Documentation Sheet

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Title: *Frequency Agile Multilayer Metamaterial*

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Abstract *: A novel multilayered split ring resonator (SRR) design for frequency agility has been proposed using the equivalent circuit method. The effective impedance of such a frequency agile metamaterial structure is determined and the effect of coupling at each layer is included. It is shown that the rotation of inner ring at each layer facilitates the tuning of the resonance frequency. The proposed design also enhances the frequency agility. It is concluded that the resonance frequency of the metamaterial structure is inversely proportional to the stacking of layers as well as to the angle of rotation.*