)
[origin: WO2008083719A1] The invention falls within the technology of antenna design, in general and particularly, in the technical field of Radiofrequency Identification (RFID). In short, an antenna is described comprising a radiating element that achieves self-resonance without needing any external matching network and can be reduced in size arbitrarily. The radiating element is based on a split ring resonator structure whose overall size can be reduced as much as needed, independently from the resonant frequency required, just by increasing the overall inductance and capacitance between the rings (R1, R2) of the structure excited at a feed point (1). The feeding method can vary to increase the radiation resistance of the antenna or for compensating the capacitive behaviour of an RFID chip. This small antenna is especially suitable for RFID applications because it can be fabricated in a planar substrate, with reduced dimensions typical for conventional antennas used as RFID tags.

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Cited by
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