

Wide-band Circuit Extraction of Complementary Split-Ring Resonators

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ABSTRACT

In this thesis, we use coupling between a CSRR (Complementary Split-Ring Resonators) structure and a simple signal line to design a one-order low pass filter. First we use a Chebyshev filter form reference, and Resonance theory to find basic equivalent circuit, and extraction elements value. We want to find physical meaning about resonance frequency by simulate the structure. We analyze electric field, electric current and magnetic current to make this theory more consummate. We also propose some modification of equivalent circuit to make simulate result more approaching experiment result.

Keywords : Low pass filter、CSRR、Equivalent circuit

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