

Research on Carrier Leakage Cancellation Technology of FMCW System

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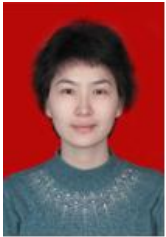
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Abstract—A single antenna receiver scheme is usually used in the radio FMCW system, which can cause the carrier leakage between the RF signal transmitter and receiver, and the receiver performance is affected. In this paper, a closed loop adaptive microstrip carrier leakage cancellation technique is proposed. The circuit is designed by using microstrip circuit. The ADS software is used to simulate and test the model. The improvement of the ratio of the before and after the improvement is given. The experimental results show that the cancellation circuit has an evident cancellation effect.

Keyword—FMCW; Zero Intermediate Frequency; Carrier Leakage; Carrier Leakage Cancellation Technology



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