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MODULAR RF CIRCUIT DESIGN IN PSPICE

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Abstract

Abstract Using analog behavioral modeling one could generate models for various devices and arrange them in a meaningful way to form an electronic circuit. The aim of the project work is to use all the models i.e. S-parameter model of the device, matching section models for both the input and output sections, RF passive power divider and combiner models and simulate this entire block of modular RF circuit in spice environment and generate its S-parameters. In this article, S-parameter graphs have been drawn for return loss vs. frequency, return phase vs. frequency, forward gain vs. frequency, forward phase vs. frequency, reverse gain vs. frequency, reverse phase vs. frequency a modular RF passive network. Design frequency chosen is 2.5 GHz and characteristic impedance of line is 50 ohms.