

„UHF RFID miniature tag based on metamaterial structures“

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Abstract – In this paper a new radiating structure is introduced, inspired by the Split-Ring Resonator (SRR) geometry used in some metamaterial structures. It has the advantage of being easily miniaturized and fabricated in planar substrates. The SRR is analyzed by using a novel transmission line model in order to determine the behavior of the input impedance and the current distribution on its surface. Some prototypes have been fabricated and compared to other commercial and non-commercial tags, showing a good read range vs. size figure of merit.